

RESPONSE TO COMMENTS
NTEC Navajo Mine
NPDES Permit No. NN0028193

EPA received comments from the Law Office of John M. Barth on behalf of San Juan Citizens Alliance, Center for Biological Diversity, on EPA's Draft renewal NPDES Permit for the NTEC Navajo Mine, NPDES Permit No. NN0028193. EPA has summarized the comments and responded to the comments below.

COMMENT 1: While we are pleased that EPA is updating the Navajo Mine permit in a relatively prompt timeframe, we remain concerned with the unreasonable delay in the reissuance of the related Four Corners Power Plant NPDES permit. As you know, these two permits are related because the Navajo Mine provides the coal that is burned at the neighboring Four Corners Power Plant. The last time the Four Corners Power Plant NPDES was reissued by EPA was on April 3, 2001. Thus, it has been nearly 15 years (or 3 five-year permit cycles) since EPA Region 9 has updated the Four Corners Power Plant NPDES permit. On May 16, 2014, SJCA and CBD issued a notice of intent to sue EPA for its unreasonable delay in issuing the Four Corners Power Plant (FCPP) NPDES permit. See attached. While EPA subsequently issued a draft reissued permit on November 13, 2014, and a coalition of conservation organizations submitted comments on February 18, 2015, EPA has yet to issue a final renewal permit for the facility. Please promptly issue the final NPDES permit for the Four Corners Power Plant.

RESPONSE 1: Comment noted. EPA is issuing the final permit for the Navajo Mine now and will issue the permit for the **Four Corners Power Plant in the immediate future.**

COMMENT 2: As noted in EPA's Fact Sheet, some of the discharges and impacts from the Navajo Mine cross into the Four Corners Power Plant lease area. In addition, the Fact Sheet states that coal combustion byproducts (CCB) from the Four Corners Power Plant have been disposed of on the Navajo Mine, but then states "[t]he disposal of all CCB material produced by FCPP is the responsibility of the Arizona Public Service Co. ("APS")." Given the interrelationship of the discharges and sources of pollution between the Navajo Mine and the Four Corners Power Plant, we request that APS be listed as an additional "permittee" under this permit because it is responsible for potential discharges of CCB into receiving waters. Likewise, we request that NTEC and/or BHP be included as additional permittees under the Four Corners Power Plant NPDES permit because they contribute discharges to receiving waters located within the FCPP lease area.

RESPONSE 2: The NPDES statutory scheme and accompanying regulations impose the obligations of a permit on the operator and/or owner of the site where the discharge occurs. See, generally, 40 CFR Sections 122.1 and 122.2. Although activities at Navajo Mine and the Four Corners Power Plant are interdependent, both the legal ownership and the functional operations are clearly distinct. The mine is presently owned by Navajo Transitional Energy Company

(NTEC) and operated by Bisti Fuels Company, LLC (“BFC”). The Four Corners Power Plant is operated on leased lands on the Navajo Nation by the Arizona Public Service Co. (“APS”). For that reason, EPA is issuing two distinct NPDES permits, one of which covers discharges on the Navajo Mine property.

COMMENT 3: EPA’s Fact Sheet acknowledges that extensive CCB materials from the FCPP have been disposed of in unlined mine pits located on the Navajo Mine. In comments on the Draft Environmental Impact Statement (DEIS) for the FCPP/Navajo Mine complex, EPA stated,

