

CHAPTER 5: CONSULTATION AND COORDINATION

Throughout the development of this plan/EA, substantial coordination efforts have been undertaken to provide and solicit information from federal, state, and local officials, as well as the general public. This chapter provides a summary of the outreach and consultation activities associated with the proposed project, as well as a list of preparers.

COOPERATING AGENCIES

On December 18, 2009, the NPS sent letters to the BLM and the USFS inviting them to become cooperating agencies in the environmental assessment process. Copies of this correspondence are located in appendix B of this document. Both BLM and USFS manage ORV use on lands adjacent to Curecanti National Recreation Area. The NPS has coordinated with both to ensure routes that cross between the lands managed by each agency are designated open or closed consistent with ongoing planning efforts. In addition, the NPS has worked with these agencies to coordinate the designation of those routes that currently occur on BLM and USFS land, that could become the responsibility of the NPS should Congress change the boundary pursuant to the 2008 Curecanti National Recreation Area Resource Protection Study. While the BLM accepted the invitation to become a formal cooperating agency, the USFS declined formal involvement, but will continue to be consulted during the planning process.

HISTORY OF PUBLIC INVOLVEMENT

The public involvement activities for this plan/EA fulfill the requirements of NEPA and NPS Director's Order 12 (NPS 2001).

THE SCOPING PROCESS

The National Park Service divides the scoping process into two parts: internal scoping and external or public scoping. Internal scoping involved discussions among NPS personnel regarding the purpose of and need for management actions, issues, management alternatives, mitigation measures, the analysis boundary, appropriate level of documentation, available references and guidance, and other related topics.

Public scoping is the early involvement of the interested and affected public in the environmental analysis process. The public scoping process helps ensure that people have an opportunity to comment and contribute early in the decision-making process. For this planning document, project information was distributed to individuals, agencies, and organizations early in the scoping process, and people were given opportunities to express concerns or views and to identify important issues or even other alternatives.

Taken together, internal and public scoping are essential elements of the NEPA planning process. The following sections describe the various ways scoping was conducted for this environmental assessment.

INTERNAL SCOPING

Internal scoping meetings were held at the Fred Field Western Heritage Center in Gunnison from October 23 to 25, 2007, including a site visit to the recreation area. Internal scoping is the use of NPS staff to decide what topics need to be analyzed in the EA. Personnel from Curecanti National Recreation Area and the NPS Environmental Quality Division attended these meetings to define the purpose, need, and objectives of the plan, identify potential issues, discuss preliminary alternatives, and define data needs. The results of the meetings were captured in a report now on file as part of the administrative record.

PUBLIC SCOPING

Public scoping efforts for this planning process focused on the means or processes to be used to include the public, the major interest groups, and local public entities. Based on past experience, park staff place a high priority on meeting the intent of public involvement in the NEPA process and giving the public an opportunity to comment on proposed actions.

Initial Scoping

The public scoping process began on June 5, 2008 with the release of the Public Scoping Brochure for public review and comment. The brochure was available locally at the recreation area, on the recreation area's website (http://www.nps.gov/cure/parknews/orv_ea.htm), and on the National Park Service planning website (<http://parkplanning.nps.gov/cure>). In addition, brochures were mailed to local agencies, government offices, organizations, local libraries, landowners, and members of the public. The public was invited to submit comments on the scope of the planning process and potential alternative elements through July 11, 2008.

During the scoping period, two public scoping open houses were held. The first was at the Holiday Inn Express in Montrose, Colorado, on June 24, 2008. The second open house was held at the Fred R. Field Western Heritage Center (Gunnison Fairgrounds) in Gunnison, Colorado on June 25, 2008. Park staff and other NPS specialists were on hand from 5:30 pm to 8:30 pm to answer questions and provide additional information to meeting participants. Meetings were organized in an open-house format, allowing the public to browse informational posters, interact with park staff, and listen to a brief presentation.

A series of full-color display boards was presented to help illustrate the project background and potential environmental impacts, issues, concerns, and preliminary options for managing motorized vehicle access. These display boards provided an overview of the NEPA process; project purpose, need, and objectives; project issues; potential alternative elements for motorized vehicle access management; and guidance for submitting comments. Park and contractors were located at the display boards to answer questions; facilitate discussions; and record thoughts, ideas, and concerns raised by the public. The public was offered a variety of opportunities to provide feedback or submit questions, including flip charts, comment forms (and drop box), and pre-addressed comment forms for postal delivery. Participants were given information regarding the NPS web-based comment forum, Planning, Environment, and Public Comment (PEPC), and were encouraged to submit their comments electronically using this system. The addresses for submitting comments were printed on all news releases and the project brochures for the benefit of people who could not attend the open houses, but still wanted to provide comments.

A total of seven people attended public meetings (three in Montrose and four in Gunnison) and provided NPS with two pieces of correspondence. An additional seven pieces of correspondence were received by mail or electronically through PEPC and email.

Alternatives Scoping

The public scoping process continued with the release of an Alternatives Brochure on April 16, 2009. The brochure was available locally at the recreation area, on the recreation area's website (http://www.nps.gov/cure/parknews/orv_ea.htm), and on the NPS PEPC website (<http://parkplanning.nps.gov/cure>). In addition, brochures were mailed to local agencies, government offices, organizations, local libraries, landowners, and members of the public. This Alternatives Brochure described the current stage of the planning process, provided a time line for finishing the project, and a conceptual description of the three alternatives that the park was considering. The public was invited to

submit comments on the potential alternative elements through May 29, 2009, either through PEPC or in hard copy to the park. A press release was issued on the park website on May 4, 2009.

Seven pieces of correspondence (one of which was signed by four individuals) were entered into the PEPC system, either from direct entry by the commenter, or uploading of hard copy letters, and emails.

AGENCY SCOPING

On March 25, 2008, the NPS held an agency scoping meeting to discuss preliminary issues related to this plan/EA. Agencies represented included the Bureau of Land Management, Colorado Division of Wildlife, Gunnison County, U.S. Fish and Wildlife Service, and the Gunnison County Sheriff's Office. Topics discussed included scope of the plan; concerns about snowmobile use; access to certain parts of the recreation area; the need for coordination between NPS, Bureau of Land Management, and USFS regarding access on and through lands managed by each agency; and private property issues. These discussions were all considered in the alternatives development process for this plan/EA.

PUBLIC SCOPING COMMENT ANALYSIS PROCESS

For both initial and alternatives scoping, a Content Analysis Process was used to compile and correlate similar public comments into a format useable by the decision-makers and the planning team. Content analysis assists the team in organizing, clarifying, and addressing technical information pursuant to NEPA regulations and in identifying the topics and issues to be evaluated and considered throughout the planning process.

The process included seven steps:

- Entering correspondence that was not received directly into the PEPC database
- Reviewing all correspondence
- Developing a coding structure
- Employing PEPC for comment management
- Reading and coding of public comments from correspondence received
- Interpreting and analyzing the comments to identify issues and themes
- Preparing a comment summary

A coding structure was developed to help sort comments into logical groups by topic and issue. The coding structure was derived from an analysis of the range of topics discussed during internal NPS scoping, past planning documents, NPS legal guidance, and the comments themselves. The coding structure was designed to capture all comments and content, rather than to restrict or exclude any content.

Analysis of the public comments involved the assignment of codes to statements made by the public in their letters, email messages, and written comment forms. Codes were assigned within the PEPC database for each individual comment in a correspondence. All comments were read and analyzed including those of a technical nature; opinions, feelings, and preferences of one element or one potential alternative over another; and comments of a personal or philosophical nature. All comments were considered, whether they were presented by several people saying the same thing or by a single person expressing a unique viewpoint.

A Comment Analysis Report was then prepared that summarized concern statements as well as the full text of all comments corresponding to the appropriate concern statement. All scoping comments were considered to be important as useful guidance and public input to the public scoping process. With regard to development of the plan./EA, comments in favor of or against the proposed action or alternatives, those that only agree or disagree with NPS policy, and those that offer opinions or provide information not directly related to the issues or impact analysis were considered non-substantive comments.

Initial Scoping Comments

After reviewing and categorizing all of the comments within each correspondence received during initial public scoping, 57 comments were identified and coded appropriately. Of these, 53 comments were considered substantive. The substantive comments received addressed alternative elements (including new alternatives or elements, separating visitor uses, providing educational/interpretation information, designating routes and areas to protect resources, temporary and seasonal closures, snowmobile access, restricting 'play areas', parking, and access for the mobility-impaired); reasonably foreseeable future cumulative actions; impacts from snowmobile use; and issues associated with natural resources, cultural resources, and visitor use.

Alternative Scoping Comments

After reviewing and categorizing all of the comments within each correspondence received during alternatives scoping, 34 comments were identified and coded appropriately. Of these, 17 were considered substantive. The substantive comments received addressed alternative elements (including new alternatives or elements, snowmobile access, mobility-impaired access, and speed limits); natural resource issues; and visitor use and experience issues.

AGENCY CONSULTATION

U.S. FISH AND WILDLIFE SERVICE

In accordance with the *Endangered Species Act of 1973*, a request was sent to the USFWS on December 11, 2007 to initiate informal consultation concerning impacts to threatened and endangered species under Section 7 (appendix B). The USFWS responded on January 11, 2008 with a list of species to be considered. Since then, lists of threatened, endangered, and candidate species for Gunnison and Montrose County have been consulted twice (most recently in August 2009) to identify if any changes have occurred regarded species that need to be considered. There would be no effect under Section 7 to the species identified through consultations with the USFWS, which have been addressed in the "Purpose of and Need for Action" chapter as an impact topic considered but dismissed.

COLORADO STATE HISTORIC PRESERVATION OFFICE

The NPS has consulted with the Colorado State Historic Preservation Officer in accordance with the *National Historic Preservation Act*. The NPS submitted a letter dated April 10, 2009, to the State Historic Preservation Office to notify them that the plan/EA will be submitted for their review and comment during the public review period.

TRIBAL CONSULTATIONS

The appropriate level of Tribal government has been consulted during development of this plan/EA. Representatives from the following Tribes were consulted during development of this plan:

- Southern Ute Indian Tribe
- Ute Tribe of the Uintah and Ouray
- Ute Mountain Ute Tribe

LIST OF RECIPIENTS OF THE PLAN / ENVIRONMENTAL ASSESSMENT

This plan/EA will be sent to the following agencies, organizations, and businesses, as well as other entities and individuals who requested a copy.

