



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

January 27, 2009

Steve Martin  
Superintendent  
Grand Canyon National Park  
Attn: Office of Planning and Compliance  
P.O. Box 129  
Grand Canyon, AZ 86023

Subject: Draft Environmental Impact Statement for Grand Canyon National Park  
Fire Management Plan, Coconino County, Arizona (CEQ# 20080448)

Dear Mr. Martin:

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 comments are provided in accordance with the EPA-specific extension of the comment deadline date from January 21, 2009 to February 4, 2009 granted by Christopher Marks, Deputy Fire Management Officer, on January 14, 2009. We appreciate the additional time to review the DEIS.

EPA commends the comprehensiveness of the draft environmental impact statement (DEIS). We have rated this DEIS as Lack of Objections (LO) (see enclosed "*Summary of Rating Definitions*"). Alternative 2 Mixed Fire Treatment Program is the National Park Service's preferred alternative because it maintains management flexibility, refines the Fire Management Units, and includes additional options of mechanical and manual treatment. The focus of Alternative 2 is on restoring and maintaining Park ecosystems with prescribed and wildland fire-use, and reducing hazard fuels in Wildland-Urban Interface areas using prescribed fire and non-fire treatments.

While EPA supports the proposed action, we have a few recommendations which are provided in our enclosed detailed comments.

We appreciate the opportunity to review this DEIS. When the FEIS is released for public review, please send one (1) 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 Laura Fujii, the lead reviewer for this project. Laura can be reached at (415) 972-3852 or [fujii.laura@epa.gov](mailto:fujii.laura@epa.gov).

Sincerely,

/s/

Kathleen M. Goforth, Manager  
Environmental Review Office  
Communities and Ecosystems Division

Enclosure: Detailed Comments  
Summary of Rating Definitions

cc: Deborah Martinkovic, Arizona Department of Environmental Quality  
Scott Copeland, National Park Service

**EPA DETAILED COMMENTS ON DEIS GRAND CANYON NATIONAL PARK FIRE  
MANAGEMENT PLAN, COCONINO CO., AZ, JANUARY 27, 2009**

**Air Quality**

***Commit to the use of both fire- and non-fire fuel treatments to maintain desired conditions.*** The DEIS states that fire will be used as fully as possible to maintain desired conditions once areas have been restored through non-fire fuel treatment (pg. 4-269). EPA's Interim Air Quality Policy on Wildland and Prescribed Fires, Fire Treatments (April 23, 1998, chapter V.A.1.c), states that a combination of treatment methods may be the best approach to achieving the desired resource benefits with minimum air quality impacts. Combinations of treatments may include mechanical pretreatments to thin the fuel load prior to the use of fire.

**Recommendation:**

To minimize smoke and adverse impacts on air quality from actions to maintain desired conditions, EPA supports the use of a combination of fire- and non-fire fuel treatments. We recommend a commitment in the final environmental impact statement (FEIS) to employ the full range of treatment methods, including non-fire practices wherever appropriate, in the future to maintain desired conditions.

***Update and revise air quality information.*** The air quality information in the DEIS needs to be updated to reflect current conditions and regulations.

**Recommendation:**

The following information should be updated in the FEIS:

- Page 3-50, section 3.3.1.1. The 8 hour ozone standard was revised in March of 2008. The text should be changed to reflect this. Table 3-12 already includes this information.
- Page 3-51, first paragraph. The FEIS should be revised to provide an explanation of what constitutes "high" levels of ozone (relative to the NAAQS, for example), and to indicate whether there is ozone monitoring at the Canyon.
- Page 3-51, paragraph below the italicized paragraph. Arizona's regional haze State Implementation Plan was submitted in December 2003. The December 2007 update has not been submitted yet. The FEIS should state this.
- Page 3-53, section 3.3.1.4. The FEIS should be expanded to include some quantitative information on emission levels from mobile sources. This information should not be difficult to obtain as long as there are good estimates of the number of park visitors who come via motor vehicles.

**Water Resources**

***Describe specific avoidance and minimization mitigation measures for sensitive resources.*** The FEIS indicates that mitigation of soil and watershed effects will include protection of aquatic habitat, riparian and wetland areas, meadows, and other sensitive resource areas by defining and avoiding these areas, especially with wheeled vehicles and fire retardant application (pg. 4-292).

**Recommendation:**

EPA supports avoidance and minimization of effects on sensitive resource areas. We recommend the FEIS describe specific avoidance and minimization measures. For example, consider the use of buffer zones for riparian, wetlands, springs, and meadow resources; equipment exclusion zones; and fire retardant exclusion zones.

**Climate Change**

***Describe climate change effects and adaptation measures.*** A number of studies specific to the Colorado River Basin have indicated the potential for significant environmental impacts as a result of changing temperatures and precipitation.<sup>1</sup> While the DEIS mentions climate change and the benefit of ecological restoration of plant communities in promoting their adaptation to change (pps. 4-13, 4-279), it does not provide a discussion of climate change scenarios for the Grand Canyon National Park, effects on the Fire Management Plan, or potential adaptation measures.

**Recommendation:**

We recommend the FEIS include a short section describing potential climate change effects for the Grand Canyon region, effects on the Fire Management Plan, and possible adaptation measures. For example, describe whether there may be changes in treatment schedule, types of treatments favored, any shift in vegetation types to be treated, or a reliance on adaptive management to annually adjust to climate change.

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<sup>1</sup> For example, Colorado River Basin Water Management: Evaluating and Adjusting to Hydroclimatic Variability (2007); The Colorado River Basin and Climatic Change, Linda L. Nash & Peter H. Gleick (1993) (EPA Publication 230-R-93-009).