“Contamination from coal combustion residue (CCR) placed at the Navajo Mine has leached, and will continue to leach, directly into groundwater of the Fruitland Formation coal seams and the Pictured Cliffs Sandstone Formation. The DEIS acknowledges “high levels of chemical constituents of concern exist within the wells in the historic mining area” (p. 4.5-44). The DEIS concludes, however, that “Thus far, negligible impacts have resulted from the CCR placement. It is also unlikely that any significant future effects will ensue from the CCR placement at the Navajo Mine because of the very slow groundwater movement and the likely attenuation of contaminants of concern as they migrate through the subsurface” and that “Therefore, past CCR placement at the Navajo Mine is determined to have no impact in the short- or long-term” (p. 4.5-14). Elsewhere it states that the potential impacts to current and future water uses from CCR placement at the Navajo Mine are minor (p. 4.5-44), despite the identified major impacts for pH, boron, selenium, fluoride and sulfate (p. 4.5-44), with concentrations of boron, fluoride, sulfate, and total dissolved solids (TDS) exceeding the criteria for livestock watering, a designated post reclamation land use. These conclusions, especially that of “no impact”, do not appear to be supported. The modeling assumption that contaminants would be attenuated as they migrate through the subsurface has not been confirmed. Additionally, the assumption that pollutants would be diluted by the larger San Juan River groundwater flow, even if they are not attenuated during transport to the Fruitland Formation, is brought into question since the transport modeling and sampling that occurred seems to have not fully recognized the possibility of a significant vertical (fracture) flow in the Fruitland Formation. The DEIS indicates that the general flow direction of groundwater in the Fruitland Formation is downward through the interbedded shale and coal units to the lower strata of the Fruitland Formation, with marginal upward movement from the Pictured Cliffs Sandstone into the Fruitland Formation (p. 4.5-13). One can infer from the vertical flow directions that fracture flow might play a prominent role in the movement of bedrock groundwater in the FCPP area. This parameter was not considered in the groundwater modeling of the FCPP area. If vertical (and lateral) fracture flow is substantial, the assumed attenuation would not occur because fracture flow results in a much smaller residence time of groundwater in the bedrock formations and a limited opportunity for the contaminants to be adsorbed by bedrock clay. This would lead to a potentially larger groundwater impact downgradient of CCR placement than is predicted in the DEIS. The DEIS is not clear whether any ongoing groundwater or surface water monitoring would occur as a condition of this project. The DEIS seems to indicate that only groundwater and surface water monitoring that are part of the new SMCRA permit groundwater monitoring plan (originally from BHP Navajo Coal Company, but which the Navajo Transitional Energy Company will implement) would occur,

which relates to the new mine areas and the Pinabete and Cottonwood arroyos. It does not specify any monitoring of the historic contamination areas nor confirm that contaminated groundwater is not reaching the San Juan or Chaco River surface water or alluvia.

Recommendation: The FEIS should include additional information to support its groundwater and surface water impact assessment conclusions. We recommend that monitoring of groundwater quality at Areas I and II of the Navajo Mine and the San Juan River alluvium occur to confirm the model predictions that constituents of concern would be attenuated as groundwater travels towards the San Juan River and the Chaco River. Because the groundwater of the Fruitland and Pictured Cliffs Sandstone formations that enter into the alluvium also discharges into the San Juan River in the area of the Navajo Mine, monitoring of the San Juan River surface water quality upstream, along the mine reach, and downstream should occur if the groundwater monitoring results identify elevated levels of pollutants in the San Juan River alluvium that exceed Navajo Nation Water Quality Standards. In addition, the baseline groundwater quality should be clarified. The DEIS summarizes baseline results for Cottonwood, Pinabete, and No Name Arroyo alluvial wells in Table 4.5-5; however the presentation of this information is not useful. EPA previously commented that this summary does not allow an assessment of ground water impacts by source, and we recommended including some monitoring results by well in the DEIS. In addition, the identification/location of these baseline wells is of importance in order to confirm they do, indeed, represent baseline conditions and do not include contamination that is related to past CCR disposal. This information should be included in the FEIS.” EPA DEIS Comment Letter dated June 26, 2014 attached hereto.

In light of EPA’s comment letter, it is clear that the Navajo Mine CCR mine pits are, or may be, a point source of pollution to the San Juan River and/or its tributaries that must be regulated under this NPDES permit. Please regulate these CCR mine pit point sources in this permit, include appropriate monitoring for a vast array of constituents from the CCR mine pits, and impose TBELs and WQBELs.

RESPONSE 3:

EPA is issuing this NPDES permit under the authority of the Clean Water Act, which regulates the discharge of a pollutant through a point source to a water of the U.S. EPA does not have the authority under the Clean Water Act to regulate groundwater generally, to mandate the type of treatment employed to meet effluent limitations, or to regulate the disposal practices or other conditions on the mine which do not result in the discharge of a pollutant through a point source to a surface water. EPA recognizes that there are several authorities providing for regulatory control over the activities at a coal mine. The Office of Surface Mining Reclamation and Enforcement has direct authority over mining operations in accordance with the Surface Mining Control and Reclamation Act (SMCRA). Industrial solid waste handling and disposal may be regulated under the authority of the Resource Conservation and Recovery Act (RCRA). The Navajo Nation EPA has regulatory jurisdiction over the protection of groundwater on the Navajo Nation. Additionally, the Navajo Nation EPA has the authority under the Clean Water Act to

certify that EPA's permitting actions are in compliance with the Tribe's surface water quality standards.