FEDERAL DEPARTMENTS AND AGENCIES

United States Army Corps of Engineers

United States Department of Agriculture

Natural Resources Conservation Service

Gunnison Service Center

United States Forest Service

Grand Mesa, Uncompahgre and Gunnison National Forests

Gunnison Ranger District

United States Department of Energy

Western Area Power Administration

Rocky Mountain Field Area

United States Department of the Interior

Bureau of Land Management

Gunnison Field Office

Uncompahgre Field Office

Bureau of Reclamation

Western Colorado Area Office

Curecanti Field Office

National Park Service

Black Canyon of the Gunnison National Park

Intermountain Region

United States Environmental Protection Agency

Office of Federal Activities

Region 8

United States Fish & Wildlife Service

Western Colorado Field Office

United States House of Representatives

Grand Junction and Durango Offices of Congressman John T. Salazar

United States Senate

Grand Junction Office of Senator Mark Udall

Grand Junction Office of Senator Michael Bennet

COLORADO AGENCIES

Colorado Department of Natural Resources

Colorado Department of Transportation

Region 3

Colorado Division of Wildlife

Colorado State Forest Service

Gunnison District

Colorado State University

CSU Library

CSU College of Natural Resources

Colorado State House of Representatives

Kathleen Curry, District 61

Colorado State Senate

Gail Schwartz, District 5

Colorado Water Conservation Board

Governor's Office of Policy and Initiatives

State Historic Preservation Office

Colorado Historical Society

Western State College

Department of Environmental Studies

Department of Natural and Environmental Sciences

Department of Recreation

COUNTY AND LOCAL GOVERNMENTS

City of Gunnison

Delta County

Gunnison County

Hinsdale County

Montrose County

Town of Crawford

Town of Crested Butte

Town of Hotchkiss

Town of Paonia

NATIVE AMERICAN TRIBES

Southern Ute Indian Tribe

Ute Mountain Ute Tribe

UTE TRIBE OF THE UINTAH AND OURAY ORGANIZATIONS AND BUSINESSES

Adaptive Sports Center

Alliance of Backcountry Parachutists

ATV Safety Institute

Backcountry Navigator

Black Canyon Anglers

Black Canyon Audubon Society

Blue Mesa Charters

Blue Ribbon Coalition

Bluewater Network

Club 20

Colorado Cattleman's Agrucultural Land Trust

Colorado Cutthroat Adventures, Inc.

Colorado Environmental Coalition

Colorado Mountain Club

Colorado Native Plant Society

Colorado Natural Heritage Program

Colorado Off Highway Vehicle Coalition

Colorado River Water Conservation District

Colorado Trail Riders Association

Crawford Chamber of Commerce

Crested Butte Chamber of Commerce

Crested Butted Trail Riders Association

Defenders of Wildlife

Delta Chamber of Commerce

Delta County Independent

Delta/Montrose Public Lands Partnership
Gunnison Arts Center
Gunnison County Chamber of Commerce
Gunnison County Stockgrowers Association
Gunnison Fish and Raft
Gunnison Sports 4 Com_Users LLC
Gunnison Trails
Gunnison-Crested Butte Tourism Association
High Country Citizens Alliance
High Mountain Drifters Guide Service
Hotchkiss Chamber of Commerce
Montrose Association of Commerce and Tourism
National Parks Conservation Association
Natural Resource Defense Council
Paonia Chamber of Commerce
Recreation Resource Management
Ridgeway Independent Guide Service
Rocky Mountain Hang Gliding and Paragliding Association
Scenic River Tours, Inc.
Sheep Mountain Alliance
Sierra Club
 Rocky Mountain Chapter
Sky Ranch at Ute Trail
Soap Mesa Venture LLC
Southern Rockies Force Network
The Coalition of NPS Retirees
The Nature Conservancy
The Wilderness Society
Three Rivers Outfitting
United Four Wheel Drive Association
West Elk Byway Committee
Western Colorado Congress

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- 2008h Curecanti National Recreation Area. 2008 Noxious Weed Annual Operating Plan
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Glossary



GLOSSARY

Action Alternative — An alternative that proposes a different management action or actions to address the purpose, need, and objectives of the plan; one that proposes changes to the current management. Alternatives B, C, and D are the action alternatives in this planning process. See also: “No-Action Alternative.”

Affected Environment — The existing environment to be affected by a proposed action and alternatives.

Allosaurus — late Jurassic carnivorous dinosaur; similar to but somewhat smaller than tyrannosaurus

Biosphere Reserves — Since 1971, the United Nations has designated over 400 “biosphere reserves” in over 95 countries to serve as models of how to protect resources and protected areas while ensuring their non-destructive human use and enjoyment.

Bivalve Mollusk — A mollusk with a pair of shells (valves) which open by means of a hinge.

Breeding habitat — Habitat(s) that host the birds during territorial displaying, courtship and mating, nesting, incubation, brooding and chick foraging.

Brood — The offspring, as of an animal or a bird, that are the result of one breeding season.

Code — A grouping centered on a common subject. The codes were developed during the scoping process and were used to track major subjects.

Comment — A comment is a portion of the text within a correspondence that addresses a single subject. It could include such information as an expression of support or opposition to the use of a potential management tool, additional data regarding the existing condition, or an opinion debating the adequacy of an analysis.

Concern — Concerns are statements that summarize the issues identified by each code. Each code was further characterized by concern statements to provide a better focus on the content of comments. Some codes required multiple concern statements, while others did not.

Contractor — For the purposes of this plan, a contractor is a fully insured business entity, nonprofit group, or other entity engaged in wildlife management activities that include the direct reduction with firearms. The contractor would possess all necessary permits.

Correspondence — A correspondence is the entire document received from a commenter. It can be in the form of a letter, email, written comment form, note card, open house transcript, or petition.

Council on Environmental Quality (CEQ) — Established by Congress within the Executive Office of the President with passage of the National Environmental Policy Act of 1969. CEQ coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.

Cultural Landscape — A geographic area (including both cultural and natural resources and the wildlife or domestic animals therein) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

Cultural Resources — Prehistoric and historic districts, sites, buildings, objects, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reason.

Ecosystem — An ecological system; the interaction of living organisms and the nonliving environment producing an exchange of materials and energy between the living and nonliving.

Enabling Legislation — National Park Service legislation setting forth the legal parameters by which each park may operate.

Endangered Species — “...any species (including subspecies or qualifying distinct population segment) that is in danger of extinction throughout all or a significant portion of its range (ESA Section 3(6)).” The lead federal agency, U.S. Fish and Wildlife Service, for the listing of a species as endangered is responsible for reviewing the status of the species on a five-year basis.

Endangered Species Act (ESA) (16 USC 1531 et seq.) — An Act to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved and to provide a program for the conservation of such endangered species and threatened species.

Environment — The sum total of all biological, chemical, and physical factors to which organisms are exposed; the surroundings of a plant or animal.

Environmental Assessment (EA) — An environmental analysis prepared pursuant to the National Environmental Policy Act to determine whether a Federal action would significantly affect the environment and thus require a more detailed environmental impact statement (EIS).

Estuarine — Formed, deposited, growing in, inhabiting, or found in the widening channel of a river where it nears the sea or in an area of fresh water and salt (tidal) water mixing.

Ethnographic Resource — Any site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it.

Executive Order — Official proclamation issued by the President that may set forth policy or direction or establish specific duties in connection with the execution of federal laws and programs.

Exotic Species — Any introduced plant, animal or protist species that is not native to the area and may be considered a nuisance; also called non-native or alien species.

Finding of No Significant Impact (FONSI) — A document prepared by a federal agency showing why a proposed action would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement. A FONSI is based on the results of an Environmental Assessment.

Floodplain — The flat or nearly flat land along a river or stream or in a tidal area that is covered by water during a flood.

Forb — An herb other than grass.

Gneisses — A foliated metamorphic rock corresponding in composition to a feldspathic plutonic rock (as granite).

Graminoids — Any plant such as a grass, sedge, or rush; resembling the grasses.

Gross Vehicle Weight (GVW) — Total weight of a vehicle when loaded, i.e. includes the weight of vehicle plus passengers, fuel, freight, attachments and equipment.

Habitat — The environment in which a plant or animal lives (includes vegetation, soil, water, and other factors).

Herbaceous — Characteristic of a non-woody herb or plant part

Impairment (NPS Policy) — As used in *NPS Management Policies 2006*, “impairment” means an adverse impact on one or more park resources or values that interferes with the integrity of the park's resources or values, or the opportunities that otherwise would exist for the enjoyment of them, by the present or a future generation. Impairment may occur from visitor activities, NPS activities in managing a park, or activities undertaken by concessioners, contractors, and others operating in a park. As used here, the impairment of park resources and values has the same meaning as the phrase “derogation of the values and purposes for which these various areas have been established,” as used in the General Authorities Act.

Invasive Species — Non-native species disrupting and replacing native species.

Lek — An assembly area where animals carry on display and courtship behavior.

Mesic — Requiring a moderate amount of moisture.

Metamorphic — A rock that has been changed from its original form by subjection to heat and/or pressure.

Migratory — The act of moving from one spatial unit to another.

Monitoring — A process of collecting information to evaluate if an objective and/or anticipated or assumed results of a management plan are being realized (effectiveness monitoring) or if implementation is proceeding as planned (implementation monitoring).

Montane — Of or inhabiting mountainous regions.

National Register of Historic Places (National Register) — A register of districts, sites, buildings, structures, and objects important in American history, architecture, archaeology, and culture, maintained by the Secretary of the Interior under authority of Section 2(b) of the Historic Sites Act of 1935 and Section 101(a)(1) of the National Historic Preservation Act of 1966, as amended.

Nesting habitat — Habitat(s) that host the birds during nesting including incubation, brooding and chick foraging.

No-Action Alternative — The alternative in which baseline conditions and trends are projected into the future without any substantive changes in management (40 CFR 1502.14(d)). Alternative A is alternative A in this planning process.

Off-road vehicle (ORV) — Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such term excludes (a) any registered motorboat, (b) any fire, military, emergency or law enforcement

vehicle when used for emergency purposes, and any combat or combat support vehicle when used for national defense purposes, and (c) any vehicle whose use contrary to restrictions proposed in this plan is expressly authorized by the Superintendent under a permit, lease, license, or contract.

