

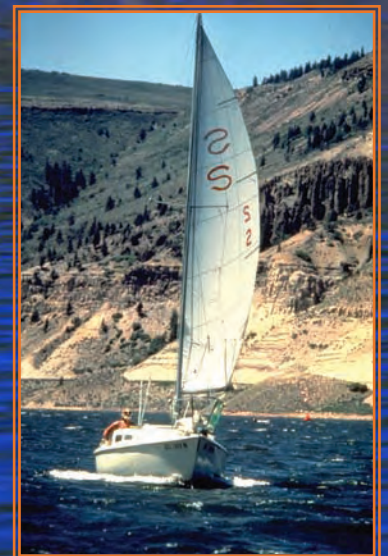


Draft Resource Protection Study / Environmental Impact Statement

June 2007

The Secretary of the Interior, acting through the Director of the National Park Service, shall conduct a study concerning land protection and open space . . . to assess the natural, cultural, recreational, and scenic resource value and character of the land within and surrounding Curecanti National Recreation Area . . .

U.S. Congress (Public Law 106-76)



Dillon Pinnacles dominate the scene along the shore of Blue Mesa Reservoir in the heart of Curecanti National Recreation Area



The National Park Service preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resources conservation and outdoor recreation throughout this country and the world.

ABSTRACT
Draft Resource Protection Study / Environmental Impact Statement
Curecanti National Recreational Area
Gunnison and Montrose Counties, Colorado

June 2007

This *Draft Resource Protection Study / Environmental Impact Statement* (Draft RPS/EIS) describes and analyzes in detail two alternatives, and makes recommendations for conserving natural, cultural, recreational, and scenic resources on lands within and surrounding the area administered as the Curecanti National Recreation Area. Potential environmental consequences of the two alternatives are assessed. Additional alternatives were considered, but eliminated from detailed assessment. The study is in response to Section 11 of the *Black Canyon of the Gunnison National Park and Gunnison National Conservation Area Act of 1999* (Public Law 106-76).

This RPS/EIS is being prepared by the National Park Service (NPS), with the Bureau of Reclamation (Reclamation) as a cooperating agency. Upon completion of the EIS process, which will include a Record of Decision, a report to Congress will be jointly prepared by the National Park Service and Bureau of Reclamation, and sent through the NPS Washington Office to the Department of the Interior, to be forwarded to Congress. The report will summarize the study's findings and make recommendations. Implementation of those recommendations will then depend on congressional action. The Final RPS/EIS and the Record of Decision will accompany the report as attachments. If the Record of Decision finds that Congress should pass new legislation for the NRA, the report will identify issues to be addressed in that new legislation. In other words, the Secretary of the Interior will make the recommendation to Congress, based on recommendations developed by the National Park Service and Bureau of Reclamation.

Pursuant to Reclamation law, including the Colorado River Storage Project Act of 1956, and a 1965 Memorandum of Agreement (MOA) between the Bureau of Reclamation and the National Park Service, Reclamation manages two projects (including dams, reservoirs, power plants, access roads, and other related facilities) and NPS manages the natural and cultural resources, recreational use, and related facilities, all within an area that for forty years has been referred to as the Curecanti National Recreation Area (NRA). However, the area has not yet been formally designated by Congress as a national recreation area, and has no legislated boundary.

Alternative 1: No Action (Continuation of Existing Conditions). Under Alternative 1, The Bureau of Reclamation would continue to operate and maintain the dams, reservoirs, power plants, access roads, and related facilities at Curecanti, pursuant to Reclamation law, the 1965 MOA, and other applicable laws and regulations. The National Park Service would continue to manage the natural and cultural resources, recreational opportunities, and associated facilities within the existing NRA, pursuant to Reclamation law, NPS law, the 1965 MOA, and other applicable laws and regulations. The National Park Service would continue to cooperate with neighboring landowners in the service of resource conservation as existing staff time and funding permits. This would consist primarily of providing limited technical assistance and advice. There would be no changes in the amount of land included within the NRA, other than occasional additions that might occur due to future specific legislative authority. A permanent NPS presence would not be assured under this alternative.

One of the major impacts of Alternative 1 would be an increase in land use changes on private property surrounding the NRA. This would increase the possibility of adverse impacts on resources such as animal habitat and water quality, and the spectacular natural scenery that surrounds the NRA. In turn, this would be more likely to adversely affect the enjoyment of NRA visitors and residents alike.

Alternative 2: The Proposed Action: It is recommended under Alternative 2 that Congress officially establish Curecanti as a National Recreation Area with a legislated boundary, which would include approximately 10,040 acres of additional adjacent lands that are currently managed by other federal and state agencies. The 1965 MOA between the Bureau of Reclamation and the National Park Service would be revised accordingly. Under Alternative 2, Reclamation would operate and maintain the dams, reservoirs, associated power plants, access roads, and related facilities at Curecanti, pursuant to Reclamation law, the revised MOA, and other applicable laws and regulations. The National Park Service would manage the natural and cultural resources, recreational opportunities, and associated facilities within the NRA, pursuant to Reclamation law, NPS law, including the new legislation establishing the NRA, the revised MOA, and other applicable laws and regulations. It is also recommended that Congress authorize NPS to work in partnership with private landowners in a designated Conservation Opportunity Area surrounding the NRA, and employ various tools in the service of resource conservation. These tools would include, but not be limited to, acquiring interests in land from willing landowners, such as fee simple, or conservation easements. The benefit of this approach is that neighboring landowners, assisted by conservation partners, could work with the National Park Service to utilize cooperative conservation efforts that could maintain and/or improve resources such as animal habitat and water quality throughout the area; would better ensure the preservation of the area's spectacular natural scenery; and would enhance the enjoyment and recreational opportunities for residents and visitors alike. A permanent NPS presence would be assured under this alternative.

There would be no adverse impact to Reclamation operations under either Alternative 1 or Alternative 2.

Environmentally Preferred Alternative. Alternative 2, the Proposed Action, is the Environmentally Preferred Alternative.

Note to Reviewers and Respondents. We encourage you to provide us with written comments on this document, especially to provide your opinion with regards to the alternatives herein presented. It is the practice of the National Park Service to make all comments, including names and addresses of respondents who provide that information, available for public review following the conclusion of the planning process. However, before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

How to Submit Comments. Comments should be provided via the Internet at the National Park Service Planning, Environment and Public Comment (PEPC) website: <http://www.parkplanning.nps.gov>. Under "Choose a Park", select "Curecanti NRA" and click on "Go"; then click on "Curecanti National Recreation Area Resource Protection Study"; then in the left column, click on "Open for Public Comment"; then follow the directions for entering comments. For members of the public without Internet access, comments may be sent in writing to Curecanti Resource Protection Study Comments, Attn: Dave Roberts, 2465 South Townsend Avenue, Montrose, CO 81401. Dates for which the comment period is open are listed on the website, and are advertised via NPS news releases and local media. Or you may contact the following people for this and other project-related information: Dave Roberts, Management Assistant, at (970) 240-5432; Connie Rudd, Superintendent, in Gunnison, CO, at (970) 641-2337 ext. 220; or Jeff Heywood, Project Leader, in Lakewood, CO, at (303) 969-2835.

SUMMARY

BACKGROUND AND PURPOSE OF THE STUDY

This Draft Resource Protection Study/ Environmental Impact Statement (RPS/ EIS) describes two alternatives and analyzes in detail their impacts, and makes recommendations for the conservation of natural, cultural, recreational, and scenic resources on land within and surrounding the area traditionally known as the Curecanti National Recreation Area (NRA). The two alternatives are briefly described in this Summary chapter, and their primary differences are compared in the table at the end of this Summary.

The study recommends Alternative 2 as the Proposed Action, or preferred alternative. Numerous other alternatives were considered, but eliminated from detailed assessment. They are identified in Chapter 2: Alternatives Including the Proposed Action, under the heading Alternatives Considered but Eliminated from Detailed Assessment.

Curecanti NRA is located in southwestern Colorado, stretching approximately 40 miles along the Gunnison River basin in Gunnison and Montrose Counties. It is comprised of 41,790 acres of federal lands and waters, providing a variety of recreational opportunities in a spectacular geological setting.

Although not officially designated as such by Congress, the term “National Recreation Area” has been applied to the area immediately surrounding and including the three reservoirs of the Aspinall Unit of the Colorado River Storage Project Act of 1956 – Blue Mesa, Morrow Point, and Crystal. Congress has recognized the term “National Recreation Area” in legislation pertaining thereto, such as the act which authorized this study, and annual appropriations.

Since Curecanti has not been officially designated by Congress as an NRA, it does

not have a legislated boundary. However, the area which comprises the NRA is shown on the Existing Conditions map in Chapter 1, Purpose of and Need for Action.

The NRA is managed by the Bureau of Reclamation (Reclamation) and the National Park Service (NPS) pursuant to Reclamation law, including the Colorado River Storage Project Act of 1956, and a 1965 Memorandum of Agreement (MOA) between the Bureau of Reclamation and the National Park Service. The Bureau of Reclamation manages two Reclamation projects (including dams, reservoirs, power plants, access roads, and other related facilities); while the National Park Service manages the natural and cultural resources, opportunities for visitor recreation and understanding, and associated facilities.

This RPS/EIS is being conducted in response to Section 11 of the *Black Canyon of the Gunnison National Park and Gunnison National Conservation Area Act of 1999* (Public Law 106-76), key sections of which appear in Appendix A. As stated in that legislation, the purpose of this study is to:

- Assess the natural, cultural, recreational, and scenic resource value and character of the land within and surrounding Curecanti NRA (including open vistas, wildlife habitat, and other public benefits);
- Identify practicable alternatives that protect the resource value and character of the land within and surrounding the Curecanti NRA;
- Recommend a variety of economically feasible and viable tools to achieve the purposes described in paragraphs (1) and (2); and
- Estimate the costs of implementing the approaches recommended by the study.

In essence, as described in more detail later in this document, one of the main purposes of the study is to determine whether or not to recommend to Congress that Curecanti

be formally established as an NRA with a legislated boundary.

This RPS/EIS is being prepared by the National Park Service, with the Bureau of Reclamation as a cooperating agency. Upon completion of the EIS process, which will include a Record of Decision, a report to Congress will be jointly prepared by the National Park Service and the Bureau of Reclamation. The National Park Service, as lead agency on the study, will then submit the report to the Secretary of the Interior, who will in turn submit it to Congress. The report will do the following:

- Contain the findings of the study required by Section 11(a) of Public Law 106-76;
- Make recommendations to Congress with respect to the findings of the study; and
- Make recommendations to Congress regarding action that may be taken with respect to the land described in the report.
- Implementation of those recommendations will then depend on congressional action. The Final RPS/EIS and the Record of Decision will accompany the report to Congress as attachments thereto. If the Record of Decision finds that Congress should pass new legislation for the NRA, the report will identify issues to be addressed in that new legislation. In other words, the Secretary of the Interior will make the recommendation to Congress, based on recommendations developed by the National Park Service and the Bureau of Reclamation.

PRIMARY EMPHASIS OF THE STUDY

This study is about identifying ways that will allow the National Park Service to work in partnership with private landowners and others to more effectively conserve the natural, cultural, recreational, and scenic resources and character of the land within and surrounding Curecanti NRA. It is also about the formal establishment of Curecanti as a congressionally legislated NRA, for permanence of resource conservation and public recreation.

This study is not about making recommendations pertaining to water rights or operations of Reclamation projects; infringing on the rights of landowners; or making any recommendation that would use condemnation or other tools not in partnership and cooperation with private landowners.

PUBLIC AND AGENCY INVOLVEMENT AND PRIMARY CONCERNS

Throughout the study, from its beginning in 2000, the National Park Service has communicated and consulted with other federal, state, and county agencies, American Indian Tribes, elected officials, private landowners and other stakeholders, and the general public to gather information, identify opportunities and concerns, and develop recommendations for the conservation of resources within and surrounding Curecanti NRA. These efforts included initial public and agency scoping meetings, three newsletters, use of the NRA's website, and many meetings and workshops throughout the project. The major meetings and list of consultants are presented in Chapter 5, Consultation and Coordination.

There were two primary concerns expressed throughout the project. One was that the National Park Service would not propose anything in the study that would be forced

upon private landowners against their will or desires, or that would intrude upon their property rights. Furthermore, some landowners opposed any boundary being drawn around their property to include them within a future NRA, even though they would be able to retain their property rights. These concerns strongly influenced the selection of the Proposed Action, and the dismissal from detailed consideration of some alternatives that had initially been considered.

The other primary concern was expressed by the Bureau of Reclamation. The agency wanted to be sure that implementation of any actions resulting from the Draft RPS/EIS would have no adverse impacts on their operations, or those of their partnering agencies, such as Western Area Power Administration (Western). Therefore, it is important to emphasize the following:

For both alternatives in the Draft RPS/EIS, the Bureau of Reclamation and Western Area Power Administration would continue their administrative jurisdiction and responsibilities within and adjacent to the NRA, including construction, operations, maintenance, replacement, and additions, consistent with Reclamation law and other applicable laws and regulations. Formal establishment of the area as an NRA under Alternative 2 would not amend or supplement existing Reclamation law applicable to the Aspinall Unit or the Uncompahgre Project. The Bureau of Reclamation, Western Area Power Administration, and the National Park Service would consult with each other, as necessary and appropriate. Thus, there would be no adverse impacts to Reclamation and Western responsibilities under either alternative.

Elected officials expressed a desire to be kept informed of the ongoing local reaction to the project as it progressed; and county officials

wanted to be involved in the study process. Gunnison County worked especially closely with the National Park Service on the project, because they were developing a county-wide comprehensive plan that might integrate some of the study's recommendations. Neighboring land managing agencies expressed increased interest in working with the National Park Service on resource management issues of mutual concern through the Joint Agency Management Effort that was instituted as part of the study. In response to all these desires, the National Park Service has maintained communication with federal, state, and county elected and government officials throughout the project.

