Exhibit 16

Comment Response Document
Peabody Western Coal Company - Black Mesa Complex
NPDES Permit No. NN0022179

Final 2010

1. EPA needs to conduct NEPA analysis

COMMENT: EPA must comply with the National Environmental Policy Act, 42 U.S.C. § 4321, *et seq.* ("NEPA") in issuance of a NPDES permit. No NEPA document has ever analyzed EPA's authorization of discharges at Peabody's Black Mesa Complex which were first issued on December 29, 2000. That said, Black Mesa Water Coalition BMWC requests that EPA analyze the impacts of the NDPES Permit in an Environmental Impact Statement ("EIS") or, at a minimum, an Environmental Assessment ("EA").

The trigger for an agency to be subject to NEPA mandates and the use of the NEPA procedural requirements to "prevent or eliminate damage" to the environment is a "major federal action." 42 U.S.C. § 4332(2)(C); *Ross v. FHA*, 162 F.3d 1046, 1051 (10th Cir. 1998) ("major federal action" means that the federal government has "actual power" to control the project). The NEPA process must "analyze not only the direct impacts of a proposed action, but also the indirect and cumulative impacts of 'past, present, and reasonable foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.'" *Custer County Action Ass'n v. Garvey*, 256 F.3d 1024, 1035 (10th Cir. 2001). Once a "federal action" triggers the NEPA process, an agency cannot define "the project's purpose in terms so unreasonably narrow as to make the [NEPA analysis] 'a foreordained formality.'" *City of Bridgeton v. FAA*, 212 F.3d 448, 458 (8th Cir. 2000) (*quoting Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991), cert. denied 502 U.S. 994 (1991) (*citing Simmons v. U.S. Army Corps of Eng'rs*, 120 F.3d 664, 666 (7th Cir. 1997))).

NEPA applies to EPA's decision to issue the first NPDES permit renewal. *See* 33 U.S.C. § 1371(c)(1) (CWA section specifically making EPA "new source" permit approvals subject to NEPA); 40 C.F.R. § 6.101. New source means "any source" the construction of which is commenced after the promulgation of Clean Water Act standards applicable to the source. 33 U.S.C. §1316(a)(2). Additionally, as stated by EPA's Notice of Policy and Procedures for Voluntary Preparation of National Environmental Policy Act (NEPA) Documents: EPA will prepare an EA or, if appropriate, an EIS on a case-by-case basis in connection with Agency decisions where the Agency determines that such an analysis would be beneficial. Among the criteria that may be considered in making such a determination are: (a) the potential for improved coordination with other federal agencies taking related actions; (b) the potential for using an EA or EIS to comprehensively address large-scale ecological impacts, particularly cumulative effects; (c) the potential for using an EA or an EIS to facilitate analysis of environmental justice issues; (d) the potential for using an EA or EIS to expand public involvement and to address controversial issues; and (e) the potential of using an EA or EIS to address impacts on special resources or public health. 63 Fed. Reg. 58045-58047 (Oct. 29, 1998).

In this case, "several new outfall locations have been added and several have been eliminated to reflect changes in ongoing mining activities." Fact Sheet at 2 (January 2010). The permit also "incorporates new regulatory requirements for the Western Alkaline Coal Mining Subcategory for reclamation areas that were promulgated in January 2002... ." *Id.* In other words, EPA's permit specifically covers "new sources" as defined by Section 306 of the CWA, 33 U.S.C. § 1316, (i.e., new outfalls) which should have been analyzed under NEPA. 33 U.S.C. § 1371(c)(1) ("discharge of any pollutant by a new source . . shall be deemed a major Federal action significantly affecting the quality of the human environment" within the meaning of NEPA) (emphasis supplied). For example, there are over eight (8) new sources that are now covered by the new regulations for Western Alkaline Coal Mining Subcategory for reclamation areas. See NPDES Permit at Appendix C. The environmental impacts of these new sources were never considered or analyzed pursuant to NEPA and must be analyzed in and EIS or EA.

Further, the proposed NPDES Permit is based on significant new information. According to EPA's Fact Sheet, "the proposed permit also incorporates revisions to the Seep Monitoring and Management Plan, which was created pursuant to the previous permit, in order to reflect the results of previous monitoring and to address the impoundments causing seeps." Fact Sheet (January 2010) at 2 (emphasis supplied). Again, this significant new information must be analyzed in a NEPA document.

Moreover, there are multiple connected actions that must be analyzed in an EIS or EA including, but not limited to, OSM's proposed permit renewal for the Kayenta Mine; OSM "technical review" of the PWCC's Sediment Control Plan (which was based on the now vacated Life of Mine permit issued by OSM); and/or, any and all 404 permitting by the U.S. Army Corps of Engineers. NEPA and its implementing regulations define "connected actions" as, among other things, actions that are "interdependent parts of a larger action and depend on the larger action for their justification," and require that they be addressed in the same NEPA review document. 40 C.F.R. § 1508.25(a)(1). Additionally, and from the public's perspective, NEPA compliance is clearly necessary to facilitate and increase agency cooperation and evaluation of these interrelated matters. See 40 C.F.R. §1501.6 (dealing with cooperating agencies). Finally, a NEPA process would allow for meaningful public evaluation and understanding of EPA's NPDES permitting process and these complex environmental matters. It would also facilitate analysis of environmental justice issues, expand public involvement, address controversial issues and allow for analysis of impacts to special resources (such as livestock grazing) or public health. Many of the people directly impacted by EPA's permit issuance are downstream Navajo and Hopi tribal communities in the Black Mesa area (including tribal members who use these impoundments for livestock grazing) who bear a disproportionate share of Peabody's ongoing discharge of numerous pollutants onto tribal lands. These communities often lack the political agency and economic leverage required for effective participation in environmental decision-making processes. EPA should use the NEPA process to take the required "hard look" and ensure that tribal people and lands are not being disproportionately impacted by Peabody's massive mining operation and ongoing discharge of pollutants. Any NEPA process should include adequate public notice, comment, and participation pursuant to NEPA's implementing regulations at 40 C.F.R. §1506.6.

The permit application and some of the exchanges between the applicant and the agency establish that maintenance of leaking impoundments (of questionable design criteria and 404 permitting status) is being advanced as the preferred means to address problematic releases of polluted water. In one unusually straight forward example, and in response to a query by the agency about lining a pond to stop problem seeps below the impoundment, the idea was dismissed by the PWCC because doing so would result in substantial and frequent outlet discharges that do not currently occur. As discussed in more detail below, and among other things, EPA should use the NEPA process to address appropriate corrective enforcement measures to address these issues

RESPONSE: The Clean Water Act ("CWA") and its implementing regulations do not require EPA to conduct an analysis under the National Environmental Policy Act ("NEPA") in order to renew the permit at issue. EPA actions taken under the authority of the CWA generally do not trigger NEPA. CWA § 511(c), 33 U.S.C. § 1371(c). There are two exceptions to this rule, but neither applies here. First, EPA must comply with NEPA when it provides federal financial assistance for publicly owned treatment works. *Id.* This is not applicable to EPA's action because EPA has not financially assisted the construction of this facility, nor is the facility a publicly owned treatment works. Second, EPA must comply with NEPA when it issues permits for discharges of pollution by "new sources" within the meaning of CWA § 306. *Id.* This exception does not apply because EPA is not issuing a NPDES permit for a new source.

A "new source" is "any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance [under Section 306 of the CWA] which will be applicable to such source." CWA § 306(a), 33 U.S.C. § 1316(a). More specifically, a "new source coal mine" is defined as a coal mine which has commenced construction after May 4, 1984, or which has been determined by the EPA Regional Administrator to constitute a "major alteration." 40 C.F.R. § 434.11(j).

EPA is renewing a NPDES permit for two mines, which began operations in the early 1970s. EPA established New Source Performance Standards ("NSPS") for the Coal Mining Point Source Category, 40 C.F.R. Part 434, on October 9, 1985. *See* 50 Fed. Reg. 41305. Thus, the NSPS applicable to the mines were promulgated after construction of the mine had commenced. In addition, a major alteration in connection with the mine has not occurred. For example, the addition of new outfalls is not considered a major alteration. See 40 C.F.R. § 434.11(j). Therefore, EPA is not required to undergo a NEPA analysis before it reissues the NPDES permit.

Finally, outfalls reclassified as Western Alkaline Reclamation Areas are not new sources, as the commenter suggested. As stated in the Fact Sheet, the permit "incorporates new regulatory requirements for the Western Alkaline Coal Mining Subcategory for reclamation areas that were promulgated in January 2002." These requirements apply to "alkaline mine drainage at western coal mining operations from reclamation areas, brushing and grubbing areas, topsoil stockpiling

areas, and regraded areas." *See* 40 C.F.R. § 434.81. The Western Alkaline Coal Mining Subcategory effluent limitations apply to both new and existing sources meeting this definition.

As noted in the Fact Sheet, the NPDES permit reclassifies several existing outfalls, which were regulated in the previous permit as discharges from active mining areas, as discharges from Western Alkaline reclamation areas because the area contributing to the outfall has been regraded and reclaimed. Therefore, the effluent limitations required by the Western Alkaline Coal Mining Subcategory apply to these outfalls. However, the reclassified outfalls do not qualify as new sources because they are existing outfalls, and no construction or major alternation has occurred that would trigger a NEPA requirement.

Although EPA may, at its discretion, voluntarily prepare a NEPA analysis, the Agency, in this case, chooses not to use this authority. EPA believes it has provided for full and meaningful public comment and review of the permit renewal. *See* Response #3. Thus, the Agency has determined that preparing NEPA documents will not be beneficial.

2. EPA should not issue one NPDES permit for the Black Mesa and Kayenta Mine

COMMENT: Do not consider the Black Mesa Mine and the Kayenta Mine as one Black Mesa Mine Complex. They are separate and distinct mines. Kayenta Mine is has a permanent mine status and Black Mesa Mine does not. The recent ruling by the Administrative Law Judge Holt concerning the Life of Mine Permit confirms that status, therefore the two mines must be treated as separate mines. Black Mesa Complex no longer exists. Separate permits need to be issued for Black Mesa Mine and Kayenta Mine; EPA cannot legally issue a permit that covers both mines as one complex. EPA cannot legally issue a permit for mine that is not in operation [Black Mesa Mine]. EPA must withdraw and republish the proposed permit for two mines.

RESPONSE: EPA will continue to permit the Black Mesa Mine and the Kayenta Mine under one NPDES permit for two reasons. First, EPA has historically permitted the two mines as one facility. Although the two mines have not been covered under one operational permit, which is issued by the Office of Surface Mining, Reclamation and Enforcement ("OSMRE"), EPA's permitting process is not dependent upon OSMRE's decision. [EPA is renewing the NPDES permit issued to the Peabody Western Coal Company ("PWCC") for wastewater discharges associated with the Kayenta and Black Mesa Mines, consistent with the requirements of previously issued NPDES permits.] Second, although Peabody has stopped extracting coal at the Black Mesa Mine, discharges from the site are still possible. The Clean Water Act is applicable to the discharge of all pollutants from a mine site "until the performance bond issued to the facility by the appropriate Surface Mining Control and Reclamation Act ("SMCRA") authority

has been released." *See* 40 CFR 434.52(a) and 434.81(c). Therefore, PWCC must continue to meet effluent limitations, monitoring requirements, and must install and maintain best management practices in accordance with the permit provisions for all areas of the coal mine until reclamation is complete and bond release obtained. The cessation of coal extraction does not cease the permittee's obligations under the Clean Water Act to control discharges of pollutants from point sources of the mine site to Waters of the U.S., and the permit reflects this obligation.