Overstory — In biology, the canopy is the aboveground portion of a plant community or crop, formed by plant crowns.

Population (or Species Population) — A group of individual plants or animals that have common characteristics and interbreed among themselves and not with other similar groups.

Riparian — Of or relating to or located on the banks of a river or stream.

Rut — An annually recurring condition or period of sexual excitement and reproductive activity in deer; the breeding season.

Schist — Any metamorphic rock that can be split into thin layers.

Threatened Species — Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Ungulate — Any of a number of mammals with hooves that are superficially similar but not necessarily closely related taxonomically

Wapiti — A large North American deer with large much-branched antlers in the male

Wetlands — The U.S. Army Corps of Engineers (Federal Register, 1982) and the Environmental Protection Agency (Federal Register, 1980) jointly define wetlands as: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Appendices



APPENDIX A
LITERATURE REVIEW: IMPACTS AND MANAGEMENT OF
OFF-ROAD VEHICLES

July 2009

Prepared in support of the Curecanti National Recreation Area Motorized Vehicle Access Plan /
Environmental Assessment

INTRODUCTION

Curecanti National Recreation Area, located in Gunnison and Montrose Counties in southwestern Colorado along the Gunnison River, has been managed by the National Park Service (NPS) since 1965 under a Memorandum of Agreement with the Bureau of Reclamation. This unit of the national park system is managed to provide for public use and enjoyment while ensuring visitor safety; resource preservation; and the conservation of scenic, natural, historic, archeological, and wildlife values. National Park Service policy at Curecanti has traditionally allowed the “off-road” operation of motor vehicles on lake bottom routes within the pool area of Blue Mesa reservoir, below the high water line and lake surface level, for the purpose of fishing access and boat launching. In addition, power line access roads have been designated as routes open for motor vehicle use.

However, off-road vehicle (ORV)¹ use has increased drastically on public lands over the last half-century (The Wilderness Society 2006). In response to the widespread and rapidly increasing use of ORVs on public lands “often for legitimate purposes but also in frequent conflict with wise land and resource management practices, environmental values, and other types of recreational activity,” Executive Order 11644, *Use of Off-Road Vehicles on the Public Lands*, was issued in 1972 and amended by Executive Order 11989, *Use of Off-Road Vehicles (ORVs) on The Public Lands* in 1977. These executive orders require federal agencies allowing ORVs to designate specific areas and trails on public lands where the use of ORVs is or is not permitted.

In units of the national park system, including Curecanti National Recreation Area, the NPS is required to balance recreational use with Congressional mandates and other policies. This includes the NPS Organic Act, through which Congress requires the NPS to preserve park resources “unimpaired for the enjoyment of future generations” (16 U.S.C. §1). While the Secretary of the Interior has the authority to allow certain activities in park units, those activities must comply with the General Authorities Act, which specifies that activities that lead to the “derogation of the values and purposes” of a park unit should not be allowed (16 U.S.C. §1a – 2(h)). This language mirrors that of the *Redwoods Act* of 1978 (16 U.S.C. §1a-1). This congressional emphasis on uses compliant with park values and purposes is further described by NPS management policies and is vital to policy-based decision making about land use in national park units.

NPS *Management Policies 2006* includes several guidelines that pertain to monitoring certain uses in park units. Consistent with the Congressional acts, the management policies state that the NPS “must ensure that park uses that are allowed would not cause impairment of, or unacceptable impacts on, park resources and values” (NPS 2006: 1.5). Unacceptable impacts are those that, among other things, “unreasonably interfere with park programs or activities, or an appropriate use, or the atmosphere of peace and tranquility, or the natural soundscapes maintained in wilderness and natural, historic, or commemorative locations within the park” (NPS 2006: 1.4.7.1). If unacceptable impacts result from any activity, superintendents are required to “engage in a thoughtful, deliberate process to further manage or constrain the use, or discontinue it” (NPS 2006: 1.5).

While access to public lands improves the experience of ORV users, it can damage air and water quality as well as soils; adversely affect vegetation, wildlife, and habitat; impact cultural resources; detract from other visitors’ enjoyment of public lands; and create law enforcement issues. In general, air and water

¹ *Executive Order 11644, Use of Off-Road Vehicles on the Public Lands*, defines an ORV as any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such term excludes (A) any registered motorboat, (B) any fire, military, emergency or law enforcement vehicle when used for emergency purposes, and any combat or combat support vehicle when used for national defense purposes, and (C) any vehicle whose use is expressly authorized by the respective agency head under a permit, lease, license, or contract.

quality are negatively affected by exhaust fumes, oil, dust, and siltation that result from ORV use (Taylor n.d.; Proescholdt 2007; Ouren et al. 2007). ORVs churn up and damage delicate soils, and continued use of certain areas can result in soil compaction that prohibits the establishment of annual plants and can foster the invasion of non-native species into fragile ecosystems (Proescholdt 2007; Ouren et al. 2007; Webb 1982). Soil damage and compaction can also lead to increased erosion of ORV traffic areas expressed by deep gullies and high stream siltation (Iverson 1980). An analysis of ORV impacts in national park units (Long et al. 1999) found this type of recreation causes damage to topsoil as well as vegetation and has resulted in the mortality of endangered species. Park rangers have also reported incidents where ORV use has destroyed or disturbed cultural resources that parks are bound by law to protect (Long et al. 1999). Additionally, loud engines in quiet environments disturb wildlife and affect visitor enjoyment for those that use parks as places of peace and solace or for activities such as hunting and fishing (Proescholdt 2007). While Long and others (1999) found that there is widespread legal use of ORVs in 23 park units, they also found illegal use in 40 park units.

This literature review has been prepared to support the development of a motorized vehicle access plan at Curecanti National Recreation Area. The following sections summarize available information related to the potential effects of ORV use on natural and cultural resources, such as air and water quality, soils, vegetation, wildlife, and archeological resources, found in national park units. It also examines information on the effects of ORV use on socioeconomics, aesthetics/sound, safety, and management issues. Because the majority of the area administered as Curecanti National Recreation Area is best classified as semiarid shrubland, the air in this region is very dry; and precipitation averages only 11 to 12 inches per year (NPS 2008). This literature review focuses on ORV impacts in mountainous, semiarid, and desert environments, where appropriate.

AIR QUALITY

While emissions from on-road vehicles decreased 56% from 1986 to 2006 as a result of emissions reduction programs, there was a 42% increase in ORV emissions over the same period. Annual estimates show that all-terrain vehicles (ATVs) emit more than 381,000 tons of hydrocarbons, 1,860,000 tons of carbon monoxide, and 11,000 tons of nitrogen oxide each year across the country (Wildlands CPR 2006). However, two-stroke snowmobiles contribute more air pollution than any other type of vehicle. Research at Yellowstone National Park has shown an 87% difference in the carbon monoxide emission rate of snowmobiles versus on-road vehicles (348 gallons per mile versus 45 gallons/mile) (Wildlands CPR 2006). A recent report from the Center for Biological Diversity (Kassar and Spitler 2008) cites the California Air Resources Board finding that off-road motorcycles and ORVs produce 118 times as much smog-forming pollutants as do modern automobiles on a per-mile basis. One study prepared for the Bureau of Land Management (BLM) in California showed that the impacts of fugitive dust (particulate matter) created during the operation of ORVs varied as a function of activity levels (WESTEC 1979). In some instances, fugitive dust levels that were 10 times the daily standard and 100 times the hourly standard were found to occur in localized areas. As a result, the study recommended adequate separation of ORV use from non-ORV related receptors to properly reduce the effects of fugitive dust emissions (WESTEC 1979). If left uncontrolled, it is estimated that ORVs will contribute 33% of hydrocarbon emissions, 9% of carbon monoxide, 9% of nitrogen oxide, and 2% of particulate emissions nationally by 2020 (Wildlands CPR 2006).

Overall, from the perspective of human health, studies have shown that ORVs emit carbon monoxide, nitrogen oxide, benzene, toluene, ethylbenzene and xylenes. Carbon monoxide exposure has been shown to lead to visual impairment, reduced work capacity and mental dexterity, poor learning ability, nausea, headaches, dizziness, and death. Nitrogen oxides can cause shortness of breath, chest pain and increased susceptibility to respiratory infections. Benzene is an identified carcinogen. Toluene, ethylbenzene, and

xylene can cause dizziness, headaches and loss of consciousness (Wildlands CPR 2006). Particulate matter (in the form of fugitive dust from unpaved roadways) is another air pollutant which can lead to decreased lung function, respiratory disease, and even death (Wildlands CPR 2006).

WATER QUALITY

A total of six articles were reviewed regarding water quality impacts associated with ORV use. Five of the articles involved specific scientific studies, and one article (Wildlands CPR 1999) presented legal strategies for activists to address inappropriate roads and ORVs through tools provided in four regulatory areas of the *Clean Water Act*: state water quality plans, Total Maximum Daily Loads (TMDLs), discharge permits, and Section 404.

Of these articles, two documented the impacts on water quality directly related to the use of motorized vehicles in or near aquatic environments. The Texas Chapter of the American Fisheries Society (2002) cites the erosion, siltation, and bank destabilization that results from ORV use and increases the potential for other water quality impacts. The damage to stream bottoms and increased siltation can change stream temperatures, resulting in increased extremes and temperature variability that can be detrimental to fish populations (TCAFS 2002). In the July 2000 article in the U.S. Forest Service (USFS) Stream Systems Technology Center's "Stream Notes" magazine, Furniss and others (2000) determined that forest roads and associated drainage features caused an increase in channelized runoff that often reached local waterways prior to infiltration, which demonstrated a hydrologic connection between roads and streams. This report was based on several studies in the Pacific Northwest that documented increases in runoff timing, peak flows, and sedimentation in streams caused by concentrated outflows from ditches and culverts associated with forest roads. The authors determined that this hydrologic connection between roads and streams indicated the potential for impacts on water quality, aquatic habitats, and hydrology (Furniss et al. 2000).

A 1995 journal article by the Society of Automotive Engineers referenced a USFS study that examined a possible relationship between automobile tire pressure and erosion and sedimentation rates on unpaved forest roads in Oregon. The tests involved the use of the Central Tire Inflation System (CTIS) and Constant Reduced Pressure (CRP) methods to achieve lowered tire pressures. The average sediment reduction from the use of CTIS was 80% compared to highway tire pressures. When using CRP tire pressures, the average sediment reduction was 45% compared to highway tire pressures. Both lowered tire pressure systems had shallower, less well defined wheel ruts on forest roads (Foltz 1995).