ALTERNATIVE 1: NO ACTION (CONTINUATION OF EXISTING CONDITIONS)

Under Alternative 1, the Bureau of Reclamation, pursuant to its authority under Reclamation law, and in accordance with the 1965 MOA with the National Park Service, and other applicable laws and regulations, would continue to operate, maintain, replace, and expand (as necessary) dams, reservoirs, power plants, access roads, and other related facilities associated with two Reclamation projects. The National Park Service, pursuant to Reclamation law, NPS law, the 1965 MOA, and other applicable laws and regulations, would continue to manage the natural and cultural resources, recreational opportunities, and associated facilities within the existing NRA. However, the permanence of the National Park Service as the manager of said resources would not be assured.

The National Park Service would continue to operate with an emphasis on conserving the natural, cultural, recreational, and scenic resources within the NRA. Regarding land outside the NRA, the National Park Service would continue to work with neighboring land management agencies to resolve resource and visitor use issues of mutual concern, and to cooperate with private landowners surrounding the NRA to

address matters of resource conservation, as staff time and funding permits. However, opportunities to partner with neighboring landowners in the service of resource conservation would be limited, and would consist primarily of providing some technical assistance and suggestions.

There would be no change in the amount of land included within the NRA, other than occasional additions that might occur because of future specific legislative authority. Thus, the NRA would continue to encompass approximately 41,790 acres of land.

For direct comparison to the estimated costs of Alternative 2, the Proposed Action, the estimated cost of Alternative 1 is \$500,000. This money would need to be spent on missing and corrective surveys, posting, and fencing along the existing administrative NRA boundary, even if the Proposed Action is not implemented. Under Alternative 1, there would be no additional recurring annual costs.

One of the major impacts of Alternative 1 would be an increase in land use changes on private property surrounding the NRA. This would increase the possibility of adverse impacts on resources such as animal and raptor habitat, water quality, and the spectacular natural scenery that surrounds the NRA. In turn, this would be more likely to adversely affect the enjoyment of NRA visitors, and the quality of life for local residents.

Other resources that could be directly or indirectly adversely affected by development and land use that is insensitive to resource conservation include geological and paleontological resources; displacement of native vegetation, including riparian and wetland communities, by the spread of noxious weeds; fisheries; natural lightscape and night sky; natural soundscape; and archeological resources.

ALTERNATIVE 2: THE PROPOSED ACTION

Under Alternative 2, it is recommended that Congress officially establish Curecanti

as an NRA with a legislated boundary, and that the 1965 MOA between the Bureau of Reclamation and the National Park Service be revised accordingly. The Bureau of Reclamation, pursuant to Reclamation law, the revised MOA, and other applicable laws and regulations, would operate, maintain, replace, and expand (as necessary) dams, reservoirs, power plants, access roads, and other related facilities associated with two Reclamation projects. The National Park Service, pursuant to Reclamation law, NPS law, including the new legislation establishing the NRA, the revised MOA, and other applicable laws and regulations, would manage the natural and cultural resources, recreational opportunities, and associated facilities within the proposed NRA. Under this alternative, the permanence of the National Park Service as the manager of these resources would be assured.

Under Alternative 2, the National Park Service would expand its efforts to influence the conservation of the natural, cultural, recreational, and scenic resources on lands, both within and surrounding the NRA. In addition, it is recommended that Congress authorize the National Park Service to work in partnership with private landowners in a designated Conservation Opportunity Area (COA) surrounding the NRA to implement a variety of tools that would enhance the long-term conservation of natural, cultural, recreational, and scenic resources.

These tools would include technical assistance and environmental information provided by the National Park Service to landowners; general agreements that could set the stage for short-term and long-term commitments to cooperative assistance; incentive payments related to resource conservation through a variety of government grant programs; acquisition of conservation easements; purchase and retained use and occupancy, such as 25-year leases, or life estates; and fee simple acquisition of property via purchase, land exchange, or donation. All tools would be subject to the cooperation and willingness of the landowner involved. The availability of some of these tools would be subject to congressional authorization and the NPS

budget process, in light of competing demands from other NPS units.

This study recognizes that the availability of federal funds for acquiring interests in land may be limited. However, many of the goals and objectives of Alternative 2 would still be achievable through the application of other tools that could be used to provide incentives to willing landowners for conserving resources.

The newly legislated NRA boundary would encompass 51,830 acres, which would include approximately 10,040 acres of additional adjacent lands that are currently managed by other federal and state agencies. The COA would consist of 24,300 acres of private property outside the NRA boundary. The National Park Service would be authorized by Congress to acquire interests in private property in the COA from willing landowners. Lands in which the National Park Service would want to acquire an interest would be identified by a future land protection plan. However, current thinking is that approximately 2,400 acres of land would be identified for acquisition in fee simple; and conservation easements would be placed on approximately 8,100 acres of land—all of which would be subject to agreement by respective landowners. A landowner may also choose to work with a regional or national land trust or other conservation organization rather than the National Park Service. Land protected through such partners, including conservation easements held by land trusts, would generally meet the needs of resource protection, as envisioned by this study.

The one-time cost of implementing Alternative 2 is estimated to range from \$3,690,000 to \$14,973,000, including acquiring interests in land, such as through conservation easements and fee simple ownership. The relatively large range is because of the many variables pertaining to acquiring interests in land. These include the results of a required land protection plan, potential changes in fair market value of property, options relating to acquiring conservation easements, the availability of matching grants and similar cost-sharing opportunities, the participation

of partners and third parties to help acquire interests in land, willingness of landowners to cooperate, and negotiations with landowners.

In addition to the one-time costs shown above, as Alternative 2 becomes fully implemented, there will be a recurring annual cost of \$160,000 for the equivalent of two full-time employees. The employees would be needed: (1) to completely implement and sustain the Proposed Action; and (2) for operational requirements pertaining to lands added to the NRA, including resource and visitor management and protection, interpretation, construction and maintenance, and administration.

One of the major impacts of Alternative 2 is that neighboring private landowners, in partnership with the National Park Service, would have a greater opportunity, and would be more likely to use, a variety of tools to conserve resources on their property. With congressional authorization, and subject to competing demands from other NPS units, there would be more opportunity for funds to be available for the establishment of conservation easements, or the acquisition of land in fee title, from willing landowners in the COA.

Through the COA concept, landowners may develop a heightened awareness of how their activities might affect natural, cultural, recreational, and scenic resources. This would help to directly and indirectly preserve and improve resources, such as wildlife habitat and water quality throughout the area; would better ensure the preservation of the area's spectacular natural scenery, which contributes to the national significance of this special place; and would enhance the enjoyment and recreational opportunities for residents and visitors alike.

Other resources that would directly or indirectly benefit from development and land use that is conducted with increased sensitivity to resource conservation include: geological and paleontological resources; native vegetation, including riparian and wetland communities, that would experience a reduced spread of noxious weeds; fisheries;

natural lightscape and night sky; natural soundscape; and archeological resources.

Recreational opportunities and visitor enjoyment and experience could be enhanced through increased cooperation among private landowners, the National Park Service, and other land managing agencies in the area. This could be accomplished through means such as acquisition of easements for trails across private property.

In turn, private landowners could benefit from economic incentives afforded by various tools, including tax advantages, government grants, and payments for interests in land; from the potential increase in availability of funding to implement various tools of resource conservation; and through increased technical assistance from the National Park Service. Landowners would also benefit from knowing that they are making a greater contribution to the resource conservation ethic, to enhanced enjoyment of the spectacular Curecanti environment, and to a better quality of life for visitors and residents alike.

Land transfers and exchanges between the National Park Service and other federal and state agencies, and potential exchanges with adjacent private landowners, would simplify existing boundaries and provide for more efficient and cost-effective management of resources for all involved. In general, this would result in long-term beneficial impacts to the operations of the National Park Service and neighboring agencies.

New NRA legislation, a revised agreement between the Bureau of Reclamation and the National Park Service, and streamlining or potentially eliminating other agreements among various agencies, would provide a long-term minor beneficial impact to agency operations by reducing associated personnel and costs for managing the lands and agreements.

There would be a long-term minor to moderate beneficial impact on NPS's ability to meet its mission, because of appropriately worded legislation for the NRA, improved wording in a new MOA with the Bureau of Reclamation, and increased consultation

and cooperation between the National Park Service and other agencies, including the Bureau of Reclamation. This improvement in consultation and cooperation among the agencies is already happening, through the Joint Agency Management Effort, which is integral to the RPS/EIS.

ENVIRONMENTALLY PREFERRED ALTERNATIVE – ALTERNATIVE 2: THE PROPOSED ACTION

Alternative 2 is considered to be the Environmentally Preferred Alternative because it best fulfills NPS responsibilities as trustee of sensitive habitat; best ensures safe, healthful, productive, and aesthetically and culturally pleasing surroundings; and best achieves a balance between population and resource use that would permit high standards of living and a wide sharing of life's amenities.

FINDINGS AND GUIDING PRINCIPLES REGARDING THE STUDY'S RECOMMENDATIONS

In the course of conducting the Resource Protection Study, and in writing the Environmental Impact Statement, numerous findings and guiding principles were identified that need to be emphasized and carefully considered when implementing the study's recommendations, especially regarding new NRA legislation that might be enacted, and revised or new agreements among the Bureau of Reclamation, the National Park Service, and/or other agencies. Many of those findings and principles relate to laws, policies, regulations, and the missions of the two agencies, by which the Bureau of Reclamation and the National Park Service must operate. Some of these apply equally to the Bureau of Reclamation and the National Park Service, as federal agencies within the Department of the Interior. However, some of these are unique to each agency, since they have different missions. These important findings and principles are summarized below.

- The Uncompahgre Project and the Aspinall Unit of the Colorado River Storage Project, their associated facilities, lands, water and other resources, and their use by the public, are significant public benefits within and adjacent to the NRA.
- The majority of the lands currently within the NRA, and some currently outside of it, were withdrawn or acquired for Reclamation purposes, including the Uncompahgre Project and the Aspinall Unit of the Colorado River Storage Project.
- The current NPS presence within and administration of most of the NRA for recreation and other purposes is pursuant to and subject to Reclamation law, as amended and supplemented, which generally requires that such administration be consistent or compatible with the primary purposes of the Bureau of Reclamation's projects. Thus, the Bureau of Reclamation has existing legal rights within and adjacent to the NRA that predate and take precedence over NPS rights or uses.
- Reclamation operations along the three reservoirs under the Colorado River Storage Project Act continue to provide recreational and scenic values that support legislative designation of the area as the Curecanti NRA. Any legislation for the NRA should allow that situation to continue, without any additional limitations on the Bureau of Reclamation's operational capabilities.
- The prior intent of the Department of the Interior was that contiguous Reclamation lands along the Gunnison River, upstream of the Black Canyon of the Gunnison National Park, were to be administered by the National Park Service for recreational and other purposes pursuant to Reclamation law. The 1965 MOA between the Bureau of Reclamation and the National Park Service provided for such management on Aspinall Unit lands, pursuant to Section 8 of Colorado River Storage Project Act, and allowed for the future inclusion of additional acquired or withdrawn lands. For example, in 1978, Uncompahgre Project lands in the East Portal area were added to the MOA and the NRA. However, the 1965 MOA did not address future deletion of lands from the NRA, nor were there appropriate supplemental agreements to address the management of deleted lands by another federal agency. A revised MOA should address both the addition and deletion of lands to and from the NRA, as well as the management of deleted lands by another federal agency, or disposition thereof to private, state, or other ownership.
- The Bureau of Reclamation and the National Park Service have differing missions and management directives within and adjacent to the NRA. The current management agreement between the Bureau of Reclamation and the National Park Service should be updated to better reflect the roles and responsibilities of these respective agencies.
- There are numerous and varied existing legal rights on lands within the study area that may affect management of the NRA. These rights either need to be recognized and honored or they need to be acquired through appropriate means. Either way, these rights will affect management of the NRA. These rights include, but are not limited to, reserved mineral rights, transmission rights-of-way (Western, Gunnison County Electric Association, Qwest Communications, etc.) and access rights (Lake Fork Cove and Blue Mesa Village subdivisions, Sapinero, etc.).

IMPORTANT CONSIDERATIONS REGARDING RECOMMENDATIONS TO CONGRESS

This study's Proposed Action recommends that Congress enact legislation regarding the official designation of Curecanti NRA. The study team has identified the following considerations to be of paramount importance in drafting any such legislation.

- Congress should designate the area identified in the Proposed Action as the "Curecanti National Recreation Area."
- Any such NRA designation and associated legislation should protect Reclamation's ability to meet its mission, including project operation, maintenance, replacement, and land addition or expansion if and when necessary, on all of its lands within and adjacent to the NRA. The Bureau of Reclamation's ability to meet its mission and to conduct project-related operations on any of its lands should not be diminished or hindered as a result of the designation of the area as an NRA. Likewise, any such NRA designation and associated legislation should provide the National Park Service reasonable

and appropriate authority to meet its mission within and adjacent to the NRA, provided that Reclamation's prior authority to meet its mission on the same lands is not diminished nor hindered in any way.

- Any such NRA designation and associated legislation should allow for future adjustments to the proposed NRA boundary that are mutually acceptable to the Bureau of Reclamation, the National Park Service, and other affected federal and state agencies.

Any legislation establishing the NRA should provide for coordinated management through an agreement between the Bureau of Reclamation and the National Park Service, which identifies their respective roles and responsibilities. This legislation should be relatively broad, and not overly specific on how the NRA is to be managed. Other documents would go into more detail describing how the NRA should be managed. These documents would include a new MOA between the Bureau of Reclamation and the National Park Service, and a revised NPS general management plan or implementation plan for the NRA.