3. **The Hearing & Public Notice were inadequate**
    a. <u>EPA needs to hold additional hearings and consultations</u>

COMMENTS: Several comments suggested that EPA should and/or was obligated to allow for more public participation during the permitting process.

- Need more communication between people, agencies, tribes, mine; EPA should set up working group between EPA, tribal governments, and tribal people/NGOs
- Proper communication takes longer than one meeting
- EPA should not only consult with tribal governments on when and where to hold hearings
- EPA should, in particular, meet with tribal elders
- Need to have additional hearings at other chapter houses (in particular, Forest Lake Chapter House, Black Mesa Chapter House, and Hopi Villages that are downstream of discharge
- Many of the people directly impacted by EPA's permit issuance were unable to make the public hearings which EPA knowingly scheduled in remote parts of the reservation in the middle of winter during a time of ceremony. Here, many impacted Navajo and Hopi tribal members, if they speak English at all, speak English primarily as a second language. Additionally, many Native American communities in the Black Mesa area bear a disproportionate share of Peabody's ongoing and potentially permanent discharge of numerous pollutants onto tribal lands. These communities often lack the political agency and economic leverage required for effective participation in environmental decision-making processes. Further, EPA owes a trust obligation to indigenous people and therefore needs to ensure that tribal people and lands are not being disproportionately impacted by Peabody's massive mining operation and ongoing discharge of pollutants.

RESPONSE: EPA believes the Agency has met all its obligations to involve the public, Tribes, and affected parties through the public comment process and public hearings. EPA issued a renewed permit for the mine complex in 2009 and later withdrew it to provide for additional public review and comment. After renoticing the draft permit on January 20, 2010, EPA hosted

two public workshops followed by public hearings on February 23, 2010 in Kayenta, AZ and February 24, 2010 in Kykokstmovi, AZ. While EPA regrets that the Agency cannot accommodate the schedules of all who wished to attend the hearings, EPA planned the workshops and hearings at times and locations that provided reasonable access to members from both the Navajo and Hopi tribes and members of the public. EPA followed advice from Navajo EPA and Hopi Water Resources Department about when and where to hold the meetings. Over 100 people were able to attending the hearings.

EPA held informal workshops at each location to explain the permit and to answer questions from the public prior to receiving formal testimony. EPA then held formal hearings to receive public testimony regarding concerns on the proposed permit. Both Navajo and Hopi language interpreters were available at the meetings to ensure non-English speakers could participate. EPA offered formal government-to-government consultations on the permits in letters dated January 20, 2010 to both the Navajo Nation and the Hopi Tribe. Additionally, EPA extended the comment period two times, to April 30, 2010 to accommodate requests for extension of the comment period.

EPA also met with representatives of the Center for Biological Diversity, the Sierra Club, and Black Mesa Trust at EPA's San Francisco Office on March 3, 2010 to hear the concerns of interested parties regarding the permit.

Further, EPA attended public hearings held by the OSMRE regarding OSMRE's permit renewal for the Kayenta mine on May 26, 2010 in Kykokstmovi, AZ and May 27, 2010 in Kayenta AZ. EPA was present at the request of commenters who asked that EPA be available to address concerns regarding the different permits and regulatory authorities for the mine.

EPA believes the Agency has met all its obligations to provide for full and meaningful public participation for the permit renewal.

b. Hearing conflicted with Hopi Ceremonial season and weather impeded attendance

COMMENTS: Several comments criticized the timing of the public hearings

- Some could not attend due to weather; need to have additional meetings
- Some could not attend due to commitments to Hopi ceremonial times; need to have additional meetings
- Hearings not considerate of Navajo and Hopi cultures.
- Announcement of public comment period and hearing cannot be understood and/or will not reach the majority of people
- Hearings should include prolonged, full presentations about the permit; one-two day workshop
- Need more information about how livestock grazing areas and mine discharges overlap
- Need more time at hearings to take comments
- Navajo Nation EPA should be issuing this permit in the future
- Request more time in comment period (did not give a specific time frame)
- The area is under a winter storm watch, and people will not be able to attend due to weather, especially from remote areas.
- EPA's trust responsibility requires the agency to go above and beyond normal permitting processes

RESPONSE: EPA regrets that the Agency may not have been able to accommodate the schedules or needs of all persons who had interest in attending the hearings. As stated previously, EPA followed advice from Navajo EPA and Hopi Water Resources Department about when and where to hold the meetings. EPA does not believe the weather was a significant barrier to attending the hearings. As noted earlier, over 100 people attended the hearings. While there was light dusting of snow on the evening of February 24, 2010, the roads were clear and EPA officials from San Francisco drove without difficulty on both paved and dirt roads in the vicinity of the hearings. Regarding ceremonial commitments, EPA understands from conversations at the hearings that no specific ceremonial activities conflicted with the hearing dates but that Hopi objected to holding any hearings during the ceremonial season, which EPA understands is based on the lunar cycle during the winter months and encompasses February, March, and April. While EPA acknowledges and regrets that some may not have been able to attend due to concerns of weather or due to ceremonial obligations, EPA does not agree that that new public hearings are required.

Moreover, as documented above, EPA was also present at hearings held by OSMRE May 26, 2010 in Kykokstmovi, AZ and May 27, 2010 in Kayenta, AZ to answer questions related to

EPAs' permit. Attendance at these hearings in late May was approximately half the attendance at the EPA hearings in February.

c. Other Agencies needed to be present at the public hearings

COMMENT: Additionally, and although BMWC [the commenter] had specifically requested it in prior comments to the agency, the U.S. Army Corp of Engineers, the Federal Office of Surface Mining Control and Enforcement ("OSM") and U.S. Fish and Wildlife Service were not present at the hearings and were therefore unable to answer any related questions—such as how EPA's permitting decision is impacted by remand of the OSM's Life-of-Mine permit by Administrative Law Judge Holt

RESPONSE: EPA conducted public workshops and hearings for the reproposed NPDES permit issued under Section 402 the Clean Water Act. The decision of other agencies to attend the hearings is at the discretion of the other agencies.

4. **General opposition to issuance of the NPDES permit**

COMMENT: Do not issue permit to mine. The mine should be closed.

RESPONSE: EPA notes the objections to the permit.

5. **Water Quality Standards**

a. EPA did not use Hopi water quality standards

COMMENT: The permit allows degredation to occur and does not implement Hopi water quality standards.

RESPONSE: As documented in Section III of the Fact Sheet, both the Navajo Nation Surface Water Quality Standards (NNSWQS) and the Hopi Surface Water Quality Standards apply to the receiving waters. Thus, the permit incorporates limits and standards for the protection of receiving waters in accordance with those standards. The permit incorporates both narrative and numerical effluent limitations which do not allow for degradation of the receiving waters to occur. The permit includes general conditions based on narrative water quality standards contained in Section 203 of the NNSWQS and Chapter 3 (General Standards) of the Hopi Water

Quality Standards (August 29, 1997). These standards are set forth in Section B (General Discharge Specifications) of the permit, and prohibit, for example, the "physical, chemical, or biological conditions that promote the habitation, growth, or propagation of undesirable, non-indigenous species of plant or animal life in the water body". Because the discharges are often to dry washes without dilution, EPA has not considered available dilution in its assessment. Therefore, EPA has made the most conservative and protective assumption of no available dilution in its analysis that water quality standards must be met at the end of pipe prior to discharge to prevent any degredation of the receiving waters. EPA received a Water Quality Certification from the Hopi Tribe on June 12, 2009 granting certification with certain conditions. The conditions requested by the Hopi Tribe have been incorporated into the final permit.

b. EPA needs to comply with TMDLs

COMMENT: It is unlawful for EPA to issue a NPDES Permit for new sources unless and until Water Quality Limited Segments ("WQLS") and Total Maximum Daily Loads ("TMDLs") are established for Moenkopi Wash Drainage and Dinnebito Wash Drainage. Congress enacted the Clean Water Act, 33 U.S.C. § 1251, et seq. ("CWA") "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The Act seeks to attain "water quality which provides for the protection and propagation of fish, shellfish, and wildlife." Id. at § 1251(a)(2). The primary means of accomplishing these goals include effluent limitations for point sources—implemented through NPDES permits—and TMDLs covering water bodies for which effluent limitations are not stringent enough to attain water quality standards. In achieving water quality restoration, EPA has ultimate responsible for the country's water quality. Id. at § 1251(d).

Specifically, Congress designed the NPDES and TMDL system to operate as follows:

1. Each state (or tribes who have received "Treatment as a State" status) has the responsibility in the first instance to identify waterbodies that are compromised despite permit-based limits on point-source pollutant discharges. 33 U.S.C. § 1313(d).
2. If a waterbody is not in violation of a water quality standard, NPDES permits may be issued so long as they do not violate effluent limits. 33 U.S.C. § 1342(a)(1)
3. If a waterbody is in violation of a water quality standard despite effluent limits, the State (or Tribe) must identify the waterbody as impaired on its § 303(d) list and establish a TMDL for it. 33 U.S.C. § 1313(d).
4. Where the State (or Tribe) has established a final TMDL, it may issue an NPDES permit so long as the applicant can show that the TMDL provides room for the additional discharge and establishes compliance schedules for current permit holders to meet the water quality standards. 40 C.F.R. § 122.4(i). Otherwise, no NPDES permits may be issued which allow new or additional discharges into the impaired waterbody. *Id.*

Section 303 of the CWA establishes three specific components that a state or tribe must adopt if it seeks to run its own water quality program. First, a state or tribe must designate the "beneficial uses" of its waters. 33 U.S.C. § 1313(c)(2)(A). Second, a state or tribe must establish "water quality criteria" to protect the beneficial uses. Id. Third, a state or tribe must adopt and implement an "antidegradation" policy to prevent any further degradation of water quality. Id. At § 1313(d)(4)(B); see also 40 C.F.R. § 131.12. These three components of a state or tribe's water quality program are independent and separately-enforceable requirements of federal law. *PUD No. 1 of Jefferson County v. Washington Dep't of Ecology,* 511 U.S. 700, 705 (1994).

In addition, and particularly important with respect to the Black Mesa, the CWA requires states (or tribes) to identify any degraded waterbodies within their borders, and to establish a systematic process to restore those waterbodies. States or tribes must periodically submit to the EPA for its approval a list of waterbodies that do not meet water quality standards—i.e., the state's or tribe's Section 303(d) list. 33 U.S.C. § 1313(d). The designated waterbodies are called "water quality limited," 40 C.F.R. § 130.10(b)(2), which means they fail to meet water quality criteria for one or more "parameters"—including particular pollutants (such as selenium, aluminum or chloride) as well as stream characteristics such as temperature, flow, and habitat modification. The "water quality limited" designation also means that the waterbody is not expected to achieve water quality criteria even after technology-based or other required controls—such as NPDES discharge permits—are applied. 33 U.S.C. § 1313(d)(1); 40 C.F.R. § 130.7(b)(1).

