

Environmental Assessment

Navajo Mine SMCRA Permit NM-0003F Transfer

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ACRONYMS

ACC	Arizona Corporation Commission
afy	acre-feet per year
AIVN	Area IV North
AML	Abandoned Mine Land
APS	Arizona Public Service Company
ATF	Alcohol, Tobacco and Firearms
AZ	Arizona
BART	Best Available Retrofit Technology
BBNMC	BHP Billiton New Mexico Coal Inc.
BIA	Bureau of Indian Affairs
BLET	Black Lung Excise Tax
BLM	U.S. Department of Interior, Bureau of Land Management
BNCC	BHP Navajo Coal Company
CCB	coal combustion byproducts
CEQ	Council for Environmental Quality
CFR	Code of Federal Regulations
CH ₄	Methane
CHIA	Cumulative Hydrological Impact Assessment
CO	Colorado
CO ₂	carbon dioxide
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FCC	Federal Communications Commission
FCPP	Four Corners Power Plant
GHG	greenhouse gas
GRT	gross receipts tax
HUC	hydrologic unit code
ID	interdisciplinary
LLC	limited liability company
MMCo	BHP Billiton Mine Management Company
MSHA	Mine Safety and Health Administration
NEPA	National Environmental Policy Act
NM	New Mexico
NMCC	Navajo Mine Coal Company, Inc.
NMCC, LLC	Navajo Mine Coal Company, Limited Liability Company
NN	Navajo Nation
NNDFW	Navajo Nation Department of Fish and Wildlife
NPDES	National Pollution Discharge Elimination System
NTEC	Navajo Transitional Energy Company, LLC
OSM	U.S. Department of Interior, Office of Surface Mining Reclamation and Enforcement
RFD	reasonably foreseeable developments
ROW	right-of-way
SJC	San Juan County, New Mexico
SJCC	San Juan Coal Company
SJGS	San Juan Generating Station
SMCRA	Surface Mining Control and Reclamation Act
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	volatile organic compounds

1. INTRODUCTION

On April 29, 2013, the Navajo Nation Council enacted legislation to form the Navajo Transitional Energy Company (NTEC), Limited Liability Company (LLC). This legislation was signed into law by Navajo Nation President Ben Shelly on April 30, 2013. NTEC was formed because the Navajo Nation desires to control the mineral rights and operations of Navajo Mine as well as to protect and promote the Navajo Nation's economic and financial self-interests. As such, NTEC intends to acquire 100 percent of the equity of Navajo Mine Coal Company, LLC (NMCC, LLC) from BHP Billiton New Mexico Coal Inc. (BBNMC) and merge with NMCC, LLC, with NTEC as the surviving entity. BHP Navajo Coal Company (BNCC) is expected to have changed its name to Navajo Mine Coal Company, Inc. (NMCC) and, pending approval of the permit transfer by the U.S. Department of Interior, Office of Surface Mining Reclamation and Enforcement (OSM), will convert NMCC to a limited liability company creating NMCC, LLC prior to the scheduled merger. The name change, conversion, equity purchase, and merger are collectively referred to as the "Transaction."

On May 3, 2013, the current holder of the Surface Mining Control and Reclamation Act (SMCRA) permit—BNCC—submitted an application to OSM to transfer the permit to NTEC, to own and hold permits necessary to continue the operation of the mine in the interest of the Navajo Nation. On May 10, 2013, BNCC re-submitted the application with minor edits at the request of OSM. BNCC/NMCC and NTEC are not seeking any revisions to the mining and reclamation plan attendant to the proposed Transaction. Pursuant to Title 30 of the Code of Federal Regulations (CFR), sections 750.12 and 774.17, the transfer of Permit NM-0003F requires the prior written approval of OSM.¹

On June 19, 2013, BNCC notified OSM of a delay in the transaction related to the permit transfer application that was submitted to OSM on May 3, 2013 and further revised in a May 10, 2013 submittal. The delay resulted from the Arizona Corporation Commission's (ACC's) initiation to investigate the implementation of retail electric competition through regulatory reform in the State of Arizona. Due to the uncertainty of the ACC's action, Arizona Public Service (APS) – primary owner of the Four Corners Power Plant (FCPP), temporarily delayed its process of purchasing Southern California Edison's share of FCPP and its execution of a new coal supply contract with NTEC, the proposed buyer of the Navajo Mine. The delay of the coal supply contract execution created a delay in NTEC's purchase of Navajo Mine originally scheduled on or about July 1, 2013, and consequently the proposed mine permit transfer. Accordingly, the Permit Transfer Application was revised on August 30, 2013 and September 3, 2013 to reflect the Transaction delay. On September 11, 2013, the ACC voted to discontinue their pursuit of deregulation of the Arizona power market, closing the regulatory docket on the matter.

The following steps are a summary of the Transaction:

1. BNCC plans to change its name to NMCC. This name change is purely administrative and does not require federal approval.

¹ OSM is the regulatory authority for Indian Lands and carries out its responsibilities over the Navajo Mine permit under its Indian Lands program at 30 CFR Part 750. The Indian Lands program incorporates (30 CFR 750.12) provisions of OSM's permanent regulatory program for permit processing and permit transfers in 30 CFR Parts 773 and 774.

2. NMCC will convert from a Delaware corporation to a Delaware limited liability company. This conversion is a transitory step intended to facilitate efficiencies occasioned by the sale of NMCC, LLC to NTEC, requires only administrative filings in the State of Delaware, and only involves a change of entity-type. It will not result in any changes to the officers, ownership, or operations of the company. However, this change in entity-type will trigger the transfer, assignment, and sale provisions of the regulations implementing the SMCRA in 30 CFR 774.17.
3. Immediately following the conversion, NTEC intends to purchase 100 percent of NMCC, LLC's membership interest. The change in ownership and control of NMCC, LLC's membership interest does not require OSM approval under the SMCRA transfer, assignment, and sale regulations.
4. Following NTEC's purchase of NMCC, LLC's membership interests, NTEC will merge with NMCC, LLC, and NTEC will be the surviving entity. The merger will result in a permit transfer, triggering the SMCRA transfer, assignment, and sale regulations. BBNMC will create a new subsidiary company, BHP Billiton Mine Management Company (MMCo), for the purpose of managing the operation of Navajo Mine for NTEC.

Steps 1 through 3 above are expected to take place simultaneously. Step 4 would occur within several days after the purchase of NMCC, LLC, described in step 3 above. NTEC may in the future merge into a Section 17² corporation; however, this environmental assessment (EA) does not analyze this potential future application as it has not yet been formally proposed, and the Transaction, as proposed, does not depend upon the formation of a future Section 17 corporation. Additional Transaction details are provided in Section 2.1.1.1 Transaction Summary.

The current SMCRA permittee of the Navajo Mine, BNCC, operates under two BIA approved leases with the Navajo Nation (the Leases): the Navajo Mine Lease dated July 26, 1957, Bureau of Indian Affairs (BIA) Contract No. 14-20-603-2505, as amended; and the Mine Plant Lease dated April 1, 1961, BIA Contract No. 14-20-0603-6447, as amended.

SMCRA Permit NM-0003F for the Navajo Mine was renewed on September 8, 2010 and revised on March 16, 2012 (OSM 2012a). The impacts of the continued operation of the mine including the effects of mining and reclaiming all foreseeable coal resources under current approved mining and reclamation plan, were fully analyzed as the Proposed Action in the BNCC Area IV North (AIVN) Mine Plan Revision Environmental Assessment (OSM 2012b). As discussed in the AIVN EA, BNCC's currently permitted coal reserves are designed to meet contractual obligations through early July 2016. This EA considers implications of the permit transfer through the end of the current coal supply agreement—July 2016 (OSM 2012b). Proposed Navajo Mine operations beyond the life of the coal supply agreement would be analyzed in the Environmental Impact Statement (EIS) currently being prepared by OSM (OSM 2012c).

The Navajo Nation has been and will continue to be the owner and the lessor of the land and minerals. NTEC will acquire NMCC, LLC via a stock sale and merger and will consequently become the holder of

² Section 17 of the Indian Reorganization Act of 1934 gives tribes the power to incorporate and enables them to waive sovereign immunity to facilitate business transaction, thereby fostering tribal economic development and independence.

the leases from NMCC, LLC. NTEC will continue engaging in surface mining and reclamation activities at Navajo Mine in accordance with existing SMCRA Permit No. NM-0003F and the approved mining and reclamation plan (OSM 2012a). MMCo, a Delaware Corporation, is to be retained by NTEC as the mine manager for the period following the Transaction through December 31, 2016. MMCo will be staffed by many of the same employees, management, and executives that currently work for BNCC. This arrangement between MMCo and NTEC will provide continuity of mining and reclamation operations at Navajo Mine for the period of the mine management agreement that will govern the relationships and define the duties and obligations between NTEC and MMCo. Additional details of the Transaction are provided in Section 2.1.1.1 – Transaction Summary and visually presented in Figure 1 of that section.

This EA includes analysis of the environmental effects that may result from transferring Permit NM-0003F from NMCC to NMCC, LLC, and the transfer from NMCC, LLC to NTEC. The conversion and merger trigger transfer, assignment, and sale provisions of SMCRA's implementing regulations.³ As such, BNCC seeks approval of the transfer of SMCRA Permit NM-0003F. NTEC and BNCC/NMCC have not sought any revisions to the mining and reclamation plan attendant to the proposed Transaction.

This EA does not reevaluate potential impacts associated with implementing the currently permitted mining and reclamation plan because those impacts have been previously analyzed in the AIVN EA (OSM 2012b), and because NTEC and BNCC/NMCC have not sought any revisions to the mining and reclamation plan attendant to the proposed Transaction. Rather, this EA considers potential changes to the extent or nature of only those impacts associated with Navajo Mine being owned and operated by NTEC rather than by BNCC. Because the AIVN EA thoroughly described the environmental setting of the Navajo Mine permit area and mine plant lease site and operations (see Map 1), it is incorporated by reference on multiple occasions in this EA.

At the time of the Draft EA development, the BIA did not have sufficient information regarding the transaction to determine if Secretarial approval was required. Since that time, the BIA requested transaction documents to review and determine whether or not Secretarial approval was required. In response to BIA's request, BNCC and the Navajo Nation Attorney General submitted a joint letter dated May 15, 2013 that outlined the transaction whereby BBNMC would merge BNCC with NTEC and would not result in modifications to the existing terms or conditions of the lease. BIA responded to the submittal in a letter dated August 30, 2013, informing NTEC and BBNMC that after reviewing the submitted transaction information, no further action was required at this time by the BIA for the proposed restructuring.

The draft EA was made available for public review and comment on May 18, 2013 and OSM concluded the public comment period on September 27, 2013. All changes to the draft EA to create this final EA were made in response to one of the five following conditions.

1. Permit application changes – On August 30, 2013, BNCC revised its May 10, 2013 application submittal based on the delay in the Transaction that was tentatively scheduled to occur on or about July 1, 2013. On September 3, 2013, BNCC further revised its August 30 application to

³ See 30 CFR 774.17. "Transfer, assignment, and sale of permit rights," as defined by OSM "means a change of a permittee." 30 CFR 701.5. OSM deems a change in the type of business entity or a merger to be a change of permittee. See 72 Fed. Reg. 68000, 68009 (December 3, 2007).

make additional editorial corrections and on October 17, BNCC made the final revision to the application to include additional information.