EPA notes that the question of mine waste discharging into surface waters was evaluated extensively at the time of the reissuance of the NPDES permit for the mine in 2008 (2008 NPDES Permit). At that time, based on ongoing monitoring required under the previous permit and on additional studies submitted by commenters and the mine operator, EPA concluded that the evidence did not support a finding that the CCR had an adverse effect on surface water. *See* Response to Comments for the 2008 NPDES Permit (included in the Administrative Record). Subsequent monitoring required under the 2008 NPDES Permit has not identified any significant changes that would require a reevaluation of the conclusions in the 2008 NPDES Permit Response to Comments. Disposal of CCR at the Mine stopped in 2008, and the permittee has no current nor future plans to use CCR materials as backfill for any future reclamation within the Navajo Mine Lease. The new permit requires a continuation of monitoring to determine whether any adverse effects are occurring. In addition, the new permit has added monitoring requirements for mercury, given the elevated concern in the broader basin over the effects of mercury on aquatic resources.

Should monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursions above water quality criteria, the permit may be reopened for the imposition of water quality based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR Sections 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA approved new Tribal water quality standards. (*See* Section D "Permit Reopener" of the permit).

The commenter raises a related concern that at least some sources of pollution at the site constitute additional "point sources" requiring NPDES permits under the federal Clean Water Act. Consistent with the discussion above, EPA notes that monitoring done to date does not establish any clear hydrological connection between the CCR deposits and the discharge of a pollutant from a point source into any water of the U.S. This must be established before NPDES requirements would apply. Nevertheless, as noted, EPA is continuing and upgrading the monitoring requirements included in the 2008 NPDES Permit, so that any discharges can be identified and, where appropriate, addressed through the permit reopener provision or a distinct NPDES permit for a wholly different discharge.

COMMENT 4: EPA's Fact Sheet for the reissued Navajo Mine NPDES permit correctly states that "[a]n approved mine plan revision for Area IV North was vacated on April 6, 2015 by the U.S. District Court for Colorado pending further analysis under NEPA by the Office of Surface Mining Reclamation and Enforcement (OSM)." Fact Sheet, p. 1. As such, NTEC is not presently authorized to mine in Area IV North. EPA's Fact Sheet also states NTEC's NPDES renewal permit application seeks authorization to discharge from 26 new outfalls, many of which are located in proposed mining area Area IV North. *See also* FCPPNM BiOp 107. However, EPA

has not provided a map showing the location of each proposed new outfall and which outfalls are located in Area IV North. We suggest that EPA provide such a map prior to finalizing the permit for the Navajo mine.

RESPONSE 4: A map will be provided in the factsheet with the permit issuance. The proposed draft also provided information about the location of the proposed new outfalls. EPA notes that the mine operator has withdrawn its request to include two outfalls (identified as Outfalls 001 and 002 in the draft permit) in this NPDES permit. *See* Letter from Brien J. Flanagan (Schwabe et al.) to Gary Sheth (EPA) dated October 18, 2017 (included in the Administrative Record). Therefore, any discharges from Outfalls 001 and/or 002 would not be covered by this new permit.

COMMENT 5: EPA's draft permit proposes to approve discharge from as many as 26 new outfalls located in unapproved mining areas. EPA is putting the cart ahead of the horse. Since NTEC is not authorized to mine in Area IV North, it is arbitrary and capricious for EPA to authorize discharges from mining activities in this unapproved proposed mining area. Stated another way, EPA may only authorize mining related discharges in areas that are approved for mining. Accordingly, we ask EPA to remove from the final permit all authorizations to discharge from outfalls located in unapproved mining areas, including but not limited to Area IV North. If NTEC ever receives authorization to mine in this new area, it can reapply to EPA for authorization to discharge at that time.

RESPONSE 5: As a general matter, EPA does not agree with the commenter's suggestion that it cannot issue an NPDES permit unless and until the discharger has secured all other regulatory permissions to conduct the action. An NPDES permit is one of several permits or approvals that may need to be secured for a proposed action, and the issuance of an NPDES does not have the effect of amending any other regulatory or legal requirements for the mine. At this point, NTEC has received authorization from OSMRE to mine in the new areas. *See* SMCRA Permit No. NM-003G and SMCRA (NM-0042A) Permit (July 17, 2015). EPA action in issuing this NPDES permit is timely.

COMMENT 6: EPA's Fact Sheet states that NTEC submitted a letter dated November 22, 2013 in which BNCC identified 10 corrective actions to be taken pursuant to the facility's MSGP and that it would "meet all requirements of the 2008 MSGP and the Memo (9/27/13 EPA Giles Guidance Memo) and will notify the EPA NPDES permitting authority prior to the discharge of any storm water associated with industrial activity." We ask that EPA make publicly available the November 22, 2013 letter, the related 2012 inspection report, and identify any corrective actions that remain to be implemented. Moreover, as stated above, EPA may not authorize any discharge of storm water from industrial activity in areas that have not received authorization for mining.