For these degraded waterbodies, the state or tribe must develop and implement a "total maximum daily load" ("TMDL") to restore water quality. See 33 U.S.C. § 1313(d)(1)(C) (explaining TMDLs). The TMDL process includes identifying sources of pollution that have caused or contributed to the degraded water quality, then establishing waste load allocations (for point sources of pollution) and load allocations (for nonpoint sources of pollution), for those sources which have caused or contributed to the degraded water. 40 C.F.R. § 130.2(g) and (h). The final TMDL represents a "pie chart" of the pollution sources and their respective pollutant allocations which, if properly adhered to, is intended to result in restoration of the stream to water quality standards; it reflects an impaired waterbody's capacity to tolerate point source, nonpoint source, and natural background pollution, with a margin of error, while still meeting state or tribal water quality standards.

Despite the fact that both the Navajo Nation and Hopi Tribe have received "Treatment as a State" status for purposes of Sections 106 and 303 of the CWA, 33 U.S.C. §§ 1256, 1313, EPA's Administrative Record demonstrates that neither the Tribes (nor the State of Arizona) have submitted to EPA for its approval a list of waterbodies in the tribal land portion of the Little Colorado River Watershed (and in particular Moenkopi Wash Drainage and Dinnebito Wash Drainage) that do not meet water quality standards—i.e., the state or tribe's Section 303(d) list. These drainages have not been assessed by Arizona Department of Environmental Quality ("AZ DEQ"), EPA or the Tribes to determine whether they are "attaining" TMDLs or are "impaired." See AZ DEQ 2006-2008 Status at 8 (identifying the drainages as "Tribal Land—Not Assessed"). Further, there are at least two stream segments in the Little Colorado/San Juan Watershed that

have been identified by AZ DEQ and EPA as being impaired or not attaining TMDL's for copper, silver and suspended sediments. Id. at 9.

BMWC [the commenter] notes that the tribes' water quality standards require monitoring of water quality to assess the effectiveness of pollution controls and to determine whether water quality standards are being attained as well as assessment of the probable impact of effluents on receiving waters in light of designated uses and numeric and narrative standards. See e.g. Hopi WQS §2.102(A)(1997); Navajo WQS §203 (2008).

In light of this, it is unlawful for EPA to issue a permit for new sources or increase permitted discharges without first identifying whether these waterbodies are compromised despite permit based limits on point-source pollutant discharges, and if so, without first ensuring that TMDLs are established for the tribal land portion of the Little Colorado River Watershed, and in particular, Moenkopi Wash Drainage and Dinnebito Wash Drainage. See, e.g., *Friends of the Wild Swan v. U.S. Envtl. Protection Agency*, 130 F. Supp. 2d 1199, 1203 (D. Mo. 2000) (holding that "[u]ntil all necessary TMDLs are established for a particular WQLS, the EPA shall not issue any new permits or increase permitted discharge for any permit under the [NPDES] permitting program"), aff'd in part, rev'd in part, remanded by, *Friends of the Wild Swan v. U.S. EPA*, 2003 WL 31751849, 2003 U.S. App. LEXIS 15271 (9th Cir. Mont. 2003).

BMWC's [the commenter's] request is consistent with, but not identical to, the Hopi Tribe's 401 Certification for the NPDES Permit and the Tribe's condition that "[w]ater discharged under this permit shall not contain settleable materials or suspended materials in concentrations greater than or equal to ambient concentrations present in the receiving stream that cause nuisance or adversely affect beneficial uses." See June 12, 2009 Letter from Hopi Tribe to John Tinger

In this case, and until all necessary TMDLs are established for these WQLS (e.g. until EPA knows the "ambient concentrations" present in the receiving streams), a permit renewal incorporating new discharges and outfalls cannot be issued.

RESPONSE: The permit renewal does not authorize a new source, an increased discharge, or any discharge to an impaired waterbody.

First, as described in the Fact Sheet, Section III, no waterbodies receiving discharges from Black Mesa and Kayenta Mines have been identified as impaired. As the commenter notes, both the Hopi Tribe and Navajo Nation have Treatment as a State authority, and have the authority to conduct surface water quality assessments under Section 303 of the Clean Water Act. The commenter is incorrect to cite ADEQ's report as evidence that no assessment has been conducted on the waterbodies because the State of Arizona does not conduct assessments on Tribal lands. Neither Tribe has listed any of the waterbodies receiving discharges from the Black Mesa and Kayenta Mines on the Clean Water Act Section 303(d) list.

Because the Tribes have not listed any of the receiving waters as impaired, there is no need to develop a TMDL for any of the receiving waters, and comments related to restrictions on discharges to impaired waterbodies are not applicable to this permit renewal.

As the commenter notes, there are two stream segments in the Little Colorado River Watershed outside of tribal boundaries that have been identified by ADEQ and EPA as being impaired for copper, silver, suspended sediments and e. coli. The two water segments are located on the Little Colorado River between Winslow and Holbrook, Arizona, over 100 miles from the Black Mesa and Kayenta mines. The drainage from the mine site does not have any hydrological connection to these upper reaches of the Little Colorado River. Therefore, the comments related to these waterbodies are not applicable to this permit renewal.

Second, comments related to restrictions on discharges from new sources or increased discharges to impaired waterbodies are not applicable to this permit renewal. This includes comments made in reliance on 40 C.F.R. § 122.4(i), which the commenter cites without clearly noting that its application is limited to "new dischargers" and "new sources," which are defined in EPA's regulations. As stated previously, EPA is renewing a permit for an existing discharger with a previously issued NPDES permit. EPA is not issuing a permit for a new source or an increased discharge.

c. EPA needs to conduct Reasonable Potential Analysis

COMMENT: Among other things, EPA should conduct a "reasonable potential analysis" of the permit's potential to contribute to narrative or numeric water quality standards to ensure the permit complies with the CWA.

RESPONSE: As documented in Section III of the Fact Sheet, EPA has conducted a reasonable potential analysis. EPA must determine whether the discharge causes, has the reasonable potential to cause or contribute to, an excursion of a numeric or narrative water quality criterion for individual toxicants, and in doing so, it must consider a variety of factors. 40 C.F.R. § 122.44(d)(1)(ii). These factors include the following:

- Dilution in the receiving water;
- Existing data on toxic pollutants;
- Type of industry;
- History of compliance problems and toxic impacts; and
- Type of receiving water and designated use.

Based on an application of these factors to the Black Mesa and Kayenta Mine operations and projected wastewater quality data provided in the application, EPA concluded the discharges do not present a "reasonable potential" to cause or contribute to an exceedance of water quality standards. Because the discharges are often to dry washes without dilution, EPA has not considered available dilution in its assessment. Therefore, EPA has made the most conservative and protective assumption of no available dilution in its analysis that water quality standards must be met at the end of pipe prior to discharge. As noted above, the mines discharge infrequently; with over 100 permitted outfalls located over a 65,000 acre lease area, the facility has discharged 31 times over the past five years from 2005-2009. All drainages have been treated in pond systems to remove sediment accumulated from the mining activities prior to discharge. Therefore, based on sampling data and an evaluation of discharge characteristics, EPA has concluded that the effluent limitations for pH, TSS, Oil and Grease, and iron protect receiving water quality standards and that there is no reasonable potential for other pollutants to cause or contribute to a violation of receiving water standards. However, EPA has included monitoring in the permit for several additional parameters in order to further verify these conclusions.

Although EPA has determined that the discharges do not have a reasonable potential to cause or contribute to an exceedance of water quality standards, the proposed permit includes general conditions based on narrative water quality standards contained in Section 203 of the NNSWQS and Chapter 3 (General Standards) of the Hopi Water Quality Standards (August 29, 1997). These standards are set forth in Section B (General Discharge Specifications) of the permit.

d. Water Quality Issues

COMMENTS: EPA received several comments relating to compliance with water quality standards at the Black Mesa Complex.

- EPA should not issue a permit to a facility that has had many violations over the years
- Commenter witnessed wastewater leak
- Runoff and wastewater often bypasses impoundments; violations occur on a daily basis.
- EPA must/should enforce against PWCC for violations
- Commenter does not believe that heavy metals, such as arsenic, will settle out in impoundments, and thus, they are discharging into washes.
- PWCC does, in fact, pollute the surface and groundwater
- Oil and diesel often spills on mine site
- For outlets and seeps subject to monitoring and that have exceedance of water quality standards ("WQS"), EPA must enforce WQS standards and require PWCC to address the exceedances. See Proposed NPDES permit at 9-11 (identifying 21 impoundments with exceedance).
- Under the CWA, EPA may not issue NPDES permits for discharges that cause or contribute to an exceedance of water quality standards. 33 U.S.C. §1311(b)(1)(c); 40 C.F.R. §122.4(a) (no permit may be issued "[w]hen the conditions of the permit do not provide for compliance with the applicable requirements of CWA, or regulations promulgated under CWA"); 40 C.F.R. § 122.44(d) (no permit may be issued "[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States").

RESPONSE:

Cause or contribute to water quality violations: EPA agrees that it cannot issue a permit for discharges that cause or contribute to an exceedance of water quality standards. To meet this duty, EPA has conducted a reasonable potential analysis and concluded that the discharges regulated under the NPDES permit do not have a reasonable potential to cause or contribute to exceedances of water quality standards. See Response #5.c.

As indicated in the Fact Sheet, the permit authorizes the discharge of mine drainage stormwater at over 100 Outfall locations which drain areas of the mine site defined as "Alkaline Mine Drainage", "Western Alkaline Reclamation Areas" and "Coal Preparation and Associated Areas". All stormwater runoff from the mine site is subject to NPDES permitting requirements and is treated in pond impoundments prior to discharge. The NPDES permit ensures that the water being discharged from the impoundments through outfalls meets technology and water quality based requirements.

The Administrative Record does not demonstrate significant water quality problems at the Black Mesa Complex. As stated above, EPA's analysis found no reasonable potential for the discharge of mine drainage from authorized Outfalls to cause or contribute to the exceedance of water quality standards.

Wastewater bypassing impoundments: EPA has no evidence to suggest that runoff bypasses impoundments or that the runoff discharged from impoundments is in violation of water quality standards. Based on a review of the impoundments located on site, EPA notes that all drainages from mining activities flow to impoundments where a bypass would not be possible except in events of extreme precipitation. Most impoundments on the mine site are overdesigned so that the runoff remains in the impoundments and does not discharge. The permit contains specific requirements for allowable discharges during precipitation events (Permit, Section A.4), including numeric limits applicable to discharges resulting from precipitation events which exceed the 10-year, 24-hour storm event (Permit, Section A.4).

Heavy metals in discharge: EPA agrees with the commenter that if heavy metals were present in dissolved form in the untreated wastewater they would not likely settle out in impoundments to a significant degree. However, EPA has found no evidence that heavy metals such as arsenic are present in the untreated runoff or that dissolved heavy metals are present in the water discharged from the impoundments, and the commenters have provided no evidence that contradicts EPA's findings. Therefore, EPA does not believe there is a reasonable potential for the discharge to cause or contribute to an exceedance of water quality standards.

Oil spills: The Administrative Record does not demonstrate frequent spills of oil and diesel fuel on site. However, the NPDES permit establishes an effluent limitation for Oil and Grease (Section A), and establishes a prohibition on the discharge of any wastewater with an oily sheen (Section B.1.c and B.2.b). See response to comment 7.c regarding an isolated incident of a spill of tank truck wash water to an impoundment which occurred in 1989.

Seeps: EPA has documented that stormwater collected and stored in impoundments may infiltrate soil underlying those impoundments (see Section VI of Fact Sheet). At several impoundments, depending on the location of the impoundment and the geologic formations beneath them, water that has seeped into the soils may re-emerge below the impoundment structure, causing "seeps". The permit does not authorize discharges to waters of the United States from any seeps at the mine site, but addresses the seeps in the permit through the Seep Management Plan, based on the characterization of the seeps (i.e. water quality of the seep, risk level, type, and current best management practices employed).