Two studies analyzed the impacts of snowmobile use on the chemistry of snowpack and snowpack runoff in Yellowstone National Park. In situ water samples were taken at sites known for high snowmobile use in Yellowstone National Park. Authors of the first study (Arnold and Koel 2006) sought to isolate volatile organic compounds (VOCs) in snowmelt runoff as a function of snowmobile use. Several VOCs were found in the snowmelt but at acceptable concentrations. The authors suggested more research on snowpack chemistry at these sites. The other snowmobile related study (Ingersoll 1999) involved the collection of snowpack samples around the time of maximum annual snow accumulation. Samples from inside and outside snowmobile roadways were compared. The study found that ammonium, nitrate, sulfate, benzene, and toluene were positively correlated to snowmobiles and decreased as distance from the snowmobile roadway increased.

SOILS

Several studies show that ORV use in desert climates can have lasting, deleterious effects on soil stability and fertility. In one study, researchers drove a four wheel drive vehicle back and forth twice across test

plots in the southern Colorado Plateau, Sonoran Desert, Mojave Desert, Chihuahuan Desert, the northern Colorado Plateau, and the Great Basin Desert. They found statistically significant reduction in soil nitrogenase activity in nearly half of the test sites (Belnap 2002). Nitrogenase activity results from an enzyme that catalyzes nitrogen fixation, which contributes to soil fertility and productivity.

In desert climates, biological soil crusts are often primary contributors to soil fertility, stability, and primary productivity due to the nitrogenase activity of soil lichens, cyanobacteria, and moss (Belnap 1996, 2002). Soil composition is an important indicator of the presence of different types of biological organisms—sandy and clay soils being less hospitable to these organisms than those higher in silt content (Belnap 2002). The presence of these organisms before disturbance does influence the degree to which soils are injured by ORV disturbance and should be considered when estimating the damage caused by ORVs.

Similarly, desert type also appears to determine the impact that ORV disturbance will have on the nitrogenase activity of those organisms. For instance, Belnap (2002) found that biological soils in hot deserts (e.g., Chihuahuan, Sonora, and parts of the Mojave) recovered more quickly from disturbance than those in cooler deserts (e.g., Colorado Plateau, northern Great Basin) due in part to the type of soil lichens found in those soils as a result of climate. Moreover, the presence of more soil lichens before the disturbance significantly reduced the impact on nitrogenase activity after the disturbance. Although desert type can affect the degree of impact, any disturbance by ORVs damages fragile biological soil crusts, and recovery can take decades or even centuries depending on the soil type (Belnap 1993, 2003; Webb and Wilshire 1980). In their study on a ghost town in Nevada, Webb and Wilshire (1980) found that a half century after the site was abandoned, soils had still not recovered. Moreover, the type of vegetation found at the research site differed significantly from surrounding undisturbed areas, pointing to the impacts that soil disturbance had on other biological organisms.

In addition to reduction in primary productivity through decreasing nitrogenase activity, soil compaction is another byproduct of ORV use that can have negative impacts on desert ecology. Compacted soils can impede the establishment of plants by inhibiting root expansion. Results from a study by Adams and others (1982) in the Mojave Desert showed that soil compaction as a result of ORV use is more pronounced on wet soils than dry soils. Under wet conditions, just three ORV passes over a study area resulted in statistically significant soil strengthening to a depth of 25 centimeters. With dry soils, similar results were not achieved until a Ford Bronco had completed 20 passes and only at a depth of 15 centimeters. These results indicate that controlling ORV activity under moist and wet conditions could reduce soil compaction and thus ecosystem injury.

Another study in the Mojave Desert (Iverson 1980) showed that soil compaction can lead to soil erosion, largely because of decreased infiltration rates of rainwater. Tuttle and Griggs (1987) documented erosion of ORV-compacted soils in state vehicular recreation areas located in arid regions of California, including gullies and increased stream sediments at various hillclimbs. Webb (1982) found that soil compaction in Mojave Desert soils resulted from a minimal number of motorcycle passes and that after as few as ten, all annual vegetation was destroyed. Loamy sand soils appeared particularly vulnerable, and he recommended ORV traffic be prohibited from areas with those soil types. At a minimum, partial recovery of the test sites from his study became apparent only after one year, and it was attributed to invasive species.

VEGETATION

There are numerous studies describing the impacts of ORVs on vegetative communities, including direct damage to vegetation by vehicle use and the spread of invasive species by vehicular seed dispersal. Three

studies reviewed involved direct examination of vehicles to determine if they were potential distributors of exotic plant seeds.

Osborn and others (2002) discuss a study that investigated the potential for seed transport into Kakadu National Park in Australia by means of tourist vehicles. The study concluded that vehicles were partially responsible for weed seed dispersal, but the low density of seeds found on the vehicles did not warrant the park taking preventative action. Another study (Rooney 2005) compared soil samples taken from the undercarriage of ORVs to field surveys for seven invasive species in forested areas of Wisconsin. No evidence of actual invasive plant dispersal was noted, however, because invasives have seed traits which predispose them to dispersal, the study found that ORVs may occasionally contribute to long distance dispersal events. This is further supported by a study conducted by the Montana Weed Control Association (Trunkle and Fay 1991) which involved driving a vehicle 40 feet into a vegetated plot and then to various distances from the plot. Afterwards, plant material, including spotted knapweed (*Centaurea stoebe*) seeds, were collected from the undercarriage. The results indicate that spotted knapweed seed is readily disseminated by motor vehicles for long distances.

Two studies reviewed addressed the effects of roads on the spread of invasive species. Gelbard and Belnap (2003) documented that roads and associated environmental disturbances contributed to the spread of invasive species in semiarid grasslands, shrublands, and woodlands of southern Utah. This study also noted evidence of higher exotic species richness and invasive species cover near paved roads than near four-wheel drive tracks. A study from southern Nevada (Bolling and Walker 2000) explained how the initial form of disturbance in creating roads could be a factor in determining the forms of plant succession that occur during revegetation of disturbed areas. Soils and vegetation types in southern Nevada differed between roads and nearby non-road areas and between roads created by vehicular traffic (track) and bulldozing (bladed). Track roads were more susceptible to soil compaction and had higher levels of organic matter and plant cover (Bolling and Walker 2000).

A study of nine ORV use areas in California deserts (Lathrop 1983) found that direct vehicle impacts constituted the primary means of vegetative destruction. The study showed that areas beyond the vehicle track width were also affected although the degree of impact varied with conditions and intensity of vehicle use. The study demonstrated that concentrated current or recent use in localized areas (such as heavy weekend use) created the greatest reduction in vegetative cover. Another study in the Mojave and Colorado deserts of California (Lovich and Bainbridge 1999) found that natural recovery rates (return to pre-disturbance levels of biomass, cover, density, community structure, and soil characteristics) for certain desert ecosystems from the negative impacts of ORVs and other uses could be as long as 3,000 years. Wilshire (1983) found that even a single pass of an ORV could destroy many types of annual and some perennial plants although hundreds of passes may be required to destroy tough, deep-rooted shrubs. Webb (1983) found that while most of the annual vegetation in a Mojave Desert study remained after one pass by a motorcycle, most had been destroyed after 10 passes. Wilshire, Shipley and Nakata (1978) documented the impacts of ORVs in western states, including trail widening, uprooting of vegetation, burying plants, severe erosion, runoff, and the consequences of each to vegetation. Another study (Nakata 1979) investigated the causes of damage from a particular storm event in Utah and found that several factors contributed to the development of a storm-induced mudflow, including erosion and channelization of runoff along ORV trails that combined with diverted canal water. Nakata concluded that major destabilized areas above the canal were stripped of vegetation by ORV use.

FISH AND WILDLIFE

Numerous studies have detailed the impacts on wildlife of ORV use on public lands. Impacts generally described in these studies include direct mortality, harassment, noise effects, and habitat destruction. For example, desert tortoises (*Gopherus agassizii*) and other amphibians and reptiles have been crushed to

death or injured by this type of traffic in public lands (Bury and Luckenbach 2002). Other risks include injury during escape responses, and in severe cases, habitat avoidance and abandonment of young. Radle (2007) found that wildlife generally experience an increase in heart rate, as well as altered metabolism and hormone balance, when introduced to human-made noise. Noise from ORVs can obstruct the senses of animals that depend on hearing and vibration detection to survive (Berry 1980; Bury 1980). ORVs also impact wildlife by destroying or fragmenting habitat. Much of the existing research has dealt specifically with the effects of erosion and trampling of vegetation by visitors and the associated impacts on wildlife habitat values (Joslin and Youmans 1999; Monz and Leung 2003). This has led some to conclude that the most effective strategies for avoiding habitat disturbance are outright road removal and the avoidance of new road construction in roadless or sparsely roaded areas (Trombulak 2001; Walder n.d.).

Among bird species, adverse reactions to human recreational activities have included nest desertion, temporary nest abandonment, and changes in foraging habits (Joslin and Youmans 1999). Studies of wintering raptors in Colorado have found that perching distances and species richness were greater at nest locations away from trails, suggesting that trails may have an effect on habitat selection (Fletcher et al. 1999). As a result, spatial buffer zones (0.4 to 1.2 kilometers from nests) for ORV use in the Rocky Mountains are recommended during sensitive nesting phases (Joslin and Youmans 1999).

ORV-related impacts on amphibian and reptile species identified in Montana include direct mortality from vehicle collisions as well as indirect impacts on populations via the creation of migration barriers, habitat destruction, and increasing chemical contamination and sedimentation. The development of recreational facilities and water impoundments may result in the loss of key breeding, foraging, and wintering habitats, while ORV-related noise has resulted in decreased acoustical sensitivities in a number of lizard species in the Sonoran Desert (Joslin and Youmans 1999). Species-specific studies have shown that certain species of reptiles in the Mojave Desert region of California vary in body mass depending on the level of ORV impacts, with reptiles in lower impact areas showing higher body mass (Nicolai and Lovich 2000; McGrann et al. 2006). These studies also noted that availability of primary food sources in high impact areas was lower than in low impact areas. Reptiles studied in Owyhee County, Idaho exhibited reduced rates of movement following disturbance from ORVs. For example, reptiles have been found in higher densities further from trails at sites used less frequently by ORVs, while higher densities were observed closer to trails at more heavily used sites (Munger et al. 2003).

