



San Juan Citizens Alliance

A voice for environmental, social, and economic justice in the San Juan Basin of southwest Colorado and northwest New Mexico

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By Fax (505) 863-8369, email: www.desertrockenergy.com and U.S. express mail

Harrilene Yazzie
NEPA Coordinator
Bureau of Indian Affairs, Navajo Regional Office
Desert Rock Energy Project EIS
301 West Hill Street
Gallup, New Mexico 87305

Re: Desert Rock Energy Project - Draft Environmental Impact Statement comment letter

Dear Ms. Yazzie:

San Juan Citizens Alliance (SJCA) respectfully submits the following comments concerning the United States Department of the Interior (DOI) Bureau of Indian Affairs (BIA) Draft Environmental Impact Statement (Draft EIS) for Sithe Global LLC's (Sithe) proposed Desert Rock Energy Facility (DREF) in San Juan County, New Mexico. Notice of Availability (NOA) of the DEIS for the DREF was published in the Federal Register on June 20, 2007 (72 Fed. Reg. 34035) and a 60-day comment period was provided by BIA (extended to 90-days on August 17, 2007). The proposed DREF project would include the construction and operation of "a coal-fired power plant with a capacity of generating up to 1,500 megawatts (two units), transmission lines, a water-supply system, access roads, extension of surface coal mining within the BHP-Billiton Navajo Coal Company (BNCC) lease area, coal preparation facilities, and other associated facilities" to be located on Navajo Nation land south of Shiprock, New Mexico.

SJCA is a non-profit organization, with over 500 members in the Four Corners region, actively involved in energy development oversight; advocating for cleaner air quality and better stewardship of our natural systems; promoting reduced energy consumption, energy efficiency and renewable energy; and working for improvements to community health. SJCA members in the Four Corners region live in areas of existing high-density energy development and infrastructure.

SJCA review of the Draft EIS for DREF indicates severe deficiencies in implementing the procedural provisions of the National Environmental Policy Act (NEPA), inadequate scope, and marginalized analysis and conclusions that restrict any decisions to be made by the BIA or Cooperating Agencies.

Failure to Consider and Analyze a Reasonable Range of Alternatives

Council On Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA, 40 Code of Federal Regulations (CFR) Parts 1500-1508 guidance on Alternatives including the proposed action for an EIS are set forth under 40 CFR § 1502.14:

This section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (1502.15) and the Environmental Consequences (1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. In this section agencies shall:

- (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that the reviewers may evaluate the their comparative merits.
- (c) Include reasonable alternatives not within the jurisdiction of the lead agency.
- (d) Include the alternative of the no action.

The Draft EIS for DREF fails to analyze a reasonable range of alternatives. The only other alternative fully analyzed in the DREF Draft EIS is the 550 MW conventional coal plant, used in the Draft EIS to readily discount any feasibility compared to the DREF.

The dismissal of Alternative Fuel Sources and renewable energy alternatives should have been fully evaluated rather than dismissed as “Alternatives Considered but Eliminated From Detailed Study in this EIS.”

Although solar and wind renewable energies are technically feasible to build and would have fewer air emissions, the land and cost requirements were determined to be impractical to generate a reliable bulk power supply that would need the purpose and need for the project. The BIA has determined that the use of alternative energy sources would not meet the purpose and need for the project (i.e. the economic development through sale of Navajo Nation coal reserves) or were otherwise unfeasible. Therefore, the BIA determined this was not a reasonable alternative and it was eliminated from detailed evaluation.¹

The only reason to eliminate this alternative is due to a flawed purpose and need for the project (to use coal reserves) which, in all likelihood, will not provide sound economic development for the Navajo Nation. This alternative should have been carried through the Draft EIS and evaluated in comparison to the DREF.

SJCA and Diné Citizens Against Ruining our Environment (Diné CARE) discussed an Alternative for shutting down an existing coal power plant as a requirement for DREF evaluation in scoping comments for the DREF Draft EIS provided to the BIA on December 17, 2004:

1) Shutting Down Existing Coal Power Plants - The draft EIS must consider as an alternative replacing the existing Four Corners Power Plant and / or San Juan Generating Station, with a newer, cleaner burning power plant. Such an analysis should include locating the new plant at one of the existing power plant sites to avoid further land disturbance. Such an analysis must include the benefits of not requiring additional transmission lines, and new infrastructure. All air, water, health and other impacts and benefits must be included.²

The Draft EIS needs to be completely revised with a reasonable range of alternatives, re-scoped and presented to the public for comment.

Deficient Purpose and Need

The purpose of an EIS is addressed in 40 CFR § 1502.1:

The primary purpose of an environmental impact statement is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government. It shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment...An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in

¹ United States Department of Interior. Bureau of Indian Affairs. Draft Environmental Impact Statement for Desert Rock Energy Project. May 2007. Draft EIS 2-33.

² DREF Scoping Comments. San Juan Citizens Alliance and Diné Citizens Against Ruining Our Environment. Submitted to Ms. Eloise Chicharello, Director, Bureau of Indian Affairs, Navajo Regional Office, December 17, 2004.

conjunction with other relevant material to plan actions and make decisions.

The purpose and need for the Desert Rock Project is explained in the Draft EIS to:

- Support the Navajo Nation's objective for economic development by providing long-term employment opportunities and revenue cash-flow streams from the development of Navajo natural resources (e.g., water, coal).
- Use Navajo Nation coal to generate electricity.
- Help meet the demand for up to 1,500 MW of electrical power in the rapidly growing southwestern United States.
- Provide fuel diversity and a more economically stable and predictable power supply for utilities in the Southwest.³

The Navajo Nation's objective for economic development would not be served by DREF due to liabilities associated with coal and impending carbon taxes (which Sithe hopes to pass on to utilities who would conceivably purchase DREF power). Any potential payments to the Navajo Nation from DREF would be offset by liabilities to the Navajo Nation as a result of the lease agreement between Sithe and the Navajo Nation. There are other ways for the Navajo Nation to generate electricity, rather than use of coal. Further reliance of coal to generate electricity will not provide fuel diversity for utilities in the southwestern United States. The demand for new electrical power in the rapidly growing southwestern United States could be met in many ways that would not require new coal plants and that would account for environmental externalities associated with burning coal. DREF has no contracts with utilities for power and is counting on providing low cost energy to compete for contracts that may or may not come to fruition. The purpose and need fails to include Navajo Nation requirements for environmental quality objectives, which must be analyzed in conjunction with economic development.

DREF would result in 200 jobs of which 150 would potentially go to locals (not necessarily Navajo) with 50 jobs being given to workers from outside the region of influence.⁴ So, with a year 2000 census of 173,987 Navajo living within the Navajo Nation boundaries, the permanent jobs created by Desert Rock for Navajo people would be a maximum of .086%. This is a poor predicament for the Navajo Nation which has not even established criteria to insure that the Navajo people would be given the jobs from DREF or that they would be high-skill set jobs. Evidence for this is quite apparent from the Draft EIS' description of the mobile home man camp that would be needed for DREF. It appears that the local Navajo people wouldn't get the primary high skilled jobs from DREF.

The only Alternative that can meet the described purpose and need in the current Draft EIS is Alternative B. This shows the deficiency of the purpose and need in the Draft EIS, which has been framed by the BIA to accept only Alternative B.

³ Draft EIS 1-6 to 1-7

⁴ Draft EIS 4-137

Deficient Proposed Federal Agency Actions and Cooperating Agency Status

The proposed action in the Draft EIS includes several elements that require approvals, grants of rights-of-way, or permits by Federal agencies and the Navajo Nation. These are as follows:

■ Bureau of Indian Affairs (BIA) - Approval of the long-term business land lease between DPA and the Navajo Nation, of the sublease between DPA and Desert Rock Energy Company, LLC, and of the rights-of-way requested for the proposed project.

“The Navajo Nation cannot, under Title 25 of the United States Code Section 415 (25 USC 415), convey an interest in Reservation land held in trust without approval of the United States.”⁵ The lease is not included in the Draft EIS and thus cannot be evaluated. BIA should have completed a liability/risk assessment of the lease to insure that the Navajo Nation does not incur the financial liability and risks associated with the project. BIA cannot legally approve the lease without conducting this risk analysis. The next version of the Draft EIS for DREF should include the land lease, water lease and coal lease and the full BIA assessment of these leases concerning market value, liability and comparison to alternative uses.

■ Office of Surface Mining (OSM) - Approval of revisions to BHP Billiton’s Navajo Coal Company (BNCC's) Navajo Mine current Surface Mining Control and Reclamation Act (SMCRA) permit to allow development of coal processing facilities, conveyance systems, and infrastructure in Area IV North of the BNCC Lease Area and approval of a future SMCRA permit application to allow coal mining, Coal Combustion Byproducts (CCB) disposal, and reclamation activities in Area IV South and Area V of the BNCC Lease Area.

Approval of a SMCRA permit application is needed to allow coal mining, CCB disposal (which should be renamed for what it is – Coal Combustion Waste), and reclamation activities in Area IV South and Area V of the BNCC Lease Area (approximately 17,500 acres or 27.3 square miles). There is no SMCRA permit application in the Draft EIS and Desert Rock would not have any coal supplies available from Area IV North. There is inadequate information in the Draft EIS concerning the proposed Navajo Mine Extension, a connected action to Desert Rock.