EPA originally observed these seeps on a compliance inspection (March 2004) and subsequently required Peabody Western Coal Company ("PWCC") to monitor and characterize these seeps in the previous permit (issued December 2000). As stated in the Fact Sheet, EPA required PWCC to review whether any seeps existed near all 230 impoundments on the Black Mesa Complex, many of which are internal impoundments for treatment and storage and which do not discharge to a water of the United States (there are currently 111 ponds that discharge via outfalls to waters of the United States and which are therefore regulated discharges in this permit). EPA instructed PWCC to monitor all seeps located within 100 feet of an impoundment.

As a result of the required monitoring, PWCC submitted an "Interim Final Report" ("Report") on April 1, 2008 which summarized the data collected at each of the seeps, including a description of the following information:

- Number of seep inspections;
- Number of flows observed;
- Range of flows observed;
- Number of samples taken;
- Exceedances of Livestock standards;
- Exceedances of acute standards, exceedances of chronic standards;
- Current use of pond (e.g., outfall location, internal pond, treatment for reclaimed water, active, shop areas, etc.);
- Final use of pond, including an estimation if pond can be removed;
- Best Management Practices ("BMPs") utilized (e.g., vegetation, fencing, dewatering);
- Potential BMPs to be evaluated (e.g., pond removal, vegetation, passive pH treatment, clay lining, dewatering, other);

PWCC has characterized both the water quality of the impoundments and the water quality of the seeps as part of the report. In general, the seeps are small in number, low in flows, and may not result in a discharge to a water of the United States. Many of the seeps are simply moist areas which do not generate actual flow volumes. Additionally, many other seeps are in locations from which discharges do not reach waters of the United States.

Seep identification and characterization has demonstrated that several seeps have shown concentrations of pollutants above water quality standards. By comparing the water quality of the seeps to that of mine drainage stormwater collected in the impoundments, EPA concluded that many pollutant levels found at the seep locations were caused by the seepage activity itself (during which stormwater infiltrates certain soil layers below the impoundment ponds and leaches pollutants found in the soil layers) and not by mining activities themselves. Therefore, the water characterization of the seeps must be considered separately from both the water quality of the stormwater contained in the ponds and the water quality of the discharges from authorized outfalls. Again, the reissued permit does not authorize the discharge of any pollutants from seeps to a water of the U.S. A complete analysis of these seeps was provided in the Fact Sheet.

Regardless of the cause of the pollutant concentrations documented in Section VI of the Fact Sheet and regardless of whether the seep is or is not considered a discharge to a water of United States, EPA has required PWCC to implement the Seep Management Plan at all impoundments at the mine site in order to characterize and implement corrective actions to control all seeps. EPA believes the most comprehensive and effective approach to control seeps is to implement the Seep Management Plan. The Seep Management Plan requires monitoring, corrective actions, and the installation of Best Management Practices at those seeps which have been identified with the potential to cause water quality problems. Under the plan, EPA has established a priority for PWCC to reclaim those impoundments that are not necessary to meet the conditions of the permit which will result in elimination of seeps from those impoundments, whether or not they may discharge a pollutant to a water of the U.S. The reissued permit will require reclamation of post-mined lands by incorporating new requirements for the Western Alkaline Reclamation Areas. These requirements will eliminate the need for impoundments to

treat stormwater in those areas, which will, in turn, eliminate the sources of many of the seeps. Where impoundments are necessary for treatment of stormwater, the Seep Management Plan requires continued monitoring and implementation of a permanent solution to control seeps. EPA believes the conditions in the permit are effective for the monitoring and control of seeps.

Compliance Order: The commenter's request to issue a compliance order is a separate matter from the effluent limitations, monitoring requirements, and special conditions contained in the reissued NPDES permit.

EPA acknowledges that under the CWA, it has significant enforcement authority. Section 309 of the CWA authorizes EPA to commence an enforcement action, including issuance of an administrative compliance order, whenever EPA finds that a person is discharging pollutants to waters of the U.S. in violation of an NPDES permit. However, this authority is not linked to the issuance of a permit pursuant to Section 402 of the CWA, and, furthermore, EPA is afforded discretion in the exercise of its enforcement authority. Sierra Club v. Whitman, 268 F.3d 898, 905 (9th Cir. 2001).

e. Typographical Corrections

COMMENT: The Fact Sheet and Permit contain several minor editorial and typographical errors.

RESPONSE: Typographical errors have been corrected.

f. EPA should reject request for a waiver

COMMENT: Additionally, EPA should reject PWCC's extraordinary request for a waiver of the WQS standards so that the outlet can be considered in compliance. BMWC [the commenter] is aware of no legal basis for EPA to grant such a request.

RESPONSE: PWCC has made no request for a waiver from water quality standards. No variances or waivers were proposed nor considered in the draft permit. The reissued permit does not allow for, nor does it authorize, any variances at the Black Mesa Mine Site.

6. Technical Comments

a. All outfalls must be monitored

COMMENT: EPA must require monitoring of all impoundments (or outlets) at the mine and covered by the NPDES Permit. According to EPA's permit, there are over 230 impoundments that exist on the Black Mesa/Kayenta Complex and which are covered by the proposed permit. EPA's Proposed NPDES Permit at 8.

In this case, PWCC argues without legal authority that, because the operation at Black Mesa is huge and results in many hundreds of individual outlets PWCC (and by extension EPA) can monitor less than all of the outlets. Only a small percentage of PWCC's outlets are monitored and the results of monitoring this small subset is asserted as somehow indicative or representative of the total population of outlets.

First, designated outlets cannot legitimately be considered in compliance with the CWA without actual monitoring data. BMWC [the commenter] finds nothing in the CWA that would allow EPA to rely on a subset or sample of monitored outlets to determine CWA compliance for non-monitored outlets. Second, there is no discussion or rationalization for choosing data from one monitored outlet over another for purposes of monitoring. Third, there is no indication that there is a feed-back or spot checking procedure to ensure the adequacy and appropriateness of the selected monitoring points or that all problematic monitoring locations are being evaluated. Finally, given the relative abundance of outlets with exceedance of one or more water quality standards, it seems exceedingly likely that there are many others not on the radar for lack of actual monitoring. In sum, EPA must require monitoring of all outlets covered by the proposed NPDES permit. Additionally, EPA should require PWCC to recover at least 1-years worth of data for all outlets prior to issuance of an NPDES permit renewal

RESPONSE: Section A of the permit establishes effluent limitations and monitoring requirements for 111 outfalls categorized as either "Alkaline Mine Drainage," "Coal Preparation Plants, Storage Areas, and Ancillary Area Runoff Outfalls," or "Western Alkaline reclamation, brushing and grubbing, topsoil stockpiling, and regraded areas." During discharge, the permit requires daily monitoring for a number of parameters, including flow, TSS, pH, Oil & Grease, iron, arsenic, cadmium, chromium, mercury, lead, and selenium. For discharges that occur as a result of precipitation events, Section A.4 of the permit establishes specific requirements. One of the conditions allows that, during precipitation events, samples may be collected from a sampling point representative of the type of discharge, rather than from each point of discharge. At no time shall less than 20% of discharges be sampled. If samples are collected from a representative point, the permittee shall specify the Outfalls being represented in the quarterly report narrative.

EPA regulations at 40 C.F.R. § 122.41(j)(1) state that samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Discharges from the mine site consist of stormwater runoff from areas classified as either "Alkaline Mine Drainage," "Coal Preparation Plants, Storage Areas, and Ancillary Area Runoff Outfalls," or "Western Alkaline reclamation, brushing and grubbing, topsoil stockpiling, and regraded areas." Each of these areas is materially similar in terms of the mining activities that take place within that area, the alkaline characteristics of soil types present (e.g., not acid generating), the expected runoff pollutant concentrations, the type of stormwater treatment and best management practices employed, and the effluent limitations applicable to the discharge. Therefore, EPA has determined representative sampling may be obtained without monitoring the discharge from all 111 outfalls on a daily basis. EPA believes it is reasonable to establish a monitoring limit that at least 20% of outfalls must be sampled to obtain representative monitoring of the mine site discharge. The establishment of representative samples during precipitation events is consistent with past permits issued to PWCC.

b. OSMRE technical review of Sediment Control Plan is insufficient

COMMENT: Here, it is unlawful for EPA to rely on OSM's "technical review" of PWCC's Sediment Control Plan for purposes of approval of the NPDES Permit. According to EPA's Fact Sheet at 5, and based on a Memorandum of Understanding between EPA and OSM, EPA is relying on OSM's "technical review and approve[al of] the permittee's Sediment Control Plan." Id. Specifically,"OSMRE completed a technical review of PWCC's Sediment Control Plan, which PWCC submitted in order to re-categorize outfalls as Western Alkaline Reclamation Areas and to apply for a revision of its permit under the Surface Mining and [sic] Control Reclamation Act. See January 28, 2009 letter from Dennis Winterringer, OSMRE to Gary Wendt, PWCC." Id.

PWCC requested under the Clean Water Act Western Alkaline Drainage Category regulations to use "best management practices in lieu of eight existing sedimentation ponds in areas N6, J7 (ponds 021 (N6-C), 022 (N6-D), 037 (N6-F), 049 (J7-CD), 0505 (J7-E), 051 (J7-F), 174 (J21-D), and 175 (J21-E))." June 16, 2009 Letter from Dennis Winterringer, OSM to Gary Wendt, Peabody. OSM approved PWCC's request as "an application for minor revision of Black Mesa Complex permit AZ 0001D (project AZ-0001-D-J-58)." Id. (w/attached "Application for Miner Permit Revision").

As EPA is aware Administrative Law Judge Holt issued an Order on January 5, 2010 vacating the underlying Life of Mine ("LOM") permit from OSM. OSM's LOM permit allowed Peabody to operate the Black Mesa and Kayenta mines jointly as the Black Mesa Project (a.k.a. Black

Mesa Complex). Because the LOM is now vacated, OSM's approval of a "minor revision" to the LOM permit should also be considered vacated.7 Any other interpretation would be inconsistent with Judge's Holt's Order.

Additionally, and as BMWC has already requested and because there is no Black Mesa Complex, EPA should temporarily withdraw the proposed NPDES Permit for the Black Mesa Complex and reissue any proposed permit at some future date in accordance with Judge Holt's findings and the existing status quo (i.e. treating the mines as separate entities for permitting purposes).

In sum, it is unlawful for EPA to rely on OSMRE's "technical review" and approval of a "minor revision" of the LOM and for purposes of approval of the NPDES Permit. At a minimum, EPA and OSM should use the NEPA process to evaluate any "technical review" and approval of the permittee's Sediment Control Plan and issuance of any proposed NPDES permit in accordance the existing status quo (i.e. treating the mines as separate entities for permitting purposes).

RESPONSE: EPA relied on OSMRE's technical expertise to review the sediment control plan prior to EPA approving the adequacy of PWCCs submittal, as described in Section V.C of the Fact Sheet and in accordance with EPA's MOU with OSMRE (December 19, 2003). It is entirely appropriate for EPA to solicit comments and review from another federal agency with expertise in the subject matter. However, EPA is the permitting authority responsible for the approval of PWCC's sediment control plan, not OSMRE.