RESPONSE 6: The material referenced in the comment is included in the Administrative Record for this permit. We note, however, that the 2008 Multi-Sector General Permit (MSGP) has been superseded and that the applicant has submitted its required notice to be covered under the new MSGP. That information is also included in the Administrative Record for this permit. *See also* Comment 10, below.

COMMENT 7: Section 7(a)(2) of the Endangered Species Act requires 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. 16 U.S.C. § 1536(a)(2). Section 7(a)(2) imposes two obligations upon federal agencies.

The first is procedural and requires that agencies consult with the FWS to determine the effects of their actions on endangered or threatened species and their critical habitat. See 16 U.S.C. § 1536(b). The second is substantive and requires that agencies ensure that their actions do not jeopardize endangered or threatened species or their critical habitat. See 16 U.S.C. § 1536(a)(2); see also, *Florida Key Deer v. Paulison*, 522 F.3d 1133, 1138 (11th Cir. 2008).

Issuance of a (discretionary) NPDES permit is plainly a federal action subject to the requirements of ESA section 7, and compliance with the substantive minimum requirements of the CWA does not, in and of itself, necessarily satisfy the independent substantive requirements of ESA Section 7(a)(2). See *National Association of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 666-68 (2007) (CWA, ESA, and implementing regulations require consultation and jeopardy determination for discretionary permit issuance). EPA acknowledges the presence of seven listed species present within the immediate area of the outfalls. Fact Sheet 9-10. It then proceeds to rely upon, for compliance with ESA Section 7(a)(2), “the Biological Opinion issued by USFWS on April 8, 2015, which considers the entire Four Corners Power Plant and Navajo Mine Energy Project Proposed Action, including explicitly the U.S. EPA’s action on this NPDES Permit NN0028193.” Fact Sheet 10. As detailed below, reliance on the Biological Opinion for the Four Corners Power Plant and Navajo Mine Energy Project (“FCPPNM BiOp”) is invalid to satisfy EPA’s obligations to determine the effects of its actions on listed species and critical habitat and to ensure those actions do not jeopardize the species or adversely affect critical habitat.

The FCPPNM BiOp briefly discusses this proposed action under the heading “Effects of Stormwater Runoff, Point Source, and Other USEPA Authorized Discharges.” FCPPNM BiOp 107-109. Its analysis does not appear to distinguish Navajo Mine discharges from FCPP operational discharges, but considers them collectively. It addresses two bioaccumulative toxic pollutants, mercury (Hg) and selenium (Se) that are causes of serious behavioral, reproductive, and other impairment to the listed Colorado pikeminnow and razorback sucker. See FCPPNM BiOp 72-103, 116-119. The BiOp addresses NPDES-permitted outfalls under the assumption

that “a PQL [Practical Quantification Level] for Se of 1 ug/L and a PQL for total Hg of 0.0002 ug/L will be used.” FCPPNM BiOp 108.1 Assuming these limits on EPA-authorized discharges of Se and Hg, the BiOp concludes that:

Using the PQLs and the bioaccumulation factors (BAF) provided in the BA (OSMRE 2014, page 6-18) for Se (BAF = 485 L/mg), we expect Se in whole body razorback suckers and Colorado pikeminnow to increase to approximately 2.4 mg/kg wet weight and their egg Se concentrations would increase to 13.6 to 19.4 mg/kg DW resulting in an increase in egg mortality ranging from 4 to 5 percent. Using the PQL for Hg and the BAF provided in the BA (OSMRE 2014, page 6-18) for total Hg (BAF = 3,520), we expect Hg in whole body razorback suckers and Colorado pikeminnow to be approximately 0.1 mg/kg wet weight and therefore, associate a 2.8 percent reproductive injury and a 0.5 percent survivorship injury (Table 8). We conclude that in both cases, the PQLs used in the NPDES permits or discharges of Hg and Se would be associated with a wide range of adverse effects to the Colorado Pikeminnow and razorback sucker and their designated critical habitat.