2. BIA finding of No Action – In a letter dated August 30, 2013, BIA informed NTEC and BBNMC that no further action was required for BIA to approve the restructuring transaction.
3. On October 16, 2013, the Navajo Nation Council approved legislation to allocate \$4.1 million from the Navajo Nation’s Unreserved, Undesignated Fund Balance to fund initial and immediate costs and obligations associated with the completion of negotiations and transactions for the acquisition of Navajo Mine from BHP Billiton (Legislation 0305-13).
4. On October 25, 2013, the NTEC Managing Committee passed Resolution 2013-16 granting a limited waiver of sovereign immunity to OSM and the U.S. government.
5. OSM’s determination that NTEC would be required to contribute to the Abandoned Mine Land (AML) fund.
6. Review and consideration of all public comments received by OSM.

1.1 Regulatory Framework and Necessary Authorizations

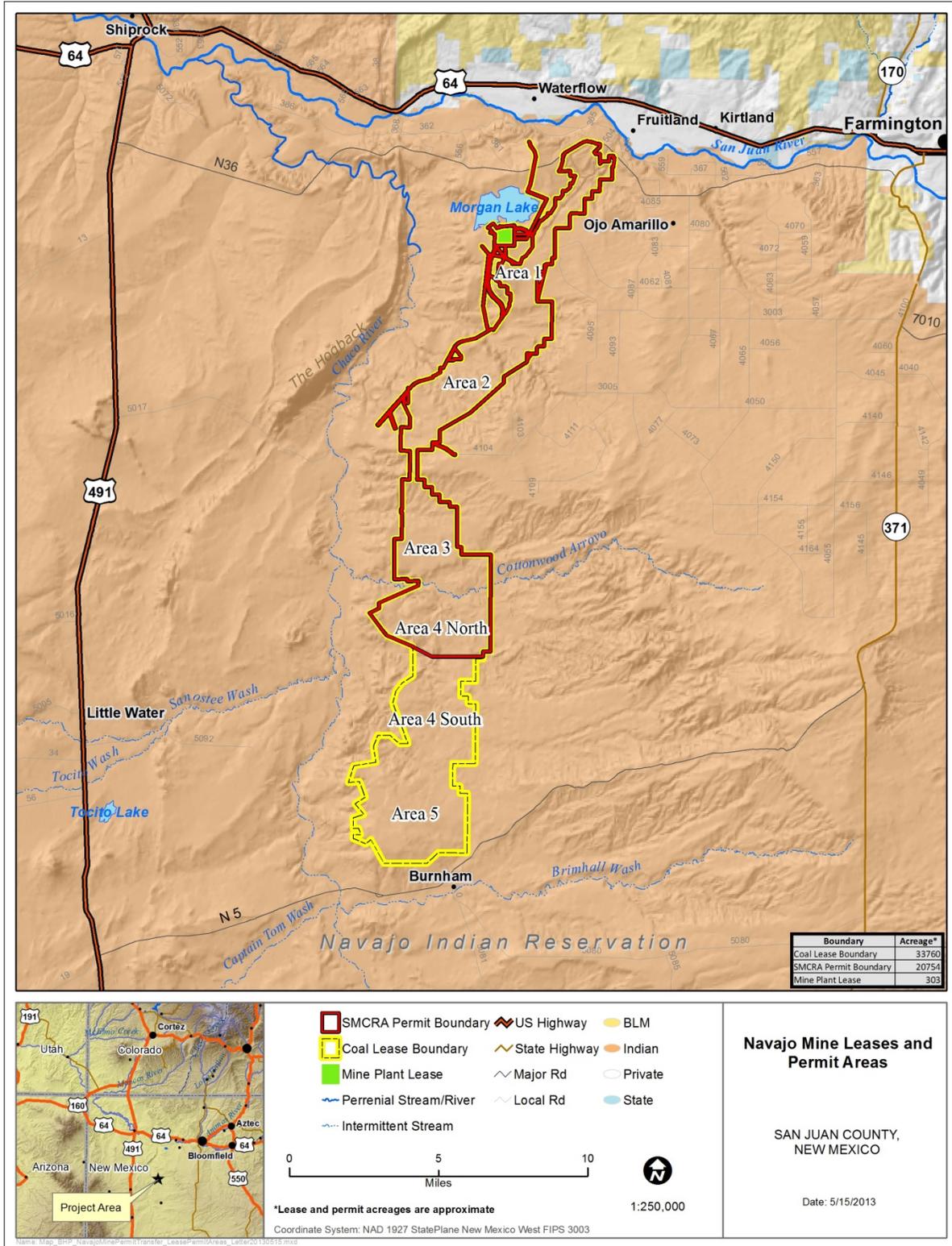
OSM is the lead agency for this EA. The proposed transfer of Permit NM-0003F from BNCC to NMCC, LLC and from NMCC, LLC to NTEC requires written approval from OSM pursuant to 30 CFR 774.17. At the request of OSM, the U.S. Department of Interior, Bureau of Land Management (BLM), and the Navajo Nation are cooperating agencies in the preparation of this EA due to their “special expertise.” Special expertise is defined as statutory responsibility, agency mission, or related program experience (40 CFR 1508.26). In a letter dated May 15, 2013, NTEC and BNCC asked the BIA to determine whether approval of the Transaction is required or whether approval should or should not be issued. The BIA responded to this letter on August 30, 2013 and stated that “based on the representations made in your May 15 letter, the proposed restructuring would not require BIA approval.” Therefore, the BIA is a cooperating agency due to their special expertise. These federal agencies and their role in the proposed project are described in Table 1.

Table 1. Federal Action Agencies and Regulatory Authorities

Agency	Federal Action	Authority
OSM	Action 1: OSM’s determination of eligibility and approval or denial of the transfer of SMCRA Permit NM-0003F from NMCC (formerly BNCC) to NMCC, LLC Action 2: OSM’s determination of eligibility and approval or denial of the transfer of SMCRA Permit NM-0003F from NMCC, LLC to NTEC	30 CFR 774.17
BIA	The BIA has no federal action to consider, but is included in the federal agency review as a cooperating agency based on their special expertise	n/a
BLM	The BLM has no federal action to consider, but is included in the federal agency review as a cooperating agency based on their special expertise	n/a
Navajo Nation	The Navajo Nation is included as a cooperating agency based on their special expertise	n/a

Notes: CFR = Code of Federal Regulations, n/a = not applicable

Map 1. Navajo Mine Leases and Permit Areas



In accordance with 30 CFR 774.17, OSM must find the following criteria have been met to approve the permit transfer applications:

- the successor is eligible to receive a permit in accordance with 30 CFR 773.12 and 773.14;
- the successor has submitted a performance bond or other guarantee, or obtained the bond coverage of the original permittee; and
- the successor meets any other requirements specified by the regulatory authority.

Once a decision has been made, OSM will notify the permittee, the successor, and those having provided comments on the application of its findings. If the permit transfer is approved, the successor shall immediately provide notice to OSM of the consummation of the transfer, assignment, or sale of permit rights. The successor shall assume the liability and reclamation responsibilities of the existing permit and shall conduct the surface coal mining and reclamation operations in full compliance with SMCRA, its regulatory program, and the terms and conditions of the existing permit. OSM's approval of a transfer, assignment or sale of rights granted by a permit issued under the Indian Lands Program is not construed as approval of a transfer or assignment of a leasehold interest, which may be transferred or assigned only in accordance with lease terms and BIA regulations (30 CFR 750.12(c)(3)(i)). Likewise, there is not a proposed amendment to the terms of the lease. The proposed restructuring will not result in a transfer or re-assignment of the existing lease; as such, NTEC will continue to be required to uphold all interests and obligations under the Leases and the Rights-of-Way.

The U.S. has a trust responsibility to protect and maintain rights reserved by or granted to Indian tribes by treaty, statutes, and executive orders. As the Trustee, it is part of the Federal Government's fiduciary responsibility to ensure that a tribe receives fair compensation when Indian Trust Assets⁴ (ITAs) are removed from the trust, as well as the responsibility to ensure that the use of an asset is in the best interest of the trustee. Both of these responsibilities are intended to ensure the preservation of ITA value for the tribes. In addition all bureaus and offices of the DOI, including OSM, BIA and BLM must also adhere to Indian Trust Principles (303 DM 2.7.D), including, but not limited to, promoting tribal control and self-determination over tribal trust land and resources.

The Secretary of the Interior (Secretary) is charged with acting as the trustee for ITAs and administers Federal trust management per the policies set forth in the American Indian Trust Fund Management Reform Act of 1994 (Public Law 103 412, October 25, 1994, 108 Stat. 4239). While all U.S. Department of the Interior agencies abide by the Secretary's trust policies, the BIA is the primary agency that administers trust actions and oversees ITAs. When a tribe or individual Indian approaches the BIA with a proposal to utilize an ITA, the BIA reviews the proposal to ensure appropriate management, development, and protection of that asset. All activities must be performed in a way that considers the economy, environment, and culture.

The Secretary reviewed the mining of coal at the Navajo Mine (BIA Contract No. 14-20-603-2505) and approved the operation on July 26, 1957, as well as all subsequent amendments to lease (BIA Contract

⁴ Indian Trust Assets (ITAs) are defined as lands, natural resources, money or other assets held by the Federal Government in trust or that are restricted against alienation for Indian tribes and individual Indians (BIA 303 DM 2.5.C).

No. 14-20-0603-6447, April 1, 1961). This review and subsequent approval fulfilled the Department of Interior's, and thus BIA's, trust responsibility. As discussed below in Chapter 2, NTEC does not propose to change the existing operations performed by BNCC. Furthermore, fundamentally, the Proposed Action constitutes a business transaction that does not affect the value of this ITA (i.e., coal) for the benefit of the Navajo Nation. The proposed business transaction is not a transfer, sublease, or assignment triggering the BIA's regulatory requirements for approval. Likewise, the terms of the lease, as previously amended with BIA's review and approval do not require additional BIA approval.

In addition to the above discussed required federal approvals analyzed in this National Environmental Policy Act (NEPA) document, there are various corporate transactions associated with the name change, conversion, sale, and merger, that necessitate ministerial actions with several agencies pertaining to permits or licenses issued by those agencies to BNCC. These actions pertain primarily to transferring permits and licenses to MMCo, the future mine manager from BNCC. The mine manager will hold the National Pollution Discharge Elimination System (NPDES), Multi-Sector General Permit/Stormwater Permit, Alcohol, Tobacco and Firearms (ATF) licenses, Federal Communications Commission (FCC) radio licenses, and the Mine Safety and Health Administration (MSHA) Mine Identification. For these permits and license transfers, the applicants will be required to submit notifications or applications to the relevant agencies.

1.2 Purpose and Need

The federal action agency's statement of purpose for the Proposed Action, and background information on the project's purpose and need, are provided below.

1.2.1 OSM Statement of Project Purpose and Need

On May 3, 2013, and as revised on May 10, 2013, the current holder of the SMCRA permit (BNCC) submitted an application to OSM to transfer the permit to NTEC, a business entity created under the Navajo Nation's LLC Act (5 Navajo Nation Code § 3600 et seq.) to own and hold permits necessary to continue the operation of the mine in the interest of the Navajo Nation. The permit transfer application was subsequently revised and re-submitted by BNCC on August 30, 2013 and September 3, 2013 with minor edits at the request of OSM. OSM is the regulatory authority for mining operations on Indian lands under SMCRA (30 CFR 750.6). Pursuant to 30 CFR 750.12 and 774.17, the transfer of Permit NM-0003F requires the prior written approval of OSM. Therefore, the purpose and need of the Proposed Action is for OSM to determine whether NMCC, LLC then NTEC is eligible to receive the permit in accordance with applicable regulations and, if so, to authorize NTEC to engage in surface mining and reclamation operations in accordance with the existing SMCRA permit and the approved mining and reclamation plan.