The decision by Administrative Law Judge Holt on January 5, 2010 vacating the underlying Life of Mine ("LOM") permit from OSMRE was issued mainly because the final EIS alternatives analysis did not reflect the fact that the Black Mesa mine had closed, since the draft EIS was issued. This decision is not related to EPA's reissuance of the NDPES permit, nor does it affect OSMRE's technical review of the sediment control plan.

See also Response #2 (discussing permitting one vs. two mines) and Response #1 (EPA's NEPA obligation in reissuing permit).

c. Contaminants from dust control and vehicle washing

COMMENT: Chemicals are used for dust control – this is washed into the washes. Magnesium chloride is used. Vehicle wash waters have caused contamination. There was a problem when explosive powder was washed, livestock drank it and died.

RESPONSE:

PWCC utilizes magnesium chloride for dust control on haul roads at the mine site. Magnesium chloride is a salt commonly used for dust control as well as for deicing highways during winter storms.

Magnesium chloride dissolves in water to give a faintly acidic solution (pH = approximately 6) but is not generally considered toxic (from http://www.chemguide.co.uk/inorganic/period3/chlorides.html). EPA has not established recommended water quality criteria for either magnesium chloride or for the metal magnesium. Magnesium chloride does contribute to the total dissolved solids concentrations in water, which may be a concern for drinking water or agricultural uses when present at high concentrations. Excess Total Dissolved Solids (TDS) may be objectionable in drinking water (due to taste, color, and salt deposition) at high concentrations above 250 mg/L, and may have negative affects to aquatic wildlife and plants at high concentrations (above 500 mg/L). (EPA, Water Quality for Toxics, "Goldbook", EPA 440/5-86-001, 1986). None of the receiving waters at the mine site have been designated as a source a drinking water.

Magnesium chloride in only used for dust control on haul roads, a relatively insignificant portion of the land area of the mine site. EPA does not believe stormwater generated from the haul roads will be of sufficient quantities to have any measurable increase in the dissolved solids concentrations of the stormwater generated from the mine site. Additionally, all stormwater from roads is collected and directed to stormwater impoundments on the mine site prior to discharge.

Regarding vehicle wash water and the comment that livestock were killed, EPA is aware that in 1989, there was a spill from a contractor improperly washing a vehicle tanker truck which caused the death of several sheep. This incident has been documented, and is not under consideration for this permit. The discharge of any wastewater associated with vehicle wash waters is not allowed under the permit.

As background, PWCC has provided the following description of the incident:

1. "We were notified of the incident on June 23, 1989.
2. Upon notification, we immediately notified USEPA, NNEPA, OSM, and the Chairman of the Navajo Nation of the incident.
3. The incident involved rinsing out a tanker truck tank containing Ammonium Nitrate-based blasting emulsion residue at the truck wash facility at the Black Mesa Mine.
5. Water from the truck wash area collects in a small drainage that flows to sediment control structure BM-A1.
6. A herd of sheep drank from the drainage to BM-A1 coincident with the cleaning of the truck tank.
7. Eighty-six sheep and goats were killed as a result of ingesting abnormally large concentrations of the emulsion product in the drainage.
8. In the morning after learning of the incident, PWCC environmental personnel sampled the water in the drainage and downstream sediment pond and documented the high salt concentrations. This data was provided to the NNEPA. Follow-up sampling the next day indicated the problem had attenuated.
9. The next day, NNEPA personnel arrived on site and sampled water in the drainage and pond, and sediment in the pond. PWCC was not provided the results of this sampling, so PWCC assumed the samples showed normal results similar to those of PWCC's follow-up samples.
10. PWCC immediately changed the policy of cleaning out the emulsion trucks to ensure the incident would not be repeated. The trucks were washed out at the blast sites in the active mining areas from that point forward. The incident has never been repeated, so the corrective action was effective.
11. PWCC entered into an agreement with the family after the incident to compensate them for the loss of the livestock and install an isolated water source for livestock among other commitments."

d. Outfalls are not properly identified

COMMENT: Neither the draft permit nor the fact sheet identifies what outfalls have been added or eliminated. EPA must identify with specificity these changes.
The outfall gauges are not in right place and do not match GPS coordinates.

RESPONSE: The draft permit identified each outfall in Appendices A, B, and C of the permit, along with the subcategorization, the latitude, longitude and receiving water associated with each outfall. The previous permit listed each outfall under the applicable regulatory subcategory. While EPA did not present a detailed description in the Fact Sheet of each of the more than 100 outfalls, a comparison of the two permits provides a list of the outfall eliminated or added.

Each outfall location is identified in the permit by its latitude and longitude coordinates. EPA has concluded the locations provided in the permit are correct. During inspections, EPA inspectors verify the GPS locations of the outfall.

7. Endangered Species Concerns

COMMENT: EPA cannot rely on OSM's Biological Assessment for ESA Compliance. EPA must comply with the Endangered Species Act, 16 U.S.C. § 1531, et seq. ("ESA") when issuing the NPDES permit. Section 7 of the ESA places affirmative obligations upon federal agencies. Section 7(a)(1) provides that all federal agencies "shall, in consultation with and with the assistance of the Secretary [of Commerce or the Interior], utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species." 16 U.S.C. § 1536(a)(1). Section 7(a)(2) mandates that:

Each Federal agency shall, in consultation with and with the assistance of the Secretary [of Commerce or the Interior], insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined ... to be critical, unless such agency has been granted an exemption for such action ... pursuant to subsection (h) of this section. Id. § 1536(a)(2).

The ESA's implementing regulations set forth a specific process, fulfillment of which is the only means by which an action agency ensures that its affirmative duties under section 7(a)(2) of the ESA are satisfied. In re Desert Rock Energy Company, LLC, PSD Appeal Nos. 08-03, 08-04, 08-05 & 08-06, slip op. (EAB Sep. 24, 2009) at 36 (citing 50 C.F.R. § 402.14(a); Sierra Club v. Babbitt, 65 F.3d 1502, 1504-05 (9th Cir. 1995); In re Indeck-Elwood, LLC, PSD Appeal No. 03-04, slip op. (EAB Sep. 27, 2006) at 95). By this process, each federal agency must review its "actions" at "the earliest possible time" to determine whether any action "may affect" listed species or critical habitat in the "action area." 50 C.F.R. § 402.14. The "action area" is defined to mean all areas that would be "affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." 50 C.F.R. § 402.02. The term "may affect" is "broadly construed by FWS to include '[a]ny possible effect, whether beneficial, benign, adverse, or of an undetermined character,' and is thus easily triggered." Indeck-Elwood, slip op. at 96 (quoting 51 Fed. Reg. at 19926); Desert Rock, slip op. at 36 n. 33. If a "may affect" determination is made, "consultation" is required. Id.

Consultation is a process between the federal agency proposing to take an action (the "action agency") – here, EPA – and, for activities affecting terrestrial species, the U.S. Fish and Wildlife Service ("FWS"). "Formal consultation" commences with the action agency's written request for consultation and concludes with FWS's issuance of a "biological opinion" ("BiOp"). 50 C.F.R. § 402.02. The BiOp issued at the conclusion of formal consultation "states the opinion" of FWS as to whether the federal action is "likely to jeopardize the continued existence of listed species" or

"result in the destruction or adverse modification of critical habitat." 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12(c).

Prior to commencing formal consultation, the federal agency may prepare a "biological assessment" ("BA") to "evaluate the potential effects of the action on listed and proposed species and designated and proposed critical habitat" and "determine whether any such species or habitat are likely to be adversely affected by the action." 50 C.F.R. § 402.12(a). While the action agency is required to use a BA in determining whether to initiate formal consultation, FWS may use the results of a BA in determining whether to request the action agency to initiate formal consultation or in formulating a BiOp. 50 C.F.R. §§ 402.12(k)(1), (2). If a BA concludes that the action is "not likely to adversely affect" a listed species, and FWS concurs in writing, that is the end of the "informal consultation" process. 50 C.F.R. § 402.13.

B. EPA Must Consult with FWS to Consider the Effects of the NPDES Permit to Threatened and Endangered Species in the Action Area.

Threatened and endangered species that are known to occur within the "action area" of the permit that may be affected directly, indirectly, and/or cumulatively by the activities authorized by the permitted discharges. At a minimum, such species include the endangered southwestern willow flycatcher, the threatened Mexican spotted owl, and the threatened Navajo sedge and its critical habitat, black-footed ferret as well as species and habitat that occur downstream from the discharges, such as the Little Colorado River spinedace, and species that are affected by the air emissions resulting from combustion of the coal at the Navajo Generating Station. The NPDES permit authorizes new and continued discharges from active mine areas, coal preparation areas, and reclamation areas within the Complex, including discharges of selenium and other pollutants that are known to affect flora and fauna such as these species. But rather than meeting its ESA section 7 duties and considering the full spectrum of such potential effects, EPA avoids its ESA section 7 duties altogether, choosing to skip consultation with FWS to consider the effects of the NPDES permit issuance to listed species and critical habitat.

As an initial matter, it must be noted that EPA's attempt to apply the analysis contained in an ESA document prepared by a separate federal agency, the Office of Surface Mining Reclamation & Enforcement ("OSM"), for a different agency action, OSM's now-invalidated issuance of a life-of-mine permit revision for the Black Mesa and Kayenta coal mines, to EPA's separate issuance of the NPDES permit. Indeed, there is nothing in the ESA's regulations, statutory language, or fundamental purposes that would EPA to do this, and EPA's attempt to do so here illustrates the problems with such an approach.

If FWS concludes that the activities are not likely to jeopardize listed species, it must provide an "incidental take statement" with the BiOp that specifies the amount or extent of such incidental take, the "reasonable and prudent measures" that FWS considers necessary or appropriate to minimize such take, the "terms and conditions" that must be complied with by the action agency or any applicant to implement any reasonable and prudent measures, and other details. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i). "Take" means an action would "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect," or "attempt to engage in any such conduct." 16

U.S.C. § 1532(19). Thus, a BiOp with a no-jeopardy finding effectively green-lights a proposed action under the ESA, subject to an incidental take statement's terms and conditions. Bennett v. Spear, Bennett v. Spear, 520 U.S. 154, 170 (1997).

First, OSM's BA does not actually consider the effects of discharges to threatened and endangered species in the action area. As a result, it is palpably incorrect for EPA to suggest, as it does, that FWS concluded that there would not be "any effects on listed species due to the discharges that would be regulated by PWCC's NPDES permit." Fact Sheet at 13-14. FWS made no such conclusion, and OSM's BA contained no such analysis. Thus, EPA cannot escape its duties under ESA section 7 to consult with FWS directly over the effects of discharges – including by obtaining FWS's concurrence in its own determinations, as appropriate – on this basis.

Indeed, there are numerous other flaws in the OSM BA that would render EPA's reliance on it in the NPDES permitting context particularly arbitrary. For example, OSM's BA does not consider, at all, the effect of the mines' operations to the recovery of threatened and endangered species, and only considers the potential effects to species' survival. This is a patent violation of the letter and spirit of the ESA, as is particularly illustrated in the omission of any analysis of the effects of mining operations (again, not discharges) downstream from the source, such as to threatened and endangered species that occur in the Little Colorado River watershed including the Little Colorado spinedace and other listed species and their critical habitat. Instead, the BA dismisses these species out of hand by stating that such species have no "suitable" habitat in the action area. Completely unaddressed are, e.g., whether any listed species located downstream of the "project area" (i.e., within the "action area") have areas in the "action area" for the NPDES permit that are essential to their recovery, regardless of whether such areas are currently "suitable" or inhabited by listed species.

