

**Navajo Mine**  
**Environmental Assessment**

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**Responses to Public Comment**

**March 16, 2012**

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## COMMENT RESPONSE SUMMARY

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Consistent with the National Environmental Policy Act, 40 C.F.R. 1503.4(b), responses included in this report address the substantive comments received on the Area IV North Mine Permit Renewal Environmental Assessment (EA). Each letter and email was read and analyzed to determine if it contained any *substantive* comments. Conclusions on whether or not comments were considered substantive were based on the following definitions:

- Substantive comments include those which challenge the information in the EA as being inadequate or inaccurate, develop and evaluate alternatives not considered by the agency, or offer specific information that may have a bearing on the decision.
- Non-substantive comments are those that express opinions or position statements without any accompanying factual basis or rationale to support the opinion.

All comments, substantive or not substantive, and any agency responses, are part of the administrative record for this EA, and have been considered during the decision-making process.

The purpose of this document is to provide responses to *substantive* comments received on the Draft EA and FONSI.

### Comment Analysis Process

A standardized content analysis process was conducted to analyze the public comments on the EA. Each comment letter or email received was read by OSM and members of the planning team to ensure that all substantive comments were identified.

The comments were not weighted by organizational affiliation or status of respondents, and the number of duplicate comments did not add more bias to one comment more than another. The process was not one of counting votes, and no effort was made to tabulate the exact number of people for, or against any given aspect of the EA. Rather, emphasis was placed on the content of a comment.

All letters and emails received were entered into a database, with one exception explained below. If substantive comments were identified within a letter or email, the resource area of concern or process concern was noted in the appropriate column in the database. As explained in the following section under Comment Overview, there was only one letter received by OSM that contained substantive comments—the letter received from the Western Environmental Law Center.

### Comment Overview

All comments were reviewed for occurrences of similarity or replication. There were three categories of comments received: (1) letters of support, (2) CREDO Action's identical letter submittal by its members, and (3) the Western Environmental Law Center letter.

No substantive comments were identified in any of the support letters.

OSM received one email from the Campaign Manager for CREDO Action in New Mexico. The email contained an attachment with 2,194 letters from CREDO Action members in New Mexico. All letters

contained identical language; however, some authors added unique statements to their letter. The primary concern expressed and included in the cover email and each of the attached letters was, “Coal mining pollutes water and air locally, and the combustion of the coal at the Four Corners power plant would contribute to global climate change.” This CREDO Action message does not challenge data presented in the EA, develop alternatives, or offer information that may have a bearing on the decision. Nor do any of the additional unique statements added include substantive comments. Most offer further statement of opinion or urge decision makers to consider solar energy development as an alternative which is outside OSM’s purview. The statements regarding alternative energy development do not meet the purpose and need of the project. Please see the Purpose/Need and Alternatives discussion below. None of the statements specifically challenge information in the EA.

The Western Environmental Law Center letter was analyzed and contained numerous substantive comments. The responses to these comments presented in the text below are organized to be consistent with how topics were presented to OSM in the letter. In some instances comments received regarding particular resources (i.e., water resources) the comment is addressed under a non-resource descriptive heading (i.e., cumulative impacts). There was significant repetition in comments received from the Western Environmental Law Center. This comment response document attempts to consolidate comments by summarizing multiple similar comments into a single numbered comment summary, which is addressed in a comment response.

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## NEPA ADEQUACY AND SCOPE OF THE ANALYSIS

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**Comment Summary 1:** An EA is not the appropriate tool pursuant to NEPA to assess the environmental impacts of the BNCC Area IV North mine plan revision. NEPA requires the preparation of an EIS if a proposed action has the potential to significantly affect the quality of the human environment (42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1501.4). An agency must analyze alternatives to the proposed action as well as the direct, indirect, and cumulative impacts associated with the proposed action (42 U.S.C. § 4332(C)(iii) & (E); 40 C.F.R. § 1502.14). NEPA also requires agencies to provide environmental documents and shall make the finding of no significant impact available as so to inform those persons or agencies who may be interested or affected.

**Comment Response 1:** An EIS is required if a proposed major federal action significantly affects the human environment (42 U.S.C. 4332). The Department of the Interior’s Departmental Manual, 516 DM 13.4(A)(4) and (B) addresses instances under which an EIS is required, those being:

(4) Approval of a proposed mining and reclamation plan for a surface mining operation that meets the following:

a) The environmental impacts of the proposed mining operation are not adequately analyzed in an earlier environmental document covering the specific leases or mining activity; and

(b) The area to be mined is 1280 acres or more, or the annual full production level is 5 million tons or more; and

(c) Mining and reclamation operations will occur for 15 years or more.

B. If for any of these actions it is proposed not to prepare an EIS, an EA will be prepared and handled in accordance with Section 1501.4(e)(2).

As directed in Sections 1501.2 and 1501.3 of the NEPA regulations, as part of OSM's responsibilities as the lead agency, OSM has determined that an Environmental Assessment (EA) is the appropriate level of environmental documentation to assist agency planning and decision making for this mine plan revision. The completed environmental studies, evaluations, and public outreach conducted by OSM have not identified impacts resulting from the federal action that are significant according to 40 C.F.R. 1508.27.

