

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

June 1, 2009

Ms. Donna Peterson
Bureau of Indian Affairs - Papago Agency
P.O. Box 490
Sells, AZ 85634

Subject: Draft Environmental Assessment (DEA) for the Proposed San Xavier District Detention Center Project, San Xavier District, Tohono O'odham Nation, Arizona

Dear Ms. Peterson:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

Based on our review, we believe additional information/analysis is needed to adequately assess environmental impacts from the proposed project. Specifically, cumulative impacts to groundwater resources should be assessed. We also recommend other resource discussions be enhanced and/or clarified per our detailed comments. This additional analysis and discussion will better inform BIA in its determination whether to prepare an environmental impact statement or a Final EA/ Finding of No Significant Impact (FONSI) (40 CFR 1501.4). We also offer suggestions for minimizing the environmental impacts of the project, including additional mitigation measures.

We are aware that nearby community members have voiced numerous other concerns about the proposed project. We recommend BIA make every effort to address the community's concerns in the subsequent NEPA document.

EPA appreciates the opportunity to review this DEA. When the subsequent NEPA document is released for public review, please send one hard copy and one CD to the address above (mail code: CED-2). If you have any questions, please contact me at 415-972-3521, or contact Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

/s/

Kathleen M. Goforth, Manager
Environmental Review Office (CED-2)

Enclosure: EPA's Detailed Comments

cc: Ned Norris, Jr., Chairperson, Tohono O'odham Nation
Lorinda Sam, Environmental Supervisor, Tohono O'odham Nation

WATER RESOURCES

Groundwater

The project proposes an onsite water system which will involve drilling wells onsite and constructing a reverse osmosis water treatment plant and storage system. The DEA indicates that two wells will be drilled to accommodate 112,500 gallons per day (p. 16) but the DEA does not provide any statement as to the condition of the aquifer (i.e. the extent to which it is currently used, any trends in the depth of the water table, etc.), or whether there is adequate groundwater availability. The DEA only states that in the project and surrounding area there are “other layers of underground water”, and that the main water table is at 20 feet to 400 feet according to Scott Rodgers District Hydrologist (p. 27). EPA recommends that additional information be included that describes the existing groundwater conditions in the area.

Since this region is arid to semi-arid, water is an especially vital resource and water conservation measures should be included in any development project. We recommend this project description include such measures. Also, since the proposed water wells will be located adjacent to the Santa Cruz River, any impacts groundwater withdrawal could have on surface water flows should be disclosed.

The DEA indicates that groundwater contamination exists in the immediate area originating from the tailings ponds in the ASARCO Mission Complex, an open pit copper mine (p. 39). It is not clear whether this contamination exists at the project site. The DEA states that water sampling near the project site indicates groundwater will meet primary drinking water standards with the possible exception of sulfate (p. 27). More information on the location and frequency of the sampling should be provided, with indication as to whether the reverse osmosis water treatment process will remove contaminants that have the potential to be present in groundwater from nearby contamination. Additionally, indicate how the brine from the reverse osmosis process will be disposed.

Cumulative impacts

The DEA does not appear to assess cumulative impacts, yet concludes no adverse cumulative impacts would result from the project (p. 52). A cumulative impact is “...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” (40 CFR 1508.7).

At a minimum, EPA recommends a cumulative impact analysis occur for groundwater resources. As mentioned, a discussion of existing conditions of the regional aquifer is needed. Knowing whether the resource is healthy, declining, or seriously impaired is necessary for determining the significance of any added impacts due to the proposed project. Including a discussion of land

subsidence¹ would be appropriate for this discussion. Then, reasonably foreseeable future actions that impact the resource must be identified, as well as trends for activities and impacts in the area. The DEA identifies steady population increases in the County and on the Tohono O'odham Nation (26.5% and 23.6% increases respectively) (p. 37). Additionally, there is reference to plans by the Cooperative Farm to rehabilitate 800 acres of fallow fields for farming, which presumably will require water (p. 40). These trends and future actions help identify the cumulative effects impacting groundwater resources.