Bighorn sheep inhabit rugged areas within and adjacent to Curecanti NRA

THE PRIMARY DIFFERENCES BETWEEN THE ALTERNATIVES

Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: The Proposed Action
PERTAINING TO RECREATIONAL OPPORTUNITIES:	
Land within Curecanti National Recreation Area (NRA) would continue to be the minimum acquired by the Bureau of Reclamation for the Curecanti Project, and it would be less likely that access easements or additional land would be acquired, thus limiting recreational opportunities to the current land base. Hunting, fishing, and other existing recreational activities would continue, consistent with NPS policies and regulations.	Land within Curecanti National Recreation Area (NRA) would be expanded, as 10,040 acres of other agency lands would be added to NRA via transfers and exchanges, and there would be potential to acquire access easements and/or additional land from willing landowners, thus providing an expanded land base for recreational opportunities. Hunting, fishing, and other existing recreational activities would continue; however, there would be additional potential for expanded recreational activities in some areas, consistent with NPS policies and regulations.
PERTAINING TO CONSERVATION OF NATURAL, CULTURAL, AND SCENIC RESOURCES:	
The natural rural character of the land, intrinsic scenic values, and other related resource values, are less likely to be conserved, as the National Park Service (NPS) would have limited resources to work in partnership with neighbors to acquire land interests or provide technical assistance on private land surrounding the NRA.	Efforts to conserve the natural rural character of the land, intrinsic scenic values, and other resource values, would be enhanced through the cooperation of local governments and adjacent landowners, and the availability of tools, including acquisition of interests in land from willing landowners, that could be utilized within the proposed Conservation Opportunity Area (COA).
Conservation benefits, including acquisition of conservation easements and other conservation projects, are less likely to be achieved, and NPS would lack authority to expend funds on private lands surrounding the NRA.	There would be more opportunity to meet conservation goals, even if funding was not immediately available for federal acquisition of interests in land, as NPS would be authorized to use an expanded assortment of other cooperative conservation tools within the COA.
PERTAINING TO NATIONAL SIGNIFICANCE:	
National significance of the NRA would not be assured. Continued development of adjacent private property would likely change the scenic and rural character of the land and related resources, adversely affecting the visitor experience.	National significance of the NRA would be more assured through cooperative conservation efforts within the COA.
PERTAINING TO MANAGEMENT EFFICIENCIES AND ECONOMIC BENEFITS:	
Confusion of jurisdictional responsibilities would continue; management efficiencies would less likely be achieved; NPS would be cautious about investing its energy and resources in the NRA, since NPS serves the area per agreement with a different agency, and its long-term presence is not assured; and the potential loss of a NPS presence could adversely affect tourism, and consequentially, local economies.	Jurisdictional responsibilities would be clarified, providing enhanced management efficiencies for all agencies involved; NPS would be more inclined to invest energy and resources in the NRA; a permanent NPS presence would be assured; and the needs of local governments related to the economic benefits of tourism in the Curecanti area would more likely be met.
PERTAINING TO ADVERSE AND BENEFICIAL IMPACTS ON THE ENVIRONMENT:	
Due to the lack of conservation tools available to NPS for working cooperatively with landowners, more adverse impacts to the natural, cultural, recreational, and scenic resources would be expected on lands within and surrounding the NRA.	Due to the availability of additional conservation tools within the COA, fewer adverse impacts and more benefits to the natural, cultural, recreational, and scenic resources would be expected, making this the environmentally preferred alternative.
PERTAINING TO IMPLEMENTATION COSTS:	
With a determination that the administrative boundary is unlikely to change, one-time costs include completion of surveys, boundary posting and fencing. That cost is expected to be \$500,000. There would be no additional recurring annual costs.	One-time costs include acquiring interests in land, including conservation easements and fee simple ownership from willing landowners; associated plans and administrative costs related to lands and partnership programs; surveys, boundary posting and fencing. Due to various factors (explained in the Draft RPS/EIS), a range of costs is estimated to be from \$3,690,000 to \$14,973,000. Recurring costs for two staff positions and related expenditures are estimated to be \$160,000 per year.

TABLE OF CONTENTS

SUMMARY	iii
---------------	-----

LIST OF ACRONYMS	xix
------------------------	-----

PURPOSE OF AND NEED FOR ACTION

INTRODUCTION, AND BRIEF DESCRIPTION OF CURECANTI NATIONAL RECREATION AREA	I
PURPOSE OF THE STUDY	6
NEED FOR THE STUDY	7
FOUNDATION FOR THE STUDY	8
NATIONAL RECREATION AREA SPECIAL MANDATES.....	9
NRA Purpose	9
NRA Significance	9
NRA Mission	10
NRA Mission Goals	11
NRA Interpretive Themes.....	11
RECLAMATION SPECIAL MANDATES.....	12
Reclamation Project Background and Purpose	12
Reclamation Project Significance.....	14
Reclamation Mission	15
Reclamation Goals	15
STUDY PROCESS	15
Public and Agency Involvement.....	15
Data Collection and Analysis.....	16
Alternatives Development and Impacts Assessment	22
TOOLS FOR RESOURCE CONSERVATION AND MANAGEMENT	25
COST ESTIMATES.....	26
STUDY OPPORTUNITIES, INTERESTS, AND ISSUES	27
IMPACT TOPICS	28
Impact Topics Considered.....	28
Impact Topics Dismissed from Further Consideration	28

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

DEVELOPMENT OF ALTERNATIVES	35
ALTERNATIVE I: NO ACTION (CONTINUATION OF EXISTING CONDITIONS)	39
Overall Concept.....	39
National Recreation Area Designation and Boundary.....	40
Resource Conservation	40
National Recreation Area Management.....	43
Bureau of Reclamation Operations.....	43
Other Agency Operations.....	43

Joint Agency Management Effort (JAME)	43
Estimated Costs, Staffing Requirements, and Implementation Strategy	44
ALTERNATIVE 2: PROPOSED ACTION.....	45
Overall Concept.....	45
National Recreation Area Designation and Boundary.....	49
Resource Conservation	51
National Recreation Area Management.....	53
Bureau of Reclamation Operations.....	54
Other Agency Operations.....	54
Joint Agency Management Effort.....	55
Estimated Costs, Staffing Requirements, and Implementation Strategy	55
FINDINGS AND GUIDING PRINCIPLES REGARDING THE STUDY’S RECOMMENDATIONS	60
IMPORTANT CONSIDERATIONS REGARDING RECOMMENDATIONS TO CONGRESS	61
ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ASSESSMENT	62
National Recreation Area Boundary	62
National Recreation Area Management.....	63
THE ENVIRONMENTALLY PREFERRED ALTERNATIVE	64
EXTENT TO WHICH THE PROPOSED ACTION MEETS BOUNDARY ADJUSTMENT CRITERIA.....	65
Need and Opportunity	65
Suitability and Feasibility.....	65
EFFECTIVENESS OF ALTERNATIVES IN MEETING STUDY OBJECTIVES AND NRA MISSION	66
SUMMARY OF ALTERNATIVES	66
SUMMARY OF ENVIRONMENTAL CONSEQUENCES	66

AFFECTED ENVIRONMENT

INTRODUCTION	83
Primary Elements of the Environment Affected by Actions	83
Land Units.....	83
NATURAL RESOURCES	84
Topography and Climate.....	84
Water Resources.....	84
Geology and Paleontology	87
Vegetation and Wildlife.....	88
Threatened, Endangered, and other Special Status Species	92
Natural Lightscape (Night Sky).....	97
Natural Soundscape	98
CULTURAL RESOURCES	98
Historical Background.....	98
Archeological Resources	100
Historic Structures and Resources.....	100
Resource Significance	101
VISITOR USE, UNDERSTANDING, AND ENJOYMENT	101
Recreational Opportunities	101
Interpretation and Educational Opportunities	108
SCENIC RESOURCES	109
Resource Significance	113

REGIONAL ECONOMIC AND SOCIAL CHARACTERISTICS	114
Regional Setting	114
Population	114
Economic Conditions	115
NRA Contribution to Regional Economy	116
Payments in Lieu of Taxes	116
Quality of Life	117
Private Land Use within the National Recreation Area	117
Neighboring Private Lands and Landowners within the Proposed Lands	119
NATIONAL PARK SERVICE, RECLAMATION, AND OTHER NEIGHBORING AGENCY MANAGEMENT AND OPERATIONS	121
National Park Service	122
Bureau of Reclamation	123
Bureau of Land Management	124
Colorado Department of Transportation / Federal Highway Administration	126
Colorado Division of Wildlife	127
U.S. Forest Service	127
Western Area Power Administration	128

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION	131
GENERAL METHODOLOGY FOR ASSESSING IMPACTS	131
Definitions and Foundation for Analysis	131
Resource Conservation and Development Assumptions	132
Cumulative Impacts	136
Impairment Analysis	140
NATURAL RESOURCES	140
Water Quality	140
Geology and Paleontology	143
Vegetation and Wildlife	144
Special Status Species	152
Natural Lightscape (Night Sky)	157
Natural Soundscape	160
CULTURAL RESOURCES	164
VISITOR USE, UNDERSTANDING, AND ENJOYMENT	168
Recreational Opportunities	168
Interpretation And Educational Opportunities	174
SCENIC RESOURCES	177
REGIONAL ECONOMIC AND SOCIAL CHARACTERISTICS	183
Economics	183
Private Land Use Within the National Recreation Area	189
Neighboring Private Lands and Landowners within the Proposed Lands	192
NATIONAL PARK SERVICE, RECLAMATION, AND OTHER NEIGHBORING AGENCY MANAGEMENT AND OPERATIONS	196
UNAVOIDABLE ADVERSE IMPACTS	208
LOSS IN LONG- TERM AVAILABILITY OR PRODUCTIVITY TO ACHIEVE SHORT- TERM GAIN	208

IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES	208
--	-----

CONSULTATION AND COORDINATION

INTRODUCTION	209
NOTICE OF INTENT.....	210
CONSULTATION WITH AGENCIES AND ELECTED OFFICIALS	210
MEETINGS WITH THE GENERAL PUBLIC, PARK VISITORS, PRIVATE LANDOWNERS, AND OTHER STAKEHOLDERS.....	214
MEETINGS WITH AMERICAN INDIAN TRIBES	216
NEWSLETTERS.....	216
MULTI- AGENCY REVIEW VERSION OF THE DRAFT RPS/EIS.....	217
RECLAMATION REVIEW VERSION OF THE DRAFT RPS/EIS	217
COMPLIANCE WITH FEDERAL AND STATE LAWS, REGULATIONS, EXECUTIVE ORDERS, AND NATIONAL PARK SERVICE POLICIES.....	217
Section 106 Consultation	217
Consultation for Species of Concern.....	217
PUBLIC REVIEW PROCESS	218
LIST OF RECIPIENTS FOR THE DRAFT RPS/EIS	218
PREPARERS AND CONSULTANTS	220
Preparers of the Draft Resource Protection Study/Environmental Impact Statement	220
Consultants	223

APPENDIXES

APPENDIX A: TOOLBOX OF INCENTIVES FOR RESOURCE CONSERVATION	229
APPENDIX B: CURECANTI: GREAT SCENERY, OUTSTANDING RESOURCES AND GOOD NEIGHBORS..	261
APPENDIX C: LEGISLATION, POLICIES, AND OTHER DOCUMENTS RELATED TO THE CURECANTI NATIONAL RECREATION AREA AND THE RESOURCE PROTECTION STUDY	269
Legislation	269
Management Policies	271
Management Plans	275
General Agreements and Documents Pertaining Thereto	276
APPENDIX D: NEEDED AGREEMENTS, RESEARCH, AND ACTION PLANS	283

BIBLIOGRAPHY	287
--------------------	-----

GLOSSARY	295
----------------	-----

INDEX.....	301
------------	-----

LIST OF MAPS

REGIONAL OVERVIEW	2
EXISTING CONDITIONS	3
COMPUTER GENERATED VIEWSHED OF LAND WITHIN AND SURROUNDING CURECANTI	19
IMPORTANT RESOURCES SURROUNDING CURECANTI	23
ALTERNATIVE 1: NO ACTION (CONTINUATION OF EXISTING CONDITIONS)	41
ALTERNATIVE 2: PROPOSED ACTION.....	47

LIST OF TABLES

THE PRIMARY DIFFERENCES BETWEEN THE ALTERNATIVES	xi
TABLE 1: IMPACT TOPICS RETAINED OR DISMISSED	29
TABLE 2: FACTORS CONSIDERED IN ESTABLISHING LAND UNITS	38, 85, 134
TABLE 3: EFFECTIVENESS OF ALTERNATIVES IN MEETING STUDY OBJECTIVES AND NRA MISSION ..	67
TABLE 4: SUMMARY OF ALTERNATIVES	69
TABLE 5: SUMMARY OF ENVIRONMENTAL CONSEQUENCES.....	72
TABLE 6: BIG GAME HABITAT IN PROPOSED LANDS	89
TABLE 7: SPECIAL STATUS SPECIES IN THE VICINITY OF CURECANTI NATIONAL RECREATION AREA .	93
TABLE 8: ANNUAL VISITATION AT CURECANTI NATIONAL RECREATION AREA, 1996–2005	102
TABLE 9: POPULATION ESTIMATES.....	115
TABLE 10: RESERVED SUB- SURFACE INTERESTS	118
TABLE 11: WESTERN AREA POWER ADMINISTRATION FACILITIES	128
TABLE 12: PROBABILITY OF DEVELOPMENT BY LAND UNIT	135
TABLE 13: BIG GAME HABITATS – NO- ACTION ALTERNATIVE	147
TABLE 14: BIG GAME HABITATS – PROPOSED ACTION	150
TABLE 15: BUREAU OF LAND MANAGEMENT GRAZING ALLOTMENTS WITHIN THE CURRENT AND PROPOSED NATIONAL RECREATION AREA	205
TABLE 16: NATIONAL RECREATION AREAS THROUGHOUT THE UNITED STATES....	298

