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

DEC 0 1 2011

Shonna Dooman
Bureau of Land Management
Las Vegas Field Office
4701 North Torrey Pines Drive
Las Vegas, Nevada 89103

Subject: Proposed Sloan Hills Competitive Mineral Material Sales Draft Environmental Impact Statement (DEIS), Clark County, Nevada [CEQ #20110245]

Dear Ms. Dooman:

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

EPA has rated this DEIS as EO-2 -- Environmental Objections-Insufficient Information (see enclosed "Summary of Rating Definitions and Follow-Up Action"). Our rating is based on our objection to the project as currently proposed because it appears that it could contribute to violations of the National Ambient Air Quality Standard (NAAQS) for particulate matter smaller than 10 microns (PM_{10}). Furthermore, the DEIS does not fully account for the proposed project's direct and indirect emissions of PM_{10}, particulate matter smaller than 2.5 microns, oxides of nitrogen, volatile organic compounds, and carbon monoxide; therefore, these emissions are underestimated in the analysis. Further analysis is needed to determine whether the project could cause or contribute to violations of the NAAQS for these criteria pollutants in addition to PM_{10}, and whether the project would conform to the approved State Implementation Plan. This information should be included in the Final Environmental Impact Statement (FEIS). We also recommend that the Draft General Conformity Determination be included in the FEIS, either as a detailed summary or as an appendix.

Furthermore, EPA believes the purpose and need for the project have been too narrowly defined, precluding a full evaluation of reasonable alternatives, including off-site quarry locations. The FEIS should reflect broader purpose and need statements that allow for, and carry through with, a full evaluation of reasonable project alternatives. Additional information should also be included in the FEIS regarding hazardous air pollutants and hazardous materials; soil resources and reclamation; impacts to washes; and mitigation measures. We also recommend the FEIS address the findings of the U.S. Fish and Wildlife Service's Biological Opinion and include it as an appendix.

We appreciate the opportunity to review this DEIS. We request a copy of the FEIS when it is filed with our Washington, D.C. office. If you have any questions, please call me at (415) 972-3843, or have your staff call Jeanne Geselbracht at (415) 972-3853.

Sincerely,

Enrique Manzanilla, Director
Communities and Ecosystems Division

Enclosures: EPA's Summary of Rating Definitions and Follow-Up Action
EPA's Detailed Comments

cc: Harish Agarwal, Clark County Air Quality and Environmental Management

Sloan Hills Draft Environmental Impact Statement
EPA Comments – November, 2011

Air Quality

General Conformity

The proposed project would involve greater than 1,100 haul truck round-trips per day for transport of mineral materials off-site within Las Vegas Valley by year 10 of the project. An additional 100 trucks per day would deliver fuels, maintenance supplies, and other materials to the proposed mine. The round-trip distances used in emissions modeling, however, were only from the onsite administrative site areas to the nearest major roadway (Las Vegas Boulevard) because, according to the Draft Environmental Impact Statement (DEIS, p. 4-7), if mineral materials were not obtained at the proposed mine, they would be obtained from somewhere else in Las Vegas Valley. The project's operational direct and indirect emissions, however, do not end at Las Vegas Boulevard. Regardless of where other materials may originate, both the direct and indirect emissions of hauling materials from this site are reasonably foreseeable (see 40 CFR 51.852) and should be considered for determining conformity with the approved State Implementation Plan (SIP). In addition, these potential direct and indirect impacts have not been compared against the potential impacts of obtaining the material from somewhere else because off-site alternatives have not been analyzed in the DEIS. For purposes of the EIS analysis, *all* direct and indirect impacts, including project emissions, need to be analyzed and disclosed for each alternative.

It also appears from the DEIS that this project could, at a minimum, contribute to violations of the National Ambient Air Quality Standards (NAAQS) for particulate matter smaller than 10 microns (PM_{10}). According to Table 4.1-4 (DEIS, p. 4-11), the maximum incremental project-related impact for PM_{10}, during a 24-hour period, at the fence line is 153.8430 micrograms per meter cubed ($\mu g/m^3$). The primary and secondary NAAQS for PM_{10}, during a 24-hour period, is 150 $\mu g/m^3$. This is not to be exceeded more than once per year on average over 3 years [71 Fed. Reg. (October 17, 2006)]. Furthermore, when additional analysis is conducted to fully account for haul truck emissions, emissions estimates for oxides of nitrogen, particulate matter smaller than 2.5 microns ($PM_{2.5}$), volatile organic compounds (VOC), and carbon monoxide will increase and may exceed general conformity *de minimis* thresholds.