Guidance is available for cumulative impact analyses. The Council on Environmental Quality (CEQ) guidance *Considering Cumulative Effects Under the National Environmental Policy Act* (January 1997) is available at: <http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm>. In addition, EPA assisted in the preparation of *Guidance for Preparers of Cumulative Impact Analysis* by the State of California, available: http://www.dot.ca.gov/ser/cumulative_guidance/purpose.htm. While this guidance was prepared for transportation projects in California, the principles and the 8-step process outlined therein can be applied to other types of projects, and we provide this resource for your information and consideration.

Wastewater Treatment Plant

The DEA indicates that the proposed actions will include onsite construction of a package wastewater treatment plant (WWTP), and that a permit to discharge the treated effluent will be submitted to EPA to provide the option of discharging into a dry wash that flows to the Santa Cruz River. An Arizona Registered Professional Engineer will design the WWTP plans. The WWTP components are listed on page 15 of the DEA.

Wastestreams from correctional facilities can sometimes contain a much higher proportion of untreatable solids (rags, trash, plastics, etc.) than typical domestic wastewater, and this can impact treatment plant processes. We recommend the designing engineer plan for the specific wastestream characteristics from this source and include the necessary additional components (screeners, grinders etc.) in the wastewater treatment system. See http://www.waterandwastewater.com/www_services/news_center/publish/Wastewater_27/State_Solves_Wastewater_Troubles_with_Innovative_S_904_printer.shtml for one example.

In addition, the document should address potential odors from the WWTP. Members of the community have indicated there are existing odor problems in the area from other WWTP's.

Floodplain

The proposed site is bordered by the Santa Cruz River and a seasonally dry wash, but the DEA is unclear regarding whether the site is located within a floodplain. Page 28 and 46 state that the development is outside the 500-year floodplain yet page 19 references construction in a floodplain. Additionally, the Town of Sahuarita Department of Public Works memo dated April 6, 2009 states that the proposed facility is located in the geologic floodplain of the Santa Cruz River, 1000 feet east of the main channel. This discussion should be clarified. If the site is

¹ The Arizona Department of Water Resources identifies land subsidence in the general area; see: http://www.azwater.gov/DWR/Content/Find_by_Program/Hydrology/files/InSAR_PDF/GreenValleyArea2007to2008_8x11.pdf

located in a floodplain, we recommend the discussion include reference to the specific requirements of Executive Order 11988 – Floodplain Management.

The DEA states that any construction in a floodplain area will be in accordance with federal agency guidelines, including those from EPA (p. 19). Please specify which federal guidelines will be followed.

Stormwater

The DEA indicates that a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and coverage will be obtained under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit from EPA (p. 45). The DEA states that erosion control measures will be monitored by the EPA (p. 41). The NEPA document should clarify that, while EPA has regulatory oversight for the permit, the Tribe is responsible for monitoring construction and post construction Best Management Practices (BMPs) to ensure that all requirements are being implemented.

Parking lots increase impervious surfaces and contribute pollutants to surface waters. The Tribe should consider additional BMPs for the parking lot, such as permeable pavement and/or infiltration trenches. For information on post-construction stormwater management BMPs, see: http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=5. We understand that the Tribe is preparing a hydrological/drainage study of the site. If this is completed beforehand, we recommend including additional information on site drainage in the subsequent NEPA document.

Wetlands/Waters of the U.S.

The DEA states that there are no wetlands on the site, but does not identify the presence of waters of the U.S. There is reference to a dry wash area at the south property line of the site (p. 16), the groundwater discussion references the ephemeral El Vado Wash (p. 27), and the permit list includes Clean Water Act Section 404 Nationwide Permit #14 (p. 6). Clarify which waters of the U.S. on the project site could be subject to Clean Water Act Section 404 permitting requirements. We recommend the Tribe contact the Army Corps of Engineers to determine whether a delineation of waters of the U.S. is needed.

If a 404 permit will be obtained, water quality certification under Section 401 of the Clean Water Act is required. EPA is the regulatory agency with authority to issue water quality certification on the Tohono O'odham Nation. EPA has programmatically certified the 2007 Nationwide Permits for Tribal Lands in Arizona, which may cover the proposed project. For more information, please contact Melissa Scianni of our Wetlands Regulatory Office at (415) 972-3821.