LIST OF ACRONYMS

ACEC	Area of Critical Environmental Concern
BLCA	Black Canyon of the Gunnison National Park
BLM	Bureau of Land Management
BMPs	Best Management Practices
BP	Before Present
CACS	Gunnison County's Curecanti Area Conservation Study
CDH	Colorado Division of Housing
CDOLA	Colorado Department of Local Affairs
CDOT	Colorado Department of Transportation
CDOW	Colorado Division of Wildlife
CDPHE	Colorado Department of Public Health and Environment
CE	Conservation Easement
CEQ	Council on Environmental Quality
CNHP	Colorado Natural Heritage Program
CNPS	Colorado Native Plant Society
CO 92	Colorado Highway Route 92
CO 149	Colorado Highway Route 149
COA	Conservation Opportunity Area
CORPS	U.S. Army Corps of Engineers
CPCESU	Colorado Plateau Cooperative Ecosystems Studies Unit
CRCT	Colorado River Cutthroat Trout
CREDA	Colorado River Energy Distributors Association
CRSP	Colorado River Storage Project
CSFS	Colorado State Forest Service
D&RG	Denver and Rio Grande Railroad
D&RGW	Denver and Rio Grande Western Railroad
DOI	Department of the Interior
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FHWA	Federal Highway Administration
FTE	Full-Time Employee
FY	Fiscal Year
GIS	Geographic Information System
GMP	General Management Plan
GMUG	Grand Mesa, Uncompahgre, and Gunnison National Forests
GPRA	Government Performance and Review Act
IP	Implementation Plan
IRC	Internal Revenue Code
JAME	Joint Agency Management Effort

ACRONYMS

LARS	Land Acquisition Ranking System
LCS	List of Classified Structures
LLC	Limited Liability Corporation
LPP	Land Protection Plan
LUR	Land Use Regulation
LWCF	Land and Water Conservation Fund
MGM	Money Generation Model
MIS	Management Indicator Species
MOA	Memorandum of Agreement
MWAC	Midwest Archeological Center
NAGPRA	Native American Graves Protection and Repatriation Act
NDIS	Natural Diversity Information Source
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMPM	New Mexico Principal Meridian
NOI	Notice of Intent
NPS	National Park Service
NRA	National Recreation Area
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
ONPS	Operation of the National Park Service
PBR	Preliminary Boundary Recommendation
PILT	Payment in Lieu of Taxes
Reclamation	Bureau of Reclamation
ROW	Right-of-Way or Rights-of-Way
RPS	Resource Protection Study
RTCAP	Rivers, Trails, and Conservation Assistance Program
SGA	Special Geographic Area
SWA	State Wildlife Area
TPI	Total Personal Income
TPL	Trust for Public Land
UCRSP	Upper Colorado River Storage Project
U.S. 50	U.S. Highway Route 50
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UVWUA	Uncompahgre Valley Water Users Association
Western	Western Area Power Administration
WPRS	Water and Power Resources Service

Chapter 1: Purpose of and Need for Action



PURPOSE OF AND NEED FOR ACTION

INTRODUCTION, AND BRIEF DESCRIPTION OF CURECANTI NATIONAL RECREATION AREA

The area administered as Curecanti National Recreation Area (NRA) is located in Gunnison and Montrose Counties in southwestern Colorado along the Gunnison River, as shown on the Regional Overview map. It is approximately 40 miles long from east to west, and is comprised of 41,790 acres of federal lands and waters. The NRA provides recreational opportunities in a spectacular geological setting, amidst a variety of natural, cultural, and scenic resources.

Today, primary visitor access to the NRA is via US Highway 50, which transects the NRA in a general east-west orientation. The nearest major towns are Gunnison, located on US 50 about five miles east of the NRA; and Montrose, west of the NRA, located on US 50 about twenty miles from the Cimarron visitor center. The NRA can also be accessed via Colorado State Highway 92, which enters from the northwest and continues along the northern edge of the NRA, until it terminates at US 50 near Blue Mesa Dam; and via Colorado State Highway 149, which enters from the southeast, ending at US 50, on the east side of Blue Mesa Reservoir. These roads are shown on all fold-out maps.

In addition to the three major highways entering the NRA, there is a network of Bureau of Reclamation (Reclamation), National Park Service (NPS), Bureau of Land Management (BLM), US Forest Service (USFS), and county roads within and/or surrounding the NRA, most of which are open to public use. This highway and road system serves regional and local traffic. In addition, utility access roads exist for the primary purpose of serving Western Area Power Administration's (Western) system of electric transmission lines. Also, some access to private property occurs on private roads and drives

that preexisted the NRA (i.e., grandfathered use), or that have since been permitted by the administering federal agency.

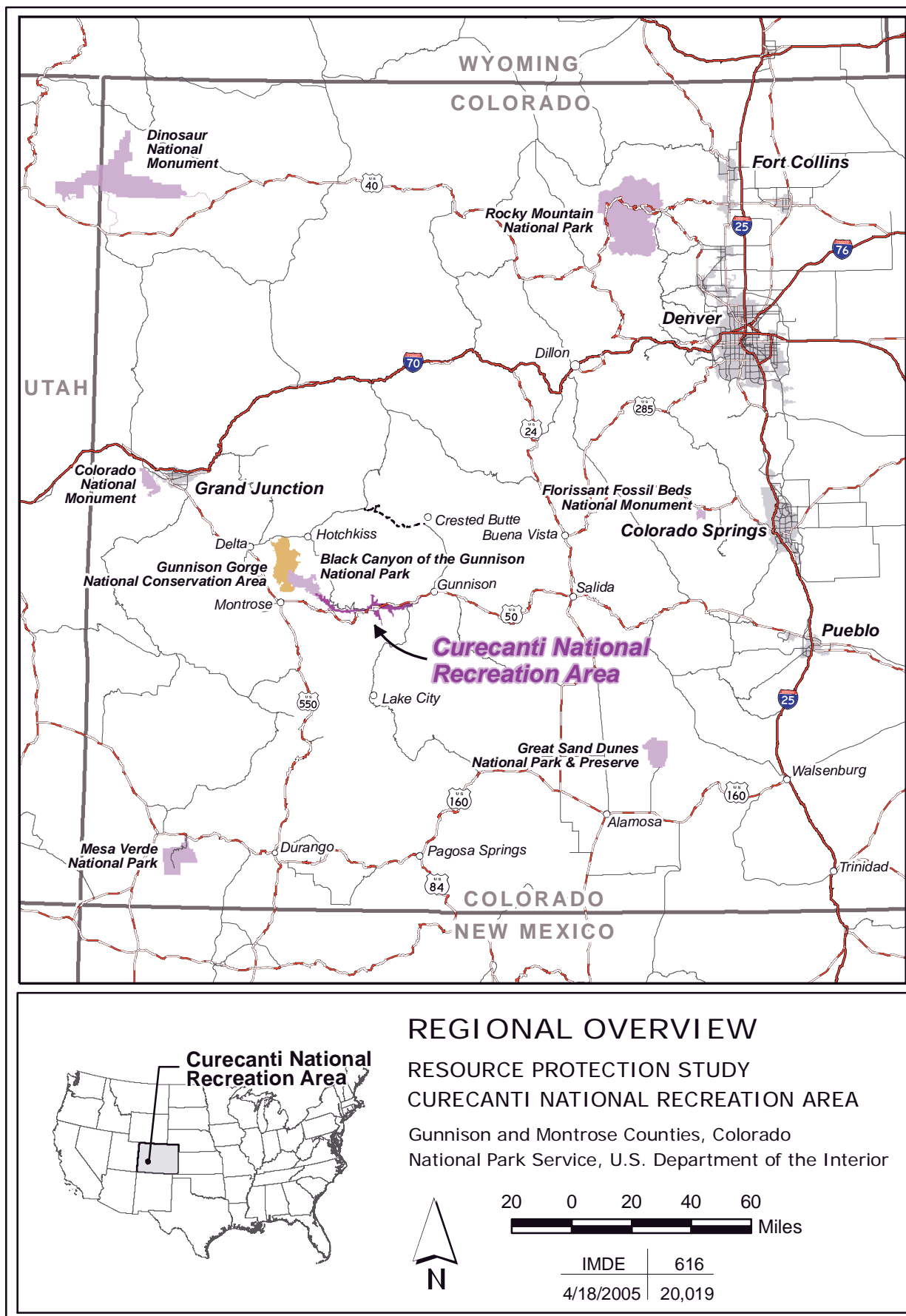
CO 92 and US 50 (east of CO 92 intersection) are part of the West Elk Loop, designated by the Colorado Department of Transportation (CDOT) as a state scenic and historic byway. The scenic byway program is a collaborative effort to help recognize, preserve, and enhance selected roads throughout the United States, due to their scenic and/or historic values.

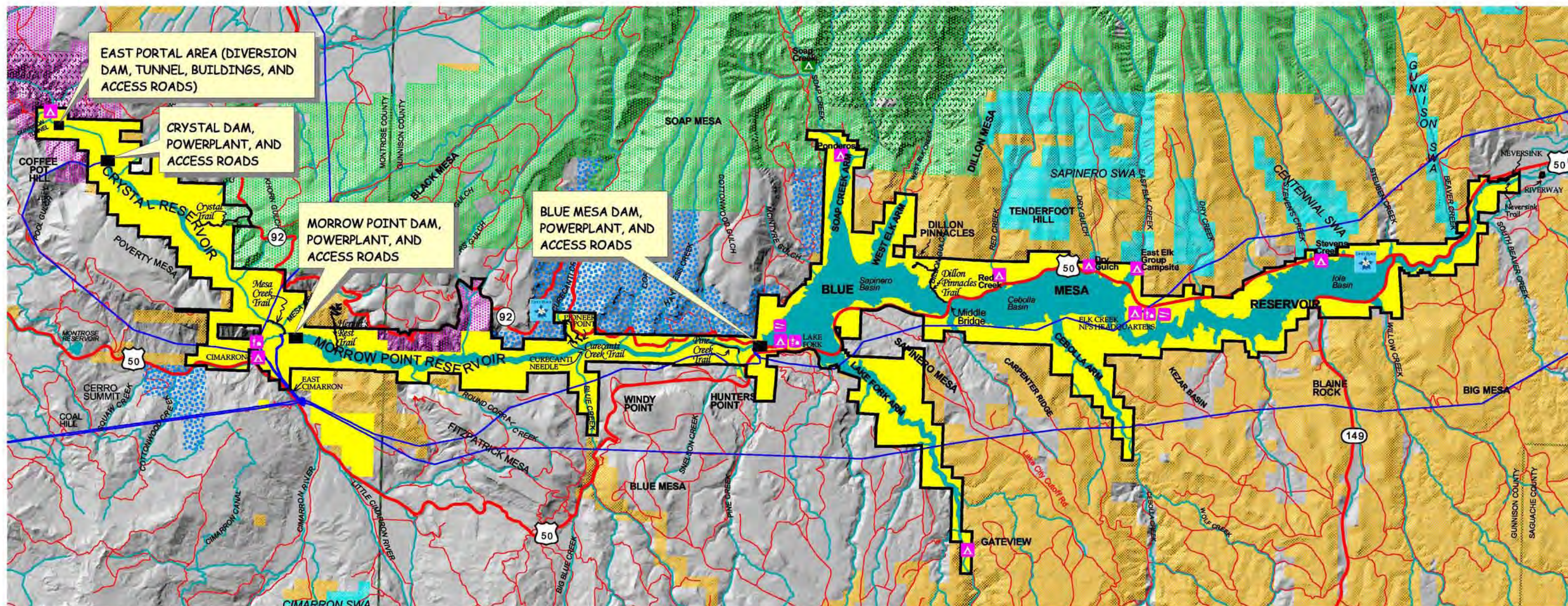
There are no active railroads present within or adjacent to the NRA. However, the Denver and Rio Grande Railroad historically provided both freight and passenger service between Gunnison and Montrose, as well as between Sapinero and Lake City. Both narrow-gauge lines began service in the 1880's. The Lake City line was abandoned in the mid-1930s, while the Gunnison-to-Montrose line was abandoned in the late 1940s.



Soap Creek arm of Blue Mesa Reservoir is representative of the spectacular geological setting of Curecanti NRA for land- and water-based recreation

Curecanti NRA includes three reservoirs, named for corresponding dams on the Gunnison River: Blue Mesa Dam and Reservoir; Morrow Point Dam and Reservoir; and Crystal Dam and Reservoir, as shown on the Existing Conditions map. These three dams and reservoirs make up the Wayne N. Aspinall Storage Unit (Aspinall Unit), named after the Colorado congressman instrumental in implementing the project. The Aspinall unit is one of the four main units of the Colorado River Storage Project (CRSP) that was authorized by Congress in 1956. The other





- Lands and Waters Included Within Curecanti National Recreation Area (41,790 acres)
- Bureau of Reclamation Dam or Facility
- Existing Wilderness Area
- Private Land under Conservation Easement
- Western Area Power Administration Facility and Transmission Lines
- Highway
- Road
- Trail
- Stream
- West Elk Loop Scenic and Historic Byway

- NPS Visitor Center
- NPS Campground
- NPS Marina
- U.S. Forest Service Campground

EXISTING LAND STATUS

- Bureau of Land Management
- Bureau of Reclamation
- Colorado Division of Wildlife (State Wildlife Area [SWA])
- National Park Service
- U.S. Forest Service
- Private

EXISTING CONDITIONS

**RESOURCE PROTECTION STUDY
CURECANTI NATIONAL RECREATION AREA**

Gunnison and Montrose Counties, Colorado

National Park Service
U.S. Department of the Interior



IMDE 616
11/28/2006 20,020

NPS Disclaimer information: Property boundaries shown on this map are intended for study purposes only, and are not intended to be definitive regarding land ownership. County and agency land records will be used to verify ownership and definitively locate property lines and boundaries.



large dams in this project include Navajo Dam in New Mexico, Flaming Gorge Dam in Utah, and Glen Canyon Dam in Arizona. A primary purpose of this project is to provide storage of water for beneficial consumptive use by the Upper Colorado River Basin states of Colorado, Wyoming, New Mexico and Utah.