In addition, in its BA OSM focused exclusively on direct effects – i.e., those effects occurring as a result of impacts in the direct footprint of the mines and their related infrastructure. For example, the OSM BA only considered the potential direct effects to the Southwestern willow flycatcher habitat within the footprint of the "project area" – an area that is not described in the BA but is depicted on a map included in the document. See OSM BA at 6-2 to 6-5 (discussing effects to Southwestern willow flycatcher within the "project area"); id. at 2-2 (Figure 2-1) (Map of "Project Area"). The Final BA also focuses on impacts in areas occupied by listed species or critical habitat and the area of "Mining Operations," see id. at 6-5 (addressing potential effects to Mexican spotted owl), or the "Lease Area." Id. (considering effects to black-footed ferret).

For instance, how will the discharges affect the recovery of the Southwestern willow flycatcher? The southwestern willow flycatcher is a riparian-obligate species that relies on rivers, streams, and other wetlands for breeding. Id. at 6-1. Suitable foraging and resting habitat is known to exist in the area of the mines for this species, "near the black mesa mining operation", including in Moenkopi Wash. Id. at 6-3. Southwestern willow flycatchers are known to be threatened in part due to the "reduction, degradation, or elimination of riparian habitat, which has curtailed the range, distribution and populations of this species." Id. The loss of riparian habitat results from impoundments, among other things. Id.

The draft permit's Fact Sheet expressly adopts this flawed approach. See Fact Sheet at 13(stating that EPA has reached a "no effect" determination for listed species because "as evidenced by OSMRE's Biological Assessment for the Life-of-Mine permit, no threatened or endangered species are located in the project area") (emphasis added).

Completely ignored throughout the OSM BA – as indirect or interrelated effects or as part of the environmental baseline – are the effects of emissions of mercury and selenium from coal combustion at the Navajo Generating Station that will occur within 300 km of the mines. In evaluating the effects of the proposed Desert Rock Energy Project, a coal-fired power plant that is proposed to be sited on the Navajo Nation within New Mexico, the FWS determined that three hundred kilometers (300 km) is the appropriate distance for properly evaluating the effects of air emissions from major sources like coal-fired power plants on federally-listed species. FWS, Attachment A (Ex. 3) at 4. In this case, the desert tortoise, southwestern willow flycatcher, Colorado pikeminnow, and razorback sucker, as well as other listed species all occur within 300 km the Navajo Generating Station, as well as the Black Mesa Project area, and therefore are potentially affected by mercury and selenium emissions. See Center for Biological Diversity Maps. Some species, including Colorado pikeminnow, razorback sucker, humpback chub, Little Colorado spinedace, Mexican spotted owl, and Southwestern willow flycatcher, occur within 300 km of the San Juan Generating Station and Four Corners Power Plant as well. See id. There is also critical habitat for the desert tortoise, Colorado pikeminnow, razorback sucker, humpback chub, Little Colorado spinedace, southwestern willow flycatcher, Mexican spotted owl, and Navajo sedge within 300 km of the Black Mesa Project area.

Coal-fired power plants are the largest source of mercury emissions in the United States. Mercury levels in the Four Corners region are already high and adversely affecting the Colorado pikeminnow and razorback sucker. In fact, the Navajo Generating Station, which is within the 300km Black Mesa Project area, is a large source of mercury and selenium, particularly in combination with the San Juan Generating Station and Four Corners Power Plant. See EPA's Emissions of Mercury by Plant – 1999 (Ex. 1).

The ESA's implementing regulations are clear and require a biological assessment to discuss the "effects of the action," which include both direct and indirect effects, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. 50 CFR 402.02. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur. "Interrelated actions" are those that are part of a larger action and depend on the larger action for their justification; 'interdependent actions' are those that have no independent utility apart from the action under consideration. 50 CFR 402.02. Under this regulatory scheme, it is clear that the effects of burning coal at the Navajo Generating Station must be considered as part of EPA's ESA section 7 consultation. Yet, the OSM BA does not consider these effects at all. Thus, it is unlawful for EPA to rely on its flawed analysis.

OSM does not define the Project's "action area" in its BA for the life-of mine permit revision for the mines. Had OSM and FWS identified the "action area" for the life-of-mine permit, such a

description would have been included in the Final BA. See 50 C.F.R. § 402.02 ("biological assessment" contains, by definition, "the information prepared by or under the direction of the Federal agency concerning listed and proposed species and designated and proposed critical habitat that may be present in the action area and the evaluation of potential effects of the action on such species and habitat") (emphasis added). The fact that the Final BA contains no description of the action area simply confirms that the agencies never considered the effects to listed species and critical habitat, and EPA has not remedied this defect by adopting OSM's BA.

The "environmental baseline" must, for its part, include analysis of "the past and present impacts of all Federal, State, or private actions and other human activities in the action area." 50 C.F.R. § 402.02. Here, because emissions of air pollutants from the San Juan Generating Station and Four Corners Power Plant are affecting endangered fish in the San Juan River Basin, which is also within 300 km of the Black Mesa Project area, these plants' emissions should have been accounted for as part of the environmental baseline for the mines, and hence, the NPDES permit.

The OSM BA omits consideration of these problems as well. FWS has acknowledged that mercury and selenium contamination are of particular concern to the endangered fish species and to fish-eating birds along the San Juan River and that fish tissue samples exceed recommended mercury thresholds, putting the birds that eat them at risk for mercury toxicity. Biological Assessment for the Proposed Desert Rock Energy Project (Rev. Oct. 2007) ("Desert Rock BA") at 27. Studies also show that diet items for Colorado pikeminnow, including small fish, speckled dace, and red shiners, exceed threshold levels of concern and compromise the species' ability to reproduce. Id. Continued coal burning at Navajo Generating Station, together with coal combustion at the San Juan Generating Station and the Four Corners Power Plant, will only exacerbate these effects.

The purpose of a biological assessment is to determine, based on the "best available scientific ...data", 16 U.S.C. § 1536(a)(2), whether an action "may affect" listed species or critical habitat, and the "may affect" threshold is low. 51 Fed. Reg. 19926 (June 3, 1986) (the "may affect" threshold is a "low threshold" that is "easily triggered" and "broadly construed" to include "[a]ny possible effect, whether beneficial, benign, adverse, or of an undetermined character")(emphasis added). Given the elevated levels of mercury and selenium in endangered fish within the action area of the mines, the indirect effects of such emissions from the Navajo Generating Station, San Juan Generating Station, and Four Corners Power Plant clearly "may affect" – and indeed, are affecting and will continue to affect – these and other species, and therefore should have been considered. By adopting OSM's flawed effects analysis, EPA fails also to consider these emissions is a violation of the plain language of the ESA's implementing regulations. Nat'l Wildlife Fed'n v. Nat'l Marine Fish. Serv., 481 F.3d 1224, 1235 (9th Cir. 2007) (compliance with the ESA's implementing regulations is "not optional" and is the only way to ensure that action agency's affirmative duties under section 7 are satisfied).

Third, the OSM BA fails to incorporate into the environmental baseline any acknowledgement or analysis of the ongoing effects of global warming that are already being observed in the action area. The OSM BA does not incorporate an analysis of the ongoing and projected global warming-related changes to vegetation, fire regimes, or water availability, despite the plethora of

information about such impacts in the southwestern United States that was available at the time OSM was engaging in ESA section 7 consultation for the life-of-mine permit revision – and which is certainly available now, when EPA should be conducting its own ESA section 7 consultation for issuance of the NPDES permit.

The Navajo Generating Station, San Juan Generating Station, and Four Corners Power Plant are some of the largest and highest-polluting coal-fired power plants in the United States.

Furthermore, despite being dated "November 2008," the Final BA does not even refer to many studies dated after 2006.13 This is because the bulk of the ESA consultation history for OSM's life-of-mine permit revision occurred between May 2005 and March 2007. OSM only spent June through November 2008, when the OSM BA is dated – or, less than six months – focused on considering the effects of the life-of-mine permit revision to listed species and critical habitat, and even then, simply revised the BA to omit discussion of certain aspects of the mines that have since been discontinued (such as the coal-slurry pipeline). Yet, numerous scientific studies and reports were released during 2007 through 2008 that document changing conditions due to climate change in the Southwest, and these should have been considered during the ESA consultation for the life-of-mine permit revision, but were not. These changing conditions, which are already occurring, include decreasing water availability and streamflows, and increasing temperatures and aridity. See NRDC v. Kempthorne, 506 F. Supp. 2d at 369 (citing Pac. Coast Fed'n of Fishermen's Ass'ns v. Nat'l Marine Fisheries Serv., 265 F.3d 1028, 1033 (9th Cir. 2001)) ("[a]t the very least, these studies suggest that climate change will be an 'important aspect of the problem' meriting analysis" during section 7 consultation); cf. Greater Yellowstone Coal., et al. v. Servheen, et al., 9:07-cv-00134-DWM, slip op. at 26-29 (D. Mont. Sep. 21, 2009) (vacating rule delisting Yellowstone population of grizzly bears for failure to consider effects of decreasing whitebark pine due caused in part by climate change).

Finally, even it could somehow be said that it is appropriate for EPA to rely on the OSM BA in this instance to comply with ESA procedural obligations, EPA still has not met its duty under section 7(a)(1), which "imposes a specific obligation upon all federal agencies to carry out programs to conserve each endangered and threatened species." Fla. Key Deer v. Paulison, 522 F.3d 1133, 1146 (11th Cir. 2008) (citing Sierra Club v. Glickman, 156 F.3d 606, 616 (5th Cir. 1998) ("Given the plain language of the statute and its legislative history, we conclude that Congress intended to impose an affirmative duty on each federal agency to conserve each of the species listed pursuant to [16 U.S.C.] § 1533. In order to achieve this objective, the agencies must consult with [the] FWS as to each of the listed species, not just undertake a generalized consultation."). While EPA has some discretion to determine how it will meet section 7(a)(1)'s affirmative duty, "[t]otal inaction is not allowed." Id. Yet, here EPA totally avoids its duty to comply with section 7(a)(1), an error which is corollary to its decision to simply adopt OSM's flawed BA for its own purposes. See id. at 1147 (citing Pyramid Lake Paiute Tribe of Indians v. U.S. Dep't of Navy, 898 F.2d 1410, 1417 (9th Cir. Nev. 1990)). At the very least, section 7(a)(1) requires EPA to consult with FWS to ensure that OSM's BA is adequate for this purpose, up-todate, will significantly contribute to the recovery as well as the survival of listed species, and that nothing more will be required to conserve listed species affected by discharges. See Pyramid

Lake, 898 F.2d at 1417 (in exercising their duty to conserve, non-Interior Department agencies must do so in consultation with the Secretary").

There are only three references, out of dozens listed in the References section of the Final EA, are dated after 2006, all of which are at least almost two years old. They are: BIOME Ecological and Wildlife Research (BIOME). 2008. Final report 2007: wildlife monitoring, Black Mesa, Arizona. Submitted to Peabody Western Coal Company, Black Mesa and Kayenta Mines.

Roth, D. 2008. Personal communication by D. Roth, botanist, Navajo Natural Heritage Program, with Jean Charpentier, URS Corporation, June 25, 2008.
U.S. Department of the Interior, Fish and Wildlife Service (FWS). 2008a. Coconino County Listed Species. Accessed online July 2008.
http://www.fws.gov/southwest/es/arizona/Documents/CountyLists/Yuma.pdf.