1.2.2 Background on Project Purpose and Need

The Navajo Nation seeks to control the lease, mineral rights, and operations of the Navajo Mine. To achieve this goal, the Navajo Nation created NTEC as a LLC with a broad mandate:

“to promote and develop the Navajo Nation's resources and new sources of energy power, transmission, and attendant resources to develop the economic, financial, social, and cultural well-being of the Navajo People and the Navajo Nation; and to promote the

economic vitality of the Navajo Nation through the production of goods and services, to facilitate the management of the Navajo Nation's interests in the development of its energy portfolio and market, to steer the Navajo Nation into a more efficient, productive, vital, and sustainable energy portfolio and market in the best interests of the future generations of the Navajo Nation." (Legislation 13-277-2 dated April 29, 2013).

Further, the legislation authorizing the formation of NTEC states that "[t]he Navajo Nation's approval of the creation, formation, organization, establishment, and operation is for the protection and promotion of the Navajo People's and the Navajo Nation's economic and financial best-interests, which are tied and related to mining operations within the Navajo Nation, as a means to ameliorate the economic, financial, and social conditions of the Navajo People and the Navajo Nation." (Id.)

Specifically, in approving NTEC's purchase of business organizations for the acquisition and ownership of the Navajo Mine, the Navajo Nation "empowered and authorized [NTEC] to take appropriate actions to ensure the continuing operation of the Navajo Mine and [NTEC] into the future, in the most efficient, productive, and profitable manners possible, which shall be in the best-interest of the Navajo People, the Navajo Nation, and the Company." (Id.)

NTEC intends to acquire NMCC, LLC, including the two leases, and continue engaging in surface mining and reclamation activities at Navajo Mine in accordance with the existing leases and ROWs, SMCRA permit, and the approved mining and reclamation plan. NTEC and BNCC/NMCC have not sought any revisions to the mining and reclamation plan attendant to the proposed Transaction.

It should be noted that on July 18, 2012, OSM published a Notice of Intent to initiate public scoping and prepare an EIS for the Four Corners Power Plant (FCPP) and Navajo Mine Energy Project (OSM 2012c). The EIS will analyze impacts for the proposed Pinabete Permit and for the Navajo Mine Permit Renewal that will facilitate post-2016 coal supply to FCPP. The EIS will also analyze the impacts for the APS proposed FCPP lease amendment to 2041 through a variety of alternatives. The Proposed Action evaluated in this EA is independent and not connected to the possible outcomes being evaluated in the EIS, as evidenced by BNCC's most recent permit transfer application dated October 17, 2013 and the decision by the Navajo Nation Council to allocate \$4.1 million from the Navajo Nation's Unreserved, Undesignated Fund Balance to fund initial and immediate costs and obligations associated with the completion of negotiations and transactions for the acquisition of Navajo Mine from BHP Billiton (Legislation 0305-13). Therefore, the Proposed Action in this EA is not dependent on the EIS because it would proceed regardless of the outcomes being evaluated by the EIS. A record of decision is expected to be issued for the FCPP and Navajo Mine Energy Project EIS during the first quarter of 2015.

1.3 Issues Identification

The potential issues identified by the agencies Interdisciplinary (ID) Team are generally related to the difference in the types of organizations that would be holding Permit NM-0003F and the leases and ROWs. The present permit holder, BNCC, was incorporated in 1994 and is based in Farmington, New Mexico. BNCC operates as a subsidiary of BBNMC. BNCC has applied to OSM to transfer the permit to NMCC, LLC and from NMCC, LLC to NTEC, a new LLC formed under the Navajo Nation LLC Act. NTEC would be owned by the Navajo Nation and managed through a Management Committee defined in

the formation legislation dated April 29, 2013. This transaction will not change BBNMC as owner and operator of the San Juan Coal Company (SJCC).

No operational changes would result and no revision to the mine permit or approved mining and reclamation plan is proposed other than ministerial changes to the ownership information.

The primary differences between BNCC and NTEC as a permit holder are linked to the Navajo Nation as owner of NTEC. The Navajo Nation intends that NTEC serve as an instrumentality of the Navajo Nation and has sovereign immunity but is authorized to waive this immunity on a “limited, transaction-by-transaction basis” (Legislation 13-277-2). In addition, as an entity owned by the Navajo Nation, NTEC may be exempt from certain federal, state, and local fees and taxes. Based on these differences, the OSM ID Team identified the following issues:

1. Extension of complete sovereign immunity may not be consistent with eligibility requirements of a permit holder.
2. Potential socioeconomic effects associated with possible tax-exempt status of Navajo Mine permit holder to federal, state, and local governments.
3. Potential disproportionate effects to low income or Native American populations.

To be eligible to hold a mine permit, the permittee must, at a minimum, comply with SMCRA’s Title V requirements. Accordingly, to facilitate administration of the permit and operations of Navajo Mine, NTEC has proposed a limited waiver of sovereign immunity to comply with and be subject to enforcement of Title V of SMCRA and all other U.S. environmental protection and health and safety laws of general applicability. The legislation that authorized the formation of NTEC allows for the waiver of NTEC’s sovereign immunity on a transaction-by-transaction basis. The waiver is included in Appendix A.

Since NTEC may be exempt from certain federal, state, or local taxes, the taxes that BNCC currently pays to these governments would be redirected to NTEC and its sole shareholder, the Navajo Nation. The potential socioeconomic impacts associated with this change are analyzed in this EA. Similarly, the potential effects of these changes to potentially disproportionately affected populations are analyzed from an Environmental Justice perspective in this EA.

Other issues that were identified include the suitability of the Navajo Nation to assume the assets and liabilities associated with Navajo Mine. The mine permit eligibility requirements to be considered by OSM in reviewing the permit transfer address many of these concerns—including the requirement that the permit holder provide a performance bond made payable to the regulatory authority and conditioned upon the faithful performance of the requirements of SMCRA, OSM’s regulatory program, and the reclamation plan (30 CFR 800.11). The bond amount is based, among other factors, on the cost for mine reclamation for the land area and characteristics to be reclaimed (30 CFR 800.14). The performance bond for Navajo Mine is currently in the amount of \$163 million. NTEC will need to provide a performance bond in this amount to be an eligible permit holder.

NTEC intends to post a bond underwritten by a third-party surety to satisfy this permit requirement. This bond would be used to pay for reclamation and closure of the mine only if NTEC were to default on its reclamation obligations imposed by SMCRA. Otherwise, the cost of reclamation obligations will continue

to be covered through contractual agreements with the owners of the FCPP. Contemporaneous reclamation costs will continue to be part of NTEC's operational costs that are covered through the sale price of the coal charged to the owners of the FCPP. Similarly, the responsibility to pay all estimated final reclamation costs are currently and will continue to be the responsibility of the FCPP owners, who are required to provide funds through an escrow account for NTEC to use for final reclamation of the mine (BNCC/NTEC/APS 2013).

With regard to coal combustion byproducts (CCBs), currently CCBs from the use of coal at the power plant are disposed outside the mine permit boundary by the owners of FCPP at the power plant lease site. Historically, CCBs from FCPP Units 4 and 5 were disposed in portions of Navajo Mine Area I and Area II, which have since been reclaimed. All disposals or placement of CCBs within the mine permit boundary ceased in 2008. In 2012, OSM addressed the potential impacts of the CCBs to groundwater in the Cumulative Hydrological Impact Assessment (CHIA) for Navajo Mine (CHIA 2012). OSM concluded that "[t]he reclamation of the CCBs disposal areas at the mine has been sufficient in part because of the natural conditions prevalent in the area and also because precautions were taken when engineering the disposal and reclamation. Thus far, negligible impacts have resulted from the CCBs disposal. It is also unlikely that any significant future effects will ensue from the CCBs disposal at the Navajo Mine because of the very slow groundwater movement and the likely attenuation of contaminants of concern as they migrate through the subsurface. Therefore, OSM concludes that potential impacts from CCBs disposal at the Navajo Mine are negligible" (CHIA 2012). The Proposed Action would not authorize future placement or disposal of CCBs within the mine permit boundary. Further, under past and current contracts, the owners of FCPP will continue, pursuant to the terms of such contracts, to be responsible for regulatory costs related to the CCBs to the extent such costs are incurred (BNCC/NTEC/APS 2013).

The mine has always been supplied with water from Permit 2838, held by BNCC, with the right to divert surface water from the San Juan River in the amount of 39,000 acre-feet per year (afy) (consumptive use); 51,600 afy (diversion). Navajo Mine's usage is approximately 1,000 afy. FCPP usage is approximately 25,000 afy. The mine and FCPP will continue to be supplied with water from Permit 2838. The sale of NMCC, LLC's equity to NTEC will not change the source or amount of water available to the mine. According to BNCC, prior to sale of NMCC, LLC's equity to NTEC, BNCC, the current owner of Permit 2838, will transfer its ownership interest in Permit 2838 to BBNMC and BBNMC will honor all existing contractual commitments for water deliveries (BNCC/NTEC/APS 2013).

2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Alternatives

Under NEPA's requirements, the agency must evaluate the environmental impacts of a reasonable range of alternatives that meet the project purpose and need. The Department of the Interior's NEPA implementing regulations define reasonable alternatives as those that are "technically and economically practical or feasible and meet the purpose and need of the proposed action" (43 CFR 46.420). Summarized below is the Proposed Action Alternative, No Action Alternative, and Alternatives Considered but Eliminated for analysis in this EA.

2.1.1 Proposed Action Alternative

OSM's Proposed Action Alternative is approval of the transfer of SMCRA Permit NM-0003F from BNCC/NMCC to NMCC, LLC and then from NMCC, LLC to NTEC.

NTEC is seeking to purchase all of the interests in BNCC, the owner/operator of the Navajo Mine and holder of both the coal lease and the SMCRA permit, from BHP Billiton. As an integral step in the purchase transaction, on May 3, 2013, the current holder of the SMCRA permit (BNCC) submitted an application to OSM to transfer the permit to NTEC, a business entity created under the Navajo Nation's LLC Act (5 Navajo Nation Code § 3600 et seq.) to own and hold permits necessary to continue the operation of the mine in the interest of the Navajo Nation. On May 10, 2013, August 30, 2013, and September 3, 2013 BNCC re-submitted the application with minor edits at the request of OSM and on October 17, BNCC revised the application a final time to include additional required information. NTEC would continue mining operations under the terms and conditions of the existing permit as described in the AIVN EA (OSM 2012b) and would complete all required reclamation in accordance with the approved permit. In accordance with the federal regulations at 30 CFR 774.17, the applicant (BNCC) provided a permit transfer application to OSM that included:

1. The name and address of the existing permittee (BNCC) and permit number.
2. A brief description of the proposed action requiring approval (conversion of NMCC to NMCC, LLC; and the merger of NMCC, LLC with NTEC).
3. The legal, financial, compliance and related information required at 30 CFR 778.11 for the applicant (BNCC/NMCC, NMCC, LLC, and NTEC) for approval of the transfer, assignment, or sale of the permit rights.
4. Confirmation that the appropriate performance bond coverage in an amount sufficient to cover the continued operations will be submitted as required under SMCRA.