For the BNCC Area IV North Mine Plan Revision EA, the public was notified according to 30 CFR 773.6(a)(b), 30 CFR 774.15(b)(2)(iv), 30 CFR 778.21, and consistent with 40 CFR 1506.6, and 43 CFR 46.305. OSM published an announcement regarding the EA and unsigned Finding of No Significant Impact (FONSI) availability, contact information, and the mailing address, email, fax and phone numbers to facilitate the public's ability to comment. The information regarding the availability of the EA and unsigned FONSI for public review was published in the following three newspapers: The Gallup Independent, the Navajo Times, and the Daily Times (Farmington, NM). Color flyers (11 inches by 17 inches) were posted in 19 public places in the project area region: eight chapter houses, two grocery stores, a post office, gas station, convenience store, and laundromat. Color flyers were also posted in Farmington, NM at the Civic Center, public library, museum, chamber of commerce, and BHP Billiton's Office Building. OSM issued radio public service announcements in English and Navajo for use on KTNN and KNDN. OSM provided hard copies of the Draft EA and FONSI for public review at the Tiis Tsoh Sikaad (Burnham) and Nenahnezad Chapter Houses and the Farmington Public Library. Copies of the Draft EA and the unsigned FONSI were available for review online at:

[http://www.wrcc.osmre.gov/Current\\_Initiatives/Navajo\\_Mine/AreaIVNorth.shtm](http://www.wrcc.osmre.gov/Current_Initiatives/Navajo_Mine/AreaIVNorth.shtm)

In response to public comment request, OSM extended the public comment period originally scheduled to close on December 30, 2011 an additional two weeks. The extended public comment period end date of January 17, 2012. The revised comment period end date was re-publicized using the same venues described above for the original project announcements.

## **PURPOSE AND NEED/INADEQUATE RANGE OF ALTERNATIVES**

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**Comment Summary 2:** In conducting a required environmental analysis under NEPA, “[a]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” *Friends of Southeast’s Future v. Morrison*, 153 F.3d 1059, 1066 (9th Cir. 1998).

**Comment Response 2:** OSM is responding to a proposed plan revision that is allowable under 30 CFR § 774.13. Where an action is taken pursuant to a specific statutory mandate, the statutory objectives determine the reasonableness of the purpose and need for the proposed action and the range of alternatives analyzed under NEPA. OSM may only deny the proposed mine plan revision if findings for the permit application cannot be made under 30 CFR § 773.15.

As the comment relates to the range of alternatives analyzed in the EA, the EA considered the applicant's proposed action, the no action, the proposed action with additional conditions (as directed by U.S. District Court of Colorado (Civil Action No. 07-cv-1475-JLK) and four alternative mining approaches/methodologies that were analyzed (refer to EA Appendix A – USACE 404(b)(1) Alternatives Analysis) as part of the USACE's action. It should be noted that the 404(b)(1) alternatives analysis generally requires a more rigorous consideration of "practicable" alternative that meet the stated purpose and need relative to a "reasonable range of alternatives" as prescribed by NEPA. As such, seven (7) alternatives were evaluated, but only two alternatives mine plans could produce the coal delivery volumes needed prior to 2016, as addressed in the purpose and needs for this analysis.

**Comment Summary 3:** The purpose and need statement is unlawfully narrow and must be revisited to account for OSM's environmental responsibilities, climate change, connected and cumulative actions, and environmental justice.

**Comment Response 3:** As stated in Comment Response #2, OSM may only deny the proposed mine plan revision if findings for the permit application do not comply with 30 CFR § 773.15. Specifically, as it relates to OSM's environmental responsibilities, 30 CFR § 773.15 part (e) requires OSM protection to the cumulative hydrologic balance, (j) requires endangered species protection and (k) requires protection of cultural and historic resources. Other environmental responsibility issues raised in the comment are addressed in EA Section 4. Environmental Consequences and in EA Section 5. Cumulative Impacts.

**Comment Summary 4:** OSM must prepare a comprehensive EIS to consider connected and cumulative actions. The comment continues for several pages and presents various points of view describing why the FCPP and Navajo Mine should be considered a connected action and subject to preparation of an EIS. The commenter further purports that that the formerly proposed Desert Rock Energy Project should also be included in the same EIS.

**Comment Response 4:** NEPA focuses on the environmental effects that are caused by the proposed action. The proposed action (Alternative 1) is the Pre-2016 Area IV North mine plan revision, which would authorize continued mining in Area III and mining approximately 704 acres within an 830-acre area within Area IV North in accordance with the existing approved "life of operations permit area." As stated in EA Section 2.1.1.1 Mine Plan Revision for a Portion of Area IV North (pg. 18); "The current Proposed Action seeks approval from OSM for when and how to mine in this portion of Area IV North." The proposed action does not authorize operations in areas not previously authorized for mining under BNCC's permanent program permit. The subject project area, and mining area, was generally authorized to be mined when the area was included in Permit No. NM-0003A in 1989. As explained in EA Section 1.2.6 Related Environmental Studies (pgs. 8-9), Permit No. NM-0003A had an EA prepared for it in 1989 that tiered to two of the three EISs that had been prepared for coal mining at Navajo Mine and in the region from 1976-1984. Since that time various pit or area permit extensions or mine plan revisions ranging in size from 109 to 829 acres have been completed in accordance with OSM guidance in DOI's Department Manual Chapter 516, Section 13.4(A)(4)(b). Additionally, future development at Navajo Mine would require BNCC to acquire coal sales agreements with FCPP. BNCC and FCPP do not have a coal sales agreement, nor does FCPP have the required Federal approvals for the lease extension for the plant after July 6, 2016 (EA page 199). Cumulative impacts are further discussed in section 5.2 of the

EA. These discussions include the impact of FCPP on the proposed action. OSM's determination to conduct an EA are discussed above in Comment Response 1.

## **VIOLATIONS OF ENVIRONMENTAL LAWS**

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**Comment Summary 5:** By failing to undertake formal consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act in connection with its approval of the Navajo Mine Area IV North Mine Plan Revision, OSM's approval of the action will violate the Endangered Species Act and its requirements imposed for the protection of the environment.

