



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
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January 4, 2011

Mr. Pedro Ramos, Superintendent
Big Cypress National Preserve
33100 Tamiami Trail East
Ochopee, FL 34141-1000

**RE: EPA Review and Comments on Big Cypress National Preserve - Addition,
Final General Management Plan/Wilderness Study, Off-Road Vehicle
Management Plan/Environmental Impact Statement – October 2010;
CEQ No. 20100457**

Dear Mr. Ramos:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the subject Big Cypress National Preserve - Addition, Final General Management Plan / Wilderness Study / Off-Road Vehicle (ORV) Management Plan / Environmental Impact Statement – October 2010 prepared by the National Park Service (NPS). This final plan, study and EIS of the Preserve Addition will hereafter be referred to as the Final Environmental Impact Statement (FEIS).

The NPS finalized a *General Management Plan* for the Preserve in 1991. That plan addressed only the original Preserve and contained no guidance for the Addition. The Addition, located in Collier County, Florida, was established as part of Big Cypress National Preserve. The Addition is about 147,000 acres and consists of two separate areas — the Northeast Addition and the Western Addition. Most of the lands, about 128,000 acres in the Northeast Addition, are northeast of the original Preserve boundary. The Western Addition is an approximately 1-mile strip of land (approximately 19,000 acres) between State Road 29 and the western boundary of the original Preserve.

This FEIS presents four alternatives, including the NPS's Preferred Alternative, for future management of the Addition. The four alternatives include the "no-action" alternative (Alternative A), which describes the continuation of current management direction, and three "action" alternatives (Alternative B, Preferred Alternative, and Alternative F). Additional alternatives (Alternatives C, D, and E) were considered; however, these alternatives were dismissed from further detailed analysis.

The concept for management under Alternative B would be to enable visitor participation in a wide variety of outdoor recreational experiences. It would maximize

motorized access, provide the least amount of proposed wilderness, and develop limited new hiking only trails. New visitor and operations facilities along the I-75 corridor would also be provided. The key impacts of implementing Alternative B would include moderate, long-term, adverse, and mostly localized impacts on surface water flow; long-term, moderate, adverse and potentially Addition-wide impacts on the control of exotic/nonnative plants; long-term, moderate, adverse and mostly localized impacts on (likely to adversely affect) the Florida panther; long-term, minor to moderate, adverse and mostly localized impacts on (likely to adversely affect) the red-cockaded woodpecker; long term, minor to moderate, adverse and mostly localized impacts on major game species; long-term, moderate, beneficial and Addition-wide impacts on wilderness resources and values; long-term, moderate, and beneficial impacts on visitor use and experience.

Alternative F would emphasize resource preservation, restoration, and research while providing recreational opportunities with limited facilities and support. This alternative would provide the maximum amount of wilderness, no ORV use and minimal new facilities for visitor contact along I-75. The key impacts of implementing Alternative F would include minor, beneficial, long-term, and mostly localized impacts on surface water flow; long-term, minor, adverse, and mostly localized impacts on (not likely to adversely affect) the Florida panther; long term, major, beneficial, and Addition-wide impacts on wilderness resources and values; long-term, minor, beneficial impacts on visitor use and experience.

The preferred alternative would provide diverse front country and back country recreational opportunities, enhance day use and interpretive opportunities along road corridors, and enhance recreational opportunities with new facilities and services. This alternative would provide substantial ORV access, provide a moderate amount of proposed wilderness, provide non-motorized trail opportunities and new camping opportunities, and develop a partnership approach to visitor orientation. Implementation of the ORV trail system would be phased to ensure protection of sensitive species and the environment. Areas that were found to be eligible for wilderness designation but were not proposed as wilderness would be protected through management zoning that would maintain and protect natural values. New visitor and operations facilities along the I-75 corridor would also be provided. The key impacts of implementing the preferred alternative would include moderate, long-term, adverse, and mostly localized impacts on surface water flow; long-term, moderate, adverse and potentially Addition wide impacts on exotic/nonnative plants; long-term, moderate, adverse and mostly localized impacts on (likely to adversely affect) the Florida panther; long-term, minor to moderate, adverse and mostly localized impacts on (likely to adversely affect) the red cockaded woodpecker; long-term, minor to moderate, adverse and mostly localized impacts on major game species; long-term, moderate, beneficial and Addition-wide impacts on wilderness resources and values; long-term, moderate, and beneficial effects on visitor use and experience; and long-term, moderate, and beneficial and adverse impacts on NPS operations and management.