FCPPNM BiOp 108-109 (emphasis added). Thus, the BiOp finds significant adverse effects on the Colorado pikeminnow and razorback sucker, and their designated critical habitat, from what it assumes to be effluent limits of 1 ug/L for selenium and 0.0002 ug/L for mercury. BiOp 108.2

EPA’s reliance on the FCPPNM BiOp to satisfy its Section 7(a)(2) obligations with regard to the Navajo Mine NPDES permit is invalid for the simple reason that the FCPPNM BiOp assumes effluent limitations and/or monitoring not present in the draft permit. The draft permit contains no effluent limitations for either mercury or selenium, see Draft NPDES Permit No. NN0028193 at 3-5 Tables A-1 and A-2, and does not even contain a monitoring requirement for mercury. This lack of even a monitoring requirement for mercury appears to contradict the BiOp’s assumption that “We therefore expect that NPDES permits identifying outfalls with the potential to discharge Hg will provide monitoring data for Hg using Method 1631E or another sufficiently sensitive EPA-approved method,” BiOp 107. Without even monitoring for mercury from the outfalls, it is impermissible for the NPDES permits to rely on the BiOp’s assumption that their mercury contribution will be less than 0.0002 ug/L. If the BiOp’s assumptions regarding maximum mercury loading are unsupported by permit terms, its conclusions regarding reproductive and survivorship injury are similarly unsubstantiated, and clearly inconsistent with the ESA’s requirement to utilize best available science.

Relying on the FCPPNM BiOp to establish ESA compliance for the Navajo Mine’s water outfalls is also inappropriate because the BiOp improperly excludes all consideration of the cumulative effects of selenium loading from the Navajo Indian Irrigation Project (“NIIP”).³ The NIIP is a major source of selenium loading in the San Juan River system, see Bureau of Indian Affairs, Navajo Indian Irrigation Project Biological Assessment (June 11, 1999). Selenium is in turn a major source of bioaccumulative toxicity to fish, particularly at the ovary, egg, and fry stage. FCPPNM BiOp 99-103. Baseline selenium levels in the San Juan Basin are already sufficiently elevated to cause reproductive and other harm to the Colorado pikeminnow and

razorback sucker. BiOp 98. The BiOp acknowledges that, discounting all NIIP contributions, selenium from FCPP and Navajo Mine will harm “as many as 25,503 Colorado pikeminnow eggs/ovaries and 291,510 razorback sucker eggs/ovaries,” and that critical habitat will be adversely affected by the project’s added selenium deposition. BiOp 119. Any conclusion that the population-level effects of Navajo Mine selenium discharge will not jeopardize razorback sucker or critical habitat, however, is invalid if it declines to consider the contribution of one of the basin’s largest selenium sources, runoff from the NIIP. The BiOp acknowledges that, in the future, NIIP “use of San Juan River water is expected to approximately double.” BiOp 63. The FCPPNM FEIS similarly acknowledges “if increased water is required for agricultural uses, it could result in increased runoff of pesticides and selenium from agricultural return flows.” Four Corners Power Plant and Navajo Mine Energy Project Any Final Environmental Impact Statement 4.18-45 (May 2015). Yet the BiOp explicitly excludes consideration from cumulative effects of any potential future discharges from BIA irrigation projects. The explicit refusal to consider these reasonably foreseeable contributions to San Juan Basin selenium loads from BIA actions contravenes the ESA’s mandate to utilize best available science.

Finally, reliance on the FCPPNM BiOp is inappropriate because it omits any consideration of a significant new event and significant new information that post-dates that BiOp – the release of large quantities of pollutants from the Gold King Mine into the Animas River and from there into the San Juan River, its sediments, and its biota. EPA states “we will be evaluating long-term impacts associated with exposure to the plume and the impacts of deposited sediments over time. EPA will be working with the States of Colorado, New Mexico and the Navajo Nation to evaluate these and other ecological impacts as we move forward.” US EPA, Frequent Questions Related to Gold King Mine Response, available at <http://www2.epa.gov/goldkingmine/frequent-questions-related-gold-king-mine-response> (last visited Sept. 18, 2015). The FCPPNM BiOp, predating the Gold King release, contains no consideration of the effects of acidity, metals, or other toxins on water quality, sediment, invertebrates, or fish stemming from either the initial Gold King release or its continuing discharge of contaminated water. Without additional analysis of the effect of this substantial new information on water quality and toxin concentrations in fish and invertebrates, reliance on the April FCPPNM BiOp fails to meet the ESA’s mandate to utilize the best available science.

RESPONSE 7: EPA agrees with commenter that it must comply with the Endangered Species Act when it issues the Clean Water Act NPDES permit renewal for the Navajo Mine NPDES Permit.

At the outset, EPA emphasizes that ESA Section 7(a)(2) and the underlying regulations at 50 CFR Section 401.10, et seq., establish a process whereby the federal action agency consults with the USFWS about the anticipated effects of the proposed federal action on listed species and their critical habitat. During this consultation process, the action agency is responsible for alerting the USFWS of the proposed action, requesting a species list, initiating early, informal and/or formal consultations as appropriate, developing a biological assessment, reviewing the USFWS biological opinion on the proposed action, and implementing appropriate project changes and “reasonable and prudent measures” to ensure that the federal action is not likely to

jeopardize the continued existence of the listed species or destroy or adversely modify critical habitat. The USFWS is responsible for evaluating the available information about the relevant listed species, relying on both the biological assessment prepared by the action agency and other scientific information that is “otherwise available,” and developing a biological opinion. *See* 50 CFR Section 402.14(g). The regulations anticipate that this will be a collaborative process, but it is clear that the USFWS, as the expert agency, is responsible for the scientific analysis and conclusions in the biological opinion.