**Comment Response 5:** OSM initiated consultation with the USFWS for the BNCC 2004 proposed Area IV North mine plan revision on March 7, 2005 (Consultation #02-22-04-I-523b). On September 30, 2005, the USFWS concurred with OSM effect determinations and concluded that the effects of the 2004 proposed action are considered "insignificant and discountable." On May 9, 2011, Ecosphere Environmental Services contacted the USFWS on behalf of OSM to request updated species lists and to identify any agencies issues or concerns related to the 2011 proposed mine plan revision. Mr. George Dennis, Ph.D., USFWS Aquatic Ecosystems Branch Chief responded to the request on May 19, 2011 and included a link to the species list that should be reviewed in preparation of the biological assessment/evaluation document. The email also directed OSM to consider specific species and potential impacts. Mr. Dennis also participated in a site visit with representatives from Ecosphere, the Navajo Nation, and USACE to consider a proposed USACE project related mitigation site associated with the USACE's Individual Permit action. On December 1, 2011, OSM submitted a Section 7 concurrence request letter to the USFWS and provided the Service with electronic links to the EA and attachments, including the BE. On January 19, 2012 the USFWS again concurred with effect determinations made in the documents and concluded section 7 consultation for the action.

**Comment Summary 6:** Similarly, by failing to conduct a proper CHIA prior to approving the lease provision, any approval of the revision by OSM will violate SMCRA, 30 U.S.C. § 1260(b)(3). *See supra* Part 4.b.

**Comment Response 6:** OSM has updated the CHIA for Navajo Mine since receipt of BNCC's proposed mine plan revision application in 2011. The CHIA update was finalized on March 16, 2012.

**Comment Summary 7:** The failure to properly address impacts to water quality, as required before a CWA 402 or 404 permit may be issued, violates the CWA.

**Comment Response 7:** The EA thoroughly analyzes potential impacts to water quality in EA Section 4.2 (pgs. 134-144). Potential water quality impacts are also analyzed in the CHIA prepared by OSM hydrologists. Potential impacts to water quality were also addressed in the USACE's prepared 404(b)(1) alternatives analysis included as Appendix A of the EA in Section 4. Impacts Analysis (pgs. 46-61). In fact, the USACE collaborated with OSM to review portions of the CHIA and to accurately and consistently characterize impacts to water quality as it related to each agencies jurisdictional oversight. Finally, impacts to water quality were also addressed in the Probable Hydrologic Consequences (PHC) in Chapter 11.6 of BNCC's Mine Permit Revision.

**Comment Summary 8:** OSM's segmentation of the EA for the Navajo Mine and failure to prepare an EIS violates section 309 of the Clean Air Act, which provides for EPA review of OSM's NEPA analysis.

**Comment Response 8:** Under Section 309 of the Clean Air Act (CAA), EPA is required to review and publicly comment on the environmental impacts of major Federal actions including actions which are the subject of draft and final Environmental Impact Statements, proposed environmental regulations, and other proposed major actions. EPA is not required to, nor does it, review all EAs.

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## AIR IMPACTS

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**Comment Summary 9:** The EA focuses only on incremental changes attributable to the proposed action, thereby "completely gloss[ing] over the health impacts caused by energy development in San Juan County" and "fail[ing] to discuss what the actual health and environmental effects of the additional emissions will be." The EA has isolated the impacts of the Proposed Action by "viewing it in a vacuum."

**Comment Response 9:** OSM's view differs from the assertion made in this comment in that, the EA takes a multi-pronged focus on air quality impacts consistent with the fundamental purpose and structure of the Clean Air Act (CAA) and its implementing regulations.

Section 108 of the CAA directs EPA to establish primary ambient air quality standards "to protect the public health." That statutory provision further directs EPA to establish secondary ambient air quality standards to "protect the public welfare," i.e., the "environment." Methods for attaining and maintaining those ambient standards are based on well-established correlations between ambient air quality and emissions. In general, the concentration of a pollutant in ambient air is a function of the level of that pollutant's emissions into the atmosphere.

The CAA regulatory scheme is therefore based on a basic interrelationship among emissions, ambient air quality, and health/environmental effects. The nature and extent of effects on public health and welfare can generally be inferred from the relative concentration of a pollutant in ambient air, which in turn is typically correlated with the quantity or rate of that pollutant's emissions.

Rather than "gloss over the health impacts caused by energy development in San Juan County," the EA examines those impacts through analysis of the related levels of ambient air quality and associated emissions. Particulate matter is the pollutant of primary concern from a surface coal mine. The EA acknowledges that FCPP and SJGS are the only major sources of particulate matter emissions in San Juan County. EA at 77. The EA also acknowledges that recently observed concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> in San Juan County (due to past and present actions) are substantially below the levels of their respective ambient standards. EA at 79. Based on those facts, it is reasonable to conclude that emissions of particulate matter from "energy development in San Juan County" do not cause unacceptable risk to public health and welfare.

Current emissions of PM<sub>10</sub> and PM<sub>2.5</sub> from Navajo Mine are estimated to be 906 tpy and 128 tpy, respectively. EA at 77. The Proposed Action has been estimated to increase PM<sub>10</sub> emissions from Navajo Mine by 3.6 tpy and to decrease PM<sub>2.5</sub> emissions from Navajo Mine by 3.9 tpy. EA at 163. Identifying those changes in Navajo Mine's emissions of particulate matter demonstrates that current levels of particulate matter in San Juan County do not represent a threat to public health or welfare, and the EA



supports a logical inference that any de minimis change in the Mine's particulate emissions with the Proposed Action will not alter that status quo.

A similar analysis applies to assessment of health impacts associated with emissions of NO<sub>x</sub>, the other criteria pollutant of interest from Navajo Mine.<sup>1</sup> The EA acknowledges that stationary source emissions of NO<sub>x</sub> in San Juan County are dominated by energy development, i.e., FCPP, SJGS and oil and gas production. EA at 77. NO<sub>x</sub> is a precursor of ozone formation, and the EA acknowledges that elevated levels of ambient ozone in San Juan County are being closely watched by State regulators.