Indeed, the OSM BA only mentions the term "climate change" twice – both times, in connection with a discussion about the anticipated effects to Navajo sedge. See Final BA at 6-15 (Bates # 3-01-01-001119). But even then, the OSM BA fails to actually consider what the converging effects of the Project and global warming to Navajo sedge would actually be.

For all of these reasons, EPA has failed to comply with its affirmative duties under ESA section 7 in connection with its issuance of the NPDES permit.

RESPONSE: EPA has met all its obligations under the Endangered Species Act ("ESA") Section 7 to ensure that the permit renewal is not likely to jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its critical habitat. Section 7 of the ESA requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of a listed species, or result in the destruction or adverse modification of its designated critical habitat. 16 U.S.C. § 1536(a)(1). EPA has evaluated the potential effect the discharge authorized by this permit may have on threatened and endangered species, as described in Section VIII of the Fact Sheet. EPA has determined that this action will have no effect on threatened and endangered species. *See* Section VIII of the Fact Sheet. EPA's determination is consistent with previous determinations for NPDES permit renewals for PWCC.

EPA does not agree that formal consultation with FWS is required. When a "no effect" determination is made, no consultation is required.

In considering impacts on listed species, it is important to remember that EPA is issuing the NPDES permit renewal under Section 402 of the CWA for the discharge of wastewater associated with mining operations to surface waters of the U.S. The permit authorizes the discharge of treated stormwater from 111 outfalls at the mine site to surface waters of two primary drainages, and their tributaries, of the Moenkopi Wash and Dinnebito Wash. This permit neither authorizes PWCC to mine coal at either the Kayenta or Black Mesa mines, nor does it authorize the combustion of the coal mined at either mine or at any power plant in the region. As stated in the Fact Sheet, EPA utilized the list of endangered and threatened species generated by the Fish and Wildlife Service in June 2005 which OSMRE also used for its Biological Assessment (November 2008). The species identified as potentially affected by the proposed project were presented in Table 1-1 "Federally Listed Species Considered for Evaluation in the Biological Assessment" of the fact sheet and include consideration of: Black Footed Ferret (*Mustela nigripes*), Southwestern willow flycatcher (*Empidonax traillii extimus*): Mexican Spotted owl (*strix occidentalis lucida*), Bald eagle (*haliaeetus leucocephalus*), California condor (*Gymnogyps californicus*), Navajo sedge (*Cares specuicola*), Yellow-billed Cuckoo (*Coccyzus americanus*), California Brown Pelican (*Pelecanus occidentalis californicus*), Chiricahua leopard frog (*Rana chiricahuensis*), Apache trout, (*Oncorhynchus apache*) Little Colorado spinedace Spikedace (*Meda fulgida*), Loach minnow (*Tiaroga cobiti),* Peebles Navajo cactus (*Pediocactus peeblesianus peeblesianus,* and Welsh's milkweed (*Asclepias welshii*).

EPA believes the Agency has evaluated a comprehensive list of all endangered and threatened species that may reside in the action area. The commenter does not appear to dispute the list of species EPA has considered with regard to the mine site, although the commenter expresses concern for one species, the desert tortoise, which EPA did not consider in its list. The desert tortoise is not known to occur within the vicinity of the mine site. The closest population known is in Mojave County, AZ, which is over one hundred miles from the mine site. In addition as discussed below, no indirect effects of the discharges authorized by the NPDES permit impact the desert tortoise. Because the desert tortoise is not present in the action area, EPA did not consider the species in its ESA analysis.

EPA has concluded that the discharge of treated wastewater from the mine site will have no effect on endangered or threatened species. First, no threatened or endangered aquatic species are located in the tributaries where discharges of treated wastewater are being permitted. In addition, no threatened or endangered aquatic species are located in the tributaries downstream of the permitted discharges. Additionally, all receiving waters are ephemeral drainages which do not support populations of fish which could be consumed by species of concern such as the bald eagle or California brown pelican. Therefore, there is no potential for indirect impacts which could occur from species consuming fish in the vicinity of the outfalls. Second, the mines discharge infrequently; with over 100 permitted outfalls located over a 65,000 acre lease area, the facility has discharged 31 times over the past five years from 2005-2009 for a total volume under 500 acre-ft. Third, and of particular importance, the permit requires all discharges to meet water quality standards that have been specifically set at a level necessary to protect aquatic wildlife. Because the discharges are often to dry washes without dilution, EPA has not considered available dilution in its assessment. Therefore, EPA has made the most conservative and protective assumption of no available dilution in its analysis that water quality standards must be met at the end of pipe prior to discharge. All drainages are treated in pond systems to remove sediment accumulated from the mining activities prior to discharge. Therefore, even if species were present, for the above reasons, the discharges would not likely affect listed species.

EPA's conclusion of no effect is consistent with the determinations made in previous permit reissuances for PWCC. Furthermore, since EPA last made those determinations, no significant changes in facility operations or endangered and threatened species inhabiting the area have occurred.

Although not required, EPA sent a copy of the permit and Fact Sheet to the U.S. Fish and Wildlife Service ("FWS") for review and comment during the public comment period. FWS did not send comments objecting to EPA's analysis or determination. *See In re: Chukchansi Gold Resort and Casino Waste Water Treatment Plant*, 2009 WL 152741 (EAB 2009) (upholding agency's "no effect" determination and noting that the Region sent the draft permit and fact sheet to FWS and received no comments).

While EPA has made its own assessment relative to the NPDES permitting action, EPA's conclusion is consistent with the determinations made by OSMRE and FWS for the Biological Assessment for the Life of Mine Permit. Additionally, EPA's limited use of OSMRE's BA (to produce a list of potentially affected species) to make its determination was appropriate. The regulations, 50 C.F.R. § 402.12(g), allow agencies to utilize other biological assessments prepared for similar actions. Commenter makes several claims that the OSMRE's BA was insufficient, and thus, EPA's reliance on the BA was faulty. However, the alleged faults that the commenter points to in OSMRE's BA do not implicate EPA's analysis because EPA did not rely on any part of the BA which the commenter found to be insufficient.

Based on the above analysis, EPA's "no effect" determination is reasonable.

The commenter asks that EPA consider impacts to listed species that are not caused by this permitting action. Specifically, the commenter requests that EPA consider the impacts to listed species due to impacts to riparian habitat from the impoundments, due to air emissions from coal-fired power plants, and due to climate change. First, the permittee's discharges do not cause, directly or indirectly, effects on riparian habitat. If impacts to riparian habitat were to occur, these would be related to the creation and/or operation of impoundments, which is permitted under Section 404 of the Clean Water Act by the U.S. Army Corps of Engineers. Therefore, EPA should not and did not consider these effects in its ESA analysis.

Second, the commenter expresses concern for the impacts related to potential emissions of mercury and selenium from the Navajo Generating Station and the proposed Desert Rock Power plant within a 300 kilometer radius to the desert tortoise. EPA did not consider the effects of air emissions on the desert tortoise, because this permit does not directly or indirectly cause the air emissions to occur. Although, EPA agrees with the commenter that it is obligated to consider both direct and indirect effects of its action on listed species, the action being evaluated must actually cause the effect on listed species for EPA to consider the effect in the ESA analysis. This causal link does not exist between the NPDES permit and air emissions, because the NPDES permit does not authorize the mining or combustion of coal. If the EPA were to deny

this NPDES permit, the permittee would not be prohibited from mining coal. Therefore, because the mining and combustion of coal are not results caused by the NPDES permit, EPA did not consider the impacts of air emissions on listed species in this permitting process.

Third, the commenter asks that EPA also consider the effect of climate change on listed species. However, as with the effects of air emissions on listed species, the effects of climate change on listed species are not caused directly or indirectly by the discharges permitted by the NPDES permit. Therefore, EPA did not consider the impacts of climate change on listed species through this permitting process.

In conclusion, EPA determined that this permitting action would not affect listed species, and thus, it was not required to consult with FWS. This permit does not authorize, nor does it cause, the construction of surface impoundments, or air emissions resulting from the mining or combustion of coal. Therefore, the issues related to the impacts of filling wetlands, power generation, or air impacts are not related to this permitting action, and EPA cannot consider the impacts due to such activities in its ESA analysis.

8. Administrative Record Deficiencies

COMMENT: The Administrative Record provided to BMWC by the agency is entirely inadequate. Although there are numerous documents cited in the permit application that would assist the public in assessing the validity of EPA's assertions and the adequacy of the proposed NPDES permit, these materials are not part of the agency's Administrative Record. Their absence precludes the public (and by extension the agency) from forming a defensible conclusion on the adequacy of the proposed permit.

In particular, the Administrative Record does not include the monitoring data upon which may of the assertions in the application rely. Rather than data that shows analyses and trends over the decades that have been monitored, the application and the Administrative Record include only summaries of the data. Further, these summaries are presented only for sites that have had exceedances and report only the number of exceedances and the ranges and averages. Absent entirely are time series data from which one might extract insights with respect to either typical trends or anomalous trends at specific points.

Letters in the Administrative Record seemingly acknowledge that meaningful trends may possibly exist (and allude to specific trends in general terms), but again no data is provided in the

application, the permit or the Administrative Record from which to view or understand those discussed or others that may be present.

This inadequacy applies to both water chemistry and flow rates. Flow rates are simply (and generally) listed as the numbers of occasions with flow, with ponded water, with wetness, or with dry. The information on flow rates provided in the record provides no meaningful understanding of the sequencing, duration, or magnitude of flow.

Among the more important missing documents are the results of the annual seep investigations that track conditions at some impoundment locations over a period of about a decade. These reports are cited and clearly relied upon by the applicant and EPA, but are not part of the Administrative Record and accessible by the public for independent review and assessment. Finally, the record fails to include maps showing the location of the outfalls. The record is also devoid of any related 404 permitting materials from the Army Corps of Engineers. BMWC [the commenter] respectfully requests that these materials be incorporated into the agency's Administrative Record and that the draft permit be re-noticed for additional public review and comment.

BMWC notes that on March, 29, 2010, the Center for Biological Diversity submitted a Freedom of Information Act ("FOIA") request to EPA for all records related to the proposed NPDES permit. At a minimum, BMWC et al. should be allowed to supplement their comments on the NPDES permit 60-days after release of any records under FOIA by the agency.

RESPONSE: EPA does not agree the Administrative Record is incomplete or deficient. "[T]he complete or official administrative record for an agency decision includes all documents, materials, and information that the agency relied on directly or indirectly in making its decisions." *In re: Dominion Energy Brayton Point*, L.L.C., 12 E.A.D. 490, PPT (EAB Feb. 1, 2006) (*citing Bar MK Ranches v. Yuetter*, 994 F.2d 735, 739 (10th Cir. 1993); *Thompson v. U.S. Dep't. of Labor*, 885 F.2d 551, 555 (9th Cir. 1989)). Specifically, the Administrative Record for the draft permit must contain the permit application and any data supplied by the applicant, the draft permit, the fact sheet, all documents cited in the fact sheet, and all other documents contained in the supporting file for the draft permit. 40 C.F.R. § 124.9. The Administrative Record includes all documents, materials, and information upon which EPA relied in making its permitting decision. EPA did not omit any of data supplied by the applicant from the Administrative Record. Further, the Administrative Record includes all the specific documents required by 40 C.F.R. § 124.9. Therefore, the Administrative Record is complete.