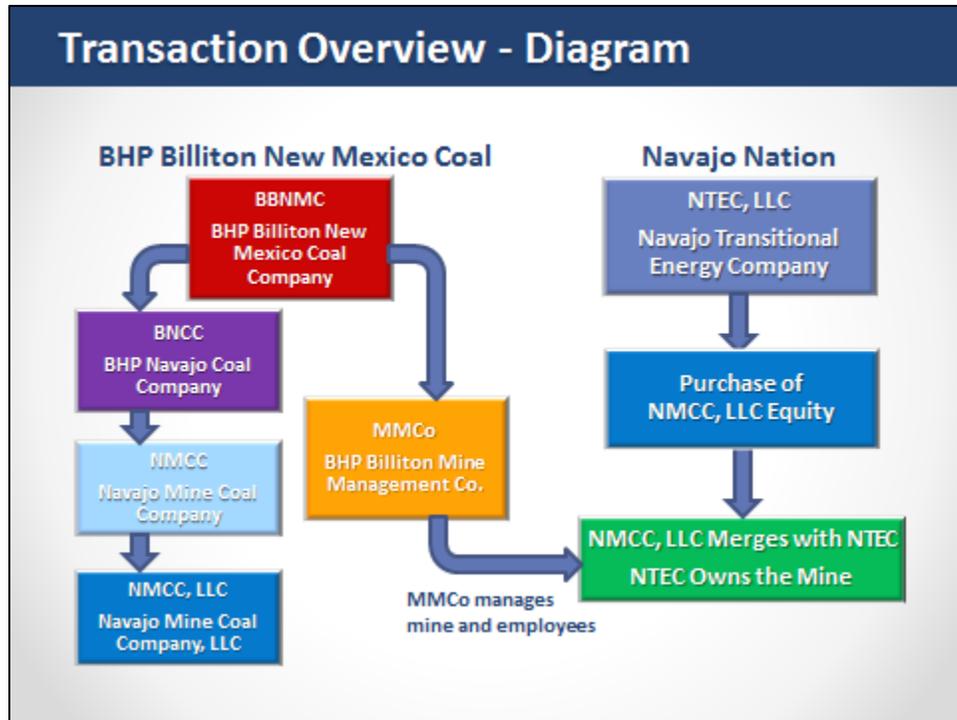
In accordance with the federal regulations at 30 CFR 773.8 through 773.11, OSM reviewed the application to verify that the application submittal was administratively complete. On May 16, 2013, OSM determined the application to be administratively complete, and subsequently notified the applicant, the Navajo Nation, and other Federal agencies of OSM's initial review findings regarding administrative completeness. Following the administrative completeness determination, OSM began its technical review of the application. Upon notification of OSM's administrative completeness review determination, by regulation the applicant is required to advertise the filing of the application in at least one newspaper of

general circulation in the locality of the operations involved, indicating the name and address of the applicant (BNCC), the permittee, the permit number or other identifier, the geographic location of the permit, and the OSM address to which written comments may be sent. Any person having an interest, which is or may be adversely affected by the decision on the transfer, assignment, or sale of the permit rights, including an official of any federal, state, or local government agency, may submit written comments on the application to the regulatory authority within a time specified by the regulatory authority. Following OSM’s administrative completeness determination, the permit transfer application and availability of the Draft EA was advertised in two local newspapers. At OSM’s direction, BNCC also provided public notice of the permit transfer application and availability of the Draft EA on two local Navajo radio stations in Navajo language. As determined by OSM, the public comment period for the transfer application and for the EA expired on June 17, 2013. During the delay in the transaction related to the permit transfer, OSM continued to accept public comments with a final deadline for the public comment period extended to September 27, 2013. The OSM process to determine applicant eligibility and to issue a permit to a successor is described in Section 1.1 Regulatory Framework and Necessary Authorizations.

2.1.1.1 Transaction Summary

To further disclose the implications of the ownership change, permit transaction, and lease assignments or transfers that would be undertaken, this section illustrates the ownership change and identifies potential differences between BNCC and NTEC as mine lessee and permittee. An overview diagram of the Transaction is included in Figure 1.

Figure 1. Transaction Overview Diagram



In preparation for the ownership change, BBNMC will change the name of BNCC to NMCC. Following the name change, NMCC will convert from a Delaware corporation to a Delaware LLC. The post-conversion entity will be called NMCC, LLC. This conversion is a transitory step intended to facilitate financial efficiencies occasioned by the sale of BNCC to NTEC.

Prior to the closing of the equity purchase, BNCC will administratively transfer the following operating permits and filings to MMCo:

- Clean Water Act Section 404 Individual Permit, Nationwide 14 and 21 Permits
- Clean Water Act Section 402 Individual NPDES Permit
- MSHA identification

BNCC is proposing no change to these existing operating permits and filings. MMCo will also have to apply for certain licenses and permits, which cannot be transferred. Included among these permits are:

- ATF Licenses (for explosives use at the mine)
- FCC Radio Licenses
- Multi Sector General Permit/Stormwater Permit

MMCo will replace BNCC on the labor agreement with the International Union of Operating Engineers Local 953. A new agreement with the union was executed on February 1, 2013.

NTEC will eventually hold the assets held by NMCC, LLC through a purchase for 100 percent of NMCC, LLC's equity and subsequent merger with NMCC, LLC. NTEC will be the surviving entity. As part of the above-discussed equity sale and merger, NTEC will obtain and hold ownership and control over the Navajo Mine Lease and the Mine Plant Lease, both currently held by BNCC, among other assets, including equipment and other fixtures. NTEC may in the future merge into a Section 17 corporation. NTEC plans to execute a mine management agreement with MMCo to ensure consistent mine operations.

2.1.2 No Action Alternative

Under the No Action Alternative, the proposed permit transfer would not be approved by OSM. Under the No Action Alternative, a BBNMC-owned entity would have the right to continue mining operations and would be contractually obligated to FCPP proponents to do so through 2016 under the terms and conditions of the existing permit as described in the Area IV North EA (OSM 2012b) and would complete all required reclamation in accordance with the approved mining and reclamation plan.

2.1.3 Alternatives Considered but Eliminated

OSM contemplated alternative scenarios to the approval or denial of the transaction. However, OSM's decision is limited to approving or denying the application in accordance with the eligibility criteria (refer to Section 1.1 above). OSM concluded that there are no reasonable alternatives other than the Proposed Action and No Action alternatives that would meet the agency's purpose and need.

3. AFFECTED ENVIRONMENT AND IMPACT ASSESSMENT

This chapter describes the environmental setting for resources that occur within the Navajo Mine permit area. The resources described include geological resources, soils, paleontological resources, water resources, noise, visual resources, air quality, vegetation, wildlife, threatened and endangered and sensitive species, socioeconomics, environmental justice, land use, cultural resources, traffic and transportation, and health and safety.

In compliance with requirements contained in NEPA, implementing regulations, and related guidance, the description of the affected environment focuses on those environmental resources potentially subject to impacts.

As a result of cooperating agencies' ID Team consideration of the environmental setting relative to possible effects of the Proposed Action Alternative, many environmental resources (physical, biological, and social) were eliminated from detailed impact analysis. The rationale for this determination is that the transfer of Permit NM-0003F from BNCC/NMCC to NMCC, LLC and then to NTEC would not change how the currently permitted mine plan would be implemented, and therefore, there would be no change to the environmental effect analyzed by earlier NEPA review (OSM 2012b). As described within this chapter, only socioeconomic resources and environmental justice are potentially affected by the Proposed Action Alternative. Table 2 presents all of the environmental resource categories that OSM considered in determining those that have the potential to be affected by the Proposed Action Alternative. Potentially affected resources are generally described in Table 2 with detailed descriptions of each resource incorporated by reference to the AIVN Mine Plan Revision EA (OSM 2012b). The AIVN Mine Plan Revision EA document is available on the OSM website (http://www.wrcc.osmre.gov/Current_Initiatives/Navajo_Mine/AreaIVNorth.shtm). Resources eliminated from detailed impact assessment are also described in Table 2, including the rationale for not carrying each resource forward to impact analysis. In most cases, resources were eliminated from detailed analysis due to the fact that the ownership transaction, OSM permit transfers, and subleases or assignments would not change how the approved mining and reclamation plan would be implemented because BNCC/NMCC and NTEC have not sought any permit changes attendant to the proposed Transaction.

Also included in this chapter are impact assessments for resources potentially affected by the Proposed Action alternative and the No Action alternative. The impact analyses focus on whether there are direct, indirect, beneficial, or adverse socioeconomic impacts from the transfer of the mine, the mine leases, and permit transaction and whether there are any environmental justice impacts associated with NTEC's ownership of Navajo Mine.

The geographic scope of resource descriptions and the framework for impact assessments are defined only for those resources potentially affected by the Proposed Action Alternative.