Against that background, the Proposed Action is projected to increase NO<sub>x</sub> emissions from Navajo Mine by only 5 tpy. EA at 163. That small quantity of additional NO<sub>x</sub> emissions from Navajo Mine will have no effect on the overall levels of ozone in San Juan County and consequently will not result in any adverse impacts to public health or welfare. The EA supports a conclusion that any NO<sub>x</sub> emissions increase from the Proposed Action will neither cause nor contribute to an exceedance of the ambient air quality standard for ozone.

The EA documents the following projected changes in NO<sub>x</sub> emissions from other energy development in San Juan County: Oil & Gas Production – 18,000 tpy increase; San Juan Generating Station – 4,500 to 17,500 tpy *decrease*; Four Corners Power Plant – 36,000 to 39,000 tpy *decrease*. In other words, future NO<sub>x</sub> emissions from energy development in San Juan County are expected to be lower than current emissions by as much as 22,500 to 38,500 tpy. Those facts support a reasonable conclusion that future decreased emissions of NO<sub>x</sub> from energy development in the area will help the New Mexico Environment Department's ongoing efforts to maintain levels of ozone in the area below the ambient standard.

By demonstrating current and future compliance with applicable requirements of the CAA, the EA has taken a hard look at possible impacts of air pollutants on public health and welfare by examining existing and projected air quality levels and their associated emissions. None of the facts identified in the EA supports a conclusion that ambient impacts of particulate matter and NO<sub>x</sub> emissions from cumulative energy development, in general, or from the Proposed Action, in particular, will result in adverse impacts to public health and welfare.

**Comment Summary 10:** The EA has not considered the indirect and cumulative effects of the GHG emissions either from burning coal extracted from Area IV North or from historic mining and combustion of coal extracted from the Mine since it began operation. The EA has failed to discuss actual environmental effects that will result from FCPP's GHG emissions. The EA did not account for GHG emissions from other past, present, and reasonably foreseeable fossil fuel production and combustion in the region, including SJGS, San Juan Mine, oil and gas development in the San Juan Basin, and the planned Desert Rock facility.

Mining coal from Area IV North will result in an increase in GHG emissions, and not the decrease in GHG emissions projected by the EA. The EA has computed the Mine's GHG emissions without using either a more recently published GWP for methane or a GWP based on a 20-year horizon. Calculated with

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<sup>1</sup> Although the Mine's emissions of CO are comparable to those of NO<sub>x</sub>, existing levels of ambient CO in San Juan County are not considered to be a viable threat to the applicable ambient standard such that adverse health or environmental impacts from CO emissions in San Juan County would realistically be possible.

those values, methane emissions from Area IV North would be 289,005 metric tpy CO<sub>2</sub>e. The EA did not assign a monetary value for GHG emissions from coal mined in Area IV North and combusted in FCPP.

The EA has failed to identify actual warming impacts from the cumulative GHG emissions and has not considered whether those emissions would cause or contribute to irreversible climate change.

**Comment Response 10:** Agencies apply a “rule of reason” to ensure that an EA or EIS describes issues that deserve study and deemphasizes issues that are less useful to the decision regarding the proposal, its alternatives, and mitigation options. CEQ, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*, 5 (Feb. 2010) (hereinafter CEQ’s *Draft Guidance*) (internal citations omitted). “In addressing GHG emissions, . . . , CEQ expects agencies to ensure that such description is commensurate with the importance of the GHG emissions of the proposed action, avoiding useless bulk and boilerplate documentation, so that the NEPA document may concentrate attention on important issues.” *Id.* (internal citations omitted). Based on that guidance, OSM has deliberately and appropriately limited the EA’s discussion of GHG emissions and any related environmental impacts.

As explained below, an assertion that OSM should have performed an extensive analysis of cumulative impacts of GHG emissions from the power plants, coal mines and oil and gas operation that have operated and continue to operate in San Juan County appears to rely upon an inflated estimate of GHG emissions from the proposed action that the information available does not support. When GHG emissions from the Proposed Action are appropriately quantified, the conventional rule of reason rejects the expansive analyses favored by Commenter. OSM acknowledges the extent of energy development in San Juan County with its associated GHG emissions, but the relevance of those emissions to the minor revision of the mine plan in question appears remote.

Commenter correctly points out that the IPCC’s Fourth Assessment Report (“AR4”) has revised the global warming potential for methane to 25, Comments at 26, whereas the EA bases GHG emission estimates on a GWP of 21, as presented in the Second Assessment Report (“SAR”). Moreover, Commenter acknowledges that values of GWP for a 20-year time period are also available, although the EA estimates GHG emission using GWP values on a 100-year time period. Using those alternative values of GWP, Commenter computes GHG emissions from Area IV North to be about 289,000 Mtpy (while failing to similarly quantify the commensurate reduction in GHG emissions from Area III).

Importantly, however, the United States continues to use the GWP convention adopted by the parties to the United Nations Framework Convention on Climate Change (UNFCCC) which states:

Parties should report aggregate emissions and removals of greenhouse gases, expressed in CO<sub>2</sub> equivalent terms at summary inventory level, *using GWP values provided by the IPCC in its Second Assessment Report . . . based on the effects of greenhouse gases over a 100-year time horizon.*

EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2009*, 1-7 (Apr. 15, 2011) (internal citations omitted) (emphasis added). The United States continues to report official GHG emission estimates using GWP values over a 100-year horizon from the Second Assessment Report so that current estimates of GHG emissions to be consistent and comparable with estimates developed prior to the Third Assessment Report (“TAR”) and the AR4. *Id.* at 1-9. Estimates of GHG emissions in the EA conform to that practice as well.