The CRSP Act provides for public recreational facilities, and fish and wildlife propagation facilities in connection with the CRSP. Section 8 of the Act states, “In connection with the development of the Colorado River storage project and the participating projects, the Secretary [of the Interior] is authorized and directed to investigate, plan, construct, operate, and maintain (1) public recreational facilities on lands withdrawn or acquired for the development of said project or of said participating projects, to conserve the scenery, the natural, historic, and archeologic objects, and the wildlife on said lands, and to provide for public use and enjoyment of the same and of the water areas created by these projects by such means as are consistent with the primary purposes of said projects; and (2) facilities to mitigate losses of, and improve conditions for, the propagation of fish and wildlife. The Secretary of the Interior is authorized to acquire lands and to withdraw public lands from entry or other disposition under the public land laws necessary for the construction, operation, and maintenance of the facilities herein provided, and to dispose of them to Federal, State, and local governmental agencies by lease, transfer, exchange, or conveyance upon such terms and conditions as will best promote their development and operation in the public interest. All costs incurred pursuant to this section shall be nonreimbursable and nonreturnable” (70 Stat. 110; 43 U.S.C. § 620(g)).

In 1958, the Bureau of Reclamation (Reclamation) and the National Park Service (NPS) jointly made a request to the Secretary of the Interior for NPS to be given the responsibility for carrying out Section 8, “except, of course, as it relates to provision number (2) concerning fish and wildlife.” The Secretary of the Interior, Fred A. Seaton, approved the request. (Memorandum dated

February 17, 1958, from Conrad L. Wirth, Director, NPS, to Secretary of the Interior; Subject: Designation of Responsibility for Carrying Out the Provisions of Section 8, Public Law 485, Colorado River Storage Project and Participating Projects; concurred by Alfred R. Golze, Commissioner of Reclamation, on March 12, 1958; approved by Fred A. Seaton, Secretary of the Interior, on April 21, 1958.)

In 1965, pursuant to the Secretary’s delegation, congressional authority at 16 U.S.C. § 171-2(b), and a Memorandum of Agreement (MOA) with Reclamation, NPS began managing recreation and certain other resources within the NRA. Under the MOA, Reclamation has overall responsibility for the Aspinall Unit, including operating and maintaining the dams, reservoirs, associated power plants, and related facilities. Since 1977, Western Area Power Administration (Western) has operated and maintained the power transmission system and has marketed the power generated at the Aspinall Unit. NPS manages the natural and cultural resources, recreational opportunities, and associated facilities on and adjacent to the reservoirs within the NRA.

Pursuant to the CRSP and the MOA, the area became known as Curecanti National Recreation Area. The existing NRA has a federal government boundary around it, most of which is Reclamation land that was withdrawn or acquired for project purposes, but some of which is recently acquired NPS land. The NRA has not been officially designated by Congress as a National Recreation Area, although it is recognized as such in federal legislation pertaining to it. Thus, the NRA has no legislated boundary. For this reason, throughout this document, the term “boundary,” when used in reference to the existing NRA, should be interpreted as an informal descriptor, and not as an official line authorized by Congress. Lands which comprise the current NRA are shown on the Existing Conditions map.

In 1978, Reclamation lands in the East Portal area were added to the NRA, whereas NPS agreed to manage said lands

pursuant to the 1965 MOA. This addition, as part of the Uncompahgre Project, is subject to Federal Reclamation laws (Act of June 17, 1902, 32 Stat. 388, and Acts amendatory thereof or supplementary thereto), but not the CRSP Act of 1956. The Crystal Dam Access Road, however, which runs through the area, is covered under the CRSP Act of 1956, since it replaced the prior East Portal access road as part of the Crystal Dam construction. Recreational use and fish and wildlife enhancement of non-CRSP lands are covered by Public Law 89-72, as amended by Title XXVIII of Public Law 106-575.

PURPOSE OF THE STUDY

This Curecanti NRA Resource Protection Study/Environmental Impact Statement (RPS/EIS) is being conducted in response to Section 11 of the Black Canyon of the Gunnison National Park and Gunnison Gorge National Conservation Area Act of 1999 (Public Law 106-76). Key sections of that legislation appear in Appendix C. Section 11 states that the Secretary of the Interior, acting through the Director of the National Park Service, shall conduct a study concerning land protection and open space within and adjacent to the area administered as the Curecanti National Recreation Area. More specifically, Section 11 states that the purpose of the study is to:

- Assess the natural, cultural, recreational, and scenic resource value and character of the land within and surrounding Curecanti NRA (including open vistas, wildlife habitat, and other public benefits);
- Identify practicable alternatives that protect the resource value and character of the land within and surrounding the Curecanti National Recreation Area;
- Recommend a variety of economically feasible and viable tools to achieve the purposes described in paragraphs (1) and (2); and

- Estimate the costs of implementing the approaches recommended by the study.

In essence, as described in more detail later in this document, one of the main purposes of the study is to determine whether or not to recommend to Congress that Curecanti be formally established as a National Recreation Area with a legislated boundary.

The Act authorizing this study instructs the Secretary of the Interior to submit a report to Congress that:

- Contains the findings of the study;
- Makes recommendations to Congress with respect to the findings of the study; and
- Makes recommendations to Congress regarding action that may be taken with respect to the land described in the report.

As a component of the RPS, an environmental impact statement (EIS) is being prepared by NPS, with Reclamation as a cooperating agency. The required report to Congress, or Report, will be sent to Congress after the EIS process, including the Record of Decision, is completed. The Report will be coauthored by NPS and Reclamation. NPS, as the lead agency, will then submit the Report to the Secretary of the Interior, who will in turn submit it to Congress. The Report will summarize the study's findings and make recommendations. Implementation of those recommendations will then depend on congressional action. The Final RPS/EIS and the Record of Decision will accompany the Report as attachments thereto. If the Record of Decision finds that Congress should pass new legislation for the NRA, the Report will identify issues to be addressed in that new legislation. In other words, the Secretary of the Interior will make the recommendation to Congress, based on recommendations developed by NPS and Reclamation.

In evaluating the congressional requirements and as a result of the public process, NPS has summarized some important considerations relating to this study.

First, what this study is about:

- *Finding ways that will allow NPS to work more effectively in partnership with neighboring private landowners and others to conserve the natural, cultural, recreational, and scenic resources and character of the land within and surrounding the Curecanti NRA.*
- *Formal establishment of Curecanti as a congressionally legislated National Recreation Area for permanence of resource conservation and public recreation.*

And second, what this study is not about:

- *Making recommendations pertaining to water rights. It was the intent of the “Black Canyon of the Gunnison National Park and Gunnison National Conservation Area Act of 1999,” hence the intent of this Resource Protection Study authorized by Section II of that act, that it not create an express or implied reservation of water for any purpose; that nothing affect any water rights in existence, including any water rights held by the United States; and that any new water rights be established in accordance with the procedural and substantive requirements of the laws of the State of Colorado. Thus, water rights is a legal issue, and will not be addressed in this study, other than to state that water rights would be specifically addressed as a condition of any future sale and/or exchange of property that may occur pursuant to the recommendations of this study.*
- *Operations of Reclamation projects.*
- *Infringing on the rights of landowners.*
- *Making any recommendation that would use condemnation or other tools not in partnership and cooperation with private landowners.*

NEED FOR THE STUDY

Many issues and concerns resulted in the need for the RPS/EIS. Although a 1997 General Management Plan (GMP) was prepared for the NRA (NPS 1997), it focused on management of resources within the NRA and did not evaluate resource values in areas surrounding Curecanti, which is now the requirement of the legislative mandate for this study.

Beginning in the early 1900s and into the late 1960s, Reclamation withdrew public lands along the Gunnison River for several proposed or potential Reclamation projects. During this time period, additional withdrawals were made

along the river for potential power-generation sites. These withdrawals closed these lands to entry under the U.S. mining laws and various disposition laws in order to keep them available for reclamation and power purposes.

After the Curecanti (now Aspinall) Unit was authorized for construction in 1956, Reclamation began acquiring private lands necessary for the construction, operation, and maintenance of the Aspinall Unit. Additional lands and land interests in the vicinity of the Aspinall Unit were subsequently also withdrawn or acquired to mitigate the loss of wildlife habitat and stream fisheries resulting from construction of the Unit. With the

exception of those mitigation lands, the lands considered necessary for Reclamation projects were withdrawn or acquired for general Reclamation project purposes. However, during this process of land withdrawal and acquisition, little or no consideration was given to the potential for expanding land-based recreational opportunities that might be associated with an emerging NRA. This study now provides the platform for that consideration.

Over the past 50 years, it has become apparent that natural, cultural, recreational, and scenic resources beyond the current NRA should be evaluated for conservation and possible inclusion within a legislated boundary for Curecanti NRA. Many of these resources have the potential to provide enhanced recreational opportunities for the visitor. Scenic resources surrounding the current NRA are contributing factors to visitor enjoyment.

Development on private lands surrounding the NRA is on the increase. Local and regional concerns exist regarding the potential for sprawling development related to primary and secondary homes, particularly given the ongoing population growth and increase in assessed land values in many mountain communities. Compared to other mountain communities, particularly in the vicinity of NPS areas and ski resort communities, the area surrounding Curecanti has seen only minimal development. However, if additional development occurs near Curecanti without concern for the cumulative impacts to natural and cultural resources and to the magnificent natural vistas that contribute so much to the attractiveness of this area, the national significance of the NRA could be diminished.

Because of the presence of three reservoirs within the recreation area, and because the NRA included relatively little upland beyond the shores of the three reservoirs, the NRA's focus has been primarily on the provision of water-based recreation opportunities. However, surrounding the NRA, opportunities exist for land-based recreation to a greater extent than already provided within the NRA. Some of those opportunities can be found on land already administered by other

government agencies, including the Bureau of Land Management (BLM), Colorado Division of Wildlife (CDOW), and the U.S. Forest Service (USFS). Potential opportunities exist on private land surrounding the NRA. There is a need to evaluate these existing and potential recreation and interpretive opportunities that would contribute to the NRA's purpose and that would provide visitors to the NRA with a more diverse experience, adding to their understanding, appreciation, and enjoyment of area resources. One of the goals of this study is to consult with neighboring agencies to determine if some of these opportunities are appropriate to include within an expanded NRA; and to provide an avenue for the National Park Service to work cooperatively with private landowners to realize this potential.

In addition to the above issues, there are a few specific items that this study and its implementation should address. These include: (1) mitigation of boundary issues and inadvertent private encroachment onto the NRA, based on inaccurate or incomplete land surveys (examples exist near Sapinero, Lake Fork Cove, and East Cimarron); and (2) legislative clarification of the responsibilities of NPS in administering certain resources in the NRA. Important decisions must also be made regarding how to conserve lands and resources adjacent to the NRA in cooperation and partnership with landowners, counties, and other federal and state agencies.

FOUNDATION FOR THE STUDY

The management of units within the national park system is guided by agency-wide and unit-specific laws, regulations, and policies; and includes the development of purpose, significance, mission, and goal statements for each NPS unit. At Curecanti NRA, management is also guided by Reclamation laws, regulations, policies, purpose, significance, mission, and goals. Understanding this guidance has been fundamental to conducting the RPS/EIS. Laws, policies, and regulations that guide the management of specific resources within the NRA are listed later in this chapter under

“Impact Topics,” in the Environmental Consequences chapter by impact topic, and in Appendix C. Also included in Appendix C is the 1965 MOA between NPS and Reclamation.

NATIONAL RECREATION AREA SPECIAL MANDATES

In addition to agency-wide laws, regulations, and policies that govern the management of NPS areas, most NPS units have special mandates that must be followed, such as the unit’s enabling legislation, and agreements with other agencies. Because of the manner by which Curecanti NRA was created, and the prior existence on site of the Bureau of Reclamation, the most important special mandate that influences NPS management at the NRA is the recognition of, and adherence to, Reclamation’s own agency-wide and project-specific mandates.

In general, Reclamation’s mission is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. (A more detailed description of Reclamation Project Purpose, Significance, Mission, and Goals, appears later in this chapter, under the subheading of “Reclamation Special Mandates.”). To accomplish that mission, Reclamation must have administrative jurisdiction of its lands, land interests, water and water interests, and facilities necessary to fulfill and protect the authorized purposes of its respective projects. Other users and uses may be allowed on Reclamation-administered lands as long as they are compatible or consistent with a project’s primary purposes or the purpose for which Reclamation obtained the lands or land interests.

Most of the lands within the current NRA, and some adjacent lands, consist of public lands that Reclamation has withdrawn from other uses, and private lands acquired by Reclamation, all for the operation and management of the Aspinall Unit of the CRSP and the Uncompahgre Project. These lands and facilities are shown on the Existing

Conditions map. NPS manages recreation and certain other resources on Reclamation lands and land interests shown within the NRA in accordance with the 1965 Memorandum of Agreement between Reclamation and NPS.

NRA PURPOSE

The NRA purpose statement is the most fundamental criterion against which the appropriateness of all the study’s recommendations is tested. Although Curecanti NRA is not officially designated by Congress as a National Recreation Area, the basic purpose of the area is interpreted from the 1965 Memorandum of Agreement between NPS and Reclamation, as well as from Section 8 of the CRSP Act and P.L. 89-72, as amended. Confirmed in the 1997 General Management Plan for the NRA, the purpose of Curecanti NRA is:

- To conserve the scenery, natural and cultural resources, and wildlife of Curecanti NRA
- To manage the lands, waters, fish and wildlife, and recreational activities of Curecanti NRA by means that are consistent with Reclamation law, as amended and supplemented, including the purposes of the CRSP Act and the Uncompahgre Project, and Reclamation agreements affecting the operation of the Aspinall Unit and the Uncompahgre Project
- To provide for public understanding, use, and enjoyment in such a way as to ensure resource conservation and visitor safety by establishing and maintaining facilities and providing protective and interpretive services.

NRA SIGNIFICANCE

Significance statements capture the essence of a NPS unit’s importance to the nation’s natural and cultural heritage, and recognize the importance of the unique recreational and scenic resources in the area. Understanding

significance will help decision-makers determine those lands adjacent to Curecanti NRA that will provide significant resources and opportunities for public understanding and enjoyment, and that will help conserve area resources critical to fulfilling the unit's purpose.