Studies of ORV impacts on mammalian species have shown that disturbance responses depend on the species, the extent of disturbance, and a multitude of other factors such as individual habituation. Related stressors include lowered resistance, inhibition of reproductive functions, behavioral disturbances and greater energy demands due to flight responses, particularly from motorized recreationalists during winter months (Boyle and Samson 1985; Caslick and Caslick 1997; Wisdom et al. 2004).

Adverse effects on small mammals from ORV use have also been documented and include population reduction, energy expenditure, habitat modification (including changes in microclimate), forage/cover removal, and echolocation interference (Joslin and Youmans 1999). Snow compaction from winter recreational vehicles can alter snow microclimate, reduce air space, reduce soil suitability for spring seed germination, and increase mortality of subnivean (i.e., beneath the snow) wildlife (Caslick and Caslick 1997).

Further research on the effects of recreational disturbances on ungulates, such as deer (*Odocoileus* spp.) and elk (*Cervus canadensis*), has shown that even when disturbances do not induce an overt behavioral response, the increased heart rates can result in relatively high energy expenditures (Joslin and Youmans 1999). Black and others (n.d.) also explain how disturbances contribute to increased energy expenditures for wildlife and describe various animals' means of thermal regulation (maintaining body temperature) during winter months.

These authors state that of the three learned responses that wildlife may show to recreationists (habituation, attraction, and avoidance), avoidance is particularly important in the Gunnison Basin of southwestern Colorado where animals have learned to flee from hunters. An example of this has been the propensity of bighorn sheep (*Ovis canadensis*) to abandon traditional ranges and alter social patterns as a response to these disturbances (Black et al. n.d.). It has been reported that any human activity on bighorn sheep winter range, especially within 100 feet of escape terrain, could affect their survivability (Caslick and Caslick 1997). By contrast, an earlier study by MacArthur and others (1982) found that domestic sheep in Alberta, Canada that were regularly exposed to human activities had elevated heart rates when they were in the presence of humans accompanied by dogs. However, their reactions to road traffic were minimal, suggesting some degree of habituation.

Yarmoloy and others (1988), in a study of the movement and reproductive responses of female mule deer (*Odocoileus hemionus*) in Alberta, Canada, found that does harassed by an ATV shifted feeding into darkness, used cover more frequently, left their home ranges more often, and increased flight distance from the ATV. No decreases in reproduction and fertility were observed. A study of white-tailed deer (*Odocoileus virginianus*) in St. Croix State Park in Minnesota (Dorrance et al. 1975) found that deer numbers decreased in usage areas as snowmobiling activity increased. A later study of deer found that animals' responses to disturbances from the presence of people afoot were longer and had greater energy expenditures than responses to snowmobile disturbances (Freddy et al. 1986). A comparison between species indicates that identical stimuli can elicit different responses from different species. It has also been reported that habituated big game animals may become more vulnerable to poaching (Boyle and Samson 1985).

Wisdom and others (2004) found that elk exhibited a higher flight response to ATV-related disturbances than deer did under the same conditions. Monitoring the flight movements of female mule deer and elk in response to ORV disturbances in northeastern Oregon, they found that movement rates of elk were highest following disturbances in the mornings, with ATV-related disturbances showing the highest movements, followed by mountain bike riding. Elk exhibited a flight response approximately 65% of the time when exposed to ATVs, while mule deer exhibited a flight response approximately 5% of the time (Wisdom et al. 2004). Elk are also more negatively impacted by disturbances occurring in late winter when they are in their poorest physical condition (Caslick and Caslick 1997).

Lesser researched species, such as Canadian lynx (*Lynx canadensis*), may be particularly affected by winter recreation for this same reason. Winter disturbances, especially when occurring over a large area, may cause this species to expend energy beyond caloric intake, which can result in decreasing fatality and increasing mortality (Caslick and Caslick 1997). Mid- to large-sized carnivore species, such as wolves (*Canis lupus*) and lynx, require large home ranges and are therefore particularly vulnerable to habitat fragmentation and alteration resulting from recreational ORV activities (Joslin and Youmans 1999).

Management strategies suggested for effectively dealing with winter recreation-related disturbances include: making human use of wintering areas as predictable as possible, conducting public information efforts, setting speed limits, and creating breaks in snow berms along roadways to allow for animal escape (Caslick and Caslick 1997).

One particular study demonstrated that ORV use in aquatic communities had a simplifying effect on aquatic biota. Some species were unable to adapt and disappeared from the modified environment (TCAFS, 2002) primarily due to the impacts of vegetation loss and resulting water quality impacts.

ARCHEOLOGICAL RESOURCES

Whether intentionally or inadvertently, ORV use has the potential to affect archeological resources on public lands (BLM 2000; Lyneis et al. 1980; Schiffman 2005; Sowl and Poetter 2004; SUWA 2002). Direct impacts result from the damage or destruction that occurs when ORVs drive over and/or near archeological sites. The weight and torque of such vehicles easily damages fragile surface deposits. The Southern Utah Wilderness Alliance (2002) has cited cases in which the associated soil compaction, vegetation loss, and altered hydrology cause the compaction of surface and subsurface features (e.g., remains of houses, burials, hearths, storage pits, etc.) as well as breakage of artifacts. Site integrity, a necessary element for listing a cultural resource in the National Register of Historic Places (NRHP), is also affected by the visible changes caused by vehicle tracks and erosion (Sowl and Poetter 2004). Lastly, impacts occur when vibrations and soil erosion caused by ORVs undermine the stability of fragile prehistoric structures (SUWA 2002).

One study in the Izembek National Wildlife Refuge in Alaska noted that increased erosion from ORVs exposed artifacts, making them susceptible to collection (Sowl and Poetter 2004). Studies conducted in the California desert note that ORVs provide access to previously inaccessible, remote areas as ORV users explore new terrain (Lyneis et al. 1980). According to the BLM, this leads to an increase in visitation to lands previously used only by small numbers of hikers and increases the intentional and inadvertent damage of archeological resources through surface disturbances (BLM 2000), as described above. In Alaska, it has been shown that damage from such access increases dramatically when the areas are remote enough to preclude monitoring (Sowl and Poetter 2004).

ORVs have also enabled collectors and pothunters to reach these remote areas, facilitating greater archeological resource damage from intentional collection and vandalism (BLM 2000; Schiffman 2005; Lyneis et al. 1980; SUWA 2002). In addition, one study in the California desert notes that ORVs increase the ability of collectors to carry larger and heavier artifacts out of an area (Lyneis et al. 1980).

SOCIOECONOMICS

ORV-related economic impacts vary by state and region. A 2008 study commissioned by the Iowa State ORV Association to investigate statewide ORV use patterns and expenditures found that the most frequent type of ORV use consists of day trips within the vicinity of users' homes, but about 41% of ORV owners in Iowa make an average of 1.7 out-of-state trips annually for recreation purposes (Otto 2008). The study used the IMPLAN economic modeling tool to create a user profile and estimate ORV-related statewide income and employment. It found that Iowa ORV users, a group which includes 29,663 households, spend an estimated \$86.4 million per year on ORV equipment and activities, resulting in an estimated total of \$126 million in in-state transactions or sales, \$33.7 million in personal income, and 1,200 jobs. The study also found that Iowa ORV users generate an estimated total \$6.3 million in out-of-state transactions (Otto 2008).

Reed and Hass (1989) indicate that the profile of the ORV economy in Colorado is even more pronounced, with an estimated \$489 million (in 1989 dollars) spent by ORV users statewide for ORV-related equipment, activities, and services. In 1988, approximately 192,400 ORV users in Colorado accounted for an estimated 1.3 million ORV recreation trips. The 600 ORV users surveyed in the Reed and Hass study would be willing to pay, on average, \$19 (in 1988 dollars) for an annual ORV registration fee if the revenues were collected to enhance statewide ORV opportunities, such as trail construction, maintenance, and educational programs.

A more recent survey-based study of ORV recreational use on the Colorado economy (COHVC 2001) focused on user behavior and average per-trip expenditures and found estimated ORV-related expenditures for households to be between \$140 and \$159 million in 2000. The estimated value of new recreational vehicle sales in Colorado in 2000 was \$67.6 to \$74.4 million. There were also indirect contributions to the Colorado state economy (e.g., expenditures for maintenance, repairs, storage, and miscellaneous items). Total employment for ORV-related activities was between 3,196 and 3,515. The study found that 68% of Colorado ATV users would leave the state for such activities if no ORV activities were allowed in state.

Another study of economic impacts of ATVs in Minnesota (Schneider and Schoenecker 2006) found that direct ATV-related expenditures were \$641.9 million, with an estimated 5,693 jobs from ATV-related retail and manufacturing activity. Stynes (2000), who looked at ORV use in Michigan, mentions that these socioeconomic effects tend to take place in rural communities with fairly limited economic development and which rely heavily upon retail and tourism. In his study of ORV spending and economic impact in Michigan, he found that ORV owners spent about \$40 million on trail-riding trips outside their region of residence in 1998, supporting about 600 jobs statewide.

A survey of registered Utah ORV-users found that the number of registered users tripled in eight years (1998–2006) (Burr et al. 2008). Statewide, respondents are concerned with provision of information, trailhead facilities, maintenance of ORV areas, signage, and enforcement of rules and regulations. Availability of information is the most important among users and is found to be the biggest weakness. Respondents believe that more information should be provided regarding rules, hazards, and conditions via maps, brochures, newsletters, and websites. Concerning fees, Utah users were opposed to an additional statewide tax on the sale of all new ORVs and trailhead parking fees for all users. Respondents were least opposed to daily use fees for heavily used areas (Burr et al. 2008).

In a review of surveys conducted by several leading publications, King (1972) found that motorcycle riders were representative of the wider American society, with the average motorcyclist being in the mid-20s and 20% being employed in semi-skilled/skilled professions. King reported that many off-road, trail motorcyclists use forests and parks in other recreational ways, such as for fishing and hunting, and concluded that trail riding is a significant and valuable recreational activity that should be allowed within park units.

Freuh (2001) also found that hunting and fishing constitute the highest recreational interests among ORV users in Colorado. Schneider and Schoenecker (2006) used both survey and secondary data to construct a profile of ATV users. It showed that the 2005 registered ATV rider is a middle-aged, non-Hispanic white male with less than a college education, which is a finding consistent with ATV profiles of riders in Wisconsin, Colorado, and Utah.