A review of the record demonstrates that EPA consistently carried out its responsibilities as an action agency under the ESA.

The first challenge was to determine the scope of the analysis. Early discussions with the USFWS and other federal action agencies suggested that a broader analysis including all of the interrelated federal actions associated with the renewal of the FCPP permit and the expansion of the Navajo Mine would provide the best evaluation of potential impacts. *See* Final Environmental Impact Statement for the Four Corners Power Plant and Navajo Mine Energy Project (FEIS), Executive Summary, May 8, 2015, at page VI (Table of related federal actions considered in the NEPA and ESA reviews). A broader analysis would better identify direct, cumulative and indirect effects from all of the federal activities involved in the Four Corners Power Plant and Navajo Mine Energy Project (“Energy Project”) and would enable a coordinated and comprehensive response to any identified issues. For that reason, the Office of Surface Mining Reclamation and Enforcement (OSMRE), the Bureau of Land Management (BLM), the Bureau of Indian Affairs (BIA), the U.S Army Corps of Engineers (USACE), the National Park Service (NPS), and EPA developed a single Biological Assessment under the ESA and a single FEIS under the National Environmental Policy Act (NEPA). This approach is consistent with the ESA regulations, which encourage agencies to coordinate environmental reviews under the different statutes. *See* 50 CFR 402.06. Commenter has not provided a reason why this consolidated approach was not warranted or legally cognizable for meeting the federal agencies’ collective ESA consultation obligations.

OSMRE was the lead agency for purposes of preparing these analyses, and BLM, BIA, USACE, NPS, and EPA were formal cooperating agencies for the FEIS and consulting federal agencies for purposes of ESA consultations. *See* 50 CFR 402.07 (designating a lead agency); Letter from David Smith (EPA) to Marcello Calle (OSMRE) dated October 11, 2012 (NEPA and NHPA cooperation); Final Biological Opinion for the Four Corners Power Plant and Navajo Mine Energy Project (April 8, 2015) (Final Biological Opinion) at p. 24 (formally including EPA’s permitting actions in the project description for purposes of Endangered Species Act consultations.) The ESA Biological Assessment (ESA BA) chronicles the significant early consultation (50 CFR 402.11) carried out by the USFWS and action agencies, as the agencies considered the scope of the necessary analyses. *See* ESA BA at pp. 1-6 to 1-9. The species list was developed and verified in the November 2013 to January 2014 timeframe (50 CFR 402.11(c) and (e)).

The ESA BA was finalized on August 8, 2014, and was amended primarily to reflect revised “reasonable and prudent measures” in a letter to USFWS dated March 13, 2015. The ESA BA

made “not likely to adversely affect” findings as to certain listed species, and the USFWS concurred with those findings in its letter dated April 8, 2015. The ESA BA also concluded that formal consultation was appropriate as to other listed species. *See* 50 CFR 402.12 and 402.14. The USFWS issued its Final Biological Opinion on April 8, 2015. As noted below, EPA incorporated those reasonable and prudent measures and terms and conditions of the Final Biological Opinion that were pertinent to EPA into the proposed NPDES permits.

The FEIS for the Energy Project was released on May 8, 2015.

The commenter submitted his comment letter on the draft Navajo Mine permit on September 19, 2015.

On April 20, 2016, the commenter filed a lawsuit against OSMRE, BLM, USFWS, and BIA. The lawsuit alleged that certain actions (including an extended lease of the power plant property, an extension of the transmission line rights-of-way, and the permit to mine the new areas of the Navajo Mine) taken by the federal agencies to enable the continued mining and power plant operations at Navajo Mine and the Four Corners Power Point were based on an inadequate NEPA document and an inadequate Final Biological Opinion under the ESA. As noted above, all of the federal actions were evaluated in a single EIS and Biological Opinion for the federal actions comprising the Energy Project. *See Dine Citizens Against Ruining Our Environment, et al. v. OSMRE, et al.*, Case No. 3:16-cv-08077, D. AZ (04/20/16.) That lawsuit was dismissed by the Court on September 11, 2017. The plaintiffs filed an appeal of the dismissal with the Ninth Circuit Court of Appeals on November 9, 2017.