We also note that tables 4.1-4, -6, -7, -11, -14, and -17 in the DEIS provide the incremental emissions estimates for PM_{10} and $PM_{2.5}$, but do not provide the background concentrations or the total background plus project emission projections for each alternative. The DEIS (p. 4-6) also refers to a project as regionally significant if it represents 10 percent or more of a non-attainment area's emissions inventory for that pollutant. On April 5, 2010, EPA revised the General Conformity regulations, including deletion of the regionally significant test at 40 CFR 93.153(i); therefore, this test is no longer relevant to the conformity discussion.

> **Recommendation:** The FEIS should demonstrate that the direct and indirect emissions from both the construction and the operational phases of the project conform to the approved SIP and do not cause or contribute to violations of the NAAQS. Additional modeling, based on reasonable delivery destinations, trip distribution, and haul truck

round-trip distances, should be conducted to determine air pollutant concentrations of criteria pollutants for an accurate comparison with the NAAQS, as well as emissions in tons per year for purposes of demonstrating whether the project would exceed general conformity *de minimis* thresholds. The FEIS should include this additional information. EPA encourages the Bureau of Land Management (BLM) to continue working with the Clark County Air Quality & Environmental Management Department in developing the Draft General Conformity Determination for the project and to identify additional mitigation measures that would be necessary. We also recommend that the Draft General Conformity Determination be included in the FEIS, either as a detailed summary or as an appendix.

Air Quality Mitigation Measures

Mitigation Measure #AQ10 (DEIS, p.4-30) requires the Operations Manager to ensure that all onsite diesel equipment and vehicles are rated as EPA Tier 4. All vehicles and emissions control equipment would be maintained and operated as per the manufacturer's instructions and required by federal law. The project proponent would also research the feasibility of installing equipment that can measure vehicle emissions as they pass through gates or other stationary points. EPA supports this measure and believes it will significantly reduce emissions from the onsite equipment. It is unclear, however, how the Operations Manager would obtain all Tier 4 equipment and how BLM would monitor for compliance with this provision.

Recommendation: EPA recommends that BLM develop a strategy to locate the needed Tier 4 emission standard equipment prior to beginning the project. In addition, we recommend that BLM include additional mitigation measures to ensure that the NAAQS are not violated. The FEIS should include this information and indicate how BLM would conduct compliance monitoring.

The air modeling for each alternative assumes implementation of the mitigation measures identified in Section 4.1.9.1 of the DEIS. It is critical, therefore, that these mitigation measures be implemented and monitored. Mitigation measure AQ9, limiting equipment idling, will help reduce diesel emissions. It is unclear whether this measure would apply to all vehicles that enter the mine site, including highway haul trucks, fuel trucks, etc.

Recommendation: The FEIS should clarify that AQ9 would apply to all diesel vehicles that enter the mine site. Timing measures to preclude congestion of highway trucks entering and leaving the site should also be included.

Hazardous Air Pollutants

The DEIS (p. 4-5) indicates that hazardous air pollutants (HAP) were not analyzed in detail because no ambient air quality standards were set for these pollutants and because project HAP emissions can also be classified as particulate matter or VOCs, both of which have been analyzed for the project alternatives. More detailed information regarding potential HAPs emissions from the project is needed, especially given that there are residents within close proximity to the site.

Recommendation: EPA recommends that a HAPs analysis be conducted, and the FEIS should identify the estimated HAPs emissions and potential direct, indirect, and cumulative impacts of those emissions for each alternative.