OSM would act on a **future** SMCRA permit application to allow mining, CCB disposal, and reclamation in Areas IV South and V of the BNCC lease area. OSM **would also revise** the current SMCRA permit to allow construction of coal processing facilities, conveyance systems and infrastructure in Area IV North of the BNCC Lease Area.⁶

⁵ Draft EIS 1-1

⁶ Draft EIS 2-23

At present, the mine plan for the new lease areas has not been fully developed and approved by OSM (a preliminary mine plan is provided in Appendix D). The approved plan would comply with SMCRA and would address potential disturbance to the hydrological balance and the detailed steps to avoid disturbance. The approval of the permit would be a major Federal action, as such, triggering analysis of the plan in accordance with the National Environmental Policy Act (NEPA). **While nothing can be said about the specific threats and remedies offered by the plan at this time,** potential impacts to the groundwater balance that would be addressed.....⁷

In other words, the Mine Extension plan proposal for Areas IV South and V has not been adequately prepared and thus BNCC actions are not really part of the Proposed Action. Nothing can be said in this Draft EIS about impacts as a result of the preliminary plan for mining operations in BNCC Lease Areas IV South and V. No decision can be made on this future permitting action in this Draft EIS for DREF.

In addition, the Draft EIS never clearly defines the coal source from BHP's Navajo Mine accurately. While implying that coal will be used for DREF from Navajo Mine Area IV North, Area IV South and Area V, there is the perception to the reader that a permitted coal source is immediately available for DREF to utilize. According to BHP (meeting on April 27, 2007 BHP, Navajo Mine, Area III) Navajo Mine Area IV North coal will not be available to DREF as it is completely dedicated by contract through 2016 for the Arizona Public Services Four Corners Power Plant. BHP would allow DREF to construct a coal processing facility in Navajo Mine Area IV North if environmental regulatory requirements are met. BHP plans to permit Area IV South for 2011-2045 and Area V from 2046-2059. BHP requires an extension of the existing SMCRA permit for Navajo Mine for Areas IV South and Area V. The Draft EIS fails to include the required legal description of the proposed "action area" for coal reserves for the project.

■ Bureau of Land Management (BLM) - Approval of the Resource Recovery and Protection Plan or a Mine Plan of Operations for Area IV South and Area V of the BNCC Lease Area.

BLM cannot legally approve the RRPP with only a preliminary plan for the Navajo Mine Extension.

■ United States Army Corps of Engineers (USACE) -Approval of an Individual Permit for the Desert Rock Energy Project under Section 404 of the Clean Water Act (CWA) and of Nationwide Permits or an Individual Permit under Section 404 of the CWA for the mining operations in Area IV South and Area V of the BNCC Lease Area.

Appendix E of the Draft EIS is the Waters of the U.S Mapping Report for the Desert Rock Energy Project. In the summary, the following statement is made:

As part of the environmental review and permitting process for the proposed Desert Rock Energy Project located east and south of Shiprock, New Mexico, a field

⁷ Draft EIS, 4-45

determination was performed to identify jurisdictional *Waters* per Section 404 of the Clean Water Act. Field work for the first phase of mapping (underlined for emphasis) was performed from May 18 through November 6, 2006. Mapping herein is limited to where a linear project component (i.e., waterline, road, transmission line) crosses a *Waters* and to areas within project component boundaries (i.e., power plant site and well fields). This Report will be submitted to the Army Corps of Engineers for the purposes of obtaining a Jurisdictional Determination letter. Once the JD letter is obtained, the contents of this report will form the basis for quantifying impacts to Waters of the U.S.”⁸

There is no individual Section 404 permit and no Jurisdictional Determination letter from the Army Corps of Engineers in the Draft EIS. No evaluation/determination of impacts to Waters of the U.S. can be made until the Corps of Engineers weighs in on the Section 404 permit. In addition, the individual Section 404 permit for a proposed project of this scale will require an EIS under NEPA, which would conceivably be segmented from the EIS for DREF. It is also unclear in the Waters of the U.S Mapping Report for the Desert Rock Energy Project as to who is the applicant for CWA permitting under the DREF – is it BHP (BNCC), Sithe, Dine Power Authority [including Navajo Transmission Project (NTP)]? Also, there is no recognition of the need for the associated CWA Section 401 water quality permit from The Navajo Nation Environmental Protection Agency Water Quality Program for the Draft EIS for DREF and NEPA implications.

United States Army Corps of Engineers (USACE) will consider this matter (404 permit) upon receipt of BNCC’s permit application.⁹

There are numerous Section 404 applications that must be applied for by BNCC, Sithe, Dine Power Authority (DPA) under the proposed DREF only after a permit application for Navajo Mine is submitted.

While the use of Navajo Nation coal reserves is the primary part of the purpose and need for the proposed project evaluated in this EIS, it cannot be considered part of the overall purpose under the USACE 404(1) permit process, The USACE is completing this analysis, which will be documented in the Final EIS.¹⁰

The USACE must have a defined purpose and need for DREF CWA permitting that is analyzed and disclosed to the public prior to documentation in the Final EIS. This will require a new Federal Register notice that further defines what was published in the earlier Federal Register notice for the DREF Draft EIS NOA. Public hearings for CWA permitting also must be held in affected communities.

⁸ Waters of the U.S Mapping Report for the Desert Rock Energy Project, San Juan County, New Mexico. Prepared by Basin Hydrology, Inc. and Ecosphere Environmental Services, November 10, 2006. Page 5.

⁹ Draft EIS 1-3

¹⁰ Draft EIS 1-3

■ Environmental Protection Agency (EPA) -Approval of a significant revision to BNCC's National Pollutant Discharge Elimination System (NPDES) permit associated with the mining and reclamation operations and coal preparation facilities. Whether this constitutes a new source permitting action subject to the National Environmental Policy Act is determined by criteria set forth in 40 CFR 122.29(b).

SJCA considers the proposed extension of the Navajo Mine to Areas IV South and V a new source requiring an EIS.

■ Navajo Nation - The Navajo Nation's action, as a sovereign government and cooperating agency, is the approval of a land lease package that ensures economic development on tribal lands in compliance with the Navajo Nation Code and applicable Federal law.

Applicable federal law prohibits approval of economic development on tribal lands that would result in undue financial liability and risk to a tribal entity.

The above approvals, taken together, constitute the Proposed Action, which consists of (1) the construction, operation, and maintenance of the Desert Rock Energy Project and associated water supply wells, water supply pipelines, transmission system interconnection, other facilities required for the generation and distribution of electrical power, and new access roads; and (2) the approval of surface coal mining, CCB disposal, and reclamation operations at the Navajo Mine Extension Project to supply coal to the Desert Rock power plant.

The United States has a trust responsibility to protect and maintain rights reserved by or granted to Indian Tribes by treaty, statutes, and executive orders. The trust responsibility extends to all agencies of the Federal government such as BIA to take actions reasonably necessary to protect Indian Trust Assets.¹¹

It is clear that Indian trust assets are not being protected by BIA for the DREF project. BIA has not evaluated alternatives for the negotiated financial agreements to use water, use coal and lease the land on the Navajo Nation for the DREF.

Although these administrative actions (OSM, BLM, USACE) are not in themselves likely to impact the environment, they would be necessary for implementation of a project that could result in environmental impacts.¹²

The proposed action by OSM concerning expansion of Navajo Mine cannot be considered an administrative action in the DREF Draft EIS, as there would be significant environmental impacts that would result from that action (Extension of Navajo Mine) alone.

¹¹ Draft EIS 3-146

¹² Draft EIS 2-23

Deficient Scope of Analysis

The NTP, Navajo Mine and DREF impacts have not been adequately analyzed under NEPA in the Draft EIS for DREF. The NEPA (40 C.F.R. § 1508) clearly states the following concerning Major Federal actions requiring the preparation of environmental impact statements:

- (a) Agencies shall make sure the proposal which is the subject of an environmental impact statement is properly defined. Agencies shall use the criteria for scope (Sec. 1508.25) to determine which proposal(s) shall be the subject of a particular statement. Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.
- (b) Environmental impact statements may be prepared, and are sometimes required, for broad Federal actions such as the adoption of new agency programs or regulations (Sec. 1508.18). Agencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decisionmaking.

The President's CEQ is quite clear on providing guidance to lead Federal agencies (such as BIA) on avoiding segmenting a proposed action to avoid the application of NEPA, or to avoid a more detailed assessment of the environmental effects of the overall action. The following sections of NEPA discuss scope and include the concepts of connected and cumulative actions under 40 CFR § 1508 (a):

Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (Secs. 1502.20 and 1508.28). To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include:

- (a) Actions (other than unconnected single actions) which may be:

Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

- (i) Automatically trigger other actions which may require environmental impact statements.
- (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
- (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.

Under 40 CFR § 1508 (a), the answer to (i), (ii) and (iii) is that coal mining at Navajo Mine, the DREF, water sourcing, and NTP are connected actions. Referring to Alternative B in the Draft EIS,

The Proposed Action Alternative would connect to the Navajo Transmission Project (NTP), a 470-mile powerline corridor to Las Vegas, through the Navajo Nation.¹³

There would be no mining, no water use, no transmission on the NTP without the DREF. It appears that NTP is under the jurisdiction of the BLM Las Vegas Field where a 1990's EIS is being updated as the basis for approval of NTP.

The Draft EIS fails to include complete information on coal mining, water quality and quantity, transmission of power (all the way to Phoenix/Tucson and Las Vegas) and cumulative impacts. In addition, there is minimal information on the dumping of coal combustion wastes as a result of burning coal for Desert Rock and the contribution to adverse water quality and water quantity impacts. The Draft EIS fails to incorporate scoping comments concerning NTP as a connected action. SJCA and Diné CARE specifically raised the issue of NTP being a connected action to Desert Rock in scoping comments provided to the BIA on December 17, 2004:

- 1) The need for 1,500 MW of additional electrical generation in this location should be closely analyzed. If the power is not needed, all of the environmental impacts of this project can be avoided by adopting the no action alternative.
 - a) Specifically, the need projections for use of this new power must be disclosed in full.
 - b) The options for meeting any power needs through conservation in all the potential markets for the proposed new generation must be completely disclosed and discussed.
- 2) There does not appear to be sufficient transmission capacity in the area to support 1,500 MW of new power. It appears that this project may be associated with Dine Power Authority's proposed construction of a significant new high voltage transmission line from the Project to the Market Place Station near Las Vegas, Nevada. The environmental impacts of any new transmission equipment to support this Project must also be considered when assessing the cumulative impacts of the Project. Impacts to be considered must include:
 - a) All environmental impacts (to plants, wildlife, soils, water quality and quantity, air, threatened endangered or sensitive species, migratory birds).
 - b) All cultural impacts.
 - c) All impacts to archeological, paleontological, and historic resources.
 - d) All impacts to humans, livestock, wildlife, and plants from electromagnetic radiation.
 - e) All impacts to current or foreseeable economic endeavors along the route.