AESTHETICS/SOUND

ORV use influences the character of the wild landscape and can result in conflicts between ORV users and other recreational users. McCool (1979) points out that visual impacts last longer in arid environments, where soil stability is inherently more tenuous. The compounding factors of ORV activities, wind erosion, and increased runoff from the resulting loss of vegetation can have major impacts on the aesthetic character of such regions.

There is a paucity of data regarding ORV use and its impacts on soundscapes in NPS units, with the majority of available data related to air-tours over public lands managed by NPS. Gramann (1999) used many approaches to garner information about how visitor experiences in national parks are affected by mechanical versus natural sound. Overall, results showed that park users identify natural sounds as more

enjoyable than mechanical sounds, but mechanical sounds do not always interfere with the user's experience. Visitor experiences and sensitivity to mechanical sound is dependent on visitor expectations, group size, front or backcountry experience, and activity type. For example, a visitor in a group of three or more visiting a park for the first time in the front country and taking pictures may not be as sensitive to mechanical sounds as a lone hiker in the backcountry. People are generally tolerant of certain noise disturbances if they perceive them as necessary (e.g. helicopters conducting fire suppression activities). In this sense, the study indicated that it is important that sounds are consistent with the visual setting within which they are heard.

Variable noise disturbances may be more readily tolerated depending on the perception of the setting by the observer. As a result, from a management perspective, some scenic overlooks and short front country trails may not require as much protection as backcountry locales where preserving the experience of natural sound is paramount to overall visitor experience (Gramann 1999). It is useful to note that, along with regulatory frameworks, successful management of natural soundscapes must also include compliance assurance. A report from the Motorcycle Sound Working Group of the American Motorcycle Association (2004) points out that while strict EPA standards regarding sound output are applied by the manufacturers of ORVs, users often modify vehicles with aftermarket parts that circumvent such regulations.

SAFETY

The 2005 *Annual Report of ATV-Related Deaths and Injuries* published by the U.S. Consumer Product Safety Commission (CPSC) reveals that overall, the number of deaths and injuries reported since 1982 has increased. Nationwide, as of the end of 2005, a total of 7,188 deaths had been reported since reporting began in 1982 (Ingle and Streeter 2007). An estimated 137,000 ATV related emergency room treated injuries have occurred in the same time period. Thirty percent of the total ATV-related deaths were children under 16 years old, and 13% were younger than 12. Between 1992 and 2005, there was a 24% increase in injuries in the 45–54 age group (Ingle and Streeter 2007).

CPSC first began analyzing data on ATVs in the early 1980s to provide statistics on frequency of deaths and injuries associated with three-wheel ATVs. These data led to a consent decree with CPSC and five ATV distributors that halted the production of three-wheel ATVs, offered training to all new ATV owners, and recommended adult-size ATVs for those 16 and older. The decree expired after 10 years in 1998, but the five original signers, along with two others, agreed to continue with most of the elements under the consent decree of 1988 through voluntary action plans (Ingle and Streeter 2007).

Consumer advocacy groups and petitioners have argued that current industry standards regarding ATV use by children under the age of 16 are not preventing deaths and injuries. In August of 2002, a petition to ban ATV use by children under 16 years old and to provide monetary refunds covering the cost of vehicle purchase for consumers was brought by the Consumer Federation of America (CFA) and eight other organizations to the CPSC. The organizations included consumer and medical non-profit organizations and environmental, safety, and public interest research groups. The petition stated that ATVs pose unreasonable risk of injury and death to children and referenced the 1988 consent decree described above, pointing out that the decree did not include incentives to encourage owners of three-wheel ATVs to return them to dealers. The petitioners stated that voluntary action plans by manufacturers are inadequate in preventing deaths and injuries to children, and they cited the CPSC conclusion that ATVs are “inherently difficult to operate for adults and [are] beyond the development capability of children to control” (Weintraub 2002). The groups requested more stringent controls for ATV users over the age of 16, including licensing and training.

MANAGEMENT ISSUES

Nationwide, there are 15 national park system units allowing ORV use by the general public. Within these areas, various user groups, as well as ORV manufacturers, contend that NPS limits on ORV use unfairly restrict access, establish a precedent for other federal land managers to impose or extend restrictions, and may be economically harmful to gateway communities and industries serving users (Calvert and Johnson 2007). On the other side of the debate, opponents of motorized recreation in national park system units cite ORV use as damaging to the environment and cultural artifacts. Conflicts also arise on USFS lands, where uses, such as timber harvesting and ORV recreation, may affect birdwatching and sightseeing and can degrade water quality in certain settings (Calvert and Johnson 2007).

Studies show that ORV use has been increasing throughout the United States. Cordell and others (2005) report that, according to the Motorcycle Industry Council (MIC), ORV annual sales more than tripled between 1995 and 2003, and ATVs represent about 70% of all ORVs purchased during that period. In Colorado alone, 26.7% of the state's population (more than 4.5 million in 2005) participated in ORV recreation, and Blahna (2006) highlights the current crisis of ORV proliferation and concomitant damage to resources.

A 2001 survey of ORV users in Colorado found that while many trail riders were reportedly knowledgeable of rules and regulations regarding off-trail restrictions, some riders still did not obey regulations (Frueh 2001). In the study, most ORV users admitted to going off trail, but felt that it was okay "just this one time." Adult users reportedly believe that it is their duty to pass on trail ethics to younger riders. Younger users (13–18 years of age) were more concerned with personal safety than environmental concerns. Chavez (2005) found while many ORV users felt that humans should be in "harmony with nature," they were not focused on environmental concerns. A quarter of respondents believed trails should always contain a variety of scenery, be controlled for erosion, and have posted signs at trailheads indicating difficulty and trail length. Most respondents used private lands for recreational riding and national forests second (Chavez 2005). A survey of registered ORV owners in Utah found that BLM land was the primary destination for ATV, motorcycle, and 4x4 vehicle trips. Forest Service land was the second most preferred destination. Respondents surveyed reported mixed feelings with regard to law enforcement, with some believing transgressions by ORV users to be of minor concern (Fisher et al. 2001).

A study in Utah aimed at creating an inventory of ORV use occurring in 12 high use or "hotspot" regions of USFS land found that ORV users had taken excessive measures to access closed routes by moving large boulders, removing posts, chain-sawing trees or logs, or purposefully negotiating terrain to create a new trail around management-placed and/or natural barriers to ORV traffic (Divine and Foti 2004).

Given this general trend of increasing ORV use, appropriate travel management planning has increased among public agencies and various stakeholder groups. Other federal regulatory requirements concerning the protection of resources also provide guidance for travel management plans. For instance, Section 106 of the National Historic Preservation Act (NHPA) specifically requires that cultural resource information from the planning area's Class I inventory, and other existing cultural resources information, be considered when choosing among the range of possibilities in designating a planning area travel system for proposed designation. Moreover, agencies are required under Section 106 to identify the geographic area or areas within which the character or use of any historic properties may be directly or indirectly affected by an undertaking. Coordination with State Historic Preservation Officers and Indian Tribes prior to initiating the development of a travel management plan is also required (BLM 2006). Yankoviak (2005) argues that such up-to-date policies will provide improved guidance in solving ORV issues on USFS lands. However, challenges to the crafting and implementing of park travel management plans often arise which carry significant implications for the functional management of park resources.

Meyer (2002) prescribes regular trail maintenance and monitoring, including periodic inspections and condition assessments at five-year intervals. In addition, he offers several management approaches which can be implemented to curtail trail degradation including: trail rerouting in cases where numerous segments have been degraded by recreational use; seasonal or type-of-use restrictions in instances when specific seasonal uses may be contributing to greater impacts; trail hardening, which involves the application of amendments to the trail surface; and outright trail closure as a last resort to protect threatened resources. Traffic volume restrictions or “controlled use” is also suggested as a means to prevent significant resource degradation, although enforcement is needed to implement this management strategy (Meyer 2002).

Christensen and Watson (2006) describe challenges resulting from the implementation of the 2006 *Bitterroot National Forest ORV Management Plan*, which included: maintaining an up-to-date inventory of routes, working with ORV users to reduce impacts and conflicts, and working with all stakeholders to identify appropriate and acceptable ORV opportunities. They also cite lessons learned from the USFS policy and experiences of planners nationwide, which suggest that a collaborative process with a “system-wide, forest-level perspective” is likely to be the most appropriate and successful strategy for developing a widely-supported ORV travel management plan. Moreover, they stress ongoing public involvement in ORV planning as being crucial for public acceptance of the resulting plans. In an assessment of the efficacy of such a cooperative effort in four counties in North Central Michigan, Nelson and Lynch (2001) conducted stakeholder interviews, surveys of ORV drivers, and investigations of route signage survival. They found that, after plan implementation, compliance with ORV rules increased as most riders supported the program.

The effective implementation and maintenance of successful park travel management plans depends upon adherence to certain design criteria. The Colorado Mountain Club and Wilderness Society (CMCWS 2004) outlines 10 steps to developing a comprehensive travel management plan. They include:

- Identify recreation and transportation goals for the planning area.
- Assemble resource data.
- Identify the baseline travel system.
- Summarize public recreation desires and current recreational opportunities.
- Analyze present and predicted future fiscal and personnel resources.
- Calculate route density and quantify route distribution in comparison to high priority biological, physical, and cultural features.
- Identify geographic subunits that constitute logical distinct recreation planning areas.
- Develop management alternatives.
- Review the final route assessment, and
- Implement the plan and monitor, evaluate, and adjust as needed.

Some monitoring efforts have benefited from the simultaneous observation and data collection of traffic and wildlife made possible by pneumatic road counters and GPS units (USGS 2005). However, Calvert and Johnson (2007) note that monitoring and enforcement may be impeded in some locations (and especially in BLM lands) due to their remoteness, insufficient signs, and inadequate staff and resources, challenges which would also be relevant to the NPS. Adaptive management strategies targeted toward the specific needs of individual parks would potentially provide the most efficacy in resource management.