- Water resources, including three reservoirs that provide a variety of recreational opportunities in a spectacular geological setting

The element of water has created majestic landforms at Curecanti, provided for the evolution of life since prehistoric times, and now provides a variety of recreational opportunities. Three dams unique in concept and construction were built between 1962 and 1976 to provide irrigation, flood control, hydroelectric power, and recreation. Thus, three reservoirs were created.

The highest reservoir, Blue Mesa, is the largest in Colorado and one of the largest high-altitude bodies of water in the United States. It provides an exciting diversity of water recreation, in a spectacular geological setting of pinnacles, bluffs, and mesas. The lower two reservoirs, Morrow Point and Crystal, are in the upper reaches of the Black Canyon of the Gunnison – one of the world's premier steep-walled canyons. The remarkably clear water of the three reservoirs provides one of the best cold-water fisheries in Colorado, attracting enthusiasts from throughout the nation and offering a diversity of game fish.

- Geological, paleontological, and other natural resources, including abundant wildlife and fisheries

The rock formations and canyons of Curecanti tell a story of violent volcanic activity, erosion, and geologic change that has occurred over the course of 2 billion years. The scenic resources of the canyons, the needles, the pinnacles,

the cliffs, the mesas, and the reservoirs provide dramatic contrast, offering visitors an opportunity to pause and reflect on the diversity of the landscape and its spaciousness.

Exposures of the Morrison Formation contain fossil evidence of the Mesozoic Era. Dinosaur bones have been found; and there is evidence that musk ox, cave lions, and cheetah roamed Blue Mesa during the ice ages.

Today, Curecanti protects existing and potential breeding habitat for numerous sensitive species, such as the bald eagle and peregrine falcon. The NRA provides critical winter range for elk, deer, and bighorn. Blue Mesa Reservoir is Colorado's largest body of water, and is the largest Kokanee salmon fishery in the United States. Pristine tributaries provide an opportunity to reintroduce and establish breeding populations of native Colorado River cutthroat trout.

- 10,000-year continuum of human culture

The stories of human culture in the Curecanti area are recorded in the traces left by American Indians, miners, railroaders, ranchers, and dam builders. Archeological finds date back to some of the oldest villages found in North America, predating the pyramids. These signs document not only the human struggles to survive, but also how changes in human value systems, economies, society, technology, and the importance of water have shaped the use of the land and the character of its people.

NRA MISSION

The mission of Curecanti NRA is to conserve, protect, and interpret the nationally significant and diverse natural, cultural, and scenic resources of Curecanti, balanced with

the provision of outstanding recreational opportunities, and consistent with the purposes of the CRSP Act and other applicable laws, and to manage the area as a part of the greater riverine ecosystem, coordinating with other land-management agencies.

NRA MISSION GOALS

Mission Goals for Curecanti NRA include the following.

- The natural, cultural, and scenic resources of the NRA are known, and its conditions are assessed. A process is in place to detect changes. High quality scientific, historic, and archeological information is available to guide management actions. Efforts are made to conserve resources beyond NRA boundaries when authorized by Congress and agreed upon by landowners, and through cooperative efforts with neighboring land-management agencies. Management actions, including mitigation, restoration, and maintenance, seek to preserve natural processes, cultural resources, and important scenic resources in perpetuity, while allowing compatible public use.
- The NRA is a leader in providing high quality, safe, diverse, and appropriate recreational opportunities that serve all population groups. Efforts are made to work cooperatively with neighbors (private landowners and government agencies) to provide a seamless recreational experience compatible with resource conservation goals and objectives. NRA staff provides educational opportunities that inform, inspire, and promote stewardship.
- The staff fosters support by encouraging the general public to actively participate in the conservation and use of the NRA and to understand issues through outreach, educational seminars, partnerships, and volunteer experiences.
- The staff strives to increase organizational efficiencies by: facilitating excellent communications among and within divisions; developing and retaining high-quality staff that know and support the NRA mission; supporting and encouraging work across division lines and valuing the work of all employees; and providing incentives to have employees work safely, efficiently, and economically.
- Necessary and appropriate facilities are provided to support NRA operations and visitor needs. Area assets are improved, and a preventative maintenance program is in place to maintain them in good condition.

NRA INTERPRETIVE THEMES

Interpretive themes are the fundamental stories that can be told about area resources, and that can give the visitor a better understanding of the national significance of the NRA. The primary interpretive themes are as follows.

- The rock formations within Curecanti NRA document 1.7 billion years of the geologic processes that have created this landscape, with the Morrison formation providing fossil evidence of some of the region's earliest plant and animal inhabitants.
- The traces, tracks, and artifacts of American Indians, miners, railroaders, explorers, and ranchers preserved in the NRA, document not only the human struggles to survive, but also how changing human value systems, technology, and the importance of water have shaped the use and character of the land and its people.
- The three reservoirs, the semiarid, sagebrush-covered mesas, the Gunnison River, and the steep walls of the Black Canyon, provide a crucial habitat for a diversity of plant species and resident and migratory animal species. The viewsheds, including

the dark night sky of the NRA, are recognized as primary resources; and management actively pursues the preservation of their quality.

- The three reservoirs of the Aspinall Unit, located within Curecanti NRA, embody the major uses of managed water—water storage, flood control, hydroelectric power, and recreation.

RECLAMATION SPECIAL MANDATES

RECLAMATION PROJECT BACKGROUND AND PURPOSE

Facilities, lands, land interests, and water for two constructed and operating Reclamation projects, the Uncompahgre Project and the Aspinall Unit of the CRSP, are present within and immediately adjacent to the NRA. Reclamation law provides for the operation, maintenance, and replacement of project facilities in order to meet Reclamation's mission and its projects' primary purposes. Reclamation law also provides for the use of Reclamation lands and water areas for outdoor recreation, fish and wildlife enhancement, and other resource-related activities, in a manner that is consistent, or compatible with, primary project purposes. NPS currently administers recreational use and certain other resources on Reclamation lands within the NRA pursuant to Reclamation law and a 1965 MOA with Reclamation.

Most of the lands within the existing NRA, and some of the lands adjacent to but outside of the NRA, are Reclamation lands. These are lands withdrawn or acquired for, and available to, Reclamation and its managing partners, as necessary, for the construction, operation, maintenance, and replacement of facilities for Reclamation projects. Public lands along the Gunnison River were being withdrawn for water and power purposes from the early 1900s up to the late 1960s. Private lands in the area have been acquired for Reclamation purposes from the mid-1900s to the early 2000s.

Reclamation law, including PL 89-72 as amended by Title XXVIII of PL 102-575, allows recreation and other uses on Reclamation project lands and water areas so long as such uses are compatible and coordinated with a project's primary purposes. Another Federal agency may administer Reclamation lands and water areas for recreation, fish and wildlife enhancement, and other resource management, protection, and enhancement, where those lands are included, or proposed for inclusion, in an NRA. Reclamation may enter into agreements for such administration upon such terms and conditions as will best promote the development and operation of such lands or facilities in the public interest for recreation, fish and wildlife enhancement, and resource protection and enhancement purposes while protecting Reclamation interests. NPS currently administers recreational use and certain other resources on Reclamation lands within the NRA. All lands within the NRA that are not Reclamation withdrawn lands are managed by NPS, some under agreement with other agencies.

Uncompahgre Project

The Uncompahgre Project (originally called the Gunnison Project) was authorized by the Secretary of the Interior on March 14, 1903, pursuant to the Reclamation Act of 1902. Construction of the initial project began in 1904 and was completed in 1912. Rehabilitation of the project and construction of the Taylor Park Dam were approved by President Roosevelt on November 6, 1935. Taylor Park Dam was completed in 1937 (PWRS 1981).

Project features include Taylor Park Dam and Reservoir, the Gunnison Tunnel, seven diversion dams, 128 miles of canals, 438 miles of laterals, and 216 miles of drains. Gunnison River water is diverted at East Portal through the Gunnison Tunnel to the Uncompahgre Valley (PWRS 1981). Water from Taylor Park Reservoir passes through the Aspinall Unit to the Gunnison Diversion Dam at East Portal.

The Uncompahgre Project provides about 650,000 acre-feet of water annually from the

Gunnison and Uncompahgre Rivers to the Uncompahgre Valley for agricultural irrigation on about 80,000 acres of land. Annually, over 400,000 acre-feet of project water come from the Gunnison River at East Portal. The 15-year average for agricultural crops from the Uncompahgre Project is \$20 million per year.

The Uncompahgre Valley Water Users Association and the Tri-County Water Conservation District have an exchange agreement whereby up to 20,000 acre-feet of Gunnison River water from the Uncompahgre Project may be exchanged annually for municipal and industrial purposes at Montrose for an equal credit of Uncompahgre River water from Ridgway Reservoir. About 8,500 acre feet are currently being exchanged annually under this agreement.

Aspinall Unit, Colorado River Storage Project

The construction, operation, and maintenance of the Colorado River Storage Project, including the Aspinall Unit (originally the Curecanti Unit), was authorized by the CRSP Act of April 11, 1956 (P.L. 84-485). Section 1 of that act states that the CRSP was for “. . . the purposes, among others, of regulating the flow of the Colorado River, storing water for beneficial consumptive use, making it possible for the States of the Upper Basin to utilize, consistently with the provisions of the Colorado River Compact, the apportionments made to, and among them, in the Colorado River Basin Compact and the Upper Colorado River Basin Compact, respectively, providing for the reclamation of arid and semiarid land, for the control of floods, and for the generation of hydroelectric power, as an incident to the foregoing purposes . . .”

Section 8 of the CRSP Act of 1956 provides the authority and some direction for public recreational facilities and fish and wildlife propagation facilities in connection with the CRSP. The provisions of Section 8 are described in the opening section of this chapter on Introduction, and Brief Description of Curecanti National Recreation Area.

Construction of the Aspinall Unit commenced in 1962 with the start of Blue Mesa Dam,

which was completed in 1966. Morrow Point Dam was begun in 1963 and completed in 1968. Power generation began at Blue Mesa in September 1967 and at Morrow Point in December 1970. Construction on Crystal Dam began in 1973 and was completed in 1976. Crystal began power generation in July 1978.

Recreational opportunities on Reclamation lands within and adjacent to the NRA include, but are not necessarily limited to, camping, boating, stream and reservoir fishing, hunting, picnicking, hiking, sightseeing, and wildlife viewing. Recreation development for the Aspinall Unit was included in the initial planning for the unit. Initial development on Blue Mesa Reservoir included facilities at the Iola site, the Elk Creek site, and the Lake Fork site. NPS has subsequently constructed additional recreational sites at East Portal; at various points along US Highway 50 and State Highway 92; at Cimarron; in the Neversink area; at Gateview, Soap Creek, and other locations on the arms of Blue Mesa Reservoir; and at other various points along the Gunnison River and Crystal and Morrow Point Reservoirs. Additional opportunities for recreation within the Gunnison Basin are provided by lands and land interests acquired by Reclamation for wildlife and stream-fishing mitigation related to the Aspinall Unit, and which were transferred to, and are managed for, such purposes by other agencies.

Reclamation has several agreements and contracts which tie Aspinall Unit water rights and management to other water uses in the Colorado River Basin. In addition to the various treaties and river compacts previously mentioned, Reclamation has a subordination agreement whereby 60,000 acre-feet of Aspinall water rights are available for beneficial consumptive use in the Gunnison Basin upstream from Crystal Dam. Also, Reclamation has sold 500 acre feet of Aspinall Unit water to the Upper Gunnison Basin Water Conservancy District for its use.

RECLAMATION PROJECT SIGNIFICANCE

- The Aspinall Unit and the Uncompahgre Project play important roles in meeting local, regional, national, and international water allocation and management needs and requirements within the Colorado River basin. The CRSP provides water for the beneficial consumptive use of Upper Colorado River Basin states, while helping manage waters of the Colorado River Basin to meet the terms and conditions of a treaty between the United States and Mexico and several interstate Colorado River compacts. The Uncompahgre Project provides water for the reclamation of about 80,000 acres of arid and semiarid lands in the Uncompahgre Valley, with a current annual crop value of about \$20 million.
- The Aspinall Unit, as part of the CRSP, helps regulate the flow of the Colorado River; stores water for the beneficial consumptive use by the Upper Basin states of their various Colorado River-compact water apportionments; reclaims arid and semiarid land; helps control floods; and generates hydroelectric power.
- The Aspinall Unit reservoirs are a very valuable hydroelectric generation asset for the western United States. CRSP generating units are scheduled to follow customer load-requirements, including peak-demand periods, as closely as possible, utilizing available generation capacity and water within environmental restrictions. Glen Canyon, the largest CRSP-generating resource, is scheduled to follow peak demands, but often cannot quickly follow peaking schedules due to environmental ramping restrictions. The Aspinall Unit generation units, particularly Morrow Point and Blue Mesa, are scheduled to skim the peak off whatever Glen Canyon is unable to follow. This peak generation ability flattens energy purchases and saves Western and CRSP customers millions of dollars annually. While releases from Morrow Point and Blue Mesa fluctuate to meet peak-load demands, Crystal Dam and power plant operate to stabilize Gunnison River flows to benefit the downstream environment, which includes the Black Canyon of the Gunnison National Park.
- Reclamation projects, lands, and water areas within, and adjacent to, the NRA, provide a portion of the agricultural and recreational economic base for Delta, Gunnison, and Montrose counties, and the gateway communities of Montrose and Gunnison.
- Reclamation lands and water areas were the initial basis for the NRA, and they provide a large majority of the basis for both the current and proposed NRAs.
- Reclamation lands and water areas within and adjacent to the NRA provide many opportunities for outdoor recreation. These opportunities include, but are not necessarily limited to, fishing, boating, hunting, wildlife watching, hiking, camping, horseback riding, historic and cultural interpretation, cross-country skiing, wildlife viewing, and sightseeing.
- Reclamation land and water areas within and adjacent to the current NRA provide many opportunities for fish and wildlife enhancement. The reservoirs and river segments in the NRA provide a significant cold water fishery. Undeveloped lands provide year-round and/or seasonal habitat for numerous wildlife species, including the Gunnison Sage-grouse, Gunnison's prairie dog, elk, mule deer, big horn sheep, bald eagle, peregrine falcon, to name a few. Also, some of the nearby CDOW lands are lands acquired by Reclamation and transferred to CDOW as part of the wildlife mitigation for the Aspinall Unit.