Therefore, the magnitudes of total GHG emissions from Navajo Mine, both before and after the Proposed Action, have been calculated appropriately in the EA. Conversely, comparable GHG emission estimates provided by the Commenter were improperly calculated due to (1) a mischaracterization of the Proposed Action as causing an emissions increase of almost 58,000 Mtpy CO<sub>2</sub>e, (2) an upward adjustment of that “emissions increase” based on an inappropriate GWP value for methane, and (3) an upward adjustment of that “emissions increase” based on an inappropriate 20-year horizon for GWP values.

The Proposed Action will not result in any increase in annual coal production from the Mine. Instead, the proposed mine plan revision only requests approval to relocate a portion of that existing production to an adjacent area of the Mine. As coal extraction commences in Area IV North, a commensurate decrease in coal extraction would occur in Area III. The EA projects that the proposed relocation of a portion of the Mine’s existing production will reduce annual GHG emissions from the Mine by 1,890 metric tons.

“In assessing direct emissions, an agency should look at the consequences of actions over which it has control or authority.” CEQ, *Draft Guidance* at 5. Because direct GHG emissions from the Proposed Action are not substantive, OSM has concluded that in-depth discussion of cumulative effects of GHG emissions related to the Proposed Action is not warranted to inform its decision-making in this instance. *Id.* Rather, in keeping with a rule of reason, the EA provides discussion and analysis of GHGs and their impacts commensurate with the importance of GHG emissions from the Proposed Action.

**Comment Summary 11:** The EA addresses climate change in extremely cursory fashion by mentioning observed effects but not addressing projected effects. The EA fails to address additive and synergistic cumulative effects from climate change and the Navajo Mine. OSM should have considered how climate change is projected to impact water, soil, vegetation, wildlife, endangered and threatened species, the economy, and vulnerable populations, alone and in conjunction with the direct, indirect, and cumulative impacts of the proposed extension of the Navajo Mine.

**Comment Response 11:** The Proposed Action is not the construction of a new surface coal mine, nor is it the expanded production of an existing surface coal mine. Instead, the Proposed Action is a mine plan revision that would allow relocation of a portion of the existing coal extraction at Navajo Mine and that is projected to result in a net decrease in GHG emissions of 1,890 metric tpy from the current GHG emission baseline (reported as 72,142 Mtpy CO<sub>2</sub>e). The decrease is mainly due to reduction in coal haul truck travel distances under the proposed action, and because end-dump truck operation for overburden stripping will not be necessary as Area IV North is developed (Section 4.5.2.1.5 of the EA).

In keeping with CEQ’s Draft Guidance, the extent to which GHG emissions and their related impacts should be discussed is proportional to the level of GHG emissions from the Proposed Action. The extensive level of analyses advocated by the Commenter bears no relationship to the Proposed Action, which OSM is obligated to evaluate. The language in the EA refrained from providing “useless bulk and boilerplate documentation” that would not inform the decision-making in this instance and could divert attention from the more relevant issues raised by the proposed permit revision to a mining plan.

**Comment Summary 12:** The EA inexplicably and improperly truncates analysis of air pollutants’ cumulative impacts at 2018. Because emissions from oil and gas development are expected to increase until that time, and because emissions from FCPP and SJGS are not expected to decrease until 2015-2018, the EA should have discussed the actual environmental and human health impacts of these

emissions before and after installing emission controls on FCPP and SJGS. The EA ignores the fact that ambient ozone levels in San Juan County may threaten the ambient standard in coming years. The EA fails entirely to address the cumulative impacts of mercury pollution from the mine and FCPP (in addition to SJGS). The EA does not address the environmental impacts of long-range air pollutants emitted from FCPP.

**Comment Response 12:** The Proposed Action seeks approval to partially relocate existing mining activities at Navajo Mine so that relocated mining may occur in an adjacent area of the Mine through July 2016. Thus, the study period for the EA was designed to capture the relatively brief time over which the Proposed Action will occur and defines short and long term and reasonably foreseeable impacts, in compliance with OSM and CEQ guidance. Because ongoing plans for emission decreases at FCPP and SJGS contemplate such actions by no later than 2018, that date provided a logical endpoint for the requisite impact analyses.

As previously explained, OSM has relied on measured and predicted ambient levels of criteria pollutants as surrogate indicators of impacts to human health and the environment. The EA demonstrated that existing ambient levels of those pollutants were below the health-based and welfare-based standards.

In assessing direct emissions, an agency should look at the consequences of actions over which it has control or authority. CEQ, *Draft Guidance* at 5. The Proposed Action involves a partial relocation of existing mining operations at Navajo Mine to an adjacent area of the Mine. The Proposed Action is projected to cause minor emission increases of PM<sub>10</sub> (3.6 tpy), NO<sub>x</sub> (4.8 tpy) and VOC (0.7 tpy). EA at 163. The Proposed Action is also projected to cause minor emission increases of PM<sub>2.5</sub> and CO. *Id.* In terms of health and welfare impacts, those emission changes from the Proposed Action are insignificant. That is, the Proposed Action will have no effect on existing levels of ambient air pollution in San Juan County.

Because the emission increases from the Proposed Action are insignificant and occur only through mid-2016, the Proposed Action will have no effect on future levels of ambient air pollution in San Juan County. Moreover, cumulative air quality impacts from major stationary sources in San Juan County are projected to decrease by the end of the study period and to remain so thereafter. The EA demonstrates that estimated emission increases from the oil and gas industry will be more than offset by contemporaneous emission decreases from FCPP and SJGS. In particular, an overall net decrease in aggregate NO<sub>x</sub> emissions from those sources is expected to reduce ozone formation, helping to continue attainment of the ambient ozone standard in San Juan County.