¹³ Draft EIS, 2-5

- f) Long term impacts to the four corners region from having this additional transmission line:
 - i) Long term economic dependence upon an energy export economy.
 - ii) Long term health impacts of coal combustion at a level to fill the transmission lines out of the basin.¹⁴

The Draft EIS for DREF must be completely revised to include connected actions, disclosing all impacts and making a decision on DREF based on a “hard look.”

Deficient Analysis and Consequences of Carbon Dioxide emissions from the proposed DREF

The Draft EIS devotes one page to the global implications of DREF emitting 12.7 million tons per year (tpy) of CO₂ (Chapter 5-2 as described in Chapter 4-19). The Draft EIS mentions global warming in the context of the connection between fossil fuel emissions of CO₂ and climate change. The Draft EIS then discusses the concept of global dimming and the idea that there may be cooling principles at place with continued CO₂ emissions for coal-fired power plants that are actually beneficial.

Global temperatures have increased significantly in the last 50 years. This phenomenon is referred to as ‘global warming.’ Increased emissions of greenhouse gases (GHGs) from anthropogenic (i.e., human) activity over the last 100 years are **suspected** of playing a role in the observed global warming, although the precise mechanisms and magnitude of their effect remains subject to debate within the scientific community. However, there is broad consensus within those members of the scientific community who have researched this issue that GHG emissions associated with such anthropogenic activity has contributed to the observed global warming phenomenon.

Some members of the scientific community suspect that particulates and aerosols may also have an opposite effect on global temperatures, by absorbing and reflecting solar radiation back into space and by increasing the formation of clouds, which in turn reflect solar radiation, due to water vapor condensing around the small, solid nuclei. This phenomenon, which has undergone less evaluation by the scientific community than the global warming phenomenon, is referred to as ‘global dimming.’

The electric power generating industry is participating in extensive research on further defining the extent to which emissions of anthropogenic GHG contributes to global warming. In addition, technological approaches to reducing GHG emissions from industrial facilities are the subject of numerous research projects around the world. The Edison Electric Institute (EEI) has called for increased international

¹⁴ DREP Scoping Comments. San Juan Citizens Alliance and Diné Citizens Against Ruining Our Environment. Submitted to Ms. Eloise Chicharello, Director, Bureau of Indian Affairs, Navajo Regional Office, December 17, 2004.

cooperation with regard to research and technology development (EEI 2006).¹⁵

The Draft EIS is clearly deficient in addressing public health and economic costs to the Four Corners region and beyond as a result of 12.7 million tpy of CO₂ added to the already compromised airshed in the Four Corners region. This document is clearly indicative of the strategy of the coal industry to put a spin on global warming by instilling doubts in the public as to the severity of the global warming problem that has been created, bring up global dimming, and delay any action on CO₂ while allowing projects like DREF to slip through.

Although measurable concentrations of emissions from the proposed power plant would likely extend to less than hundred kilometers from the facility, due to global wind patterns, minute quantities of these chemicals could eventually be dispersed across a wider area.¹⁶

The Draft EIS completely fails to consider the impacts of 12.7 million tpy of CO₂ on the region of influence that is well beyond a mere hundred kilometers. No consultation has occurred for DREF with the National Oceanic and Atmospheric Administration (NOAA), EPA or other federal agencies responsible for climate analyses. Without input from NOAA, EPA and other Federal agencies on the impacts/effects of global warming, the Draft EIS is completely deficient.

The 12.7 million tpy of CO₂ to be generated by DREF represents a large new unacceptable source of CO₂. Without any attempt to reduce CO₂ emissions below the 12.7 million tpy projected, DREF cannot be approved in this Draft EIS due to the impacts on world resources that would occur as a result of the action.

Deficient Cumulative Air Quality Impacts in the Four Corners region

The Draft EIS uses the same deficient monitoring and modeling of air quality that was used in the Draft Prevention of Significant Deterioration (PSD) permit (issued by EPA Region 9 in November 2006).

Ozone concentrations represent a significant cumulative air quality impact to the region that must be analyzed in the Draft EIS.

Predicted ozone concentrations were not modeled as it is not required under the PSD permitting requirements and the modeled ambient concentrations of ozone precursor compounds (NO_x and VOC) were deemed insignificant per the PSD criteria.¹⁷

The EPA proposes to set the primary (health) standard for ozone to a level within the range of 0.070 - 0.075 parts per million (ppm) rather than the current standard of 0.084 ppm on the

¹⁵ Draft EIS 5-12

¹⁶ Draft EIS 4-19

¹⁷ Draft EIS 4-74

8 hour primary ozone standard. Resetting this standard for ozone would put the region out of attainment for ozone. Absent significant offsets of NOx and VOC emissions, it is highly probable that DREF would contribute adversely and significantly to levels of ozone over attainment in the Bloomfield, New Mexico area. In fact, the EPA has concluded that San Juan County is among counties projected to violate alternate 8-hour ozone standards if standards are set at 0.070 - 0.075 ppm.¹⁸

In conclusion, the potential effects on air quality and air quality related values analyzed here due to emissions from the proposed Desert Rock Energy Project, especially in conjunction with the nearby emission reductions, are expected to result in no adverse impacts.¹⁹

A recent New Mexico Health Department study on San Juan County ozone and public health, The Association between Ambient Air Quality Ozone Levels and Medical Visits for Asthma in San Juan County correlates high ozone concentrations with hospital visits for asthma.²⁰ The study notes the high concentrations of ozone in San Juan County, which is considered a rural area, and discusses how these high ozone values have resulted in asthma-related hospital visits. A copy of this study is included in our comments as Attachment 1. This study provides BIA with a clear connection between existing high ozone concentration and public health impacts in San Juan County. The BIA has no valid claims that the DREF emissions would result in “no adverse impacts” in conjunction with existing air quality conditions in San Juan County.

BIA’s Draft EIS attempts to take advantage of San Juan Generating Station and Four Corners Power finally being held accountable to reduce emissions, yet there is no acknowledgement of the new sources of sulfur dioxide (SO₂), NOx and VOC as a result of approved natural gas infrastructure throughout the region. Any offsets are surpassed by new sources of pollution:

...Appendix K of this environmental impact statement (EIS) contains an Air Quality Technical Support Document, which details the methodology and results for air quality impacts evaluation pursuant to this EIS. Furthermore, the air quality permit applications and associated modeling reports for both the 1,500 megawatt (MW) and 550 MW alternatives, were prepared pursuant to the Federal Prevention of Significant Deterioration (PSD) program, were used as resource information to prepare this EIS. The Federal PSD program requires analysis of the proposed emission source, including the power plant and mine operations only; an analysis of the impacts of project construction and mobile source emissions is not required as part of the PSD program. It should be noted that each permit application was prepared for a **different** facility at **different** times by **different** consultants, and may have involved **different**

¹⁸ <http://www.epa.gov>

¹⁹ Draft EIS 4-18

²⁰ Myers, Orrin, et al. The Association between Ambient Air Quality Ozone Levels and Medical Visits for Asthma in San Juan County. Environmental Health Epidemiology Bureau, Epidemiology and Response Division, New Mexico Department of Health. August 2007.

permitting agency personnel. Consequently, the presentations of analysis methodologies, results, and conclusions presented in the application for each project are not necessarily consistent.²¹

The lack of consistency in air quality monitoring, modeling and permitting renders any conclusions in the Draft EIS for air quality meaningless. Results that show visibility and regional haze impacts to result in no adverse impacts rely on voluntary mitigation plans and faulty modeling that is completely deficient.

There is no mention of radiation in emissions from coal-fired power plants in the DREF Draft EIS.

The Draft EIS completely fails to analyze fine particulate (PM2.5) concentrations.

The particulate matter emissions modeled by ENSR only included PM10. Total PM and PM2.5 were not modeled.²²

BIA must adhere to PM2.5 ambient air quality standards as revised by EPA on September 21, 2006 and must correlate all analysis/modeling impacts from the proposed DREF with public health analysis in the Four Corners region. PM2.5 is entirely distinct from PM10 and cannot be treated as a surrogate. BIA has failed to determine the amount of PM2.5 that would be emitted by the potential DREF. In addition, BIA must accurately characterize fugitive dust emissions and PM2.5 from all facets of the construction and operation of the proposed DREF (including all mining operations) to evaluate potential PM2.5 emissions.

Deficient conclusions concerning Mercury and Selenium from the proposed DREF

Despite a statement in the Draft EIS that coal-fired power plants are a major source of mercury in the atmosphere, the Draft EIS fails to accurately analyze mercury deposition on the region:

Also, according to USEPA's 1997 Report to Congress on mercury, coal-fired power plants are a major source of mercury in the atmosphere, accounting for a third of anthropogenic (human-generated) emissions in the United States.²³

BIA has not even required accurate coal sampling to determine coal mercury content, which would be used to evaluate baseline criteria.