RECLAMATION MISSION

Reclamation's mission is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

RECLAMATION GOALS

- Withdraw, acquire, and retain sufficient lands and land interests to meet authorized and planned purposes of the respective Reclamation projects, and to effectively construct, operate, maintain, replace, and enhance (if, and when, necessary) those projects, as well as the purposes for which the lands were acquired.
- Retain administrative jurisdiction over all Reclamation facilities, lands, and land interests to accomplish its mission and to construct, operate, maintain, replace, and protect project facilities, purposes, resources, and operations.
- Retain Reclamation facilities, lands, and land interests, and the ability to use same for project purposes until such time as Reclamation determines such facilities, lands, and land interests are no longer necessary for project purposes. Then Reclamation may dispose of or transfer such lands or land interests in a manner best suited to a given parcel or facility.
- Provide for public recreation facilities to conserve the scenery, the natural, historic, and archeologic objects, and the wildlife on Reclamation lands and to provide for the public enjoyment of said lands and water areas created by Reclamation projects by such means as are consistent with the primary purposes of said projects. The provision for such facilities, conservation, and uses are generally made through a management agreement with another Federal, State, or local agency.
- Manage and operate CRSP dams, reservoirs, and power plants to meet project purposes, and international, national, regional, and local needs and requirements for water apportionments and management, including water quantity and hydroelectric power generation.
- To the fullest extent possible, keep the administrative jurisdiction for recreation and other resource management on a contiguous block of Reclamation lands with one agency.
- Coordinate the use and management of Reclamation lands, land interests, water and water interests, facilities, and associated resources with its managing partners, adjacent land-management agencies, and local entities through up-to-date management agreements and periodic coordination meetings.

STUDY PROCESS

The RPS/EIS was initiated during the spring of 2000 to begin to fulfill the requirements of Public Law 106-76. Important steps in the study process included data collection and analysis; determination of the study area; alternatives development, including resource conservation and management tools and the estimated costs of implementing the study recommendations; and impact analysis.

PUBLIC AND AGENCY INVOLVEMENT

The Curecanti RPS/EIS officially began on May 3, 2000, when a Notice of Intent (NOI) to prepare an EIS for the RPS appeared in the Federal Register. Throughout the study, NPS has conducted public and agency scoping meetings, produced three newsletters, made information available on the NRA's website, and held many meetings and workshops with agencies, American Indian Tribes, private landowners and other stakeholders, elected officials, and the

general public to address the requirements of the legislative mandate to complete the RPS/EIS. Following is a brief summary of these activities since the project began. A more complete summary is included in the Consultation and Coordination chapter.

- Public and agency scoping – spring 2000
- Citizens' photo assessment – fall 2000
- Study team and agency work sessions – fall 2000 through spring 2001
- Publication of three newsletters with invitations to comment – spring 2001 through fall 2003
- Recreational Opportunities Workshop – winter 2002
- Joint Agency Management Effort (JAME) – formerly known as Joint Agency Management Area (JAMA) – spring 2002 to present
- Publication of Toolbox of Incentives for Resource Conservation and Curecanti: Great Scenery, Outstanding Resources and Good Neighbors – spring 2003
- Meetings and contacts with neighboring landowners – spring 2003 to present
- Development of preliminary alternatives – summer 2003
- Impacts assessed, alternatives evaluated, and proposed action identified, in consultation with staff and neighboring agencies – fall 2003.

NPS has met with local, state, tribal, and federal agencies and officials, including elected representatives, to keep them informed of the study's progress and to obtain their input and guidance throughout this process.

DATA COLLECTION AND ANALYSIS

“Assess the natural, cultural, recreational and scenic resource value and character of the land within and surrounding Curecanti NRA (including open vistas, wildlife habitat, and other public benefits)”

Public Law 106-76

A data-gathering and analysis process was initiated to “assess the natural, cultural, recreational and scenic resource value and character of the land within and surrounding Curecanti NRA (including open vistas, wildlife habitat, and other public benefits)” as required by Public Law 106-76. A complete description of these resources appears in the Affected Environment chapter.

Data were collected from local, state, and federal agencies and groups with land stewardship responsibilities on lands surrounding Curecanti NRA, or generated by staff through computer modeling and public workshops. Over 25 categories of data were considered during the course of the study:

1. Access Issues
2. Archeological/Historical (Cultural) Sites
3. Areas of Critical Environmental Concern
4. Boundary/Survey Markers
5. Cottonwood Regeneration/Heron Rookery
6. Cultural Landscapes
7. Development within Study Area, but Outside the NRA
8. Fisheries, Including Sensitive Species
9. Floodplains/Wetlands/Riparian/Springs
10. General Development/Existing Conditions within the NRA
11. Geology and Geological Hazards
12. Grazing Allotments

13. Hazardous Materials
14. Hunting – Restricted Areas
15. Logging/Woodcutting
16. Minerals/Oil and Gas
17. Ownership/Land Status/Withdrawn Lands/Conservation Easements
18. Paleontological Sites
19. Reclamation Facilities
20. Recreational Opportunity Areas
21. Sensitive Species
22. Soils, Including Prime and Unique Farmlands, and Lands of Statewide Importance
23. Unique Geological Features
24. Vegetation
25. Viewsheds
26. Watersheds and Water Quality
27. Wildlife Habitat.

Natural and Cultural Resources Data

Natural and cultural resources data were readily available from local, state, and federal agencies and other groups. In addition to descriptions of these resources in the Affected Environment chapter of this document, maps of the resources are available at the NRA for inspection.

Recreational Resources Data

Public comments on recreational opportunities were solicited via newsletters; and public and NRA staff workshops were conducted during the course of the study to determine what recreational opportunities were available locally, which existing and potentially new opportunities would be compatible with NRA purposes, and where new opportunities could be developed. Recreational opportunities were categorized into the following categories: appropriate, maybe appropriate, not appropriate, and other. Determination of appropriate recreational activities was influenced by the NRA's purpose, significance, and mission (identified earlier in this chapter);

and by chapter 8 in NPS Management Policies 2006 (see excerpts in Appendix C).

In addition, whatever recreational activities are allowed in the NRA, now and in the future, must also conform to Reclamation Law, as amended and supplemented.

Comments from newsletters and workshops that centered on recreational opportunities and locations included the following:

- Preserve the natural, cultural, and scenic resources, while providing for recreation
- Provide for longer and more connecting trails
- Provide trail access to Curecanti Needle
- Provide for more access to and nonmotorized use of Crystal and Morrow Point Reservoirs
- Provide more access for backcountry camping opportunities in the Soap Mesa and Dillon Pinnacles areas
- Provide for more nonmotorized visitor use on the south side of Cebolla and Iola Basins
- Provide for more motorized access to Black Mesa, along with more parking along CO 92
- Keep facilities development to a minimum
- Provide “seamless” recreational opportunities, regardless of which agency manages the land
- Respect private property regarding all proposed actions, especially for public recreational access and use
- The idea of being able to go horseback riding regardless of boundaries is attractive.

Some examples of areas that appear to have strong potential for expanded land-based recreational opportunities include:

- Vicinity of Soap Mesa provides unique opportunities for future upland recreation, including a potential trail to scenic overlooks

- Vicinity of Windy Point offers unique scenic and recreation opportunities, with overlooks into Blue Creek Canyon, Morrow Point Reservoir, the Curecanti Needle, and Chipeta Falls; trail access to these overlooks would provide year-around opportunities for hiking and cross-country skiing
- Sapinero Mesa offers potential opportunities for a hiking trail with scenic overlooks
- Vicinity of the south side of Blue Mesa Reservoir from Cebolla Creek to Willow Creek for hiking and nonmotorized biking, fishing access, and hang gliding (Willow Creek area only)
- Vicinity of Curecanti Creek below CO 92 for fishing access
- Vicinity between the Lake City Bridge and Riverway to provide a future hiking and nonmotorized biking trail linkage to the City of Gunnison
- In general, opportunities for longer and more connecting trails throughout the NRA and connections to trails on neighboring agency lands.

Management action for implementing ideas for expanding recreational opportunities in the NRA would be addressed in future planning documents (such as a revised general management plan, commercial services plan, or implementation plan) following congressional action, if any, resulting from recommendations in this study. A more complete discussion of identified recreational, interpretive, and educational opportunities appears in the Affected Environment chapter.

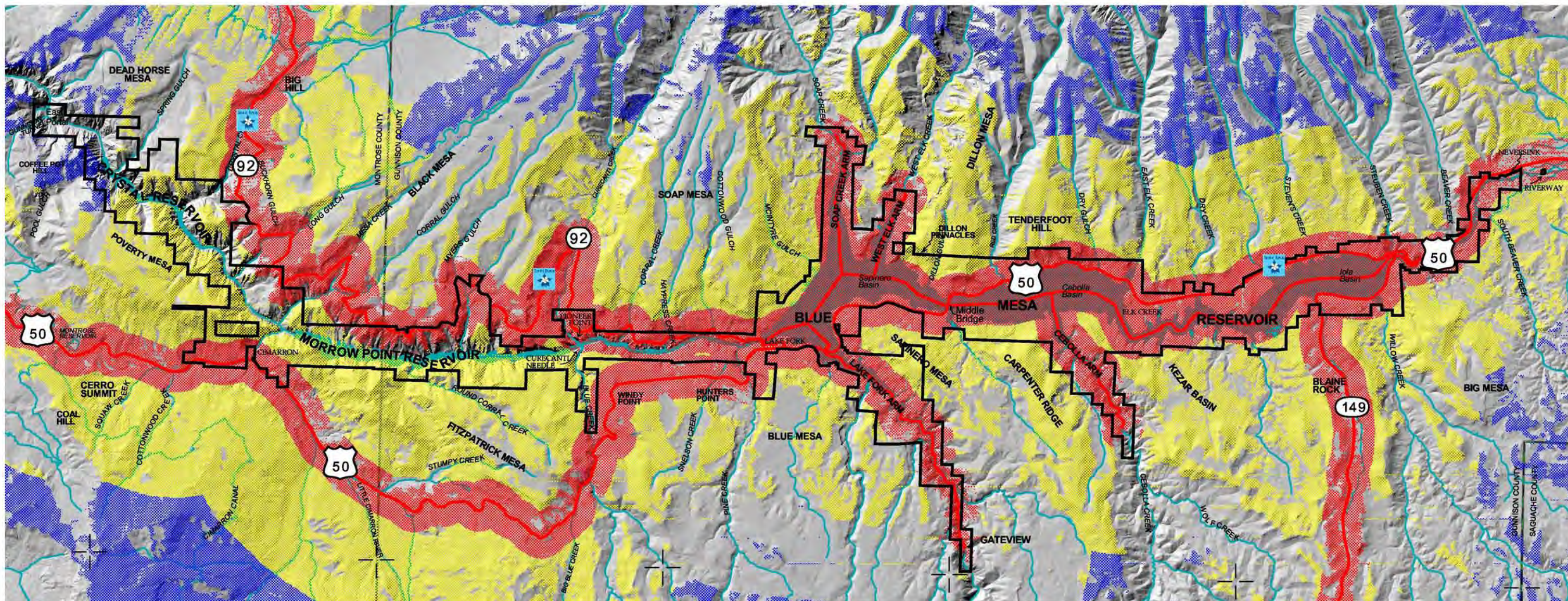
Scenic Resources Data

A computer-generated viewshed was created that shows what can be seen from US Highway 50 (US 50), CO 92, and CO 149, and from the centerline of Blue Mesa Reservoir and its arms (see Computer Generated Viewshed Map). Viewsheds visible within three miles of identified viewpoints were considered most critical to the study.

A photo assessment workshop was conducted with Gunnison- and Montrose-area residents to determine those scenic vistas and other resource attributes that are important to them. This workshop resulted in nearly 300 photographs taken by the workshop participants that illustrated examples of development thought to be appropriate, as well as inappropriate; and natural, cultural, scenic, and recreational resources surrounding the NRA that should be considered for conservation. Photographs were grouped into the following categories.








- *Category 1:* Views considered by respondents as most scenic from the highways around Curecanti, including US 50, CO 92, CO 149, and side roads in the vicinity of Blue Mesa Reservoir - 75 photos (27%)
- *Category 2:* Areas considered by respondents as most appropriate and/or least appropriate for future development - 35 photos (12%)
- *Category 3:* Buildings or other structures considered by respondents as acceptable or unacceptable on the basis of visual intrusion or other factors - 39 photos (14%)
- *Category 4:* Critical resources or areas considered by respondents as important to conserve, such as landforms, vegetation, wetlands, or wildlife habitat - 44 photos (16%)
- *Category 5:* Areas considered by respondents as important to preserve for recreational use - 47 photos (17%)
- *Category 6:* Photos submitted by respondents that they felt best represented Gunnison and Montrose Counties' image in the Curecanti area - 17 photos (6%)
- *Category 7:* Any other issues, areas, or contexts - 24 photos (8%).

Through this photo exercise, citizens identified examples of unique geological, as well as visually attractive, features, and



EXPLANATION OF MAP

This computer generated map shows land areas that can be seen from various locations, or vantage points, within the National Recreation Area. The computer used digital elevation data to determine what can be seen (also known as the "viewshed") from vantage points along the centerline of major highways, Blue Mesa Reservoir, and the reservoir's arms. The area highlighted in red shows the viewshed from vantage points up to 1/2 mile out; the area highlighted in yellow shows the viewshed from 1/2 mile to 3 miles from the vantage points; and the area highlighted in dark blue shows the viewshed from 3 miles out and beyond.