The EA reasonably concludes that long-range transport of emissions from the Proposed Action will be virtually non-existent due to the slight emission increases caused by the Proposed Action and the near ground-level emission characteristics of the Navajo Mine sources. Finally, the EA demonstrates that the dry deposition rate of mercury from the Mine's *total* emissions of particulate matter is extremely low. Any mercury impact from the Proposed Action itself would necessarily be orders of magnitude lower and almost certainly immeasurable.

## ENDANGERED AND THREATENED SPECIES

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**Comment Summary 13:** While a Biological Evaluation (BE) is the functional equivalent of a Biological Assessment (BA), according to 50 CFR § 402.2, OSM should have prepared a BA rather than a BE.

**Comment Response 13:** OSM's preparation of the project BE was described in the very first paragraph (pg. 1) of the BE.

“The BE addresses potential impacts to federally listed species in much the same way that a biological assessment (BA) does, except it also addresses Navajo Nation listed species of concern. Because the impact determinations made in this document for federally listed species do not trigger formal consultation with the U.S. Fish and Wildlife Service (USFWS), the document is characterized as a BE rather than a BA.”

The biological evaluation followed 50 CFR § 402.12(c)(d) whereas an information request was submitted to the USFWS and a response provided to OSM. The evaluation then followed the content requirements of the analysis described in § 402.12(f)(1-4) and finally, the biological evaluation followed § 402.12(g) by incorporating by reference previous USFWS consultations for similar actions at Navajo Mine in BE Sec. 1.1 Previous USFWS Consultations (pgs. 1-2) and in BE Attachment B – U.S. Fish and Wildlife Services and Navajo Natural Heritage Program Data Request/Coordination Correspondences. The 2005 USFWS project concurrence letter (Cons. #2-22-04-I-523b) characterized project impacts to federally listed species as “insignificant and discountable.” The 2012 USFWS project concurrence letter (Cons. #O2ENM00-2012-I-0027) concurred with OSM's, BIA's, BLM's and the USACE's affect determinations made in the BE and concluded formal Section 7 consultation for the action.

**Comment Summary 14:** The BE is flawed for several reasons. First, the “action area” as defined for this project is essentially deficient in that it does not extend far enough beyond the area of direct impact.

This arbitrarily limited analysis is evidenced by the fact that—despite the numerous listed species and critical habitat at stake—the Navajo Mine EA specifically addresses only one species, the Southwestern willow flycatcher, which OSM concludes the proposed project “may affect but is unlikely to adversely affect.” EA at 181. Although the BE does include analysis of additional listed species—the Southwestern willow flycatcher, the Yellow-billed cuckoo, the Colorado pikeminnow, the Razorback sucker, and the Roundtail chub—that analysis is cursory and dismissive.

For example, the BE fails to take a hard look at mercury pollution from the disposal of CCW at the Navajo Mine, as well as the combustion of coal from the Navajo Mine at Four Corners Power Plant. Finally, the commenter uses various citations from the draft Desert Rock Energy Project BiOp to support ascertain that the biological evaluation analysis was arbitrarily limited in depth of analysis.

**Comment Response 14:** The Action Area and biological analysis was defined in accordance with the statutory authority that OSM and other involved federal agencies have over the proposed action. Neither SMCRA nor its implementing regulations provide OSM with regulatory authority over the burning coal at the FCPP, or to impose measures to remedy those effects, when deciding whether to approve or disapprove BNCC's proposed mine plan revision. Consequently, OSM's decision under the proposed action is limited to authorizing mining in accordance with the proposed mine plan revision. The direct and

indirect effects caused by the proposed action are evaluated in Section 4 of the EA. Cumulative effects, including the combined effects of the FCPP where there are incremental and overlapping impacts are evaluated in Section 5 of the EA. Accordingly, the Action Area was determined based on the maximum distance that a particular impact from implementing the proposed mine plan revision and relocating Burnham Road could reasonably be expected to affect a listed or sensitive species. Because of various impact analyses completed in the EA, it was determined that the distance that noise and/or fugitive dust and emissions emanate from the mine conservatively defined the Action Area.

The commenter states that OSM only analyzed the Southwestern willow flycatcher in the EA on pg. 181. As is clearly stated on pg. 181, “A detailed assessment of impacts and assessment methodologies can be found in the BE prepared for this project (Appendix E).” EA Section 4.8.2.1 goes on to list (refer to Table 4.8-1) all federal species analyzed and preliminary determinations of effect. Related, EA Section 3.8 Threatened and Endangered Species, Sensitive Species (pgs. 93-99) again lists federal and Navajo Nation listed species considered in the EA and includes descriptions of habitat requirements for each species and their potential to occur in the Action Area, including for the Southwestern willow flycatcher.

No CCW disposal is proposed as part of the submitted mine plan revision application. The last disposal of CCB was in 2008. Current monitoring shows that CCB constituents are not migrating. OSM and BNCC have both run separate models that indicate it would take 150-300yrs for any CCB constituents to reach the San Juan River alluvium. The projected flow from the CCB disposal areas are less than 1% of the total San Juan River alluvium flow. As such, as there is no pending federal action pertaining to approval or disapproval of CCW disposal, consequently CCW disposal is not analyzed as a direct or indirect effect of the proposed action in the EA or BE. Rather, the effects of past CCW disposal are considered part of the environmental baseline defined for each federal listed species. Baseline ground and surface water quality are described in EA Sec. 3 (pgs. 44-53) and the impacts to ground and surface water quality from the proposed action are described in Section 4.2 (pgs. 134-144) and in the CHIA prepared by OSM hydrologists. Potential impacts to water quality were also addressed in the USACE’s prepared 404(b)(1) alternatives analysis included as Appendix A of the EA in Section 4. Impacts Analysis (pgs. 46-61). Finally, impacts to water quality were also addressed in the Probable Hydrologic Consequences (PHC) in Chapter 11.6 of BNCC’s Mine Permit Revision.