At this time, no court has restricted federal agency use of the underlying documents (the Final Biological Opinion and the FEIS). EPA continues to believe that the ESA and NEPA compliance reflected in the Final Biological Opinion and the EIS fully complied with EPA’s obligations under those federal laws, and EPA intends to rely on those documents and analyses as it issues its NPDES permit to the Navajo Mine.

Commenter raises a number of specific points about the Final Biological Opinion. As noted, the statutory scheme of the ESA provides that the expert agency – USFWS – develops and is responsible for the content of the Final Biological Opinion. The commenter had and took advantage of opportunities to comment directly on the Biological Opinion and the FEIS during the public comment processes for those separate exercises. Disagreements about the adequacy of the Final Biological Opinion or the FEIS may ultimately be resolved in the ongoing litigation. EPA, in this response to comments, is primarily responding to comments raised about the draft NPDES permit. Nevertheless, EPA believes that the Final Biological Opinion adequately addresses the points raised by the commenter.

First, the commenter asserts that the Final Biological Opinion is flawed because it relies on “effluent limitations and/or monitoring not present in the draft permit.” The final permit does include monitoring for both selenium and mercury, and also requires monitoring protocols that are sufficiently sensitive to identify issues with discharged materials. *See* Final Permit, pages 4, 5, 8 and 10.

Second, the commenter believes that the Final Biological Opinion inadequately considers the impact of additional diversions by the Navajo Indian Irrigation Project (NIIP) and the related increases in contaminant loads resulting from those diversions. Again, this is a comment of the Final Biological Opinion itself, and not on any term or condition contained in EPA's permit. However, to the extent that EPA has any ability or authority to respond to this comment we note that the current NIIP diversions and impacts were included in the environmental baseline. *See* Final Biological Opinion at pages 97 and 102. By identifying pollutant contributions from the NIIP diversions as part of the "baseline," the Final Biological Opinion serves the same purpose as that achieved by identifying any increase in pollutants as part of a "contribution" from the NIIP diversions. The Final Biological Opinion also projects that diversions in the basin from all water users will increase over time, and that this, when combined with other actions in the basin, may lead to an increased contaminant loading in listed species. *See* Final Biological Opinion at pages 99, 102, and 130. EPA believes, therefore, that the USFWS adequately considered the possible impact of additional future diversions in the basin.

EPA notes that the Final Biological Opinion conclusions are not based on the absence of projected adverse impacts; instead, the conclusions reflect a permissible balancing of projected adverse impacts and the anticipated benefits of the San Joaquin River Basin Recovery Implementation Program (SJRRIP). *See* Final Biological Opinion at page 132.

Finally, the commenter contends that the Final Biological Opinion is flawed because it did not account for the recent contaminant spill at the Gold King Mine site. The accidental release of stored mine drainage at the Gold King Mine near Silverton, Colorado on August 5, 2015, generated an immediate and comprehensive response from EPA and its state, tribal and federal agency partners. The discharge created a short term plume of enhanced toxicity as it traveled downstream from the mine to the Animas River, the San Juan River, and the Colorado River. The EPA has evaluated the impacts this release in a number of reports, including "Analysis of the Transport and Fate of Metals Released from the Gold King Mine in the Animas and San Juan Rivers (Final Report)," U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-16/296, 2016. The findings of the investigations as to fish and wildlife impacts are summarized at <https://www.epa.gov/goldkingmine/frequent-questions-related-gold-king-mine-response>. These studies have found no significant short term impacts to fish and wildlife resources from the spill. EPA and its partner agencies have also instituted a long term monitoring program to consider whether there are any long term adverse impacts for aquatic and aquatic dependent resources caused by the spill. If those investigations identify adverse impacts or suggested remedial actions, the USFWS has the capability under the Final Biological Opinion to reinitiate consultation to deal with this new information as it is developed. *See* Final Biological Opinion at page 157.

EPA received comments from BHP Billiton Mine Management Company (MMCo) on September 18, 2015 via a letter on EPA's Draft renewal NPDES Permit for the NTEC Navajo Mine, NPDES Permit No. NN0028193. EPA has summarized and responded to the comments below.

Fact Sheet Comments

COMMENT 8: OSMRE approved the Navajo Mine SMCRA Permit (NM-0003F) renewal application on July 15, 2015, and issued a new Navajo Mine SMCRA Permit number as NM003G. All references to SMCRA Permit No. NM-003F referenced in the fact sheet and permit can be updated to SMCRA Permit No. NM-003G. OSMRE completed its environmental review of the Pinabete SMCRA (NM-0042A) Permit and signed the Record of Decision on July 17, 2015. This reference in the proposed permit can be updated.