The annual emission rate for mercury (161 pounds per year) was derived from coal analysis data provided by BHP Billiton (BHP 2006). A total of 71 coal samples, taken from the coal seam designated for the proposed project in Areas IV South and V, were analyzed for mercury content. As a conservative approach, all values

²¹ Draft EIS 4-4

²² Draft EIS 4-10

²³ DEIS 3-27

reported as “non-detect” were assumed to have the numerical magnitude of the analysis methods detection threshold of 0.05 parts per million (ppm), resulting in a mean mercury concentration of 0.065 ppm. There is uncertainty associated with this analysis because of the **small number of samples**; however, additional coal sampling and analysis is ongoing to verify the mean mercury content of the coal in Areas IV South and V. The results of the additional sampling will be incorporated into this EIS prior to issuance of the final document.²⁴

It is highly conceivable that additional samples of the coal will show higher mercury content, thus a more significant mercury deposition impact when the coal is burned. The Draft EIS must be completely revised to include the additional sampling and analysis of coal samples in the proposed project area.

The Draft EIS fails to quantify the amount of mercury that would eventually deposit into the San Juan River. Why is 10% given as the “worst-case scenario”? What’s the basis for that? Why not 50%? Why not 1%? This whole section is flawed: mercury methylates and becomes more bioavailable, enabling it to do serious long-term damage to biota. As a first approximation, in a watershed already subject to overload by dissolved organic carbon methylation will be significant.²⁵ Please refer to the recent article in the Proceedings of the National Academy of Sciences, Whole –ecosystem study shows rapid fish-mercury response to changes in mercury deposition which, “showed that an increase in mercury loading at rates relevant to atmospheric deposition resulted in an increase in methylmercury production and concentrations in aquatic biota in only 3 years.”²⁶ A copy of this study is included in our comments as Attachment 2.

The Draft EIS minimizes the connection between power plants and mercury deposition on the entire region. It appears that all scientific analysis on mercury deposition has been omitted from this version of the Draft EIS. Given the known impacts of methylmercury on humans and other biota, the BIA must completely revise the Draft EIS to adequately address mercury impacts from DREF and cumulative mercury deposition in degraded mercury laden water-bodies throughout the Four Corners.

Selenium sources include agricultural runoff from Navajo Agricultural Products Industry (NAPI), power plants, and other sources. DREF would become a large new source of selenium:

Based on the results of air toxics modeling, it is estimated that the Desert Rock power plant could release up to 9,133 pounds of selenium per year through air emissions.²⁷

²⁴ DEIS 4-11

²⁵ DEIS 5-15, 5-16

²⁶ Harris, Reed C., et al. Whole –ecosystem study shows rapid fish-mercury response to changes in mercury deposition. Proceedings of the National Academy of Sciences, August 2007.

²⁷ DEIS 4-72

The Draft EIS discusses the impacts of selenium:

The most recent investigation into the quality of water or fish from Morgan Lake (FWS 2005) resulted in the Navajo Nation EPA issuing a fish consumption advisory based on high selenium concentrations in fish tissues. Some selenium concentrations in fish from Morgan Lake may pose health risks to certain people who eat those fish frequently. Also, selenium contamination within Morgan Lake may be reducing the reproductive success of fish and wildlife.²⁸

While naturally-occurring “background” levels for selenium exceed New Mexico Water Quality Standards in Gallegos Canyon, what action has the BIA taken to evaluate mining coal from areas already really high in selenium and concentrating it in local, power plant area soils with DREF? The same question applies for mercury, chromium (which, in oxidation state Cr (VI), hexavalent chromium or “hexachrome” is particularly bad), and a host of other constituents commonly found in coal-fired power plant emissions. Without “background data” on these constituents, the Draft EIS is completely deficient.²⁹

The Draft EIS comes to a conclusion after stating that they don’t know what the ecological effects of Mercury and Selenium are on aquatic wildlife, which remain “greatly unknown:”

The ecological effects of selenium and mercury to aquatic wildlife remain greatly unknown and require additional study to fully understand. Potential adverse impacts to area aquatic resources from incremental increases in mercury and selenium concentrations would be minor and long-term. These impacts are not likely to result in a loss of species viability range-wide, nor cause a trend to a Federal listing.³⁰

What is known is that the Colorado pikeminnow and razorback sucker would be adversely impacted (May Affect, Likely to Adversely Affect determination) to the likely extent of a jeopardy determination.

The Draft EIS provides no scientific basis for evaluating the impacts of mercury and selenium on humans in the local region. Given the immense existing impacts to the region from the mercury and selenium emitted by the Four Corners Power Plant and the San Juan Generating Station, this is a fatal flaw for the DREF Draft EIS.

Deficient Public Health Analysis and Conclusions

The Draft EIS fails to gather necessary health data from the Four Corners region and makes un-cited assertions regarding high rates of cancer risk:

The risk to human health under both action alternatives was analyzed, primarily as it is related to air emissions. As mentioned, the health protective NAAQS (National

²⁸ DEIS 3-31

²⁹ DEIS 5-15

³⁰ DEIS 4-72

Ambient Air Quality Standards) would not be exceeded under either alternative, and risks associated with residential exposure to air toxics would be below target goals. The cumulative cancer risk is greater than USEPA's acceptable risk range; however, nearly all of that risk is due to existing concentrations of arsenic in soil and native vegetation and the contribution of arsenic from the operation of the proposed facility would be slight. Arsenic is naturally occurring in soil and background concentrations of arsenic commonly result in health risks in excess of USEPA's target health goals because of the toxicity of the chemical.³¹

The Draft EIS fails to disclose the "background" levels of arsenic in the area. Alternative B would raise the cancer risk due to soil arsenic concentrations by an order of magnitude (a.k.a. a "factor of ten", from 1×10^{-6} to 1×10^{-5}). That is *ten times more* than the EPA's acceptable risk range. Poorer populations will bear the brunt of the costs involved in these odds.³²

EPA has failed to adequately analyze air quality emissions from the proposed Desert Rock facility for National Ambient Air Quality Standards (NAAQs) to be determined. The Draft EIS cites no scientific basis for this claim about arsenic. The only validity associated with public health is that the cumulative cancer risk in the region is greater than USEPA's target health goals.

Much of the region of influence is designated as a medically underserved area. A medically underserved area is a designation indicating that the number of primary care physicians per thousand of population is low, while the proportion of persons in poverty, the proportion of elderly person, and the infant mortality rate are high. According to the formula, medically underserved areas include the entire counties of San Juan and McKinley in New Mexico, the low-income population in La Plata and Montezuma Counties, Colorado, the entire counties of Apache and Navajo in Arizona, and the Flagstaff Service area and Tuba City Service area in Coconino County, Arizona.³³

Health concerns are also of great importance to the Navajo Nation. Much of the region of influence is considered medically underserved. The Indian Health Services has reported lower life expectancies than the rest of the U.S. population, higher mortality rates, and **substantially** higher rates for diseases such as diabetes, **cancer, respiratory and heart disease**.³⁴

BIA has failed to include in this Draft EIS the IHS studies that report lower life expectancies than the rest of the U.S. population, higher mortality rates, and substantially higher rates for diseases such as diabetes, cancer, respiratory and heart disease. The next logical step would be to figure out why there are lower life expectancies than the rest of the U.S. population,

³¹ DEIS Executive Summary (ES)-8

³² DEIS 5-29

³³ DEIS 3-145

³⁴ DEIS 3-146

higher mortality rates, and substantially higher rates for diseases such as diabetes, cancer, respiratory and heart disease on the Navajo Nation.

The Draft EIS fails to even mention the EPA-generated Toxic Release Inventory (TRI) which reported in 2005 that San Juan County has the highest rate of toxic chemical release in New Mexico (7.3 million pounds).³⁵ There is no mention, no analysis, and no conclusions in the Draft EIS on the TRI problem and the huge contribution to air quality emissions in the region from the Four Corners Power Plant and San Juan Generating Station.

SJCA and Diné CARE specifically raised the need for comprehensive human public health and environmental impact analysis for the Desert Rock Draft EIS in scoping comments provided to the BIA on December 17, 2004:

1) The draft EIS must analyze the individual and cumulative human health and environmental impacts caused by all air pollutant emissions from this Project, transmission facilities, and Navajo mine expansion, including, but not limited to:

a) Emission of criteria and hazardous air pollutants for the life of the facility--including SO₂, CO, NO_x, particulate matter, mercury, sulfuric acid, and CO₂ and other greenhouse gases.

b) The cumulative impacts analysis must include:

i) A consideration of emissions from existing and reasonably anticipated proposed air emission sources on National Ambient Air Quality Standards, air increment compliance for SO₂, NO_x, and particulate matter, visibility degradation in Class I and Class II areas, greenhouse gas emission levels, mercury deposition, and nitrogen deposition. This analysis must include all existing power plants, oil and gas wells and associated facilities, and coal mines; as well as all proposed and foreseeable power plants, oil and gas well and associated facilities, and coal mines. This includes but is not limited to the wells analyzed in the 2003 BLM Farmington Resource Management Plan, the Northern San Juan Basin Oil and Gas EIS, the Southern Ute Oil and Gas EIS, the proposed Mustang coal fired power plant, and any power plants proposed in eastern Arizona.

ii) Current baseline values of (many of which may require a large increase in current monitoring):

(1) Mercury deposition in:

(a) All regional waters, including the San Juan, Animas, La Plata Rivers, Navajo and McPhee Reservoirs, with estimates of uptake by livestock, humans, and wildlife.

(b) Soils and vegetation in a 25 mile radius of the existing coal power plants and mines, with estimates of uptake by livestock and humans, and wildlife.

(c) The communities surrounding the existing and proposed coal power plants, including but not limited to: Sanostee, Burnham, Huerfano, Nageezi, Shiprock, Toadalena, Fruitland, Kirtland, Farmington, Aztec,

³⁵ <http://www.epa.gov/tri/>

Bloomfield, Durango, Ignacio, Bayfield, Crownpoint, Cortez, Red Mesa, and Aneth.