The commenter states that "no data is provided in the application, the permit or the Administrative Record from which to view or understand those discussed." The commenter's assertion is incorrect. Data on water chemistry and flow rates is provided throughout the Administrative Record, particularly in the Fact Sheet. For example, the table in Section IV of the Fact Sheet provides the date, volume, and source of every discharge which has occurred during the past permit term from 2005-2009. The permit application, EPA Form 2C, Attachment 1, provides Organic, Inorganic, Biological and Radiochemical Analysis for pollutant concentrations, including the maximum daily value and concentration for analytical parameters.

The commenter is correct that the Administrative Record does not include a copy of every Discharge Monitoring Report ("DMR") which the permittee has submitted every quarter in accordance with the previous permit terms. The DMRs are not typically part of administrative records due to the volume of material and the fact that EPA utilizes data provided in the permit application, not the DMRs, to assess the reasonable potential of the discharge to cause or contribute to a violation of water quality standards. EPA typically evaluates the maximum observed concentrations to assess reasonable potential in accordance with the methodology detailed in the Technical Support Document for Water Quality-based Toxics Control (EPA, 1991). The maximum observed concentration data is provided in the permit application, not the DMRs.

While the DMR data is not included in the Administrative Record, all DMRs are publicly available documents which can be obtained directly from EPA by request or, alternatively, can be directly viewed on EPA's website through the Permit Compliance System webpage. All DMRs are available to the public for review at the following website: http://www.epa-echo.gov/echo/compliance_report_water_pcs.html.

Additionally, Section VI of the Fact Sheet contains a detailed description of the seep monitoring results, including a table listing the number of seeps identified and sampled each year and a table summarizing the data obtained from each impoundment as it relates to water quality standards. The Interim Final Report on Seep Management Plan is provided in the Administrative Record in

Part F, Seep Management Plan Review. This report provides a detailed written analysis of every impoundment, including its drainage age, use for stormwater controls, location of seeps discovered, and sampling conducted at those seeps, along with data results compared to water quality standards. Additional tables in the report provide Summary of Seepage Inspections and Monitoring Results for each year from 2003 to the present (Table 1); Site Conditions at Monitored Seeps 1999-2007 (Table 2); and Summary of Exceedances of NNEPA water quality standards (Table 3) which lists every data sample which exceeded water quality standards. Thus, the Administrative Record is not lacking the results of the seep investigations, as the commenter suggests.

The commenter is correct that the Administrative Record contains no materials related to the 404 permitting from the Army Corps of Engineers. The 404 permit issued by the Army Corps of Engineers is a separate permitting action from the NPDES permit renewal and is not a part of the regulatory record for the 402 permit reissuance.

EPA disagrees that EPA should further extend the comment period as a result of the March 29, 2010 FOIA request. EPA first proposed to reissue the permit on February 19, 2009, and subsequently reproposed the permit on January 20, 2010 to allow for additional public comment. EPA provided two comment period extensions at the request of commenters, which ultimately extended the comment period to April 30, 2010. The FOIA request was not submitted until March 29, 2010, more than two months after the reproposal was issued, and EPA provided a timely response. The commenter does not contend that EPA's response was delayed. EPA held two public workshops and hearings, in addition to meeting with commenters at the San Francisco EPA office on March 3, 2010. EPA believes commenters have had ample opportunity to request additional materials and to review the record for the permitting action.

9. Additional Comments related to other permitting actions & authorities

a. Need to apply new Guidance for Appalachian coal mines

COMMENT: New EPA guidance (April 1, 2010) provides instructions for improving EPA's of surface coal mining operations in Appalachian coal mines. As this guidance is equally

applicable to the Black Mesa mine, BMWC [the commenter] asks EPA to use this new guidance in permitting for Black Mesa.

RESPONSE: On April 1, 2010, EPA issued guidance to clarify how EPA is carrying out responsibilities to assure that the environment impacts of Appalachian surface coal mining operations comply with the CWA, NEPA, and the Environmental Justice Executive Order 12898. EPA notes that Appalachian Coal Mining has many unique environmental consequences due to geography, soil geochemistry, pollutants of concern, surface water resources, and legacy coal mining which are not necessarily related to surface coal mines of northeastern Arizona. For example, PWCC is not conducting "mountaintop removal" where stream valleys are permanently filled with overburden, nor do the Kayenta or Black Mesa mines have the potential to generate acid mine drainage. The Region has reviewed the guidance, and has concluded the permit is consistent with those portions of the guidance that address compliance with applicable conditions established under the CWA for all coal mines, regardless of location.

b. Concerns regarding invasive species

COMMENT: You have failed to address the impacts of the proposed infrequent discharges on invasive species, particularly salt cedar. I believe these infrequent discharges will encourage growth of this species

RESPONSE: The commenter fails to provide specific information on which the concern regarding invasive species is based, and EPA therefore cannot provide a detailed response to this comment. The record does not indicate any conditions which will exacerbate the growth of invasive species. *See also* Response # 8, above (discussing compliance with the Endangered Species Act).

c. Permit allows self-regulation

COMMENTS: Several comments claimed that the permit allows PWCC to "self-regulate:"

- Should consult with citizens to do monitoring of mine site; EPA should fund citizens to do water quality monitoring
- Monitoring should be done by independent group
- PWCC is not properly monitoring and reporting

- It appears the dischargers are essentially managing themselves.

RESPONSE: Nationwide, the NPDES program relies on permittee self-monitoring, with oversight by EPA (or the authorized State or Tribe). The permit requires that the permittee prepare a Quality Assurance sampling plan (*see* Section D.1 of permit), provide monitoring results to EPA, utilize EPA-approved methods under the Clean Water Act, use certified laboratories, and maintain records of monitoring. These are standard components of all EPA issued permits and are included in the final permit. In addition, the permittee is required to submit monitoring reports to the Navajo and Hopi environmental offices as well as to EPA. These reports must be certified and signed by a duly authorized representative of the permittee. If false data is submitted, the permittee is subject to civil and criminal liability. EPA does not typically require independent monitoring for other permittees, and EPA does not agree monitoring need be conducted by an independent agency for this permit. Regulatory agencies, including EPA and the Navajo Nation, conduct regular compliance inspections of the mine.

10. Comments related to issues not addressed by CWA Section 402 Permits

a. OSMRE permits

COMMENTS: Several comments focused on the relationship of the OSM permit and the NPDES permit being issued by EPA.

- EPA's NPDES permit process should coincide with OSM's permitting process (how does EPA know what the discharges are when we do not know what OSM will do with the mine?)
- need to issue a cease and desist order under PWCC posts necessary bonds
- The Black Mesa & Kayenta mines are operating without a permit due to Judge Holt's decision on the life of mine permit, and the NPDES permit is therefore illegal as well

RESPONSE: The NPDES permit renewal is issued under the authority of Section 402 of the CWA for the discharge of pollutants through a point source to a water of the U.S. The decision regarding the Life of Mine permit under SMCRA authority does not affect this permitting action for the control of pollutants discharged to waters of the United States from the mine site.

b. <u>Groundwater concerns</u>

COMMENTS: Sediment ponds and/or discharges contaminate groundwater; EPA should not treat surface water and groundwater separately

RESPONSE: The NPDES permit renewal is issued under the authority of Section 402 of the CWA for the discharge of pollutants through a point source to a surface water of the United States. Section 402 of the CWA does not regulate the discharge of pollutants that reach only groundwater. Although certain discharges to groundwater may be subject to the Underground Injection Control provisions of the Safe Drinking Water Act, 42 U.S.C. §300f et. seq., that is beyond the scope of this permit.

c. Air concerns

COMMENTS: Coal dust settles on bottom of ponds, when it dries the wind blows the dust. Coal dust should be cleaned from ponds.

RESPONSE: The NPDES permit renewal is issued under Section 402 of the CWA for the discharge of pollutants through a point source to a water of the United States. Although the regulation of air pollutants from the mine site may be subject to the requirements of the Clean Air Act, 42 U.S.C. §7400 et. seq., that is beyond the scope of this permit.

d. CWA 404

COMMENT: EPA seeks to issue the NPDES permit for discharges or outfalls from earthen impoundments with no indication that such impoundments have not been properly permitted in the first instance by the Army Corps of Engineers ("Corps") under Section 404 of the CWA. 33 U.S.C. § 1344. It is impossible to discern from EPA's administrative record which impoundments were subject to 404 permitting. When contacted, the head of EPA's permitting office, David Smith, claimed that he "was personally unfamiliar with the 404 permitting history at the site and that I did not personally recall seeing any 404 permitting issues raised during the period I managed EPA Region 9's Wetlands Office." No other information has been provided by the EPA regarding this matter.

Additionally, and because EPA has acknowledged that "[t]he facility may also require authorization under a separate permit under the authority of Section 404 of the CWA for the discharge of fill material to a water of the U.S.," Comment Response Document (August 3, 2009) at 8, BMWC requests that EPA: (1) identify all impoundments which will be subject to 404 permitting under the terms and conditions of the current NPDES permit renewal; (2) identify all of the impoundments (and outfalls) which are or have been subject to 404 permitting; and, (3)

Identify and provide any and all previously issued or to be issued 404 permits for inclusion in EPA's administrative record. Additionally, BMWC[the commenter] requests that EPA identify and any and all requirements and design parameters that may be necessary to implement Section 404 of the CWA and as they relate to the 111 outfalls now covered by EPA's NPDES permit.

RESPONSE: The NPDES permit does not address, nor authorize, any activity which results in the discharge of dredged or fill material to a water of the United States. The NPDES permit renewal is issued under Section 402 of the CWA for the discharge of pollutants through a point source to a water of the United States. A separate CWA Section 404 permit, issued by the U.S. Army Corps of Engineers, is required for any activity at the mine site which results in the discharge of dredged or fill material to a water of the United States.

e. Water Rights

COMMENTS: Several comments focused on water rights and water usage.

- Moenkopi wash used to flow all the time
- Water is lossed [sic] for downstream farmers because water is trapped in impoundments
- Any water impoundment and discharge permit is illegal without the resolution of Hopi Reserved Water Rights of Moencopi farmers.

RESPONSE: As described in the Fact Sheet, the new permit establishes effluent limits for Western Alkaline Reclamation Areas and requires a seep management plan that prioritizes the removal of impoundments. The new regulatory category for Western Alkaline Reclamation Areas requires PWCC to establish Best Management Practices for the control of sediment, such as reclamation, re-vegetation, contour furrowing, etc. Implementation of Best Management Practices for post-mining areas will allow the permittee to meet effluent limitations by removing impoundments and reclaiming the impoundment areas to re-establish the natural hydrology of the channels. Although EPA is prioritizing the removal of impoundments to reclaim the post-mining areas through implementation of the seep management plan and through implementation of the Sediment Control Plan for Western Alkaline Reclamation Areas for purposes of protecting downstream water quality, EPA believes that the effects of such work may have beneficial impacts on conditions leading to the commenters' concerns.

EPA's reissuance of the NPDES permit is not predicated on the resolution of Hopi Reserved Water Rights of Moencopi farmers. As discussed in the response to comment 5.a., above, EPA received a Water Quality Certification from the Hopi Tribe on June 12, 2009 granting certification with certain conditions, which have been incorporated into the final permit.

f. Mine Lease

COMMENT: EPA should not issue permit until Navajo Nation council has reviewed the mine lease

RESPONSE: EPA does not consider issues related to the mine lease in the reissuance of this permit.