**Comment Summary 15:** OSM failed to consider the impacts that climate change will have on listed species.

**Comment Response 15:** Section 6.3 Cumulative Effects in the BE (EA Appendix E) addressed the effect of the climate change on the Southwestern willow flycatcher. Cumulative and climate change effects described in this section are consistent with those described in the Recovery Plan for this species.

**Comment Summary 16:** By failing to undertake formal consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act in connection with its approval of the Navajo Mine Area IV North Mine Plan Revision, OSM’s approval of the action will violate the Endangered Species Act and its requirements imposed for the protection of the environment. (This is essentially a repeat comment, made twice in the WELC letter)

**Comment Response 16:** OSM initiated consultation with the USFWS for the BNCC proposed 2004 Area IV North mine plan revision on March 7, 2005 (Consultation #02-22-04-I-523b). On September 30, 2005,

the USFWS concurred with OSM effect determinations and concluded that the effects of the 2004 proposed action are considered “insignificant and discountable.” On May 9, 2011, Ecosphere Environmental Services contacted the USFWS on behalf of OSM to request updated species lists and to identify any agencies issues or concerns related to the 2011 proposed mine plan revision. Mr. George Dennis, Ph.D., USFWS Aquatic Ecosystems Branch Chief responded to the request on May 19, 2011 and included a link to the species list that needed to be reviewed in preparation of the biological assessment/evaluation document. The email also directed OSM to consider specific species and specific potential impacts. (Refer to EA Appendix E, specifically Attachment B of the BE). Mr. Dennis also participated in a site visit with representatives from Ecosphere, the Navajo Nation, and USACE to consider a proposed USACE project related mitigation site associated with the USACE’s Individual Permit action. On December 1, 2011, OSM submitted a request for USFWS concurrence for effect determinations made in the BE. The request was coordinated with the BIA, BLM, and USACE as a joint agency request. USFWS issued a letter to OSM (Cons. #O2ENM00-2012-I-0027) on January 19, 2012 that concurred with OSM’s, BIA’s, BLM’s and the USACE’s affect determinations made in the BE and concluded Section 7 consultation for the action.

**Comment Summary 17:** The public was insulated from the process.

**Comment Response 17:** Refer to Comment Response #1, Comment Response #20 and EA Section 1.5 Issues Identified through Public Workshops and Conferences.

**Comment Summary 18:** The Navajo Nation Fish and Wildlife Department must be consulted on any potential action concerning the Navajo Nation and potential impacts to species listed under the Navajo Endangered Species List (NESL).

**Comment Response 18:** The Navajo Nation Fish and Wildlife Department (NDFW), Natural Heritage Program (NHP) was consulted in writing on March 14, 2011 (refer to EA Appendix E). The NHP responded in writing on March 31, 2011 with a list of species that should be addressed in the project BE (refer to EA Appendix E). NDFW Zoologist also visited Area IV North with representatives from Ecosphere Environmental Services and participated in a site tour of a potential wetland mitigation site related to the USACE’s consideration of issuing an Individual Permit. Also present during the wetland tour was a USFWS representative, a USACE representative and other interested agency and contract personnel. The NHP issued a project “Biological Resources Compliance Form” (dated November 29, 2011) in accordance with the NESL reference above.

## CULTURAL RESOURCES

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**Comment Summary 19:** “The entire Navajo Mine area is an important cultural and archaeological area. Due to the segmented analysis and attempts by BHP to mitigate archaeological sites at Navajo Mine, the FONSI for the EA makes the claim that, “At present, compliance efforts have already been completed with respect to any known sites or objects that are subject to NAGPRA of the Nation’s Jischchaa’ Policy.” This statement cannot be accurate, as ground-disturbing activities have not been approved for the majority of the Navajo Mine expansion, the permanent Burnham Road relocation, or Cottonwood Wash. If OSM has disturbed gravesites in these areas they are in violation of NAGPRA.”

**Comment Response 19:** As described in EA Section 1.2.1 Surface Mining Control and Reclamation Act Permitting, in Section 1.2.2 Burnham Road Realignment Approvals, and in Section 2.1.1.1 Mine Plan Revision for a Portion of Area IV North, approximately 268 acres were disturbed in Area IV North following the 2005 OSM mine plan revision approval. At the time, this disturbance was authorized under the 2007 Cultural Resources Programmatic Agreement (PA) that mitigated potential disturbance to eligible cultural resources in accordance with the 2007 PA. An amended PA (executed on December 29, 2011) made BIA, BLM, and USACE additional signatories and provides continued procedures for mitigation and reporting, treatment of unanticipated discoveries of archaeological resources, dealing with TCP, and the treatment of human remains.

The history of the extensive archaeological and ethnographic studies, evaluation, consultation, and adverse effects resolution efforts undertaken by BNCC and OSM from 1961 to the present in the project area are described in detail in EA Section 3.12.2 Affected Environment (Cultural Resources pgs. 117-122). This section includes the following description (pg. 121) of completed mitigation that directly responds to the comment received on the subject:

“In 2007, in accordance with the terms and conditions of the 2007 PA BNCC contracted with Ecosphere Environmental Services to mitigate six sites of the twelve sites initially identified for data recovery. Under subcontract, Woods Canyon Archaeological Consultants, Inc. (Woods Canyon) completed the mitigation work at these sites. As the fieldwork on this project was nearing completion, the results of EMI’s testing were finalized. Based on the results of the testing, the contract for mitigation was expanded by thirteen more sites to include the seven additional sites and the remaining six sites. Mitigation work was completed in May of 2008 and the technical report was submitted to OSM and NNHPD (Fetterman 2011). In 2009, OSM and NNHPD determined that BNCC completed all necessary identification and mitigation/data recovery activities for Area IV North (Steele 2009).