Table 2. Environmental Resources Evaluated by OSM for Detailed Impact Assessment

Resources Considered	Description of Resource	Potentially Impacted by Proposed Action		Rationale for Elimination
		No	Yes	
Geology	The permit area lies on the western edge of the San Juan Basin on the eastern flank of the Colorado Plateau physiographic unit. The near surface geology in the permit area is primarily horizontal and low dipping sedimentary strata complicated by minor faulting. Coal—specifically lenticular coal seams in the Fruitland Formation—is the only leasable or locatable mineral resource within the permit area and is the target for the mining activities under SMCRA Permit NM-0003F (OSM 2012a). Geological resources are more thoroughly described in Permit NM-0003F (OSM 2012a) in Chapter 5 Geology and also in the 2012 AIVN Mine Plan Revision EA (OSM 2012b) in Section 3.1.2 Geological Resources on pages 41 through 44. These descriptions are incorporated by reference.	X		Geologic resources have no potential to be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Soils	Soils in the permit area are classified into three main categories—Badlands, Natragrids, and potential topdressing sources. Each type comprises approximately one third of the soil resources in the area. Topdressing materials may be used in post-mining reclaimed areas. Badlands and Natragrid soils are not suitable for topdressing. Permit area soils are more thoroughly described in Permit NM-0003F (OSM 2012a) Chapter 8 Soil Resources (entire Chapter) and also in the 2012 AIVN Mine Plan Revision EA (OSM 2012b) in Section 3.1.2 Geological Resources on pages 41 through 44. These detailed descriptions are incorporated by reference.	X		Soil resources have no potential to be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Paleontology	Paleontological resources in the permit area include fossils of vertebrate and invertebrate species and microfossils, primarily from the Late Cretaceous Era (Fruitland and Kirtland Formations).	X		Paleontological resources have no potential to be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Groundwater	The geologic units bearing groundwater within and adjacent to the permit area include the alluvial groundwater of the Chaco River and Cottonwood Arroyo; the coal seams of the Fruitland Formation; the overburden of the Kirtland Shale and Fruitland Formations; and the Pictured Cliffs Sandstone located below the Fruitland Formation. Detailed quality and quantity data are included in the SMCRA Permit NM-0003F (OSM 2012a) in Chapter 6 (entire Chapter) and these detailed data are incorporated by reference.	X		Groundwater resources have no potential to be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Surface Water	Most of the lease area drains from east to west into the Chaco River—a tributary of the San Juan River. The Chaco River watershed comprises drainage of 4,563 square miles within the USGS HUC 14080106. In the permit area, Cottonwood Arroyo, Lowe Arroyo, and several unnamed ephemeral channels are considered waters of the U.S. under the jurisdiction of the USACE. There are approximately 18 miles and 25 acres of these ephemeral stream channels within the permit area. A detailed description of the surface water resources is included in Section 3.2.2 Surface Water and Figure 3.2-3 in pages 50 to 53 of the AIVN Mine Plan Revision EA (OSM 2012b). These descriptions and map are incorporated by reference.	X		Surface water resources have no potential to be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Noise	The background ambient noise level, without mining noise, vehicle travel noise, or other sources is approximately 35 dBA. Peak noise levels varied from 36 dBA to over 94 dBA (OSM 2012b). Noise and vibration issues within the permit area are described in the 2012 AIVN Mine Plan Revision EA (OSM 2012b) in Section 3.3 Noise and Vibration (pages 53 through 62). These descriptions of noise and vibration issues are incorporated by reference.	X		There would be no changes to area ambient noise levels from the transfer of Permit NM-0003F from BNCC to NTEC.
Visual Resources	Existing visual conditions in the permit area include views of the existing BNCC coal-mining operations. Open, undulating, low shrubland-dominated arid landscapes lie east, west, south, and north of the proposed Permit Area with distant views of mountain ranges (OSM 2012b). Visual resources in the permit area are described in the 2012 AIVN Mine Plan Revision EA (OSM 2012b) in Section 3.4 Visual Resources on pages 63 through 69. These descriptions of visual resources are incorporated by reference.	X		There would be no changes to the permit area viewshed from the transfer of Permit NM-0003F from BNCC to NTEC.
Air Quality	San Juan County, NM (SJC) is designated as attainment or unclassified for all criteria pollutants including particulate matter and precursors to ozone. Data on baseline air quality in SJC is included in Section 3.5.2.3 Baseline AQRA Air Quality in pages 78 to 81 of the AIVN Mine Plan Revision EA (OSM 2012b). These data describing baseline air quality are incorporated by reference.	X		Air resources would not be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Climate and Meteorology	The climatic region for Navajo Mine is arid to semi-arid, sparsely vegetated high desert. The region has warm summers and cold, relatively dry winters. This region is at high elevation, so there is usually a wide diurnal temperature swing between daily low and high levels. Additional climatological data can be found in Section 3.5.2.5 Climate and Meteorology in pages 81 to 83 of the AIVN Mine Plan Revision EA (OSM 2012b). These data describing baseline climate and meteorology are incorporated by reference.	X		The transfer of Permit NM-0003F from BNCC to NTEC would not change operations or emissions levels at Navajo Mine.
Greenhouse Gas Emissions	The predominant GHG emitted by surface coal mines is CH ₄ . Coal mine CH ₄ accounts for 80% of Navajo Mine's GHG emissions on a CO ₂ -equivalent basis. Navajo Mine's baseline annual GHG emissions are summarized in Section 3.5.2.6.2 GHG Emissions on page 85 of the AIVN Mine Plan Revision EA (OSM 2012b). These emissions data are incorporated by reference.	X		The transfer of Permit NM-0003F from BNCC to NTEC would not change operations or emissions levels at Navajo Mine.
Climate Change	Climate change refers to any significant change in measures of climate (such as temperature, precipitation or wind) lasting for an extended period (decades or longer). Climate change information and data for the Southwest region are included in Section 3.5.2.6.3 Climate Change in pages 85	X		The transfer of Permit NM-0003F from BNCC to NTEC would have no effect on climate change.

Resources Considered	Description of Resource	Potentially Impacted by Proposed Action		Rationale for Elimination
		No	Yes	
	to 86 of the AIVN Mine Plan Revision EA (OSM 2012b). This information is incorporated by reference.			
Vegetation	The natural vegetation community within the permit area is referred to as Great Basin Desertscrub (Dick-Peddie 1993; Brown 1994). The Great Basin Desertscrub is characteristically dominated by salt tolerant plants and has few cacti (Brown 1994). Detailed descriptions and mapping of vegetation resources can be found in the mine permit (OSM 2012a) in Chapter 9 and in the AIVN Mine Plan Revision EA (OSM 2012b) on Figure 3.6-1 on page 90. These vegetation resource descriptions are incorporated by reference.	X		Vegetation has no potential to be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Wildlife	The permit area and adjacent habitats supports a wide diversity of wildlife species due to a variety of landscape features and topography such as rock outcrops, washes, and rolling hills that provide habitat for these species. Mammals, birds, and reptiles are comprised of those common to northwestern NM. There are no fish and very few amphibians occur in the permit area. Wildlife resources within the permit area are described in the permit itself (OSM 2012a) in Chapter 10 Wildlife and in the 2012 AIVN Mine Plan Revision EA (OSM 2012b) in Section 3.7 Wildlife, pages 91-93. These wildlife descriptions are incorporated by reference.	X		Wildlife has no potential to be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Threatened/Endangered Species	According to the USFWS, there are 11 federally listed threatened, endangered, proposed threatened, or candidate plant and animal species with potential to occur in SJC. Based upon evaluation of existing data, habitat associations, past discussions with the NNDFW and USFWS, and field surveys—there is no suitable habitat for federally listed species to reside or breed within the permit area. The threatened southwestern willow flycatcher may use the permit area for short-term migratory stopover habitat. Threatened, endangered and sensitive species with potential to occur within the permit area are described in the permit itself (OSM 2012a) in Chapter 10 Wildlife, Appendix 10-A and in the 2012 AIVN Mine Plan Revision EA (OSM 2012b) in Section 3.8 Threatened and Endangered Species, Sensitive Species on pages 93-99. These descriptions are incorporated by reference.	X		Threatened and endangered species have no potential to be affected by the transfer of Permit NM-0003F from BNCC to NTEC.
Socioeconomics	The area that would be affected by socioeconomic impacts is comprised of the eight counties surrounding Navajo Mine—San Juan County, New Mexico (NM); McKinley County, NM; Navajo County, Arizona (AZ); Apache County, AZ; Coconino County, AZ; San Juan County, Utah; Montezuma County, Colorado (CO); and La Plata County, CO. Detailed information on the demographics of this affected area are in the AIVN Mine Plan Revision EA (OSM 2012b) Section 3.9.2 on pages 99-107 including and Figure 3.9-1 (page 100). These data are incorporated by reference		X	Not eliminated, resource described and analyzed in detail in Section 3.1.
Environmental Justice	CEQ advises agencies to use the U.S. Bureau of Census data to identify potentially affected populations, and to examine geographic distribution by race, ethnicity, and income (CEQ Environmental Justice Guidance, § III.B). The geographic distribution of low income and Native American populations is shown in Section 3.11.2, pages 113 to 115 of the AIVN Mine Plan EA (OSM 2012b). This description of these populations is incorporated by reference.		X	Not eliminated, resource described and analyzed in detail in Section 3.2.
Land Use	Active surface coal has been ongoing since 1957 at Navajo Mine. The approximately 18,520-acre permit area encompassing an extensive mining infrastructure that includes areas of active mining, operational support, and reclamation. Currently, approximately 12,990 acres of the mine permit area are utilized for surface coal mining operations and support, while about 7,925 acres of completed mining have been reclaimed. In addition to surface coal mining activities, the major land use within the land use resource assessment area includes lands used for low-intensity domestic grazing and for wildlife habitat.	X		There would be no changes to land use in the permit area as a result of the transfer of Permit NM-0003F from BNCC to NTEC.
Cultural Resources	Cultural resources within the permit area include prehistoric, historic, and traditional cultural properties, buildings, structures, districts, objects, as well as associated artifacts, records, and remains related to such properties. Extensive cultural resource investigations and ethnographic studies have been completed at Navajo Mine. Detailed descriptions of the investigative findings are included in the mine permit (OSM 2012a) Chapter 3 (entire Chapter) and Section 3.12.2 Cultural Resources Affected Environment of the AIVN Mine Plan Revision EA. These descriptions are incorporated by reference.	X		Cultural resources would not to be affected by the transfer of Permit NM-0003F from BNCC to NTEC. The existing Programmatic Agreement that protects cultural resources at the mine would follow the permit holder (OSM 2011a).
Traffic and Transportation	Access to Navajo Mine is from US Highway 64, NM Highway 371, or US Highway 491, via an infrastructure of SJC and/or BIA roads. Major roads used by employees, visitors, and for the movement of materials to and from Navajo Mine include US Highways 64 and 491; NM Highway 371; BIA Roads 3003, 3005, and 4104; and BIA Highway N-36.	X		There would be no changes to traffic and transportation from the transfer of Permit NM-0003F from BNCC to NTEC.
Health and Safety	Numerous laws and regulations govern the policies and procedures implemented to ensure the health and safety of the mineworkers, protect persons living in the surrounding vicinity, and regulate the use and disposal of hazardous materials and wastes. These regulations are discussed in depth in Section 3.14.2.1 Affected Environment: Worker Safety and Health in pages 128 to 129 in the AIVN Mine Plan Revision EA. This information is incorporated by reference.	X		There would be no changes to implementation and enforcement of safety policies and procedures at Navajo Mine with the transfer of Permit NM-0003F and from BNCC to NTEC.

Notes: AIVN = Area IV North; AZ = Arizona; BIA = Bureau of Indian Affairs; BNCC = BHP Navajo Coal Company; CEQ = Council on Environmental Quality; CH₄ = Methane; CO = Colorado; CO₂ = carbon dioxide; EA = environmental assessment; GHG = greenhouse gas; HUC = hydrologic unit code; NNDFW = Navajo Nation Department of Fish and Wildlife; NTEC = Navajo Transitional Energy Company, LLC; NM = New Mexico; OSM = U.S. Department of Interior, Office of Surface Mining Reclamation and Enforcement; SMCRA = Surface Mining Control and Reclamation Act; USACE = U. S. Army Corps of Engineers; USFWS = U. S. Fish and Wildlife Service; USGS = U.S. Geological Survey

3.1 Socioeconomics

3.1.1 Affected Environment

In this socioeconomic impact analysis, economic impacts are expressed as changes to population, employment, income, government revenue, and related benefits. Social impacts are expressed as changes to community infrastructure—such as access to social and health care services. The area that would be affected by socioeconomic impacts is comprised of the eight counties surrounding Navajo Mine—San Juan County, NM (SJC); McKinley County, NM; Navajo County, AZ; Apache County, AZ; Coconino County, AZ; San Juan County, UT; Montezuma County, CO; and La Plata County, CO. The details on the affected area included in the AIVN EA Section 3.9.2 (pages 99-107) are incorporated by reference including Figure 3.9-1 (page 100), which displays a map of the affected area. This affected area is determined by the communities where the majority of the Navajo Mine employees reside and includes the communities where most of the tax revenues generated by Navajo Mine coal production are collected and distributed. In addition to the eight counties, the Navajo Reservation as a whole is included in the affected area because tribal tax and royalty revenues from Navajo Mine’s operations flow to the Navajo Nation government and could be distributed across the entire reservation.

Because mine operations will not change under the Proposed Action Alternative, the only changes resulting from the Proposed Action Alternative would be to government revenues. Population, employment, and income would remain at or near baseline conditions as reported in AIVN Mine Plan Revision EA (OSM 2012b) in pages 99 to 107 including Figure 3.9-1. These baseline socioeconomic data are incorporated by reference.

Mine activity, annual taxes, and fees paid by BNCC for the period 2008 to 2011 are summarized in Table 3. This is the most recent data available for Navajo Mine production and tax payments.