Drinking Water System

A public water system is defined under the Safe Drinking Water Act (SDWA) as any entity serving water for the purposes of human consumption to 15 or more active service connections or 25 or more people at least 60 days out of the year. The proposed water system being described for the project would be provisionally classified as a Non-Transient/Non-Community (NTNC) public water system and would be subject to the requirements of the SDWA for NTNC systems.

Since the Tribe is not subject to State Law, the regulatory authority falls to EPA. Please contact Bessie Lee of EPA's Region 9 office at 415-972-3776 with any questions. Please be aware that baseline monitoring must begin and be submitted to EPA before water may be legally used by the public.

AIR QUALITY

We recommend the following information be included in the discussion of existing air quality conditions on page 31:

- The San Xavier District is within an area that currently meets federal health standards for ozone, PM₁₀ (airborne particles 10 microns or less in diameter), and PM_{2.5} (fine particulates).
- The area had been designated non-attainment for carbon monoxide but was redesignated to attainment/maintenance in 2000.
- The primary sources of carbon monoxide in the area include on-road and non-road vehicles, and periodic dust storms may result in temporary, localized high PM₁₀ levels.
- The location of Santa Clara Elementary School where the nearest air monitoring station is located.
- 2008 data instead of 2004 data when discussing the National Ambient Air Quality Standards at the monitoring stations reported by Pima County.

The DEA states that construction of the project would result in “unquantifiable short-term increases” in PM₁₀ emissions. These emissions can be quantified by utilizing standard emissions factors. However, for this project, if construction mitigation measures are adopted, we believe additional analysis is not necessary. The DEA references the Tribe's General Construction Guidelines but does not identify them. We recommend the following practices to reduce air pollution during the construction phase:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Reduce use, trips, and unnecessary idling from heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.

- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.
- Use low-sulfur diesel fuel on non-road equipment. Utilize EPA-registered particulate traps and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site.

Administrative controls:

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.)
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.

COMMUNITY CONCERNS

We are aware of the strong opposition to the project by some local residents. Concerns were expressed that the DEA does not sufficiently recognize the residential community located to the south of the proposed project site, although the community of Sahuarita was cited as a reason Alternative Action Site #3 was dismissed (p. 25). Based on recent community input, references to the project receiving "strong community support" should be reassessed (p. iii, iv), and the presence of Rancho Sahuarita should be included in descriptions of nearby land use (p. 20, 40, 41, map on 42, 43).

Because some members of the community have expressed concerns as to light and visual impacts, BIA should consider whether mitigation to reduce or eliminate the visibility of the project (soil berms, vegetation screening, etc.) would be feasible and consistent with project function. In addition, it might be helpful to include photo simulations in the document to present the visual and light impacts from key locations near the community.

MITIGATION MEASURES

The DEA identifies mitigation measures which are important to minimize environmental impacts from the project. Mitigation measures are identified for air quality and biological resources (p. 47). Additionally, we have suggested construction air quality mitigation measures above, and suggested that water conservation measures be included. Implementation of mitigation measures should also be addressed. For the biological resource mitigation, the DEA states that it will be utilized by contractors "as deemed relevant and appropriate" (p. 47). We recommend that the BIA include all mitigation measures as conditions in its approval per 40 CFR 1505.3.

ENVIRONMENTAL JUSTICE

The DEA did not include a demographic analysis to identify whether environmental justice communities are nearby, yet the DEA concluded that the proposed action would not disproportionately adversely affect minorities or low-income communities. If any adverse

impacts to communities are identified, a demographic analysis should occur to determine if minorities or low-income communities are disproportionately impacted.

MISCELLANEOUS

- The discussion of wildlife resources (p. 32) would be improved by including whether surveys occurred at times that would identify nocturnal species, and additional supporting information regarding the reasons provided for a lack of wildlife species at the site.
- The adequacy and safety of the bridge over the Santa Cruz River at Pima Mine Road, raised by the Town of Sahuarita in their letter dated April 22, 2009, should be evaluated.