



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

July 15 2009

David V. Uberuaga
Acting Superintendent
Yosemite National Park
PO Box 577
Yosemite, CA 95389

Subject: Draft Environmental Impact Statement (DEIS), Yosemite Institute Environmental Education Campus, Yosemite National Park, California (CEQ # 20090142)

Dear Mr. Uberuaga:

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.

Based on our review, we have rated the Draft Environmental Impact Statement (DEIS) DEIS as Lack of Objections (LO) (see enclosed "Summary of Rating Definitions"). While we do not object to the proposed project, we request additional information and clarifications in the Final EIS, including information on the applicability of General Conformity under the Clean Air Act, and clarification regarding the proposed wastewater treatment and energy development systems. Our detailed comments are enclosed.

The National Park Service (NPS) proposes to construct a more modern efficient environmental education campus for the Yosemite Institute. The DEIS evaluates 2 action alternatives: redevelopment of the existing campus at Crane Flat, and development of a new campus at Henness Ridge, in addition to the no action alternative of not improving the existing Crane Flat campus. The NPS's preferred alternative is Alternative 3 – Henness Ridge campus.

We commend the NPS for providing a clear and well-organized impact assessment methodology in the DEIS. We also commend the NPS for proposing a campus that would meet Leadership in Energy and Environmental Design (LEED) standards, per NPS's 2006 Management Policies, with the goal of a maximum LEED rating under the preferred alternative.

EPA appreciates the opportunity to review this DEIS. When the Final EIS is released for public review, please send one copy 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: Summary of EPA Rating Definitions
 EPA's Detailed Comments

Air Quality – General Conformity

Mariposa and Tuolumne Counties are designated Nonattainment with a "Subpart 1 Basic" classification for the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS). EPA has proposed a Moderate classification for this area (74 FR 2936, January 16, 2009). The DEIS quantifies emissions estimates for the project alternatives for the operational phase of the project, but does not quantify emissions that would occur during the construction phase. Various types of heavy equipment would be used during construction activities for a new campus. For the preferred alternative at Henness Ridge, heavy equipment would also be used during the demolition of the Crane Flat campus structures, restoration of the site, and installation of interpretative exhibits (p. 2-23, 3-94). Presumably, installation of utilities for the Henness Ridge site would also involve the use of heavy equipment.

Because the project is located in a nonattainment area, the National Park Service (NPS) must determine if the emissions associated with the Federal action (both construction and operational emissions) are subject to the requirements for a formal conformity determination under the General Conformity rule codified at 40 CFR 93, subpart B. The purpose of the General Conformity rule is to ensure that Federal activities do not interfere with the clean air quality goals contained in the State Implementation Plan.

The "applicability" analysis involves quantification of emissions caused by a Federal action that are generated within nonattainment or maintenance areas, that are reasonably foreseeable, and that the Federal agency can practicably control and will maintain control over due to a continuing program responsibility. A formal conformity determination is then required for all such emissions that exceed de minimis thresholds set forth in the rule. For the project area, the de minimis level for Oxides of Nitrogen (NOx) is 100 tons per year.

Recommendation: The FEIS should address the applicability of Clean Air Act (CAA) Section 176 and EPA's general conformity regulations.

Energy Production

The energy development plans for the campus should be explained more clearly. The site plan for the preferred alternative identifies a 6,000 square foot photovoltaic (PV) array (p. 2-31) and indicates that most of the electricity would be provided by the PV cells if buildings are located in the area with solar access (p. 2-8). It is not clear if the buildings have been so located, or whether this means the PV array is optional. Page 3-95 states that electricity would be provided from an on-site power plant with a cogeneration system. It is not clear whether or how the PV array would interact with the cogeneration system nor what fuel would power the cogeneration system. Additionally, the location of the cogeneration system is not identified on the site plan.

Recommendation: Clarify the energy development plans for the preferred alternative in the FEIS. Clarify the fuel source for the cogeneration system. Identify the location of the cogeneration system on the site plan.