Las Vegas Air Quality

The statements on pages 3-8 and 4-5 and Table 3.1-3 in the DEIS are not accurate regarding the attainment status of Las Vegas Valley for carbon monoxide. On September 16, 2010, EPA finalized the rule to redesignate Las Vegas Valley to attainment for the NAAQS for carbon monoxide and approved the maintenance plan showing maintenance of the carbon monoxide standard though 2020. Furthermore, the second paragraph on page 4-6 should clarify that the Las Vegas area is a "serious" non-attainment area for PM_{10}.

Recommendation: The FEIS should be updated accordingly. In addition, Table 4.1-1 should indicate that the *de minimis* threshold for a carbon monoxide maintenance area is also 100 tons per year.

Project Purpose and Need and Range of Alternatives

The DEIS (p. 1-5) indicates that the purpose for the action is for BLM to respond to applications submitted by CEMEX and Service Rock Products Corporation for a competitive mineral material sale of limestone and dolomite on public lands administered by BLM in the Sloan Hills area. In addition, the DEIS indicates that the need for the action is to fulfill BLM's responsibility under the Materials Act and FLPMA; i.e., BLM must consider and respond to the applicant's request for a competitive mineral material sale contract to construct, operate, maintain, and reclaim construction aggregate mines at the Sloan Hills location.

The DEIS (pp. 1-5,6) further states:

> "The applicant's objective is to mine high-quality limestone and dolomite at the Sloan Hills site to supply construction aggregate to the southern Las Vegas Valley. The Sloan Hills site was selected as a desirable location for an aggregate mine based on its (1) availability of high-quality formations of limestone and dolomite and potential to produce a high volume of material over a long period of time, (2) proximity to the southern Las Vegas Valley, and (3) accessibility to interstate highways and railroads. Although the applicant's objective provides useful information, in accordance with BLM policy for an externally generated action, this EIS analyzes BLM's purpose and need, not the applicant's purpose and need."

The purpose and need statement drives the alternatives that must be analyzed in the EIS, and the alternatives are "the heart of the environmental impact statements." 40 CFR Section 1502.14. For purposes of the NEPA analysis, in cases where a project proposal comes from outside the federal agency, the *purpose* of the proposed action is typically the specific objective(s) of the activity to be permitted or funded by the federal agency, not the agency's permitting action itself. In the case of the Sloan Hills EIS, it appears the purpose may be to mine high-quality construction aggregate in the southern Las Vegas Valley. The *need* for the proposed action may be to take advantage of an opportunity or eliminate a broader underlying problem, such as the need for a high volume of high-quality aggregate that is available, accessible, and close to southern Las Vegas Valley. The applicants' objective stated above is only one solution to the

underlying need. The project purpose and need should be broad enough to spur identification of the full breadth of a reasonable range of alternatives, regardless of what the future findings of an alternatives analysis may be. It is critical that the purpose and need neither prescribe a solution, nor imply a predetermined solution, such as the specific location (Sloan Hills) of the quarry where construction materials would be obtained.

Furthermore, the DEIS (p. 1-5) states that two settlement agreements stipulate that BLM shall commit to considering the proposed mineral material sales in good faith and shall look favorably on approving the proposed sale upon complying with all applicable statutes and regulations. However, the settlement agreements also state that nothing within the agreements shall be construed as restricting BLM's discretion in approving or denying the proposed mineral material sales. It is unclear, therefore, why the DEIS does not rigorously explore and objectively evaluate a full scope of alternatives, including off-site locations, such as those identified in Section 2.8 of the DEIS, Alternatives Considered but Eliminated from Further Analysis, or reasonable alternatives not within BLM's jurisdiction, consistent with 40 CFR 1502.14. The purpose and need should focus on the underlying problems to be addressed and allow for the analysis of a full scope of alternatives.

An appropriate purpose statement is also a key component of the alternatives analysis for the purpose of demonstrating compliance with Section 404 of the Clean Water Act. The DEIS (p. 4-54) states that the successful applicant(s) would be required to conduct a delineation of potentially jurisdictional waters of the U.S. prior to the initiation of construction and mining activities to determine whether a permit pursuant to Section 404 of the Clean Water Act is required. If the U.S. Army Corps of Engineers asserts jurisdiction, a Section 404 permit will be required for any project impacts that may result in the placement of dredge or fill material into a water of the U.S.