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APPENDIX B: LETTERS OF CONSULTATION

Ken Stahlnecker
12/11/2007 02:43 PM MST
To: al_pfister@fws.gov
cc:
Subject: Curecanti NRA Motorized Access Plan

Memorandum

To: Western Colorado Supervisor, Fish and Wildlife Service, Ecological
Services, Grand Junction, Colorado

From: Chief of Resource Stewardship and Science, Black Canyon of the Gunnison
National Park/Curecanti National Recreation Area

Subject: Curecanti National Recreation Area Motorized Access Plan

The National Park Service (NPS) proposes to develop and implement a Motorized Access Management Plan for Curecanti National Recreational Area, in Gunnison County, Colorado. The purpose of this plan is to manage motorized access in the recreation area to protect and preserve natural and cultural resources and provide appropriate visitor use experiences consistent with recreation area purposes, NPS management policies, and other laws and regulations.

We are just beginning our scoping and data-gathering efforts for the plan. I am requesting a current list of federally listed threatened or endangered species, species of concern, or any other special status species that might occur in the locality mentioned above, and designated critical habitats, if any, for these species.

This letter will serve as a record that the NPS is initiating informal consultation with your agency pursuant to the requirements of the 1973 Endangered Species Act, as amended, and NPS Management Policies, 2006.

We appreciate your continuing assistance with National Park Service projects. We will be in contact with your office to continue our consultation responsibilities after we have had a chance to review the species list and develop preliminary management alternatives. Your assistance in this matter is appreciated. If you have additional questions concerning this issue, please contact me at (970) 641-2337 ext. 225.

Sincerely,

/s/
Ken Stahlnecker
Chief of Resource Stewardship and Science



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
764 Horizon Drive, Building B
Grand Junction, Colorado 81506-3946

IN REPLY REFER TO:
ES/CO:NPS Black Canyon NP/Curecanti NRA
TAILS 65413-2008-TA-0039

January 11, 2008

Memorandum

To: Chief of Resource Stewardship and Science, Black Canyon of the Gunnison National Park/Curecanti National Recreation Area

From: Western Colorado Supervisor, Fish and Wildlife Service, Ecological Services, Grand Junction, Colorado *Allan R. Foster*

Subject: Curecanti National Recreation Area Motorized Access Plan

The Fish and Wildlife Service reviewed your December 11, 2007, e-mail requesting a species list for the subject Plan. The Curecanti NRA encompasses Blue Mesa Reservoir and surrounding land in Gunnison County, Colorado.

If any actions related to the Plan deplete water from the Gunnison River Basin the bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), humpback chub (*Gila cypha*), and razorback sucker (*Xyrauchen texanus*) will be impacted. If there are any large cottonwood galleries in the Plan area the candidate yellow-billed cuckoo (*Coccyzus americanus*) could possibly be impacted by access routes and disturbance by people. A species of concern, the Gunnison sage-grouse (*Centrocercus minimus*) may be impacted by motorized access routes and people if sage-steppe habitat and wet meadow habitat is impacted. Another species of concern, the Gunnison prairie-dog (*Cynomys gunnisoni*), could also be impacted if grassland habitat is disturbed by access routes or people. Avoidance or minimization of impacts to important habitat for these species, as well as wetland and riparian areas important for many wildlife species, should be sought to the maximum extent practicable.

If the Service can be of further assistance, please contact Terry Ireland at the letterhead address or (970) 243-2778, extension 16.

Tireland:NPS-Black Canyon NP/Curecanti NRA-CurecantiMotorAccessPlan.doc:011108



United States Department of the Interior

NATIONAL PARK SERVICE
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230



IN REPLY REFER TO:
H30 (CURE)

April 10, 2009

Edward Nichols, State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203-2137

Dear Mr. Nichols:

I would like to follow-up a letter of 28 March, 2008, in which I notified your office that the staff of Curecanti National Recreation Area would be undertaking the development of a Motorized Access Plan for the area around Blue Mesa Reservoir under the jurisdiction of the National Park Service.

The accompanying document presents the proposed alternatives being considered in the Environmental Assessment of the Curecanti National Recreation Area's *Motorized Vehicle Access Plan and Environmental Assessment*. The Plan addresses required provisions of Executive Order 11644 - 'Use of off-road vehicles on public lands' and should provide increased protection of cultural and paleontological resources.

Comments on the alternatives will be received through the comment period, which ends on May 18. Should questions arise, or additional information be needed concerning the cultural or paleontological resources of the Recreation Area, during the review of the alternatives, please feel free to contact Archaeologist Forest Frost (Forest_Frost@nps.gov, or 970-240-5433). General comments and questions should be directed as specified in the brochure.

After considering the comments, we will finalize the alternatives and begin to analyze their impacts. After the impact analysis is complete, a draft plan/EA will be available for public comment.

You may be aware that the Bureau of Land Management and U.S. Forest Service recently released the Gunnison Basin Travel Management Draft Environmental Impact Statement for a 90-day public review and comment period (which closes June 4). NPS has coordinated with these agencies regarding our motorized access plan; however, we'd like you to know that these are two separate planning processes.

Best Regards,

Constance A. Rudd
Superintendent

Enclosure



United States Department of the Interior

NATIONAL PARK SERVICE
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230



IN REPLY REFER TO:
L76

April 10, 2009

Mathew Box, Chairman
Southern Ute Indian Tribe
P.O. Box 737
Ignacio, CO 81137

Dear Chairman Box:

The enclosed brochure—*Update on the Curecanti National Recreation Area Motorized Vehicle Access Plan*—has just been released for public review and comment. The brochure explains why the National Park Service (NPS) is preparing a plan and environmental assessment for managing motorized vehicle access. Essentially, we are complying with Executive Orders 11644 and 11989, which require that all units of the national park system establish policies and procedures that ensure that off-road vehicle use is managed to protect the natural and cultural resources of the recreation area and provide for the safety of all visitors.

The plan seeks to determine the appropriate use of motorized vehicles on exposed land beneath the high water mark of Blue Mesa Reservoir, and on two-track roads that surround the reservoir. One of the primary objectives of the plan is to protect cultural resources from damage by off-highway vehicle use. Travel across newly exposed lake bed often leads to vehicles being stuck in the soft soil resulting in damage to sites from rutting and efforts to move vehicles by digging near the tires.

We request that your office review the attached brochure, and provide any comments to us by May 18. Instructions for submitting comments are included in the brochure. Should you need additional information, or would like to arrange a meeting for consultation, please feel free to call me (970-641-2337, ext. 220), or park archaeologist Forest Frost (email Forest_Frost@nps.gov, or phone 970-240-5433).

After considering the comments, we will finalize the alternatives and begin to analyze their impacts. After the impact analysis is complete, a draft plan/EA will be available for public comment.

Best Regards,

Constance A. Rudd
Superintendent

Enclosure



United States Department of the Interior

NATIONAL PARK SERVICE
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230



IN REPLY REFER TO:
L76

April 10, 2009

Neil Cloud, NAGPRA Coordinator
Southern Ute Indian Tribe
P.O. Box 737
Ignacio, CO 81137

Dear Mr. Cloud:

The enclosed brochure—*Update on the Curecanti National Recreation Area Motorized Vehicle Access Plan*—has just been released for public review and comment. The brochure explains why the National Park Service (NPS) is preparing a plan and environmental assessment for managing motorized vehicle access. Essentially, we are complying with Executive Orders 11644 and 11989, which require that all units of the national park system establish policies and procedures that ensure that off-road vehicle use is managed to protect the natural and cultural resources of the recreation area and provide for the safety of all visitors.

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This letter has also been sent to Chairman Mathew Box. We request that your office review the attached brochure, and provide any comments to us by May 18. Instructions for submitting comments are included in the brochure. Should you need additional information, or would like to arrange a meeting for consultation, please feel free to call me (970-641-2337, ext. 220), or park archaeologist Forest Frost (email Forest_Frost@nps.gov, or phone 970-240-5433).

After considering the comments, we will finalize the alternatives and begin to analyze their impacts. After the impact analysis is complete, a draft plan/EA will be available for public comment.

Best Regards,

Constance A. Rudd
Superintendent

Enclosure



United States Department of the Interior

NATIONAL PARK SERVICE
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230



IN REPLY REFER TO:
L76

April 10, 2009

Curtis Cesspooch, Chairman
Uintah & Ouray Tribal Business Committee
P.O. Box 190
Ft. Duchesne, UT 84026

Dear Chairman Cesspooch:

The enclosed brochure—*Update on the Curecanti National Recreation Area Motorized Vehicle Access Plan*—has just been released for public review and comment. The brochure explains why the National Park Service (NPS) is preparing a plan and environmental assessment for managing motorized vehicle access. Essentially, we are complying with Executive Orders 11644 and 11989, which require that all units of the national park system establish policies and procedures that ensure that off-road vehicle use is managed to protect the natural and cultural resources of the recreation area and provide for the safety of all visitors.

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After considering the comments, we will finalize the alternatives and begin to analyze their impacts. After the impact analysis is complete, a draft plan/EA will be available for public comment.

Best Regards,

Constance A. Rudd
Superintendent

Enclosure



United States Department of the Interior

NATIONAL PARK SERVICE
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230



IN REPLY REFER TO:
L76

April 10, 2009

O. Roland McCook, Sr.,
127 66.75 Rd
Montrose, CO 81401

Dear Mr. McCook:

The enclosed brochure—*Update on the Curecanti National Recreation Area Motorized Vehicle Access Plan*—has just been released for public review and comment. The brochure explains why the National Park Service (NPS) is preparing a plan and environmental assessment for managing motorized vehicle access. Essentially, we are complying with Executive Orders 11644 and 11989, which require that all units of the national park system establish policies and procedures that ensure that off-road vehicle use is managed to protect the natural and cultural resources of the recreation area and provide for the safety of all visitors.

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Please note that this letter has also been sent to Chairman Curtis Cesspooch and NAGPRA Representative Betsy Chapoose.

Comments on the alternatives will be received through the comment period, which ends on May 18. Should questions arise, or additional information be needed concerning the cultural or paleontological resources of the Recreation Area, during the review of the alternatives, please feel free to contact Archaeologist Forest Frost (Forest_Frost@nps.gov, or 970-240-5433). General comments and questions should be directed as specified in the brochure.

After considering the comments, we will finalize the alternatives and begin to analyze their impacts. After the impact analysis is complete, a draft plan/EA will be available for public comment.