EPA encourages the maximum use of renewable energy for the campus. It does not appear that the parking lot location has been explored for installation of photovoltaics as carports. If this is feasible, it could eliminate the impacts to soils and vegetation from constructing a PV array on a hillside.

Clarification Needed for Wastewater Treatment Systems

Clarification is needed regarding the plans for wastewater treatment. The DEIS states that, for the Crane Flat alternative, a new advanced treatment septic system would be constructed with a 24,000 gallon capacity and a shallow pressure-dosed leach field or drip irrigation lines would be constructed for disposal (p. 2-21). For the Henness Ridge site, the wastewater method proposed is an “on-site package wastewater treatment plant” (WWTP) with 2 leachfields, and the “plant would recycle water from plumbing fixtures for nonpotable reuse in toilets” (p. 2-30). This description of an onsite WWTP is also used for Crane Flat on p. 3-93. It is not clear if this means that facilities will be dual-plumbed so that treated wastewater from the plant is used for flushing toilets, or if some other configuration is implied. Another possibility is that the terms septic tank and wastewater treatment plant are being used interchangeably, since page 3-22 states that the restoration of Crane Flat involves removal of the WWTP, and the site currently has a septic system, and the description of the new septic system at Crane Flat is referred to a wastewater treatment plant later in the same paragraph (p. 2-21). The DEIS also mentions the possibility of foam-flush toilets for use in all alternatives (p. 2-7) but this is not further explored. Foam flush composting toilets would offer an additional educational opportunity on the campus.

Recommendation: Use consistent terminology in the FEIS and clearly describe the wastewater treatment systems being proposed for each alternative. We recommend not using the term *plant* to describe a septic system since this suggests a different type of wastewater treatment system. If a package WWTP is being proposed, this is an above-ground treatment works the location of which should be included on the site plans for the alternatives. NPS should ensure the impacts of construction and operation of such a facility are disclosed in the EIS.

Impacts of Groundwater Pumping on Wells and Surface Waters

The analysis of impacts to surface and groundwater for the preferred Henness Ridge site is unclear. The DEIS states “As has already been determined, a slight increase in groundwater withdrawal from the proposed well at Indian Creek would have not have a measurable effect on the water table or on nearby wells.” (p. 3-17). It is not clear where this was previously determined in the document. The DEIS identifies the Yosemite West residential community, just west of the site, as receiving its water from a series of groundwater wells (p. 3-125). There is no information provided regarding the current condition of the aquifer. Additionally, no statement is made regarding the potential of this increased groundwater pumping to impact surface water flows.

Recommendation: Clarify the discussion of impacts from the preferred alternative’s groundwater pumping of 11,480 gallons per day (gpd) peak demand in winter, and 5740 gpd in summer (p. 2-30) on the water table, nearby wells, and surface waters.

Additional Recommendations

- The DEIS states that, under the preferred alternative, an old building related to local water supply on a 64-acre parcel of land near Henness Ridge along Indian Creek would be removed so that the area would be suitable to be added to the current Wilderness Area previously designated by Congress, and this would be a beneficial impact to wilderness and wildlife, particularly the Pacific Fisher. While this is mentioned in several places in the DEIS, it is not included in the project description nor in the mitigation measures. We recommend that the full restoration of this parcel be included in the project description in chapter 2.
- The DEIS mentions in the Utilities section that water harvesting will occur for both the alternatives. It is not clear how this water would be used. The discussion on p. 2-30 implies that it will be used for drinking water. The FEIS should clarify this and indicate whether/how this water would be suitable for drinking. EPA's rainwater harvesting policies municipal handbook may be a useful resource and is available at: http://www.epa.gov/npdes/pubs/gi_munichandbook_harvesting.pdf. NPS should also check with the State of California for any applicable regulatory requirements.
- We appreciate the stormwater treatment controls identified for the project, including detention structures and basins, but it is not clear if permeable pavement, including porous asphalt, was considered for the 36-car parking lot. Porous asphalt has shown to be effective over a wide range of climate conditions, including those that experience winter freezing. We recommend the NPS explore use of porous asphalt or another permeable pavement for the parking lot to minimize impacts to hydrology.