Table 3. Summary of Annual Taxes Paid by BNCC

Category	2011	2010	2009	2008
Coal Mined (tons)	7,867,822	7,809,929	9,178,169	8,897,563
<i>Annual Average of Total Coal Mined (tons)</i>	<i>8,438,371</i>			
Federal Government Taxes and Fees				
Black Lung Excise Tax (BLET)	\$4,038,268	\$4,327,713	\$4,855,014	\$4,519,639
Reclamation Fee (Abandoned Mine Reclamation Fund)	\$2,567,231	\$2,478,162	\$2,780,599	\$2,558,620
<i>Annual Average of Total Federal Taxes and Fees</i>	<i>\$7,031,312</i>			
New Mexico State Tax				
Property Tax	\$2,261,502	\$2,328,629	\$2,241,690	\$2,103,764
Severance Tax	\$1,588,599	\$5,332,543	\$10,171,600	\$7,860,170
Conservation Tax	\$395,369	\$333,974	\$406,537	\$406,196
Resource Excise Tax	\$1,559,205	\$1,321,265	\$1,602,753	\$1,601,621
<i>Annual Average of Total NM Production Taxes Paid</i>	<i>\$10,378,854</i>			

Category	2011	2010	2009	2008
Gross Receipts Tax	\$9,769,753	\$8,539,857	\$9,732,285	\$10,036,430
<i>Annual Average of Total GRT Paid</i>	<i>\$9,519,581</i>			
Navajo Nation Taxes and Royalties				
Tribal Royalties	\$31,375,436	\$26,802,424	\$32,202,529	\$32,219,881
Navajo Business Activity Tax	\$5,399,599	\$3,940,000	\$5,108,425	\$4,775,853
Navajo Possessory Interest	\$4,700,144	\$3,799,253	\$3,672,030	\$4,799,922
Navajo Fuel Excise Tax	-	-	\$964,137	\$977,387
<i>Average Annual of Total NN Payments</i>	<i>\$40,184,255</i>			
Employees and Payroll				
Navajo Mine Employees	528	509	498	515
Total Payroll	\$50,477,603	\$46,817,856	\$44,651,000	\$41,373,742
Total Payroll Taxes	\$4,187,848	\$3,503,444	\$3,431,365	\$3,124,692
Total Tax and Royalties per Ton Coal Sold	\$8.35	\$7.94	\$8.74	\$9.08

Source: for 2008 = BBNMC 2008, 2009 = BBNMC 2009, 2010 = BBNMC 2010, 2011 = BBNMC 2011a.

Notes: BLET = Black Lung Excise Tax; GRT = gross receipts tax; NM = New Mexico; NN = Navajo Nation

Federal Government Taxes and Fees

BNCC has made annual payments to the federal Black Lung Excise Tax (BLET) and the Abandoned Mine Land (AML) fund based on coal mine sales. Annual payments have averaged over \$7 million in recent years. These annual payments are contributed to the Black Lung Disability Benefit Program managed by the U.S. Department of Labor and the AML reclamation program managed by OSM. The Black Lung Disability Benefit Program provides compensation and medical benefits for eligible coal miners who are totally disabled due to pneumoconiosis (black lung disease) as a result of their coal mine employment. The same program also provides for survivor benefits for eligible survivors of coal miners who died due to pneumoconiosis (U.S. Department of Treasury 2011). The AML fund was established in the SMCRA and the reclamation fees collected are returned to the states and tribes through grants to fund AML reclamation projects (<http://www.abandonedmines.gov/wbd.html>). Since 1977, OSM has provided \$4.06 billion in AML grant funds to its partners in 24 states and three Indian Tribes, including the Navajo Nation Abandoned Mine Land Program, to clean up abandoned mine sites.

State of New Mexico and Local Government Payments

The production taxes paid to New Mexico by BNCC from its Navajo Mine operations are severance tax, resource excise tax, and conservation tax. The annual average combined total of these tax payments from 2008 to 2011 was approximately \$10.4 million.

BNCC also pays gross receipts tax (GRT) to the state on purchases of equipment, supplies, and services related to mine operations. The average annual GRT paid by BNCC to New Mexico from 2008 through 2011 amounted to approximately \$9.5 million. BNCC also pays GRT tax to local governments depending on the municipality or county where the purchases of goods or services are made.

Revenue to Navajo Nation Government

Coal mining is an important revenue source for the Navajo Nation. According to the Navajo Nation Council, about one-third of the Nation's general fund revenue is derived from BNCC royalty and tax payments (Navajo Nation Council 2012). As shown in Table 3, BNCC's average royalties and taxes paid to the Navajo Nation amounted to more than \$40 million annually. In addition, 85 percent of Navajo Mine employees are Native American, primarily members of the Navajo Nation (Navajo Nation Council 2012).

Other Monetary Contributions to Local Communities

For 50 years, BBNMC, the parent company of BNCC and SJCC, and its employees have been providing community support through financial contributions, volunteerism, in-kind donations, and services. BBNMC community contributions in 2011 totaled over \$1.6 million in the Four Corners region (BBNMC 2011b). BBNMC invested approximately \$390,000 in local communities through its Community Investment Fund including support of local events, youth programs, sports teams, arts and culture projects, and health initiatives. BBNMC employees contributed about \$435,000 to SJC's United Way campaign in 2011 (BBNMC 2011b). All employee-raised funds were matched dollar for dollar by the BBNMC's matched-giving policy to total almost \$875,000. BBNMC also provided almost \$74,000 in scholarships to Native American college students (BBNMC 2011b).

3.1.2 Impact Assessment

The impact assessment criteria for economic impacts are based on changes to employment, wages, and tax payments associated with each alternative. The time period considered in the socioeconomic analysis is the originally expected target transaction date of July 2013 until July 2016—when the current coal supply agreement ends (OSM 2012b). The criteria for social impacts include the previous indicators as well as the rate and scale of change of employment, income, and tax revenues. This is because sudden shifts in these measures tend to reduce the ability of local governments to respond to changes in demand for social services because of the lag time, for instance, between employment changes and tax revenue generation.

Annual employment and wages generated by Navajo Mine under the Proposed Action or No Action alternatives would not change measurably from baseline conditions as described in the AIVN EA (OSM 2012B). This is because mine operations and volume of coal mined at Navajo Mine would not change under either alternative. The No Action Alternative would have the same government revenues as the baseline because BNCC would continue to own and operate Navajo Mine according to the existing mine plan. Therefore, there would be no direct or indirect social or economic impacts for the No Action Alternative.

The Proposed Action Alternative would change the amount and flow of government revenues from Navajo Mine if NTEC were to be exempted from paying local, state, or federal taxes. While it is not possible at this time to estimate the change to tax amounts or where the non-earmarked revenues would be spent, the direct and indirect socioeconomic impacts for the Proposed Action Alternative would be uncertain but likely to be relatively small, and may result in both benefits and detrimental effects to local communities and the Navajo Nation. Some of the potential revenue changes are detailed below.

Federal Government Taxes and Fees

For the Proposed Action Alternative, during the development of the Draft EA it was uncertain whether NTEC would be required to pay federal BLET and contribute to the AML fund. OSM has subsequently concluded that NTEC would be required to contribute to the AML fund but has not determined if NTEC would be required to pay federal BLET. For the purpose of this analysis, OSM has evaluated two scenarios to evaluate potential socioeconomic impacts. If NTEC must contribute to both the AML fund and the BLET, there would be no change to federal contributions or socioeconomic impacts as in the No Action Alternative. If it is determined that NTEC would be exempt from the BLET, the potential socioeconomic impacts would be uncertain but likely to be relatively small. For example, compared to the approximately \$640 million collected for BLET annually from coal sales excise tax, the \$4 million in annual revenue paid by Navajo Mine is relatively small, less than 1 percent (CBO 2012). While annual contributions are a measure of revenue changes, they do not measure the benefit to coal miners or others distributions from these programs. Therefore, the impacts associated by the potential for reduced contributions and revenues for the BLET are uncertain but likely to be relatively small.

State of New Mexico and Local Government Payments

Under the Proposed Action Alternative, it is presumed that NTEC would be exempt from state severance tax payments. Based on recent coal production from Navajo Mine, the annual combined severance tax payment to New Mexico amounted to approximately \$10 million annually. New Mexico's total combined severance tax revenue in 2011 was more than \$800 million (U.S. Census 2012). Therefore, a reduction in tax revenue from Navajo Mine of \$10 million annually would amount to a loss of about 1 percent in state severance tax revenue. This small revenue reduction could have direct negative but relatively small impacts throughout the State of New Mexico depending on how and where the revenues would have been distributed. Under the Proposed Action Alternative, these severance tax revenues that would no longer be paid to the state would accrue to NTEC for operating expenses and investment (see below) and ultimately to the benefit of the Navajo Nation government as NTEC's only share holder. Thus, there would be potential benefit to the Navajo Nation related to increased government revenues that could result in increased quality and quantity of social service programs.

Sales tax revenues related to mine operations and supply purchases would also likely change under the Proposed Action Alternative. As an agent of the Navajo Nation, MMCo would apply for an exemption from state and local taxes. If the exemption were granted by the state, about \$9.5 million of state GRT would not be paid to the state or local governments under the Proposed Action Alternative but would accrue to NTEC. The state and local governments in New Mexico collected almost \$2 billion in general sales tax in 2011 (U.S. Census 2012). Therefore, the size of the total sales tax reduction compared to total annual sales tax revenue in New Mexico would be less than 1 percent.

The local government that receives the majority of Navajo Mine spending is SJC. According to a recent economic impact analysis for Navajo Mine, a total of \$6.1 million in tax revenue for SJC was generated directly or indirectly (ASU 2013). The spending of these tax dollars in 2011 directly supported 146 jobs and \$6.8 million in labor income in SJC (ASU 2013). While it has not been determined that NTEC would be exempt from paying state or local government taxes, if this were to be true, the tax revenue to SJC would be reduced by as much as \$6.1 million. Relative to total expenditures by SJC in 2011 of \$152

million, this revenue reduction would amount to about 4 percent of total expenditures by the county (SJC Fast Facts 2012).

In addition to direct economic impacts from the change in government revenues, there would also be beneficial and detrimental indirect economic impacts associated with the “multiplier effect” or the indirect and induced employment and income associated with the jobs generated by government spending. For example, there could be indirect benefit to Navajo Nation businesses if the increased revenue to the tribal government were spent on purchases of goods and services from local businesses such as construction services or supplies. Similarly, increased revenue to the Navajo Nation would indirectly offset the tax revenue losses to SJC if purchases of goods and services by Navajo individuals and businesses were made in SJC and subject to GRT. A recent Navajo Nation economic analysis found that there is “substantial money being transacted in the border towns” and the Nation could benefit by capturing more of the associated sales tax revenues being collected in SJC and Farmington, NM (NNED 2012). Therefore, the direct and indirect economic impacts to SJC of the Proposed Action Alternative would be less than \$6.1 million because these purchases would offset tax revenue losses caused by NTEC tax exempt status. As with direct economic impacts, the size or benefit/detriment associated with the change in government revenues for the Proposed Action Alternative is uncertain because the precise revenue amounts and spending patterns changes are not known. However, relative to total tax revenues, the reductions in tax revenues to state and local governments would likely be small.