Best Regards,

Constance A. Rudd
Superintendent

Enclosure



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Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230



IN REPLY REFER TO:
L76

April 10, 2009

Ernest House, Sr., Chairman
Ute Mountain Ute Tribe
P.O. Box JJ
Towaoc, CO 81334

Dear Chairman House:

The enclosed brochure—*Update on the Curecanti National Recreation Area Motorized Vehicle Access Plan*—has just been released for public review and comment. The brochure explains why the National Park Service (NPS) is preparing a plan and environmental assessment for managing motorized vehicle access. Essentially, we are complying with Executive Orders 11644 and 11989, which require that all units of the national park system establish policies and procedures that ensure that off-road vehicle use is managed to protect the natural and cultural resources of the recreation area and provide for the safety of all visitors.

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We request that your office review the attached brochure, and provide any comments to us by May 18. Instructions for submitting comments are included in the brochure. Should you need additional information, or would like to arrange a meeting for consultation, please feel free to call me (970-641-2337, ext. 220), or park archaeologist Forest Frost (email Forest_Frost@nps.gov, or phone 970-240-5433).

After considering the comments, we will finalize the alternatives and begin to analyze their impacts. After the impact analysis is complete, a draft plan/EA will be available for public comment.

Best Regards,

Constance A. Rudd
Superintendent

Enclosure



United States Department of the Interior

NATIONAL PARK SERVICE
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230



IN REPLY REFER TO:
L76

April 10, 2009

Terry Knight, Sr., NAGPRA Representative
Ute Mountain Ute Tribe
P.O. Box 468
Towaoc, CO 81334

Dear Mr. Knight:

The enclosed brochure—*Update on the Curecanti National Recreation Area Motorized Vehicle Access Plan*—has just been released for public review and comment. The brochure explains why the National Park Service (NPS) is preparing a plan and environmental assessment for managing motorized vehicle access. Essentially, we are complying with Executive Orders 11644 and 11989, which require that all units of the national park system establish policies and procedures that ensure that off-road vehicle use is managed to protect the natural and cultural resources of the recreation area and provide for the safety of all visitors.

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This letter has also been sent to Chairman Ernest House. We request that your office review the attached brochure, and provide any comments to us by May 18. Instructions for submitting comments are included in the brochure. Should you need additional information, or would like to arrange a meeting for consultation, please feel free to call me (970-641-2337, ext 220), or park archaeologist Forest Frost (email Forest_Frost@nps.gov, or phone 970-240-5433).

After considering the comments, we will finalize the alternatives and begin to analyze their impacts. After the impact analysis is complete, a draft plan/EA will be available for public comment.

Best Regards,

Constance A. Rudd
Superintendent

Enclosure



United States Department of the Interior

NATIONAL PARK SERVICE
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230



IN REPLY REFER TO:
L76

April 10, 2009

Al Pfister, Ecological Services
US Fish & Wildlife Service
764 Horizon Dr Bldg. B
Grand Junction, CO 81506-3946

Dear Mr. Pfister:

The enclosed brochure—*Update on the Curecanti National Recreation Area Motorized Vehicle Access Plan*—has just been released for public review and comment. Recipients include 66 local and state government offices and federal agencies, 61 organizations, 79 adjacent landowners, 201 members of the general public, and 366 boat permit holders. In addition, copies have been made available in local libraries, news releases have been distributed to the media announcing the availability of the brochure, and the brochure is available on our planning website, located at <http://parkplanning.nps.gov/cure>.

The brochure explains why the National Park Service (NPS) is preparing a plan and environmental assessment for managing motorized vehicle access. Essentially, we are complying with Executive Orders 11644 and 11989, which require that all units of the national park system establish policies and procedures that ensure that off-road vehicle use is managed to protect the natural and cultural resources of the recreation area and provide for the safety of all visitors.

The brochure describes three alternatives for managing motorized access use. Comments on the alternatives will be received through the comment period, which ends on May 18. After considering the comments, we will finalize the alternatives and begin to analyze their impacts. After the impact analysis is complete, a draft plan/EA will be available for public comment.

You may be aware that the Bureau of Land Management and U.S. Forest Service recently released the Gunnison Basin Travel Management Draft Environmental Impact Statement for a 90-day public review and comment period (which closes June 4). NPS has coordinated with these agencies regarding our motorized access plan; however, we'd like you to know that these are two separate planning processes.

Should you need additional information, please don't hesitate to give me a call at 970-641-2337, ext. 220.

Best Regards,

Constance A. Rudd
Superintendent

Enclosure



United States Department of the Interior

NATIONAL PARK SERVICE

Black Canyon of the Gunnison National Park

Curecanti National Recreation Area

102 Elk Creek

Gunnison, Colorado 81230

IN REPLY REFER TO:

L76

December 18, 2009

Cathy Mask, Acting District Ranger
U.S. Forest Service
216 N. Colorado St.
Gunnison, Colorado 81230

Dear Cathy,

The National Park Service appreciates the assistance your staff has provided throughout the development of the Motorized Vehicle Access Plan and Environmental Assessment underway for Curecanti National Recreation Area. With this memorandum, we are inviting you to become a Cooperating Agency in our environmental assessment process. Furthermore, we would like to offer you the opportunity to review our internal draft of the environmental assessment that we anticipate being available within the next six weeks.

As you are aware, the plan and environmental assessment discuss future management of motorized routes on U.S. Forest Service properties that would come under National Park Service jurisdiction should Congress enact a boundary for the recreation area pursuant to the Curecanti Resource Protection Study.

If you would like to participate as a Cooperating Agency or have questions regarding this process, please contact Ken Stahlnecker at (970) 641-2337 x 225.

Sincerely,

/s/

Constance A. Rudd
Superintendent



United States Department of the Interior

NATIONAL PARK SERVICE
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, Colorado 81230

IN REPLY REFER TO:

L76

December 18, 2009

MEMORANDUM

To: Field Manager, Gunnison Field Office, Bureau of Land Management
From: Superintendent, Curecanti National Recreation Area and Black Canyon of the Gunnison National Park
Subject: Motorized Vehicle Access Plan

The National Park Service appreciates the assistance you and your staff have provided throughout the development of the Motorized Vehicle Access Plan and Environmental Assessment underway for Curecanti National Recreation Area. With this memorandum, we are inviting you to become a Cooperating Agency in our environmental assessment process. Furthermore, we would like to offer you the opportunity to review our internal draft of the environmental assessment that we anticipate being available within the next six weeks.

As you are aware, the plan and environmental assessment discuss future management of motorized routes on Bureau of Land Management properties that would come under National Park Service jurisdiction should Congress enact a boundary for the recreation area pursuant to the Curecanti Resource Protection Study.

If you would like to participate as a Cooperating Agency or have questions regarding this process, please contact Ken Stahlnecker at (970) 641-2337 x 225.

/s/ Constance A. Rudd



**UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management**

Gunnison Field Office
216 N. Colorado
Gunnison, CO 81230
970-641-0471



December 23, 2009

In Reply Refer To:
2930 (COSO60)

Connie Rudd
Superintendent, Curecanti National Recreation Area &
Black Canyon of the Gunnison National Park
National Park Service
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area
102 Elk Creek
Gunnison, Colorado 81230

Dear Connie:

The Bureau of Land Management would like to participate as a cooperating agency in the environmental assessment process of Curecanti National Recreation Area's Motorized Vehicle Access Plan. We would also like the opportunity for an early internal review of the draft environmental assessment.

Please contact Sally Thode at (970) 642-4448 if any additional information is needed. We appreciate the opportunity to work with the National Park Service in this endeavor, and look forward to the opportunity to assist you however we can.

Sincerely,


Brian St. George
Field Manager



United States
Department of
Agriculture

Forest
Service

Gunnison
Ranger District

216 N Colorado St.
Gunnison, CO 81230
Voice: 970-641-0471
TDD: 970-641-6817

File Code: 1950-4-2

Date: February 23,
2010 February 23, 2010

Superintendent Connie Rudd
Black Canyon/Curecanti National Park Service
102 Elk Creek
Gunnison, CO 81230

Dear Superintendent Rudd,

Thank you for the invitation to become a Cooperating Agency in the environmental assessment process for the Motor Vehicle Access Plan on the Curecanti National Recreation Area. I respectfully decline this invitation, as I believe we can provide our assistance in reviewing and commenting on this plan without being involved at the formal level of a Cooperating Agency.

In this regard, my staff and I have reviewed the draft Curecanti National Recreation Area Motorized Vehicle Access Plan Environmental Assessment, dated January 2010 (Second Internal Draft). We find your analysis, and the preferred alternative to be consistent with our planned travel management on the adjacent National Forest Lands. In particular, we found no travel management conflicts in the Soap Creek area - where management jurisdiction will potentially be transferred to the National Park Service. We support the implementation of the preferred alternative (Alternative C).

I thank you for the opportunity to review this internal draft of the Curecanti National Recreation Area Motorized Vehicle Access Plan Environmental Assessment, and I look forward to assisting with the project in the future.

Sincerely,

A handwritten signature in cursive script that reads "John R. Murphy".

JOHN R. MUPRHY, District Ranger



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UNITED STATES DEPARTMENT OF THE INTERIOR

Bureau of Land Management

Gunnison Field Office
216 N. Colorado
Gunnison, CO 81230
970-641-0471



In Reply Refer To:
CO-160 (2930)

March 8, 2010

Ken Stahlnecker
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230

Dear Ken:

The 2nd Internal Draft of the Curecanti National Recreation Area Motorized Vehicle Access Plan Environmental Assessment has been reviewed by Sally Thode, Outdoor Recreation Planner, Bureau of Land Management, Gunnison Field Office. Arden Anderson met with you several times to complete an extensive review of BLM roads/NPS roads to make sure all matched across borders of the two agencies and that those open on BLM were open on NPS and those closed on BLM were closed on NPS. This matching exercise was done to make sure the roads in the Gunnison Basin Travel Management Plan Preferred Alternative and the Curecanti National Recreation Area Motorized Vehicle Access Plan Preferred Alternative coincided. Sally Thode then met with you Thursday, March 4, 2010 to confirm all matching was correct. The BLM, Gunnison Field Office is satisfied with the 2nd Internal Draft and has no further comments or concerns.

Sincerely,

Brian St. George
Field Office Manager
Gunnison Field Office

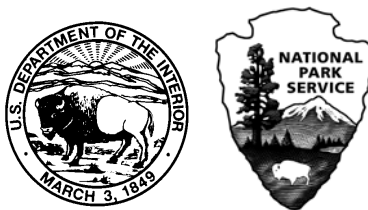
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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historic places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

April 2010

United States Department of the Interior • National Park Service