- (2) Particulate air pollution, including both PM10 and PM2.5, in the communities surrounding the existing and proposed coal power plants, including but not limited to: Sanostee, Burnham, Huerfano, Nageezi, Shiprock, Toadalena, Fruitland, Kirtland, Farmington, Aztec, Bloomfield, Durango, Ignacio, Bayfield, Crownpoint, Cortez, Red Mesa, and Aneth.
- c) SO₂, CO, NO_x, sulfuric acid, CO₂ and other greenhouse gasses.
- d) Regional health impacts due to existing pollution, such as asthma, cancer, stroke, and premature death. This analysis must include:
 - i) A complete respiratory health analysis of the communities surrounding the existing and proposed coal power plants, including but not limited to: Sanostee, Burnham, Huerfano, Nageezi, Shiprock, Toadalena, Fruitland, Kirtland, Farmington, Aztec, Bloomfield, Durango, Ignacio, Bayfield, Crownpoint, Cortez, Red Mesa, and Aneth. This analysis must include:
 - (1) Asthma levels in all age groups and a comparison with areas of similar populations.
 - (2) Correlations of hospital visits with air quality.
 - (3) A complete analysis of whether respiratory health problems are similar for different ethnic and / or cultural groups within the region.
 - ii) An analysis of regional autism levels, and a comparison with areas of similar populations.³⁶

Until this data is collected and analyzed to determine why there are lower life expectancies than the rest of the U.S. population, higher mortality rates, and **substantially** higher rates for diseases such as diabetes, **cancer, respiratory and heart disease** on the Navajo Nation, no decision should be made on adding DREF to the area. An EIS is more than a disclosure document and must analyze the environmental impacts of proposed actions and alternatives, as well as cumulative impacts.

Existing Disproportionate Impacts to Citizens of the Four Corners

The Draft EIS clearly states that Desert Rock power would be marketed for Phoenix/Tucson and Las Vegas. The Draft EIS also states that the Four Corners area has disproportionate impacts on land uses and visual resources associated with cumulative impacts from the “clustering of industrial facilities and infrastructure to support them.”³⁷ Of particular note is the idea put forward in the Draft EIS that high cancer rates in the Four Corners are the result of natural arsenic in the soils, rather than any connection to the legacy of energy development

³⁶ DREP Scoping Comments. San Juan Citizens Alliance and Dine Citizens Against Ruining Our Environment. Submitted to Ms. Eloise Chicharello, Director, Bureau of Indian Affairs, Navajo Regional Office, December 17, 2004.

³⁷ DEIS 5-30

in the region. The conclusion of the Draft EIS is that the opportunity to cluster more industry here and provide cheap power to areas far from here is more important than the public health of citizens of the Four Corners.

The real disproportionate impacts neglected in the Draft EIS are the health effects borne by the people of the region who have been subject to high toxics emitted by Four Corners Power Plant and San Juan Generating Station, and hundreds of other “clustered” sources.

The Draft EIS for DREF concludes that there are already disproportionate public health (cumulative cancer risk in the region is greater than USEPA’s target health goals), land use, and environmental justice impacts to citizens of the Four Corners region.

The cumulative impacts analysis identified that this region is home to two other coal-fired power plants as well as other energy and mining projects. Thus, the local population is disproportionately impacted by the cumulative land use and visual effects of these facilities, which generate power for a larger area.³⁸

If the local population is already disproportionately impacted by the effects of the two coal-fired power plants generating power for a larger area, how will a third power plant designed to provide power to Las Vegas and Phoenix do anything but make those disproportionate impacts worse? The disproportionate impacts statement is justified in the Draft EIS by the idea that providing cheap power to Las Vegas and Phoenix is more important than protecting the health of Four Corners citizens.

Failure to Evaluate Environmental Justice

The Draft EIS fails to properly evaluate Environmental Justice as defined under Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.”

Alternative B would displace 14 homesites and Alternative C would displace 8..... Holders of impacted homesites, grazing permits, and customary-use areas would be compensated for the value of disrupted livestock production and relocation or replacement of improvements to their grazing area or homesite in accordance with Navajo Tribal code section 1401-1403, which requires compensation for all surface uses.³⁹

Navajo Tribal code section 1401-1403 is improperly applied in the Draft EIS. Further, there should be full disclosure of any and all compensation that is proposed to be provided to Holders.

³⁸ DEIS ES-10

³⁹ DEIS ES-10

Another component of environmental justice is to ensure that there continues to be adequate communication with potentially affected communities throughout the NEPA process and project implementation, as appropriate.⁴⁰

This has not occurred with the failure of BIA to meet obligations to provide Navajo translation of the draft EIS to affected parties and failure of the BIA to even respond in writing as to requests for a comment period extension on the Draft EIS.

The Draft EIS provides no logic in determining that local populations do not have greater susceptibility to asthma:

Based on available data, nearby communities of the proposed plant do not appear to have greater susceptibility to asthma than the greater population.⁴¹

While there are health concerns related to respiratory diseases within the Navajo population, data sets that are specific to this population are unavailable and impacts under existing conditions have not been quantified.⁴²

The Draft EIS incorrectly concludes that nearby communities do not appear to have greater susceptibility to asthma. Please refer to the New Mexico Health Department study on San Juan County ozone and public health, The Association between Ambient Air Quality Ozone Levels and Medical Visits for Asthma in San Juan County which is Attachment 1 to our comments. The Draft EIS contains faulty analysis that results in no way for discernible conclusions to be made in the Draft EIS concerning the health of low-income and minority populations. Without proper health data and air quality data, the Draft EIS fails to disclose required information. The Draft EIS is quite clear that there are environmental justice issues:

There are environmental justice concerns because of the disproportionately minority and low-income population in the area. The emissions of air pollutants would increase under both of the action alternatives; however, modeling indicates that the cumulative impacts would be below health-protective Federal Standards.⁴³

Again, the air quality modeling is deficient and the public health data is not provided.

Environmental justice issues for the BIA to evaluate, as a result of the proposed DREF, include impacts on low-income and minority populations, loss of grazing rights by Navajo tribal members, displacement of citizens for siting of the power plant, and the lack of current monitors in place to provide accurate assessments of air quality in the eastern Navajo Nation area.

⁴⁰ DEIS 4-205

⁴¹ DEIS 4.13

⁴² DEIS 4-208

⁴³ DEIS 4-209

A recent document by EPA Office of Inspector General (agency that oversees compliance with the executive order on environmental justice) states the following:

Our survey results showed that EPA program and regional offices have not performed environmental justice reviews in accordance with Executive Order 12898. Respondents stated that EPA senior management has not sufficiently directed program and regional offices to conduct environment justice reviews. Also, respondents expressed a need for further guidance on conducting these reviews, including protocols, a framework, or additional directions. Until these program and regional offices perform reviews, the Agency cannot determine whether its programs cause disproportionately high and adverse human health or environmental effects on minority and low-income populations.⁴⁴

Additionally, EPA regulations specifically prohibit the air program from,

choos[ing] a site or location of a facility that has the purpose or effect of ... subjecting [individuals] to discrimination under any program or activity to which this part applies on the grounds of race, color, or national origin or sex; or with the purpose or effect of defeating or substantially impairing the accomplishment of the objectives of this subpart.

[Or]

use criteria or methods of administering its program or activity which have the effect of subjecting individuals to discrimination because of their race, color, national origin, or sex, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program or activity with respect to individuals of a particular race, color, national origin, or sex.⁴⁵

EPA has failed to comply with these requirements in the issuance of its Draft PSD permit for the DREF and now BIA is potentially neglecting environmental justice issues in the Draft EIS. Public health has not been properly evaluated or secured for citizens of the Four Corners region in regards to air pollution (and in particular, local tribal communities). High incidences of asthma and other respiratory illnesses are prevalent in the Four Corners region. Until BIA and EPA are able gather health data in the region, there is no way to evaluate environmental justice issues in the Draft EIS. SJCA requests that BIA provide a full EPA assessment on environmental justice for the DREF Draft EIS conducted with oversight from the EPA Office of Inspector General.

⁴⁴ Evaluation Report: EPA Needs to Conduct Environmental Justice Reviews of its Programs, Policies and Activities (Report No. 2006-P-00034) September 18, 2006

⁴⁵ 40 CFR §7.35(b)

Insufficient analysis of the Mobile home “transient” housing needed for DREF

There is insufficient analysis of the mobile home park described in the Draft EIS, which should be considered a connected action with impacts fully analyzed:

During construction, temporary housing would be required to house the influx of construction personnel. At times of peak construction, up to 500 mobile homes could be needed to meet housing needs. These motor homes would be located in existing motor home parks or potentially at new parks built in the area.⁴⁶

Motor homes, considered to be transient housing, would house these construction workers that are not from the local area. There would be no on-site housing facilities. At the times of peak construction, up to 500 mobile homes might be needed for construction. They would be placed in existing motor home parks and/or would be built in an area in coordination with the appropriate local jurisdiction. A prospective Recreational Vehicle Park planned for Shiprock would provide a location for temporary housing, depending upon the phasing of the park’s development (Navajo Nation 2004).⁴⁷

To prevent or mitigate any impacts associated with the development of the temporary housing during construction (in the event it must be developed), the Desert Rock Energy Company would coordinate with the appropriate land use agency and jurisdiction.⁴⁸

For a project that is supposed to use local labor, this acknowledges the high probability of many out-of state workers required for construction and operation of the DREF. This mobile home park requirement is a connected action to DREF and must be adequately described and analyzed before the Draft EIS can be considered.