EPA submits the following comments on this FEIS for your consideration:

General Comments

EPA appreciates the section, "Responses to Comments on the Draft Plan," in which the NPS includes details regarding specific changes and clarifications made to the alternatives chapter regarding the eight (8) comments from the EPA in the DEIS, including sections and page numbers that were revised and clarified.

EPA is concerned about the impacts of motorized traffic that is growing rapidly on the public lands. Large segments of the hunting and fishing community, for example, believe that off-road vehicles are taking a toll on the land and its wildlife and are detracting from the experience of non-motorized visitors. Evidence is mounting that ORVs pose a serious threat to wildlife, water, soil, plants, and the rest of the natural world.

Of primary concern to EPA is that ORV's use is fragmenting the landscape into a disorganized and destructive web of trails and roads. They point to severe impacts to the soil, the spread of invasive plant seeds, and the disruption to sensitive and endangered wildlife as cause for regulatory intervention. Insufficient enforcement of existing regulations has resulted in thousands of miles of unauthorized routes across the landscape.

The dramatic increase in ORV use on public lands can be responsible for a host of adverse impacts on wildlife, vegetation, soils, water quality, and nonmotorized recreationists. The contamination of air, water, and soil by ORV pollution is among the most significant of these impacts. There are at least four major ORV pollution concerns:

- * air pollution -- toxic emissions (e.g., carbon monoxide)
- * air pollution -- particulates (e.g., dust)
- * soil and water pollution -- direct contamination, air pollution settling on surfaces, all of these pollutants concentrating in waterways
- * pollutants discharged directly into water bodies -- motorized watercraft (e.g., jet skis)

Toxic Emissions

Air pollution is probably the best studied of these, and air quality problems relate both to emissions and dust (Fritsch 1994, Hare and Springer 1974, Kockelman 1983, USDI 1978). The two-stroke engines that typically power ORVs are highly inefficient and produce relatively high emissions of carbon monoxide (CO) and unburned hydrocarbons (White et al. 1993). Kasnitz and Maschke (citing California Air Resources Board 1996:7) report that: "One two-stroke off-road motorcycle or all-terrain vehicle

emits as much hydrocarbon pollution per mile as 118 passenger cars, while relatively cleaner four-stroke engines still emit more than seven times the level of carbon monoxide as new cars." Fussell (1997), Sluder (1995), and Killman et al. (1973) report similarly startling results.

Areas where ORVs are being operated in large numbers, especially under certain topographic and climactic conditions, are especially prone to severe air pollution problems. One of the best examples of this is the west entrance to Yellowstone National Park during the winter snowmobile season. Although the National Park Service has not yet adequately studied the effects of this pollution on wildlife and plants, health impacts to Park Service employees and Park visitors have become a serious concern (Fussell 1997). During the winter of 1994-1995, air quality monitoring at the Park's west entrance "detected carbon monoxide (CO) levels exceeding Federal standards" (Ingersoll et al. in press: 103 citing USDI NPS, Air Quality Division 1996). Despite researchers identifying air quality as a sometimes significant problem in Yellowstone National Park as early as 1981 (Aune 1981), little is known about the consequences of this type of air pollution, especially the cumulative and longer-term impacts.

Particulate Emissions

In drier conditions, ORVs are responsible for sending quantities of dust and particulates into the air (Baldwin 1970, Kasnitz and Maschke 1996, Kockelman 1983). The large quantity of particulate air pollution (dust) caused by ORV travel on unpaved roads and trails is "a serious health risk" (Kasnitz and Maschke 1996:7). They explain that "[r]ecent health studies have also associated particulate pollution with impaired lung function, increased emergency room visits and increases in mortality" (Kasnitz and Maschke 1996:7).