If a permit is required, EPA will review the project for compliance with Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the Clean Water Act ("404(b)(1) Guidelines"). Pursuant to 40 CFR 230, any permitted discharge into waters of the U.S. must be the least environmentally damaging practicable alternative (LEDPA) available to achieve the overall project purpose. The purpose statement, therefore, is a key component of the alternatives analysis for the purpose of demonstrating the LEDPA. Furthermore, the applicant's LEDPA analysis would not be limited to the alternatives analyzed in the EIS, and would need to evaluate off-site alternatives.

> **Recommendation:** The FEIS should reflect broader objectives and purpose and need statements that allow for, and carry through with, a full evaluation of other alternatives, including off-site locations for purposes of meeting both the NEPA implementation regulations at 40 CFR 1502.14 and the 404(b)(1) guidelines.

Climate Change

The DEIS (p. 5-18) provides annual estimates of carbon dioxide equivalents potentially emitted by the project alternatives. It is unclear whether BLM will require mitigation measures to reduce or minimize greenhouse gas emissions from the project.

Recommendation: The FEIS should discuss how greenhouse gases could be reduced for the project, and whether these measures would be required under the terms of the mineral material sales. Attention should be paid to explaining the quality of each greenhouse gas mitigation measure – including its permanence, verifiability and enforceability. We offer the following potential measures for BLM's consideration:

- Incorporate alternative energy components into the project such as on site distributed generation systems, solar thermal hot water heating, etc.;
- Incorporate recovery and reuse, leak detection, pollution control devices, maintenance of equipment, product substitution and reduction in quantity used or generated;
- Include use of alternative transportation fuels, biodiesel, electric vehicles, ethanol, etc. during construction, and operation if applicable;
- Commit to using high efficiency diesel particulate filters on new and existing diesel engines to provide nearly 99.9% reductions of black carbon emissions.

Water Resources

The DEIS (pp. 4-53, 54) indicates that rainfall would be retained on site and drainage patterns and pathways would be lost or modified by the project, potentially affecting downstream surface waters and the conditions of ephemeral washes. Few details are provided, however; for example, where would retention/sedimentation basins be located, how much water would be retained on site, would it be consumed or allowed to percolate, and how would these conditions differ from existing uncontrolled conditions with respect to percolation and downstream flow?

Recommendation: The FEIS should provide a more detailed description of the project's likely run-on/run-off controls and their potential impacts to surface waters and wash conditions.

Soil Resources

The DEIS is unclear regarding the potential impacts to site soils under each alternative, and how soils and/or growth media would be distributed during reclamation. While the DEIS indicates that site-specific reclamation plans would be developed by the successful applicants, the DEIS does identify some soil conservation and stabilization measures that would be required for the project. We believe additional information is needed, however, to fully disclose and analyze the project's potential impacts to soil resources and the likelihood of successful reclamation. For example, how much soil would be disturbed and stockpiled under each alternative? How much would be needed for site reclamation? Which areas would be reclaimed with stockpiled soil and to what depth? If sufficient volumes of soil would be unavailable for proper reclamation, what would be used as a substitute or amendment, where would it come from, and what are the specifications for this material? What would the potential impacts be to the borrow area? The DEIS (p. 4-35) states that reclamation efforts would be monitored for success for a designated period of time. What would the success criteria be, and how long would monitoring occur?

Recommendation: The FEIS should include this information.

Biological Resources

The proposed project would have direct and indirect impacts on several sensitive species and their habitats, including the federally threatened desert tortoise.

> **Recommendation:** The FEIS should address the findings of the U.S. Fish and Wildlife Service's Biological Opinion and include it as an appendix.

The DEIS (p. 2-47) outlines the elements of the reclamation plan, which would be developed by the applicants after the sales contracts are awarded. The provisions of the revegetation plan will be important to successful reclamation of the project area.

> **Recommendation:** The FEIS should include a more detailed description of the requirements for revegetating the site, identify success criteria, and specify implementation and performance monitoring measures and follow up actions should efforts fail to meet success criteria.

Hazardous Materials

The FEIS should include a list of the types and amounts of hazardous materials anticipated to be used on the project site.