Deficient analysis of Water Source for DREF, failure to accurately evaluate impacts to Water Quality and Quantity

DREF would require 4,950 acre-feet/year (1.61 billion gallons per year) including 450 acre-foot year for BHP with water taken from San Juan River and 4,500 acre-feet/year derived from drilled groundwater sources. There has been insufficient analysis and disclosure of water impacts in the Draft EIS, particularly concerning drought conditions and existing environmental conditions which are described:

Currently, the region is in a drought and there is widespread concern over water use and potentials shortages of surface water.⁴⁹

⁴⁶ DEIS 2-9

⁴⁷ DEIS 4-136

⁴⁸ DEIS 4-141

⁴⁹ DEIS 2-33

The New Surface Mexico Water Quality Bureau has identified all parts of the San Juan Basin as being impaired by one or more pollutants (San Juan River Basin Watershed Management Plan [SWBWMP] 2005). The segment of San Juan River Basin affected by this project (Hogback to confluence with Animas River) is listed as being impaired by fecal coliform and mercury in fish tissue.⁵⁰

At this time, the Navajo Nation has not completed a use assessment for the San Juan River at the location of the proposed project. However, several stream segments in the Upper and Middle San Juan Basins have been assessed by the New Mexico Environment Department (NMED) and are impaired. Sources of impairment include mercury in fish tissue that has been attributed by NMED to air deposition. The San Juan River was designated impaired pursuant to Section 303(d) of the Clean Water Act (CWA). Section 303(d) of the CWA and USEPA's implementing regulations at 40 CFR 130.7 require states and territories to develop lists of water-quality limited water still requiring Total Maximum Daily Loads (TMDLs); establish a priority ranking of these waters; identify pollutants causing their impairment; and identify waters targeted for TMDL development over the next 2 years. Approximately 31 waters, statewide, are under some form of fish consumption advisory due to mercury contamination. Other use impairments to the San Juan River include marginal cold-water fishery, warm-water fishery, and secondary contact. The pollutants include fecal coliform and sediment in a reach that is upstream of Chaco River.⁵¹

The Draft EIS must be completely revised to take into account the existing water quality of the San Juan River as baseline information to be considered.

No environmental consequences on groundwater impacts can occur in the Draft EIS until all water quality samples are analyzed. There is no consensus as to where as many as 20 water wells would be placed:

The Seeps/Springs/Wells Mapping and Water Quality Analysis Project commenced in September 2006. Selected springs, seeps, and wells in the proposed project area were mapped, and analyzed for chemical water quality. These include seeps/springs/wells identified by the BIA, Navajo Nation Department of Water Resources, and the Sanostee, Nenahnezad, and Burnham Navajo Chapters. The water quality samples **will** be analyzed to assess their geochemistry and demonstrate the hydrologic relationship between the Morrison formation aquifer, the Dakota Formation aquifer, and the identified springs/seeps and wells.⁵²

What exactly *does* constitute a “significant adverse impact” concerning a 10-ft drawdown contour for groundwater as a result of a groundwater predictive computer model? Certainly

⁵⁰ DEIS 3-27

⁵¹ DEIS 3-29

⁵² DEIS 3-24

any groundwater model used in the Draft EIS must evaluate groundwater table impacts prior to confirming water quality/quantity/impacts. This section must be entirely revised with conclusive results/evaluation.

It appears that the BIA is relying on information provided in the *Cumulative Hydrologic Impact Assessment (CHIA): Effects of Coal Mining in the San Juan River Basin* published by OSM in 1984, which portended to evaluate potential cumulative effects of coal mining in the basin to 2010. Since DREF wouldn't come on line before 2010, a completely new CHIA is required before any decisions can be made in the DREF Draft EIS or in any new application for mining expansions of Navajo Mine under SMCRA.⁵³

Given the amounts of water already consumed by the San Juan Generating Station and Four Corners Power Plant, drought conditions, the economic value of water, and the potential alternative uses of water, 4,950 acre-feet/year for DREF is too much. In addition, the Draft EIS fails to include the water lease for DREF which would disclose terms of the Navajo Nation providing water to Sithe for DREF and whether the potential source is the San Juan River. This water lease should have no covenant restricting full disclosure in the Draft EIS to the public of the terms of the lease.

Deficient Archaeological Surveys/Analysis

In reading the Draft EIS, it is clear that new expansion of mine areas of BHP Billiton Navajo Mine (Areas IV South and V) would be required to supply coal for DREF. The Draft EIS for DREF uses 30-year old cultural resources studies to conclude that there are over 200 historic properties in Navajo Mine Areas IV South and V. Archaeological data reported from 1977 (Class I survey)⁵⁴ was used as the primary basis for recording sites and evaluating compliance of the DREF project area with Section 106 of the National Historic Preservation Act (NHPA). There are burial sites, extensive cultural resources (including a Navajo pueblito) and significant traditional cultural properties in the proposed project area that have not been surveyed or recorded. 1970's archaeological data and reporting provide basis for the Draft EIS – this is completely unacceptable under NHPA. There is insufficient current data on burial sites, traditional cultural properties, inventory of archaeological resources to evaluate cultural resources impacts in the Draft EIS. For example:

Historic properties located within BNCC lease Areas IV South and V were identified during a previous cultural resource study which consisted of an archeological survey of approximately 70 square miles for the Coal Gasification Project, which overlapped the current coal mine lease are on an almost one-to-one relationship. As a result of

⁵³ DEIS 5-13

⁵⁴ Rehrer, Charles A. and Frank J. Broilo. Settlement and subsistence along the lower Chaco River : the CGP survey : archeological report of the environmental study submitted to the Battelle Columbus Laboratories as part of the environmental impact study, a proposed coal gasification plant for Transwestern Coal Gasification Company, Pacific Coal Gasification Company, Western Gasification Company, and the expansion of a strip mine operation near Burnham, New Mexico. University of New Mexico Press. Albuquerque, 1977.

this study and a subsequent Class I over view of mine lease Areas IV South and V conducted by the San Juan County Museum's Division of Conservation Archaeology, it was estimated that there are 103 previously recorded historic properties representing 112 historic components comprised of 1 Paleoindian, 38 Archaic, 46 Navajo, and 3 unknown within Lease Area IV South. The proposed mining within Lease Area IV South would have a direct adverse effect on all 103 previously recorded sites. However, the 103 previously recorded sites have yet to be evaluated for their eligibility for listing on the National Register of Historic Places, and therefore, the total number of sites that would need to be mitigated would be determined and plans for mitigation designed as BNC applies for mining permits.⁵⁵

No conclusions on impacts to archaeological resources can be made until an accurate Class III survey, inventory, consultations under Section 106, and final analysis occurs- thus the Draft EIS is deficient. There is insufficient current data on burial sites, traditional cultural properties, and inventory of archaeological resources.

It appears that customary use area data is still not available as of July 2007.

Customary use areas were not available for the study area at the time of this draft (July 2006).⁵⁶

There is no evidence in the Draft EIS that an appropriate ethnographic study has been conducted for the proposed project. Indications are that a 2-month study Ethnographic study for the project was conducted. Please provide the complete Ethnographic Report for Navajo Mine Area IV in the next version of the Draft EIS for DREF. In addition, please provide the results of the Ethnographic Report for the BLM for the RRPP and any conclusions that have been reached.

Improper implementation of archeological site mitigation in Navajo Mine Area IV North

BHP has initiated mitigation of archaeological sites in Area IV North prior to the release of the Draft EIS for DREF and with no approval in the Environmental Assessment prepared for Area IV North. This represents anticipatory destruction of archaeological sites and is in clear violation of the Archaeological Resources Protection Act of 1979.

Paleontological Inventories/Surveys are not in the Draft EIS

No professional paleontological inventories/surveys were conducted for the proposed project area although paleontological resources are known to occur throughout the project area. Please provide a complete paleontological study of the complete action area in the next version of the Draft EIS.

⁵⁵ DEIS 4-154

⁵⁶ DEIS 3-114 under footnote 2

Deficient analysis of Coal Combustion Waste (CCW)

The Draft EIS discusses the disposal of CCWs and the 2006 study by the National Academy of Sciences identifying potential impacts to groundwater from CCW. The majority of CCWs from Desert Rock would be dumped in Navajo Mine and should not be considered coal combustion byproducts. The Draft EIS vaguely states that, “It is expected that these stipulations (including monitoring and performance standards) would also exist in the permit for BNCC Lease Areas IV South and V.”⁵⁷ Yet, there is no SMCRA permit for Navajo Mine Areas IV South and V.

OSM cannot approve this action without a complete SMCRA permit application for Areas IV South and V, which is not in the Draft EIS for DREF.

Up to 1.35 million tons of CCB (Coal Combustion Byproducts) could potentially be generated annually... As part of the Desert Rock Energy Project, CCBs would **first be sold** for commercial purposes, as possible, and any remaining CCBs would be backfilled into the mine. During boxcut development (the first dragline cut), a portion of the pit would remain unfilled as the dragline advances during subsequent mining operations. These pits and inactive ramps would be the likely placement area for CCBs, subject to OSM regulatory approval. Efforts would be made to market CCBs for reuse, which would effectively reduce the amount backfilled into the mine each year.⁵⁸

There is no analysis of the impacts of backfilling 1.35 million tons of CCW per year at Navajo Mine and no guarantee that any of the CCW would be used for commercial purposes. The Draft EIS is negligent in providing any assessment of CCW, particularly given that there are immense CCW impacts from the current CCW stockpiles and dumps from San Juan Generating Station and Four Corners Power Plant. There is also no mention of the radioactive materials found in the CCW as a result of burning coal at coal-fired power plants.⁵⁹

This section on CCW is extraordinarily deficient given the known contaminants from fly and bottom ash and the legacy of CCW being dumped in Navajo Mine.

Failure to comply with Endangered Species Act

The on-site and off-site impacts to vegetation, soils, wildlife, fish, endangered, threatened, or sensitive species, migratory birds, and ecologically sensitive habitats must be analyzed as a result of the DREF, coal mining at Navajo Mine, and transmission of power from DREF on NTP. Compliance requirements with Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536 and its implementing regulations at 50 CFR § 402 are necessary through USFWS for BIA to approve the DREF and BLM Las Vegas Field Office to approve NTP.