Revenue to Navajo Nation Government

The revenue to the Navajo Nation government would increase under the Proposed Action Alternative because NTEC would receive revenue from coal sales at Navajo Mine. NTEC would be responsible for continued royalty and tax payments to the Navajo Nation based on existing payment schedules. NTEC would also be responsible for payment to the mine manager and operating costs for the mine. A portion of the profits from NTEC would be directed to investment in “research and development of renewable and alternative sources of energy, storage, and transmission technologies and facilities with priority given to solar technologies and facilities with attendant storage and transmission capacity” according to the founding legislation (Navajo Tribal Council Resolution Dated April 29, 2013). Other distributions to Navajo Nation government from NTEC have not been specified at this time but may create additional indirect employment and income in New Mexico. Mine revenues that currently are paid in taxes and to BNCC’s shareholders would benefit NTEC’s shareholder, the Navajo Nation.

Other Monetary Contributions to Local Communities

BBNMC’s voluntary contributions to the local community on behalf of BNCC and SJCC, totaled over \$1.6 million in 2011. BBNMC’s contributions are based on earnings and employee participation for BNCC and SJCC combined. Estimates for contributions from BNCC alone are not available. It is not known how much BBNMC would contribute in future years, but given BBNMC’s role as Navajo Mine manager through MCo and continued ownership of SJCC, it is expected that community investments from BBNMC and its employees will continue into the future, but the amount of these contributions may be reduced.

Summary of Direct and Indirect Economic and Social Impacts

In summary, there would be no direct or indirect economic or social impacts under the No Action Alternative because there would be no change to mine ownership, associated employment, or government revenue amounts or flows. The direct and indirect economic impacts of the Proposed Action Alternative may be small but could be beneficial or detrimental depending how tax revenues would change. The major economic change would be approximately \$20 million in foregone state gross receipts and severance tax revenues that would accrue to NTEC for operating expenses and investment, and ultimately to the benefit of the Navajo Nation, NTEC's sole shareholder. Since it is not possible to determine precisely how these funds would have been distributed by the state or by the Navajo Nation, the direct and indirect social impacts of the Proposed Action Alternative are uncertain but are estimated to be relatively small and beneficial to the Navajo Nation; and small and detrimental to other local communities. Because potential changes in revenues do not necessarily translate into changes in the amount or availability of community services, social impacts of the Proposed Action Alternative are uncertain. Compared to total sales and severance tax revenues, the change would be small and the rate of change—even if it were to happen in 1 year—would not have a measurable effect on state or local government revenues. Therefore, the direct and indirect social impacts of the Proposed Action Alternative would likely be small, if they were measurable.

3.2 Environmental Justice

3.2.1 Affected Environment

President Clinton's Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," issued on February 11, 1994 declares that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States," including Indian tribes. The Executive Order and the Council for Environmental Quality (CEQ) guidance on incorporating environmental justice into NEPA analysis applies where a Proposed Action Alternative is likely to have disproportionately high and adverse human health or environmental effects on low-income populations, minority populations, or Indian tribes (CEQ, Environmental Justice Guidance Under the National Environmental Policy Act (Dec. 10, 1997)). The analysis considers environmental, human health, economic, and social impacts, taking into account mitigation and participation by the affected community (CEQ Environmental Justice Guidance, § III.B).

In determining the affected environment for analysis of environmental justice, the CEQ advises agencies to use the U.S. Bureau of Census data to identify potentially affected populations, and to examine geographic distribution by race, ethnicity, and income (CEQ Environmental Justice Guidance, § III.B). The geographic distribution of these populations is shown in Section 3.11.2 (pages 113 to 115) of the AIVN Mine Plan Revision EA (OSM 2012b) as measured by percentage of Native American population and individuals below poverty level for the census tracts in the eight counties surrounding Navajo Mine. Given these census tract patterns and CEQ guidance, the impact analysis considers whether there are any disproportionate adverse impacts to these populations as well as any "special" exposures due to cultural or traditional use of resources, such as ceremonial food or medicine gathering to Indian tribes.

3.2.2 Impact Assessment

The AIVN EA concluded that operation of the Navajo Mine in accordance with the mine plan revision would not result in disproportionate effects to low income or Native American populations. Since there would be no change to implementation of the mine plan under the Proposed Action or the No Action alternatives, there would be no disproportionate effects to these populations associated with mine operations.

There is no opportunity for traditional and ceremonial resource use in the mine permit area because it is excluded from public access and use. In considering “special exposures related to cultural or traditional use of resources” it is important to understand the Navajo relationship with the land, which is described in the AIVN EA on page 187 (OSM 2012b). BNCC has built and maintains a ceremonial Hogan on Navajo Mine so that BNCC employees and their families can conduct traditional ceremonies. This Hogan allows traditional and ceremonial resource use at Navajo Mine at a location that minimizes special exposures to active mining. Therefore, there would be minimal disproportionate impacts associated with cultural or traditional use of resources.

Some of the indirect effects to low income or Native American populations associated with the Proposed Action Alternative are related to the assets and liabilities that the Navajo Nation would assume if NTEC becomes the permit holder for Navajo Mine. It is important to consider the value of the mine asset from the perspective of the Navajo Nation. Navajo Mine has been operating for more than 50 years and about 8 million tons of coal has been removed from the mine each year. BHP Billiton has reported that Navajo Mine no longer meets its investment criteria and would not pursue further investment in the mine. The Navajo Nation has stated that it is forming NTEC and purchasing the mine assets to control its mineral resources and mine operations to provide stable employment in the region. Therefore, even though Navajo Mine does not meet BHP Billiton’s investment criteria, investment in Navajo Mine by the Navajo Nation would meet its goals of controlling the mineral resource and providing stable employment for members.

The liabilities that would be assumed by the Navajo Nation with the mine permit transfer include future mine reclamation along with final mine closure. To be eligible to hold the mine permit, NTEC must post a performance bond to cover the reclamation costs for the mine area as determined by OSM. This bond would pay for reclamation and closure of the mine in the event that NTEC were to default on its mine reclamation obligations.

Other obligations the Navajo Nation could assume with NTEC include programs such as the employee coal distribution program at Navajo Mine. This program has been offered by BNCC without a formal agreement and MMCo would likely continue the program as the mine manager. Since this obligation does not formally transfer to NTEC, it is not clear whether NTEC would continue this program after the permit transfer. It is also possible, since Navajo Nation members are the primary beneficiaries of the program, that NTEC would expand the program. Therefore, the potential indirect impacts to low-income or minority populations including Indian tribes associated with the assets and liabilities assumed by the Navajo Nation under the Proposed Action Alternative are uncertain and small. The impacts could be beneficial or detrimental depending on decisions by NTEC and the Navajo Nation. For low-income individuals that are not part of the Navajo Nation that rely on public services from state and local governments, such as SJC, the reduction in tax revenues associated with NTEC’s possible tax exempt

status could result in reductions in social service and benefit programs that they rely on. These impacts are uncertain because it is not possible to determine which programs or services would be cut if tax revenues from Navajo Mine are reduced. Based on potential changes to revenue amounts to the state and SJC, these changes would likely be small.

4. CUMULATIVE IMPACT ASSESSMENT

Cumulative impacts are defined in 40 CFR Section 1508.7 as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” (<http://ceq.hss.doe.gov/nepa/regs/ceq/1508.htm#1508.7>). There are no new direct or indirect impacts from the No Action Alternative other than those previously analyzed in other NEPA documents incorporated here by reference; therefore, there are no additional cumulative impacts under the No Action Alternative. In addition, the resources listed in Table 2 for the Proposed Action Alternative would not be impacted and therefore, no cumulative impacts. The potential incremental socioeconomic and environmental justice impacts for the Proposed Action Alternative are considered in combination with other past, present, and reasonably foreseeable actions in this cumulative impact analysis.

4.1 Past, Present, Reasonably Foreseeable Actions in the Project Vicinity

To identify and estimate cumulative impacts, a scenario was developed that identifies reasonably foreseeable developments (RFD). This scenario is based on permitted proposals, land use, and management plans as well as major development projects that have been announced in SJC. Although each resource in the cumulative impact analysis uses a geographic scope specific to its significance and impact parameters, the pattern of development in SJC is illustrative of regional trends and is representative of the potential development in closest proximity to the project area. A list of actions included in the scenario of RFD in SJC is included in Appendix G of the AIVN EA (OSM 2012b) and incorporated by reference.

In general, the pace and extent of development in SJC and resulting impacts will be shaped largely by resource and regulatory constraints in several key industries such as oil and gas production, coal mining, power generation, and water resource development. The most prominent factors that affect the RFD scenario are summarized below. Detailed information is included in the AIVN EA (OSM 2012b) pages 197 to 201 and incorporated by reference.

- Air quality regulation and compliance – the U.S. Environmental Protection Agency (EPA) is tightening several air quality regulations for ozone and regional haze in SJC that will change the allowable emissions of NO_x, PM, and VOC on all major sources including FCPP, San Juan Generating Station (SJGS), and the engines used in the oil and gas industry. The major rulemaking efforts include EPA’s determination of Best Available Retrofit Technology (BART) for regional haze compliance at FCPP and SJGS as well as the Four Corners Air Quality Task Force’s evaluation of emissions reduction options for reducing ozone levels in the San Juan Basin.
- Future Development at Navajo Mine in the remainder of Area IV North and IV South – BNCC is required by its coal lease with the Navajo Nation to seek development opportunities to market all the coal mined within BNCC’s lease. As BNCC’s successor, NTEC would be subject to the same obligation. One such source is potential future coal sales agreements with FCPP. This potential development would likely result in expanding Navajo Mine southward from the existing operation into the remainder of Area IV North, Area IV South, and Area V. These areas are

within the current Navajo Mine lease, but BNCC and FCPP do not have a coal sales agreement, nor does BNCC have all the required SMCRA and environmental permits approved to conduct mining and reclamation activities in those areas. Furthermore, at this time, FCPP does not have the required federal approvals to extend leases to continue operating the power plant or purchasing coal from Navajo Mine. OSM published a Notice of Intent on July 18, 2012 to initiate public scoping and prepare an EIS for the FCPP and Navajo Mine Energy Project (OSM 2012c). The EIS will analyze impacts for the BNCC proposed Pinabete Permit and for the Navajo Mine Permit Renewal. The EIS will also analyze the impacts for the APS proposed FCPP lease amendment through a variety of alternatives. These alternatives include continued operation of the mine and power plant under new agreements as well as potential mine closure, power plant shutdown, and final reclamation if no agreements are finalized.

- Future development at San Juan Mine – San Juan Mine is owned and operated by BBNMC and is an underground mine operation located about 15 miles northeast of Navajo Mine producing approximately 8 million tons of coal annually. The most recent reserve estimates show that San Juan Mine has sufficient coal reserves to operate at present levels until 2022. San Juan Mine provides coal exclusively to SJGS and future coal production at San Juan Mine will depend on BART requirements and other operating decisions at SJGS.
- Future oil and gas development in the San Juan Basin – Oil and gas production is limited primarily by the depletion of the basin’s natural gas and oil resources. Some experts estimate that oil and gas production in the San Juan Basin in New Mexico peaked in 2002 and production will be declining in the future (BBER 2005). Additionally, lower natural gas prices and higher operating costs have supported further decline in oil and gas production in SJC (E>P 2011). However, exploration and testing of shale formations could result in new sources of oil and gas resources in the basin.
- Water supply projects – Water is a constraint on development in the region. Recent water developments such as the Animas La Plata Project and the Navajo Gallup Water Supply Project have increased the quantity of water used by the Navajo Nation and other Indian tribes from the San Juan River—the major surface water source in the region.
- Urban land use development plans – Urban land use patterns in SJC and Farmington have been determined in the SJC Comprehensive Plan and the City of Farmington’s Future Land Use Plan. The population of SJC is expected to grow from 124,000 in 2010 to over 156,000 in 2030. The pattern of development associated with this growth is expected to total 156,600 acres in the City of Farmington in 2020 with about 40 percent comprised of parks and open space, and the remainder residential, commercial, industrial, or infrastructure development (City of Farmington 2002).
- Other development – Also included in the urban land use development pattern in SJC are commercial establishments such as new casinos being developed by the Navajo Nation. While these developments will not have a marked change on the surface land use pattern, they are representative of changes to the economic base and socioeconomic patterns for the Navajo Nation and SJC. Both governments are trying to reduce their dependence on extractive industries such as coal, oil, and gas development for government revenues.
- Energy development – Several large transmission lines are proposed to move renewable energy generated in eastern New Mexico and Colorado to western electric markets. In general, the

transmission projects, which are the projects most likely to have large surface impacts, are proposed to be located along existing highway or other ROWs.