RESPONSE 8: Comment noted and updates will be incorporated.

COMMENT 9: Page 1, Section I. Status of Permit, second paragraph: MMCo is requesting the U.S. EPA to consider updating the fact sheet to include that the previous permit has 14 outfalls. Outfall 016 in the previous permit is located in the middle of an active reclamation area in Dixon Ramp 4. This outfall no longer functions as an NPDES outfall location and therefore is not included in the renewal.

RESPONSE 9: Comment noted and updates will be incorporated.

COMMENT 10: Page 2, Section I. Status of Permit, second paragraph: The text mentions only the 2012 Multi-Sector General Permit (MSGP) Annual Comprehensive Inspection. To more fully describe MMCo's compliance with the MSGP Annual Inspection requirement, MMCo is providing information about subsequent inspections for consideration as an addition to the fact sheet. MMCo as BNCC, completed a 2013 MSGP Annual Comprehensive Inspection. MMCo completed a 2014 MSGP Annual Comprehensive Inspection with the most recent inspection completed on June 29, 2015 that satisfied the 2015 MSGP annual Comprehensive Inspection and identified 52 corrective actions taken. Additionally, MMCo submitted a Notice of Intent for coverage under the 2015 MSGP on September 2, 2015. Coverage under the MSGP is expected to begin at the conclusion of the 30-day waiting period.

RESPONSE 10: Comment noted and updates will be incorporated.

COMMENT 11: Page 7, Section V (2), Water Quality-Based Effluent Limitations: The effluent limitation for sulfate was included in the previous permit and is mentioned in the fact sheet but was not included in the tables of effluent parameters. MMCo requests that the parameter table be updated to reflect the expectations of the U.S. EPA.

RESPONSE 11: Comment noted. The final permit will include limitation for sulfate to be consistent with the previous permit. The non-inclusion of sulfate in the proposed draft was inadvertent.

COMMENT 12: MMCo is providing more information to the U.S. EPA for consideration to include in the fact sheet. The Final Biological Opinion indicates that the OSMRE and the Bureau of Indian Affairs worked with the Project Proponents to develop several voluntary conservation measures to minimize the impacts of the proposed action on the listed species. Furthermore, the findings from the Four Corners Power Plant (FCPP) and Navajo Mine Energy Project Final Environmental Impact Statement for Environmental Justice Impacts indicated that the proposed action, including the continuing operations of the Navajo Mine and FCPP would not result in adverse impacts that would disproportionately affect low-income or minority populations.

RESPONSE 12: Comment noted. USEPA will use the additional information provided by MMCo. and update the fact sheet as appropriate.

Permit Comments

COMMENT 13: Page 6, Section A(4)(a)(b), Discharges resulting from precipitation events: The text describes authorization to discharge runoff resulting from precipitation greater than or equal to a 10-year, 24-hour event or equivalent to 1.80 inches within a 24-hour period. MMCo employs a Type II-70, 10-year, 24-hour storm event for design of its ponds and spillways which is equivalent to 1.56 inches within a 24-hour period. This depth is comparable to the National Oceanic and Atmospheric Agency's (NOAA) frequency estimates at the Fruitland 3E station for a 10-year, 24-hour storm event; however, this value varies from the proposed 1.80 inches. We request that U.S. EPA update the proposed precipitation depth to NOAA's 10-year, 24-hour storm event definition as the NOAA dataset is used in the design of ponds and spillways at Navajo Mine and Pinabete Mine.

RESPONSE 13: Comment noted. USEPA will use the updated NOAA estimates for the 10-year, 24-hour precipitation event.

COMMENT 14: Page 11, Section B(1)(3): The first sentence reads "may cause a Elm or iridescent appearance on the surface of the water body;". "Elm" appears to be a typographical error.

RESPONSE 14: Comment noted. The word "Elm" will be corrected to "film."

COMMENT 15: Page 11, Section C. Best Management Practices, *Residue Hauling Vehicles*: As described in the SWPPP, the haul trucks and end dump trucks are not equipped with load covering systems. MMCo ensures that haul trucks are not overfilled with coal and that operators are trained to watch for and report coal spillage on the haul road. Additionally, drainages from

the roads are directed towards BMPs and sediment ponds to stop any coal or coal residue from entering the waterways. These controls and practices are described in more detail in the current Navajo Mine SWPPP. We are requesting the U.S. EPA to updated this section of the permit to reflect the controls and practices described in the Navajo Mine SWPPP, as they will also be applied to Pinabete Mine.

RESPONSE 15: Comment noted and updates will be incorporated.