⁵⁷ Draft EIS ES-9

⁵⁸ Draft EIS 2-13

⁵⁹ <http://www.ornl.gov/info/ornlreview/rev26-34/text/colmain.html>

New Mexico Ecological Services Field Office has documented the deficiencies of the Biological Assessment (BA) for the Desert Rock Energy Project.⁶⁰ In fact, these deficiencies are so severe that the USFWS is unable to initiate formal consultation on Desert Rock as outlined in the regulations governing interagency consultations 50 CFR § 402.14 until answers are provided to 27 questions posed to the contractor for the BA for DREF. The species that DREF would adversely impact include two fish species in the San Juan River that have not been properly brought in the Section 7 consultation with USFWS.

The conclusions in the Draft EIS concerning the Colorado pikeminnow and razorback sucker are particularly egregious:

Minor increases in mercury and selenium, and other potentially toxic elements, reaching the San Juan River from air pollution deposition may contribute to adversely impacting razorback sucker and Colorado pikeminnow reproductive success.⁶¹

The impact to surface water quality from the deposition of mercury and selenium may result in adverse effects to the reproductive success of Colorado pikeminnow and razorback sucker.⁶²

Colorado pikeminnow and razorback sucker are considered Group 2 (G2) “Endangered” species under the Navajo Nation Division of Natural Resources, Department of Fish and Wildlife. Navajo Endangered Species List (NESL). Group 2 “Endangered” species under NESL are defined as, “A species or subspecies whose prospects of survival or recruitment are in jeopardy (underlined for emphasis)”⁶³ It is clear that the DREF should be characterized by the USFWS and the Navajo Nation Department of Fish and Wildlife as a jeopardy determination for Colorado pikeminnow and razorback sucker

In addition, conclusions in the Draft EIS concerning impacts to Mesa Verde cactus populations are deficient:

The NNDFW NNHP (Navajo Nation Department of Fish and Wildlife, Navajo Natural Heritage Program) has been monitoring populations of the federally threatened Mesa Verde cactus within and near the project area since the early 1990s. As of 2006, a dramatic decline in the known and monitored populations had occurred. This decline has largely been attributed to regional drought combined with predation from insects and continued regional development (Personal communication with

⁶⁰ July 2, 2007 letter from Wally Murphy, Field Supervisor, United States Department of the Interior, Fish and Wildlife Service, New Mexico Ecological Services Field Office to Regional Director, Bureau of Indian Affairs, Gallup, New Mexico on Information Necessary for Formal Consultation on the Desert Rock Energy Project

⁶¹ Draft EIS 5-22

⁶² Draft EIS 4-83

⁶³ Navajo Nation Division of Natural Resources, Department of Fish and Wildlife. Navajo Endangered Species List (NESL), Resources Committee Resolution, No. RCMA-31-01, March 2001.

Daniela Roth, NNHP).⁶⁴

Mesa Verde cactus are a NESL Group 3 species, defined as, “ A species or subspecies whose prospects of survival or recruitment are likely to be in jeopardy in the foreseeable future.”⁶⁵ If Mesa Verde cactus are in "dramatic decline" (per the lead botanist of the NNHP, Daniela Roth), then no disturbance to any Mesa Verde Cactus should be allowed for DREF and NTP (the Biological Opinion for NTP was done separately from the BA for DREF and fails to consider any impacts to endangered species as a result of DREF, which is a connected action to NTP). In addition, complete surveys do not appear to have occurred for Mesa Verde cactus in the proposed project area.

Ferruginous hawks, NESL Group 3, are known to have nesting and breeding habitat in the immediate vicinity of the proposed project area. No conclusive surveys have been conducted to date that would allow impacts to Ferruginous hawks to be evaluated.

The BIA cannot issue a Final EIS for DREF without a Final Biological Opinion.

Risk Assessment (Appendix J) is Deficient

A risk assessment document that fails to address climate change and a proper region of influence associated with 12.7 million tpy of CO₂ for DREF, is completely devoid of value. To deny any ecological risks from global warming as a result of DREF is not scientifically sound, has failed the citizens of the Four Corners Region and should be returned to URS Corporation for more contemplation. Reliance of the Risk Assessment on soils analysis and plant uptake of metals is hardly sufficient for a supposed ecological risk assessment.

Federal Aviation Administration hasn't been included in Draft EIS

The study and results of an aeronautical study need to be incorporated in the Draft EIS, prior to completion.

It should be noted that prior to construction, the Federal Aviation Administration would be consulted regarding potential interference of navigable air space pursuant to Federal Law. As of the date of this document, it is unknown whether the proposed 917-foot stack or other ancillary facilities associated with the proposed action would interfere with navigable air space.⁶⁶

Deficiency of Cumulative Effects Analysis and Failure to Implement Consistency of Cumulative Affects Analysis Through Resources

⁶⁴ DEIS 5-20

⁶⁵ Navajo Nation Division of Natural Resources, Department of Fish and Wildlife. Navajo Endangered Species List (NESL), Resources Committee Resolution, No. RCMA-31-01, March 2001.

⁶⁶ DEIS 4-98

Many of the conclusions set forth in the DREF Draft EIS concerning impacts to resources have been minimized or neglected by the BIA.

Considerations under NEPA include the concept of cumulative actions under 40 CFR § 1508 (a):

Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (40 CFR § 1502.20 and 1508.28)...

Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.

There is no valid cumulative impacts analysis in the Draft EIS relating to the fact that DREF would become an extension of the massive existing coal complex (Four Corners Power Plant and San Juan Generating Station; Navajo, San Juan and La Plata mines, and the dumping of a million tons of CCW) that have already resulted in significant, adverse impacts to the region.

The impacts of the complete history of the Four Corners Power Plant, San Juan Generating Station, Navajo, San Juan and La Plata mines, the impacts of DREF, the impacts of the 470 mile NTP, and all other “past, present and reasonably foreseeable future actions” must be evaluated in the Draft EIS, rather than just listed (as in Chapter 5). The Four Corners Power Plant and San Juan Generating Station represent 3,840 Mw of existing electricity derived from coal burning in the Four Corners region. The Four Corners region has historically been considered a national sacrifice zone for energy production – it is absolutely time to put an end to any new major sources of air pollution without accurate assessments of current baseline information on air quality, water quality and land use changes. Add the following natural gas infrastructure:

The Draft EIS discusses projected oil and gas development in the Bureau of Land Management Farmington Field Area and states, “The Record of Decision for the Farmington Final EIS indicates the potential development of 9,942 new oil and gas wells on the lands managed by the BLM Farmington Office.”⁶⁷ The Draft EIS incorrectly considers these oil and gas wells as potential although this action was approved in 2003. This is important as the BLM Farmington office has stated that 73,565 tons per year of nitrogen oxides is to be expected in the year 2023 from natural gas production (over 12,000 wellhead compressors) from the new 9,942 wells added to the existing 18,000 in the Farmington Field Area. This is more nitrogen oxides pollution than PNM San Juan Generating Station and APS Four

⁶⁷ DEIS Table 5.1 Past, Present, and Reasonably Future Projects

Corners Power Plant currently emit (combined) and negates reductions of nitrogen oxides at the power plants.

The Draft EIS incorrectly states that the Navajo Generating Station is not located on Navajo land. This needs to be corrected and all cumulative impacts assessments concerning air quality in the Draft EIS, revised.

The Draft EIS completely fails to even mention the significant impacts on the San Juan River and groundwater resources from the Shiprock Uranium Mill Tailings Remedial Action (UMTRA) site. In addition, the Giant Industries Petroleum Refinery has significantly polluted the San Juan River and is under a civil enforcement case from the EPA for air pollution violations.⁶⁸ Add these projects to the million of tpy of CCW, agricultural waste from NAPI, waste from Four Corners Power plant and San Juan Generating Station, the existing 18,000 natural gas wells on BLM land surrounding Farmington, and all indications are that this is a toxic stew within the San Juan River.

In addition, the Draft EIS states, “Also, Western Oil and Gas has proposed approximately 600 natural gas wells in Eastern Burnham Chapter extending north into Upper Fruitland and Nenahnezad/San Juan Chapters.”⁶⁹ Approximately 600 new natural gas wells in the Eastern Burnham/Upper Fruitland and Nenahnezad/San Juan chapters would, in itself, have significant land use, environmental justice and air quality impacts. It is URS Corporation and BIA’s responsibility to analyze how these reasonably foreseeable projects would interact with the existing “clustering” of industrial facilities that have already resulted in “disproportionate impacts” to the citizens of the Four Corners.

The cumulative effects sections of the Draft EIS must actually evaluate cumulative impacts of the “clustering” of industrial facilities in the Four Corners region, rather than merely listing such facilities in Table 5.1. This cumulative effects sections as written are severely deficient and virtually meaningless, particularly when BIA has disclosed the “disproportionate impacts” that are already occurring.

National Environmental Policy Act process has been compromised

BIA has failed the public in refusing to respond to numerous requests to accurately retract the cancelled public hearings for the Draft EIS in June 2007, and in allowing Sithe to post inaccurate public hearing dates for the Draft EIS on the Sithe and URS Corporation websites. Numerous requests for an extension on the 60-day comment period were ignored by the BIA with no written decision provided by the BIA as of August 17, 2007. In fact, the DOI had to address the extension request after BIA failed to respond to legitimate requests for an extension. BIA must demonstrate the legal and regulatory responsibilities of serving as lead agency for this Draft EIS, in evaluating the significant impacts of DREF under NEPA. The DOI should also revisit the “third party preparation” of this Draft EIS and determine if URS Corporation and BIA were unduly influenced by Sithe in the form of what appears to be

⁶⁸ <http://www.epa.gov/oecaerth/resources/cases/civil/caa/giant-fcsht.html>

⁶⁹ Draft EIS 3-77

Sithe's illegal review of the Draft EIS and revisions to the Draft EIS that were under Sithe's directions.