Surface Contaminants

Much of the pollution that ORVs emit into the air eventually ends up settling on the soil and water. (see, for example, Aune 1981, Elgmark et al. 1973, Ferrin and Coltharp 1974); much of this contamination works its way into nearby waterways (Aune 1981). That these processes can occur slowly doesn't mitigate their potential severity. ORVs can leak fuel, oil, antifreeze, and other chemicals.

For instance, one study found that "[c]oncentrations of ammonium, nitrate, and sulfate in snowmelt positively correlate with vehicle [snowmobile] usage" (Ingersoll et al. in press: 103). It is not a stretch to extrapolate this to off road trails. Similarly, lead contamination has been well documented near ORV travelways and roads (Cannon and Bowles 1962, Collins and Snell 1982, Warren and Delavault 1960). Although lead has probably diminished in significance as an ORV pollutant, this research suggests the potential for vegetative damage and wildlife consumption of fuel components is severe. Sheridan (1979) reported that ORV ruts can also contribute to water pollution levels.

Thus, not only does this pollution have the potential to harm soils, soil organisms, and plants, it often ends up in aquatic habitats (Geological Society of America 1977, Hagen and Langeland 1973), where many species are especially sensitive to it. Adams (1975) determined that the hydrocarbons and lead emitted from snowmobiles was adversely affecting brook trout. Similarly, Luckenbach (1978) noted that amphibians and other desert water source inhabitants can be susceptible to ORV pollution.

There are other concerns. For instance, Kasnitz and Maschke (1996, citing California Air Resources Board 1996) note that many ORV recreation areas are located adjacent to or in urban areas already suffering from seriously degraded air quality. Trash and human waste are other concerns, although they are rarely addressed in the scientific literature (Baldwin 1970). In short, in addition to habitat degradation and fragmentation, wildlife harassment, and the crushing and disrupting of vegetation and soils, land managers must take careful stock of ORV-caused air, soil, and water pollution in their efforts to manage responsibly and prudently the recreational uses of public lands.

Summary

EPA finds that the Preferred Alternative may adversely impact surface water flow; the control of exotic/non-native plants; the Florida panther's food supply; the redcockaded woodpecker and localized impacts on major game species. EPA also has concerns for potential impacts to wetlands and other waters of the US. Overall, the aquatic environment could be negatively impacted by the addition of ORV permits in the Addition area.

EPA recommends that the NPS restrict use of ORVs to legally designated routes (that are specifically posted as open for use) and to eliminate the use of off-road vehicles within roadless and other ecologically sensitive areas. The designated routes must be established only after NPS can demonstrate that the use of ORVs will not cause adverse environmental impacts to ecologically sensitive areas containing vast array of animal life in its aquatic and terrestrial habitats. It is imperative the environmentally sensitive areas stay contiguous.

Relevant permits, such as Section 404 permits from the U.S. Army Corps of Engineers, would be required for construction in jurisdictional wetlands. Also, according to NPS policies, the National Park Service would be required to develop a "Wetlands Statement of Findings" that quantifies all wetland impacts from trail and facility development in the Addition. This analysis would be completed before any NPS facilities or trail development were constructed that could affect wetland resources in the Addition. The "Wetlands Statement of Findings" would include a functional analysis of wetland impacts throughout the Addition. As per NPS policy, this analysis would address a wide variety of wetland values and functions (i.e. beyond the areas that are

directly dredged or filled, as per Clean Water Act, Section 404 requirements). The "Wetlands Statement of Findings" would also identify all possible impact mitigation measures to be included in facility or trail development. These environmental documents will tier from this management plan and include additional site-specific data needed for impact assessment and mitigation. Threatened and endangered species surveys and coordination with the U.S. Fish and Wildlife Service would be required before, during, and after implementation of new developments within the Addition.

We also recommend that NPS select Alternative F which would emphasize resource preservation, restoration, and research while providing recreational opportunities with limited facilities and support. This alternative would provide the maximum amount of wilderness, no ORV use, and minimal new facilities for visitor contact along I-75 than with the Preferred Alternative.

In conclusion EPA continues to have environmental concerns with NPS Preferred Alternative because of the adverse environmental impacts that would result in its implementation.

We appreciate the opportunity to review this document. Please call Ken Clark of my staff at (404) 562-8282 or clark.ken@epa.gov if you have questions on our comments.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mueller", is written over the typed name.

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management