In addition to the mitigation work, Woods Canyon was tasked to investigate the location of historic human burials in Area IV North. As a result of the “Each Place Brings Stories” ethnographic study, the locations of 10 human burials were identified in Area IV North. One of these was located in Area III and the remaining nine were located outside the current Project Area. Investigations included surface inspection of locations, metal detector investigations, hand test units in the potential areas of the burial, and in the case of two locations mechanical testing. The investigations located probable evidence of two burials at one location in Area IV North. In accordance with the Navajo Nation Jishchaa’ Policy and NAGPRA, the closest lineal descendants were interviewed and it was their desire to leave the graves where they are located. A fence has been built around the location of the burials and proposed mining activities will avoid the location. A written confidential report on the investigations was filed with NNHPD.”

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## ENVIRONMENTAL JUSTICE

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**Comment Summary 20:** The EA fails to take a hard look at environmental justice impacts and provide meaningful public participation because:



- a) The EA does not include cumulative environmental justice impacts of mine expansion.
- b) The EA fails to consider that Indian Tribes will be more susceptible to impact of climate change.
- c) Inadequate public outreach to minority and low-income populations because the EA was not translated into Navajo Language by OSM, there was insufficient public comment period considering the size of the document, and there were no additional public meetings scheduled after the EA was released.

**Comment Response 20:**

- a) An environmental justice cumulative impact section has been included in the Final EA. The text included in Chapter 5 is:

**Environmental Justice**

**Temporal and Geographic Scope**

Based on the census tract data for the eight counties in the affected area shown in Figures 3.11-1 and 3-11.2 and Table 3.11-1, the percentage of Native American population and individual poverty rate is substantially higher in those tracts closest to the Project Area. Therefore, the cumulative impact analysis must consider the disproportionate cumulative impacts and any “special” exposures to these vulnerable populations due to cultural or traditional use of resources such as ceremonial food or medicine gathering as well as vulnerabilities.

**Cumulative Effects**

The potential disproportionate impacts to vulnerable populations near Navajo Mine would be associated with changes to air quality, noise, and socioeconomic resources. There are no significant direct or indirect impacts to these resources for the Proposed Action. Special exposures related to cultural or traditional use of resources near the Project Area are not significant because the Navajo Mine lease area would not change under the Proposed Action. As mentioned in section 4.11.2.3, there is no opportunity for traditional cultural resource use in the Project Area because the Navajo Mine lease area is excluded from public access and use. Therefore, there would be no special exposures or disproportionate impacts associated with ceremonial or traditional resource use.

- b) As noted in the EA Page 186, the CEQ Guidance on determining whether human health or environmental impacts are disproportionately high and adverse to low-income or minority populations, three factors are to be considered to the extent practicable: (1) whether the risks and rates of adverse effects are above the generally accepted norm; (2) whether the risk or rate of exposure to an environmental hazard appreciably exceeds the risk or rate to the general population; (3) whether effects occur in these populations affected by cumulative or multiple adverse exposures to environmental hazards. It is not practicable to determine whether the Proposed Action would have disproportionate impacts on Indian tribes because the literature and science supporting their susceptibility to climate change is highly uncertain. The EA (Page 86) recognizes the scientific evidence that warming in the Southwest is among the most rapid in the US. However, there is not a sufficient body of scientific evidence to ascertain whether climate change will have disproportionate adverse impacts on Indian tribes available at this time.

c) In the NEPA process for the Proposed Action, OSM followed the requirements for public outreach to minority and low-income populations in CEQ regulations, 40 CFR 1506.6 and for public participation in EAs under the DOI's regulations at 43 CFR 46.305. Specifically, 43 CFR 46.305 sets the standard as follows:

(a) The bureau must, to the extent practicable, provide for public notification and public involvement when an environmental assessment is being prepared. However, the methods for providing public notification and opportunities for public involvement are at the discretion of the Responsible Official.

(1) The bureau must consider comments that are timely received, whether specifically solicited or not.

(2) Although scoping is not required, the bureau may apply a scoping process to an environmental assessment.

(b) Publication of a "draft" environmental assessment is not required. Bureaus may seek comments on an environmental assessment if they determine it to be appropriate, such as when the level of public interest or the uncertainty of effects warrants, and may revise environmental assessments based on comments received without need of initiating another comment period.

(c) The bureau must notify the public of the availability of an environmental assessment and any associated finding of no significant impact once they have been completed. Comments on a finding of no significant impact do not need to be solicited, except as required by 40 CFR 1501.4(e)(2).

(d) Bureaus may allow cooperating agencies (as defined in § 46.225) to participate in developing environmental assessments.

As outlined in Section 1.5 of the EA and in the letter from Mychal Yellowman to Mike Eisenfeld dated December 14, 2011, there were thorough efforts taken by OSM to extend the NEPA process to the minority and low-income populations that would be affected by the Proposed Action. These include public notices in local newspapers and to the Navajo Nation, announcements on local radio in Navajo and English languages, and flyers and fact sheets posted at the Tiis Tsoh Sikaad (Burnham) and Nenahnezad Chapter Houses as well as other public locations in the local area and on OSM's website. OSM addressed the NEPA, CEQ, and DOI regulations by making the EA available to any person requesting a copy. Although not required for an EA, OSM hosted two public workshops at locations on the Navajo Nation near Navajo Mine and provided Navajo language translation services at the meetings. Therefore, the standard for public participation and including low-income and minority populations was met "to the extent practicable". Translating the EA into Navajo language is not practicable because as noted in the letter dated December 14, 2011, the Navajo language does not lend itself to accurate translation into Navajo and doing so would greatly increase the size of the EA document as each technical term would have to be explained in a context that is understandable in the Navajo language.