Deficiencies of Draft EIS Addressed in Comments by the EPA

The EPA Region 9 submitted comments on the Draft EIS (CEQ #20070253) on August 24, 2007 under CEQ regulations and under review authority of Section 309 of the Clean Air Act (CAA). The EPA comments note several “unresolved concerns and include recommendations for improving the impact assessment and mitigating potential impacts to resources.”⁷⁰ CEQ guidance on preferred mitigation is avoidance, followed by minimization. The EPA rates the project as Environmental Concerns- Insufficient Information (EC-2) and references attached Detailed Comments on the Draft Environmental Impact Statement For The Desert Rock Energy Project, Navajo Nation, August 24, 2007 (Detailed Comments). The Detailed Comments indicate numerous studies and analyses that have either not been conducted or are incomplete. The Detailed Comments support a rating of, at minimum, Environmental Objections (EO) or Environmentally Unsatisfactory (EU), and Category 3 (Inadequate). The Detailed Comments illustrate that there is no way to conduct impact assessment of numerous resources without completed, detailed studies that should have been included in the Draft EIS. The EPA has quite readily provided the framework as to the need to re-issue the Draft EIS for public review that includes better data and analysis before the BIA can be prepared to make a decision. Among the studies that have failed to be conducted or are incomplete in the Draft EIS:

■ **Coal Combustion Byproducts (CCBs) Leaching and Potential Impacts to Groundwater** - The potential for leaching from CCBs in Navajo Mine has not been quantified or analyzed. In addition, the EPA discusses how liners should be utilized in CCB placement if such placement is above the water table. There is no data on the issue of CCB affecting groundwater in the Draft EIS. This is clearly a public health issue that could potentially result in adverse impacts to the local population in the form of groundwater contamination. This alone merits an EU rating from EPA. The EPA letter also states that the EPA, “recommends all practicable protective measures be utilized in CCB placement in Navajo Mine.”⁷¹ Unfortunately, the legacy of CCB in Navajo Mine is that there are millions of tons of CCB dumped in the mine with no liners. Without elaborating on precise “practicable protective measures” for CCB in Navajo Mine, the Draft EIS is deficient and meaningless to the public.

■ **Aquifer Testing and Impact Assessment** – The EPA states, “We understand that aquifer testing is occurring now and is expected to be completed for inclusion in the Final

⁷⁰ United States Environmental Protection Agency, Draft Environmental Impact Statement DEIS, Desert Rock Energy Project, Navajo Nation (CEQ #20070253), Nova Blazej, Environmental Review Office, August 24, 2007.

⁷¹ Ibid.

EIS (FEIS).”⁷² The EPA recommendation is to include the results of aquifer testing, including water quality sampling results of the Morrison Aquifer, in the FEIS. This aquifer testing is an integral part of the DREF where approximately 5,000 acre feet/year would be primarily required to cool the coal plant. The failure to complete aquifer testing is a fatal flaw in the Draft EIS that requires far more than updating information in the FEIS. If the DREF requires an alternative source of water, has failed to configure the well fields, and has failed to characterize recharge of aquifers, there is no way to determine impacts to groundwater. A completely new *Cumulative Hydrologic Impact Assessment (CHIA): Effects of Coal Mining in the San Juan River Basin* must be prepared for DREF before any decision should be made to approve the project. Of note is the statement by the EPA that,

“The Water Quality Comparison Report of January 31, 2007 and the DEIS, page 4-45 states that there is no conclusive similarity or dissimilarity with respect to geochemical footprints of either of the Morrison aquifer wells and artesian wells (flowing) in the Sanostee Chapter. However, the geochemical comparisons of samples from the sources do appear to show a similarity based on inspection of the stiff diagrams of the Water Quality Comparison Report...Further sampling from test wells at the proposed water well field B that is taking place now will assist in determining classification of the water supply and any geochemical footprint between the Morrison Aquifer and seeps and springs (sentence is from DEIS, p. E-9).”⁷³

If BIA were to follow guidance from EPA to include this information in the FEIS, the public will have had inadequate review opportunities on groundwater quality and quantity, aquifer interaction and impacts analysis. The public is eager to see the study results. The EPA request to update the environmental justice and land use sections of the Draft EIS point to the great uncertainty to groundwater impacts to local Navajo Chapters as a result of DREF. Recharge of the Morrison Aquifer is in the Chuska Mountains. No studies of recharge of the Morrison Aquifer have been conducted for DREF in the Chuska Mountains. This raises the issue of continued disproportionate impacts to local citizens concerning land use and points out discrepancies in the region of influence used by the BIA to evaluate groundwater impacts. Clearly the BIA has failed to properly evaluate groundwater impact as a result of DREF.

■ **Groundwater Monitoring Program** – The EPA recommends a project-wide groundwater monitoring program be presented in the FEIS, with commitments, responsible parties, and funding sources clearly identified as a mitigation measure for potential groundwater impacts.⁷⁴ All of this information must be in the Draft EIS to have any scientific merit where the first step is to study and characterize the groundwater resource. Studies are not mitigation. This recommendation by the EPA appears to be legally unenforceable and places the analysis as a condition to be included in the Record of Decision

⁷² United States Environmental Protection Agency, Detailed Comments on the Draft Environmental Impact Statement For The Desert Rock Energy Project, Navajo Nation, August 24, 2007

⁷³ Ibid.

⁷⁴ Ibid.

(ROD) as mitigation. This is unacceptable. The BIA should require the full disclosure of the groundwater monitoring program results in the Draft EIS so that the public can determine what impacts to groundwater resources in the region would be.

■ **Mercury Emissions** - The EPA recommends that the FEIS should include coal sampling results from the current sampling effort and update the mercury emissions estimate based on these results.⁷⁵ Since mercury represents an extreme public health issue, this sampling should have been concluded for inclusion in the Draft EIS. Again, the public deserves to have this information on mercury prior to the FEIS being issued.

■ **PM10 Emissions Calculations** - The EPA recommends modeling of PM10 emissions associated with employee commute travel to determine compliance with the National Ambient Air Quality Standards (NAAQS).⁷⁶ None of this information is in the Draft EIS or Draft PSD permit. Both documents are now deficient in the monitoring/modeling of PM10 emissions. The Draft EIS must update air quality emissions and be re-issued with environmental consequences being fully disclosed.

■ **Public Health Discussion** - The EPA directs BIA to, “Ensure the public health discussion includes the latest scientific information about air quality pollution and public health.”⁷⁷ Given the U.S. Geological Survey study of people living in Shiprock being more than five times as likely to be seen at IHS for respiratory complaints as are residents of other nearby communities, the EPA has correctly identified that there is already a public health problem due to air pollution in the region. Beyond including the “ latest scientific information about air quality pollution and public health,” the Draft EIS must provide baseline public health conditions and characterize the extent of air pollution on local populations. The Draft EIS is deficient on public health problems as a result of existing conditions in the Four Corners region and has not adequately analyzed cumulative air pollution sources and impacts. When properly analyzed, it is highly probable that impacts analysis in the Draft EIS would identify disproportionate public impacts to local residents, in the form of cancer, respiratory and heart disease. The public health sections of the Draft EIS need to be completely revised and presented to the public in a re-issuance of the Draft EIS.

■ **Environmental Justice** - EPA has, “encouraged the BIA to work with the Tribe and applicant to explore options that could facilitate local access to power within the context of the project, for mitigation of this environmental justice impact.”⁷⁸ None of these options have been specifically described or analyzed in the Draft EIS thus there is no possibility for mitigation of the existing environmental justice impact. If these specific actions to provide local access to power are incorporated in the Draft EIS and change the Proposed Action or Action Alternative, the Draft EIS needs to be re-scoped and re-issued so that public involvement occurs. The EPA notes the need for relocation assistance for local minority and low-income citizens who would be relocated as a result of the proposed DREF. EPA

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Ibid.

recommends relocation and compensation services including translation services, and “assistance with moving or dismantling culturally significant structures (e.g. sweatshops, hogans).”⁷⁹ The EPA fails here to meet requirements under Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” The notion of translation services is quite interesting given that the BIA failed to even translate the executive summary of the Draft EIS for Navajo speaking citizens. It is not acceptable to relocate local tribal members as a result of DREF under the idea that impacts that impacts to their lives can be mitigated. This follows a legacy of unacceptable relocation/compensation to local citizens as the result of Navajo Mine siting and Navajo Mine expansions. The EPA also describes groundwater impacts and agricultural impacts on local citizens as an environmental justice issue. The EPA states, “ The FEIS should contain the results of the seeps and springs monitoring project.”⁸⁰ This seeps and springs study should be fully incorporated into the Draft EIS – no determinations on impacts to local citizens can be made until this study is complete.

Conclusion

The Draft EIS is severely deficient and fails to meet the basic requirements of NEPA due to a narrow purpose and need, the failure of the BIA to provide a reasonable range of Alternatives, and numerous incomplete studies and/or studies never conducted/evaluated (including groundwater and hydrologic characterization, aquifer testing and analysis, public health, coal sampling, particulate matter calculations, mercury deposition analysis, CCWs, and environmental justice). The Draft EIS fails to analyze the significant impacts of DREF emissions of 12.7 million tpy of CO₂ and is therefore fatally flawed (CO₂ impact analysis is certainly required under NEPA, regardless of legal interpretations concerning EPA oversight of CO₂). The third party use of URS Corporation to prepare the Desert Rock Draft EIS on behalf of the BIA has resulted in a predetermined conclusion approving DREF per the faulty purpose and need for the project. The citizens of the Four Corners deserve a far better product than this Draft EIS that fails to include accessible baseline public health data and environmental data that readily proves current disproportionate land use, visual and public health impacts in the region due to the “clustering” of industrial sources. Due to the deficiencies of the Draft EIS, the BIA is restricted to choosing either the No Action Alternative or providing another Draft EIS that provides adequate information to the public concerning the Proposed Action and comparable alternatives.

Sincerely,

s/Mike Eisenfeld

Mike Eisenfeld
New Mexico Staff Organizer

⁷⁹ Ibid.

⁸⁰ Ibid.