4.1.1 Reasonably Foreseeable Development Scenario

The area that would be affected by socioeconomic impacts of the alternatives is comprised of the eight counties surrounding the Navajo Mine and described above for socioeconomic and environmental justice impact analysis. The periods considered in this cumulative impact analysis are 1990 for past conditions, 2011 for present conditions, and 2030 for future conditions. These periods were selected to capture developments for approximately 20 years into the past and future around the Proposed Action Alternative. The cumulative analysis focuses on data for SJC because economic forecasts for this county include activity at Navajo Mine and because it is recognized as being representative of the socioeconomic conditions in the rest of the affected area.

A recent economic base analysis for SJC examined some of the potential consequences of a worst-case scenario in which one-half of the energy and extractive industry jobs are lost over a 15-year period (E>P 2011). This analysis is used to estimate socioeconomic impacts because it estimates changes in employment, income, and population for a worst-case scenario where oil, gas, and coal production in the affected area are substantially reduced. The economic base analysis found that a reduction in mining employment from coal, oil, and natural gas of 3,400 jobs between 2010 and 2025, would result in a total job loss of 7,500 jobs in SJC. These job losses would increase the County unemployment rate to between 15 and 18 percent. Additionally, annual sales tax revenues to the City of Farmington and SJC would be reduced by 14 and 21 percent, respectively. The study concludes that economic development strategies that target diversity in employment and tax revenue could avoid or minimize many of these future adverse impacts to SJC.

4.2 Cumulative Impacts

4.2.1 Socioeconomics

The incremental contributions of the Proposed Action Alternative to cumulative socioeconomic impacts are analyzed with the same parameters as the direct and indirect impacts—changes to population, employment, income, and government revenues. Since there are no changes to population, employment, or income associated with the Proposed Action Alternative, there would be no change from the baseline levels. The Proposed Action Alternative would make the worst-case scenario presented in the SJC economic base study less likely because employment and income from coal mining in the area would continue to be stable.

The change in government revenues associated with the Proposed Action Alternative is estimated to result in a reduction of New Mexico severance and gross receipts taxes by about \$20 million annually and an increase in revenues to the Navajo Nation through net income from NTEC, royalties, and other payments to the Navajo Nation. The estimated cumulative socioeconomic impacts associated with this shift in government revenues would be small and beneficial to the Navajo Nation and detrimental to state and local governments. Since the annual reduction in taxes represents about 1 percent of New Mexico's total annual severance and gross receipts tax revenues, the reduction would be small. It is not possible to identify which programs or communities would be affected by this change because the distribution pattern

of these revenues is uncertain and funds are distributed across the entire state. There would also be detrimental impacts to local governments such as SJC associated with reduced property and GRT revenues. However, the impacts associated with these changes in government revenues is uncertain but likely to be relatively small given that changes to revenue would be no more than approximately 4 percent annually (SJC 2012). The potential benefit to the Navajo Nation with increased government revenues is also uncertain because other than an earmark for renewable energy research and development, the distribution of these potential revenues is not determined and would likely shift as government policies and revenue levels change in the future.

A recent economic impact analysis of the Four Corners Power Plant and Navajo Mine by the L. William Seidman Research Institute at Arizona State University staff estimated the direct, indirect, and induced impact of the power plant and mine operations under pre- and post-2016 scenarios as well as with the mine permit transfer to Navajo Nation (ASU 2013). The pre-2016 scenario assumes business as usual with current coal and power production levels. Under this scenario the total economic impact of Navajo Mine is estimated in terms of employment of 2,107 jobs, labor income of \$131.5 million, and contribution to New Mexico's Gross State Product (or total output) of \$254 million. The post-2016 scenario assumes operations with only Units 4 and 5 at Four Corners Generating Station and associated coal production reduced by 40 percent would have estimated economic impact of 1,307 jobs, labor income of \$86 million, and contribution to New Mexico's Gross State Product (or total output) of \$174 million. The estimated economic impact of the mine permit transfer would make an additional \$17.9 million currently paid in federal and state taxes available to the Navajo Nation, NTEC's sole shareholder. The estimated economic impact of this additional revenue to the Navajo Nation is 285 jobs, labor income of \$10.6 million, and \$16.5 million in total output. The net direct, indirect, and induced economic impact of the post-2016 scenario assumes reduced coal production from Navajo Mine and the mine permit transfer to NTEC is estimated to be a reduction in employment of 515 jobs, a reduction in labor income of \$35 million, and a reduction in total output of \$64 million compared to pre-2016 business as usual.

4.2.2 Environmental Justice

The potential disproportionate impacts to low income or Native American populations affected by Navajo Mine are associated with incremental contribution of socioeconomic changes for the Proposed Action Alternative. These changes to government revenues and programs would be small and potentially beneficial to the Navajo Nation and detrimental to state and local governments. There would be no disproportionate impacts to these populations associated with these socioeconomic changes. In addition, there would be minimal special exposures to Native American populations related to cultural or traditional use of resources because there is a ceremonial Hogan at Navajo Mine that facilitates these uses in a location where impacts would be minimized.

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**Appendix A – NTEC Waiver of Sovereign Immunity to OSM
and the United States Government**

NAVAJO TRANSITIONAL ENERGY COMPANY, LLC

RESOLUTION

No. 2013-16

TITLE: Granting a Limited Waiver of the Company's Sovereign Immunity to OSM and the United States Government.

DATE: October 25, 2013

WHEREAS, the Navajo Nation Council adopted Resolution No. CAP-20-13, File Number 101665, which, among other things, approved the creation and formation of the Navajo Transitional Energy Company, LLC (the "Company") and empowered the Company to take appropriate actions to ensure the continuing operation of the Navajo Mine; and,

WHEREAS, Navajo Nation Council Resolution CAP-20-13 further authorizes the Company to limitedly waive the Company's immunity from suit on a transaction-by-transaction basis so long as such waiver is clear and expressly stated and consistent with the requirements in the Operating Agreement, and provided that such waiver does not apply to the Navajo Nation; and,

WHEREAS, the Office of Surface Mining and Reclamation ("OSM") is the United States regulatory authority for mining operations on Indian lands under the Surface Mining Control and Reclamation Act ("SMCRA"), 30 U.S.C. §§ 1201-1328 (2012); OSM has issued Permit NM-0003F (the "SMCRA Permit") for the Navajo Mine and regulates the operations of the mine pursuant to the SMCRA Permit and the approved mine plan; and,

WHEREAS, in connection with the Company's purchase of the permittee for the Navajo Mine, OSM must approve a transfer of the SMCRA Permit from the current permittee to the Company for the Company to engage in mining and reclamation activities at the Navajo Mine; and,

WHEREAS, upon information and belief, the Company understands that OSM and the United States Government must have clear authority to enforce the Company's compliance with Title V of SMCRA, 30 U.S.C. §§ 1251-79, and other United States environmental protection and health and safety laws of general applicability to properly approve the transfer of the SMCRA Permit for the continued operation of the Navajo Mine, and therefore, the Company has determined that it is appropriate to elect to waive its sovereign immunity from suit for OSM and the United States Government to enforce the Company's compliance with Title V of SMCRA, 30 U.S.C. §§ 1251-79, and other United States environmental protection and health and safety laws of general applicability for the proper approval of the transfer of the SMCRA Permit to the Company; and,

WHEREAS, to accomplish an efficient transition of the ownership of the Navajo Mine, ensure the continuing operation of the Navajo Mine, and facilitate the administration of the SMCRA Permit and the ongoing operations, the Management Committee finds that it is appropriate and in the best interest of the Company, to grant a substantial advantage or benefit to the Company, for the Company to voluntarily agree to comply with and be subject to OSM and United States Government enforcement of Title V of SMCRA and other United States environmental protection and health and safety laws of general applicability in connection with the SMCRA Permit and ownership and operation of the Navajo Mine; and,

WHEREAS, pursuant to Article IX of the Operating Agreement, the Company's Management Committee has considered this Resolution after at least ten (10) calendar days' notice and after having considered with particularity the specific, limited, clearly and expressly defined waiver of the Company's sovereign immunity from suit;

NOW, THEREFORE, pursuant to Navajo Nation Council Resolution CAP-20-13, the Management Committee of the Company does resolve as follows:

A. The Company hereby affirmatively and voluntarily grants a clear, express, and defined limited waiver of the Company's sovereign immunity from suit to OSM and the United States Government for enforcement of the Company's compliance with Title V of the Surface Mining Control and Reclamation Act of 1977, as amended, and United States environmental protection and health and safety laws and regulations of general applicability in connection with Permit NM-0003F and the ownership and operation of Navajo Mine.

B. The Company's limited waiver of sovereign immunity granted herein includes the possibility of administrative review, equitable relief granted to the United States Government to compel performance or revoke Federal authorization, and actions by OSM and the United States Government to enforce fines and penalties in Federal administrative and judicial forums of competent jurisdiction. The Company's limited waiver of sovereign immunity further includes the waiver of any defense of the Company that Federal, State, or Navajo Nation law requires exhaustion of Navajo Nation administrative or judicial remedies prior to suit against the Company by OSM or the United States Government in a judicial, administrative, arbitral, or other body having proper jurisdiction over the subject matter and the parties.

C. The Company's limited waiver of sovereign immunity shall not apply to the Navajo Nation. Instead, only the assets, revenues, and income held by, or in the name of, the Company will be subject to the obligations and the potential liabilities, execution, and recourse associated with the application of Title V of SMCRA and United States environmental protection and health and safety laws and regulations of general applicability related to mining and reclamation activities at Navajo Mine. The Navajo

Nation's property, assets, and interests of any kind, whether held in trust or otherwise, will not be subject to the obligations and the potential liabilities, execution, and recourse associated with the application of United States laws related to mining and reclamation activities at the Navajo Mine, including without limitation the assets of the Navajo Nation leased, loaned, or assigned to the Company for its use, without transfer of title.

D. The Company's limited waiver of sovereign immunity will be effective from the effective date of the transfer of the SMCRA Permit to the Company for so long as the SMCRA Permit, as revised, renewed or amended, shall remain in effect.

CERTIFICATION

I hereby certify that the foregoing resolution was considered at a duly called meeting of the Management Committee of the Navajo Transitional Energy Company, LLC, at which a quorum was present and that the same was passed by vote of 5 in favor, 0 opposed and 0 abstained, this 25th day of October, 2013.



Steven Gundersen, Chairperson
Management Committee