-  Lands and Waters Included Within Curecanti National Recreation Area (41,790 acres)
-  Visible from point of origin up to 1/2 mile
-  Visible from 1/2 mile to 3 miles
-  Visible beyond 3 miles
-  Vantage points from which the viewshed was created, along the center line of US 50, CO 92, and CO 149; and the middle of Blue Mesa Reservoir and its four major arms: Soap Creek, Lake Fork, West Elk, and Cebolla
-  Stream
-  West Elk Loop Scenic and Historic Byway

COMPUTER GENERATED VIEWSHED OF LAND WITHIN AND SURROUNDING CURECANTI

RESOURCE PROTECTION STUDY
CURECANTI NATIONAL RECREATION AREA

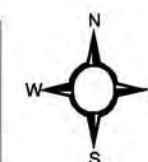
Gunnison and Montrose Counties, Colorado

National Park Service
U.S. Department of the Interior

2 0 2 4 Miles

IMDE 616
11/28/2006 20,022

NPS Disclaimer information: Property boundaries shown on this map are intended for study purposes only, and are not intended to be definitive regarding land ownership. County and agency land records will be used to verify ownership and definitively locate property lines and boundaries.



suggested places within and outside the present NRA that merit conservation. Such sites included the following.

- North side of US 50, between Dry Creek and Red Creek, containing West Elk Breccia rock formation (ancient volcanic mudflow)
- Outcroppings of the Morrison formation, known elsewhere to contain dinosaur fossils
- Soap Creek Cliffs
- Dillon Pinnacles
- Curecanti Needle
- Curecanti Creek at Hairpin Curve on CO 92.



Photo workshop participants took photos in and surrounding Curecanti NRA, such as this cabin under the Acceptable Development Category (Category 3)

Study Area Determination

The base map for the study consists of a geographical area extending approximately 30 miles north to south and 40 miles east to west, with Curecanti NRA centered on the map. The study area, which surrounds the NRA, is included within this base map, and was determined by analysis of natural, cultural, scenic, and recreational data for the region. The study area was established by overlaying various geographic information system (GIS) Mylar data maps onto a base map, and including the most important resource areas. The study area was introduced to the public and governmental agencies in the

first newsletter for the RPS/EIS, issued in the spring of 2001.

The important resources used to establish the study area were derived from the more extensive data list collected early in the data collection process, which is shown earlier in this section on Data Collection and Analysis. The criteria for determining important resources were based on input from public scoping meetings, input from Curecanti staff, interpretation of the legislative mandates authorizing the study, and explanations of data categories provided by sources of the data. Resource data, primarily in the form of computerized maps, were collected from the following major sources: wildlife habitat information from the Colorado Division of Wildlife (CDOW); threatened and/or imperiled species from the Colorado Natural Heritage Program; archeological and historic sites from the Colorado State Historical Society; and viewsheds from digital elevation models. Information on recreation opportunities was obtained from the public, as described earlier in this section on Data Collection and Analysis.

The important resources are listed below, alphabetically, in no particular order of importance:

- Archeological and historic sites: Four categories of data were collected that include both archeological and historic sites: (1) individual archeological sites; (2) archeological linear features; (3) sections that contain archeological sites; and (4) archeological site areas
- Bighorn sheep and pronghorn winter-use areas: pronghorn winter range, bighorn sheep overall range
- Elk winter-use areas: severe-winter range, winter concentration area, production area
- Gunnison Sage-grouse range or use areas: leks, nesting areas, brood areas, critical winter range; severe-winter range
- Raptor range or use areas: peregrine falcon active nesting sites; golden eagle

nesting sites; bald eagle roost sites; bald eagle winter concentration area

- Sensitive species: Potential conservation areas of outstanding significance, very high significance, high significance, and moderate significance
- Viewsheds: Map generated from computer modeling showing land visible from major highways and centerlines of Blue Mesa Reservoir and its arms.

A compilation of this resource information is illustrated on the map entitled Important Resources Surrounding Curecanti. The various shades of blue represent different levels of concentrations of one or more resources, with weightings assigned to the importance of the resources. The darker the color, the greater number of resources present, and/or the greater the relative importance of the resource. The general locations of critical resources and recreation opportunities are described in the white boxes on the map. The method used to determine the weighted analysis is described below.

The data analysis for the RPS/EIS was initiated using a traditional map, grease pencil, and a mylar overlay technique inspired by Ian L. McHarg's book "Design with Nature." Spatial resource data that were selected for analysis are identified above. Following production of draft mylar maps, and using the computerized resource data, a weighted analysis was initiated using the GIS as an analytical tool to provide a compilation of all the resource data on one map, with reduced bias and spatial error. "Weights" were assigned by NRA staff to the various mapped, resource categories based on their relative value, or importance, on a scale of 1 to 5, with 5 being most significant. As an example, an archeological site that has been listed on the National Register of Historic Places (NRHP) may receive a weighted value of 5, while an archeological site that is determined not eligible for listing to the NRHP may receive a value of 1. Mapped resource categories were then stacked, and their weighted values were added together with the aid of the GIS.

Results of the analysis showed cumulative scores for all of the weighted data. Relatively high scores represent areas with multiple resource occurrences, and the highest scores represent areas with multiple resource occurrences that possess relatively greater resource significance. It is interesting to note that the preponderance of high scores center on the Curecanti area. This analysis helped to determine where NPS should focus its attention on resource conservation outside the existing NRA.

ALTERNATIVES DEVELOPMENT AND IMPACTS ASSESSMENT

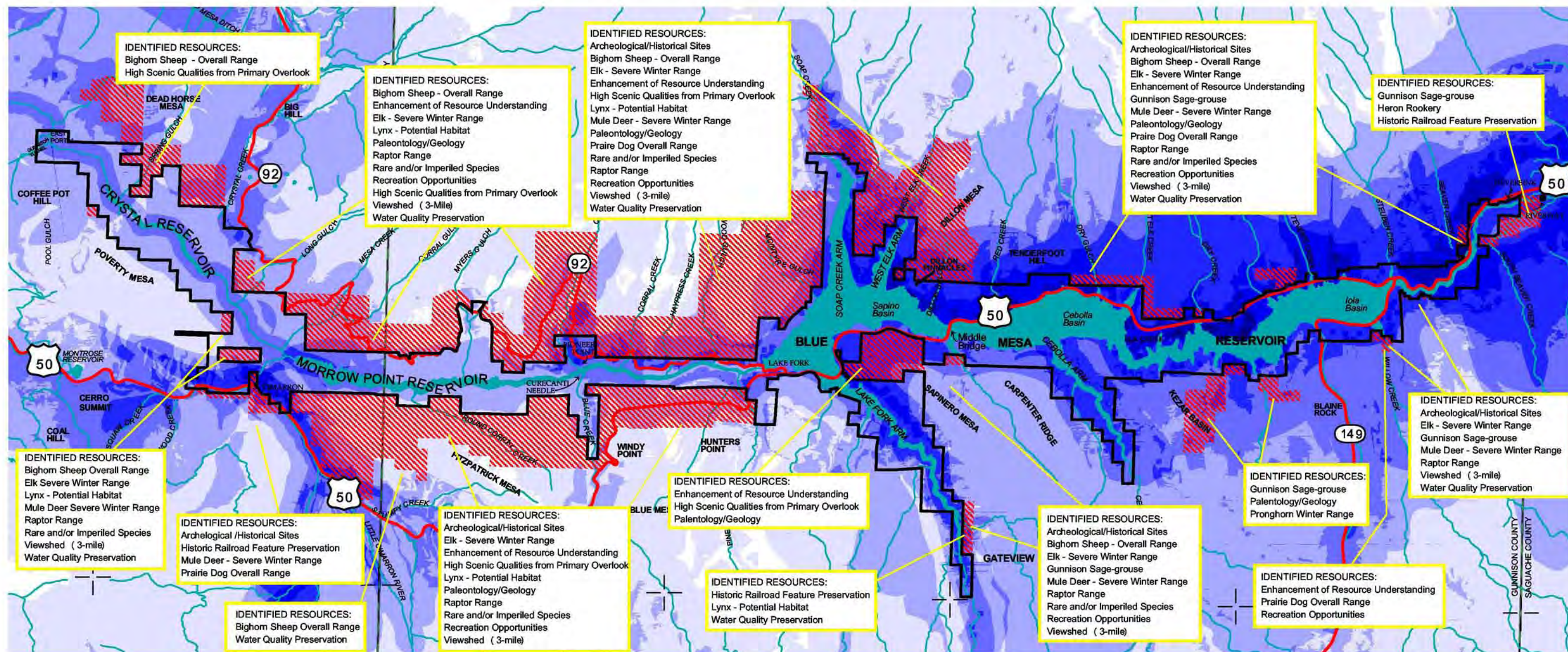
In response to the second requirement of the Draft RPS/EIS congressional mandate, the study team identified two categories of alternatives to protect the resource value and character of the land: (1) proposed boundary location; and (2) management considerations. The environmental consequences, or impacts, of the actions associated with each alternative were then assessed.

"Identify practicable alternatives that protect the resource value and character of the land within and surrounding Curecanti NRA"

Public Law 106-76



Proposed Boundary Location

Numerous boundary alternatives were considered after data collection and analysis of the data and resource maps; meetings with agency officials, landowners, and the public; and consideration of NPS *Management Policies 2006* pertaining to boundary adjustments. In addition, the concept of a Conservation Opportunity Area (COA) was created. This is an area that would be designated by Congress within which NPS would be authorized to use various landowner incentives (comprising a *toolbox*) to partner with neighbors to conserve resources.











EXPLANATION OF MAP

This map represents a composite of important and critical resources identified during the Resource Protection Study, such as wildlife (including raptor habitat and rare/imperiled species); known archeological/historical sites and districts; areas of paleontological potential; and viewsheds of predominantly natural landscapes. Areas of potential recreational opportunities are also identified. The map shows that such resources are concentrated within and immediately surrounding the National Recreation Area. The colors represent different levels of concentrations of one or more resources, with weightings assigned to the importance of the resources. The darker the color = the greater number of resources present, and/or the greater the relative importance of one or more resources.

-  Lands and Waters Included Within Curecanti National Recreation Area (41,790 acres)
-  The Proposed Lands, consisting of public and private land outside the NRA considered important for resource conservation and/or public recreational access, with respect to RPS goals and objectives.

WEIGHTED RESOURCES

	1 - 5		22 - 26
	6 - 10		27 - 31
	11 - 15		32 - 37
	16 - 21		No Data

IMPORTANT RESOURCES SURROUNDING CURECANTI

RESOURCE PROTECTION STUDY CURECANTI NATIONAL RECREATION AREA

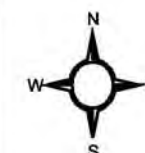
Gunnison and Montrose Counties, Colorado

National Park Service
U.S. Department of the Interior

2 0 2 4 Miles

IMDE 616
11/28/2006 20,021

NPS Disclaimer Information: The information contained herein is based upon data collected from a variety of sources. The National Park Service provides these data as a public service and assumes no responsibility for conclusions which others may draw from the use of the data.



For purposes of this study, and found throughout the text, primarily with reference to Alternative 2 – the Proposed Action, the term “proposed lands” refers to 34,420 acres of land outside the existing NRA that is considered important for resource conservation, public recreation, and scenic values, in keeping with NRA goals and objectives. The proposed lands include:

1. public lands to be transferred from other agencies to NPS to be included within the proposed NRA boundary immediately upon recommended passage of legislation that would establish the NRA (10,120 acres);
2. private lands that are recommended to be included within the COA, outside the proposed NRA boundary (24,300 acres).

In addition, there are certain lands within the existing NRA that were identified as having the potential to be deleted from the NRA. They are not included in the “proposed lands,” as defined for this study. The potential deletions include 80 acres of USFS land that would immediately be deleted upon passage of NRA legislation, to be managed by USFS as part of the Gunnison National Forest; 800 acres that might eventually be transferred to BLM; and 363 acres that might be exchanged for private lands within the COA, on a willing landowner basis. These 1,243 acres of potential deletions are identified as “tracts” on the Alternative 2 map.

During the process of assessing the environmental consequences of the boundary alternatives, it was decided to retain only two alternatives for in-depth analysis: No Action, and the Proposed Action. The other alternatives were dismissed from further consideration for reasons that are described in the Alternatives chapter of this document.

Management Considerations

Different scenarios for NRA management were considered. These potential management scenarios do not affect the boundary alternatives. This includes management of various sections of the NRA defined by the

three reservoirs; and by various agencies, including BLM, Reclamation, NPS, USFS, and Colorado State Parks. BLM, USFS, and Colorado State Parks have all indicated that they are not interested in managing the NRA.

Reclamation manages its facilities, lands, land interests, water and water interests in the area to meet CRSP and Uncompahgre Project purposes, and has contracted with NPS for management of recreation and certain other resources on Reclamation lands within the NRA. NPS desires to continue to manage the natural, cultural, and recreational resources on all of the lands within the NRA. Most of these lands are under the jurisdiction of Reclamation; but some are under USFS, and some are under NPS.

TOOLS FOR RESOURCE CONSERVATION AND MANAGEMENT

“Recommend a variety of economically feasible and viable tools to achieve resource protection”

Public Law 106-76

NPS worked with other agencies and with Gunnison and Montrose Counties to develop a variety of resource conservation tools that were considered during development of alternatives and integrated into the Proposed Action. NPS has developed two documents (included as appendixes) relating to these suggested methods of resource conservation. They are based upon former Secretary of the Interior Gail Norton’s philosophy of the “four Cs”: Communication, Consultation, and Cooperation, all in the service of Conservation.

- *Toolbox of Incentives for Resource Conservation: A Handbook of Ideas for Neighbors in the Curecanti Area.* This toolbox identifies present and potential methods that could be made available to Curecanti area neighbors—private landowners, local communities, and city, county, state,

and federal agencies—to work in partnership to manage their lands for more effective resource conservation. It has been developed to help conserve the natural, cultural, recreational, and scenic resources within and surrounding Curecanti. The choice of tools includes acquiring interests in land from willing landowners, such as fee simple, and conservation easements. However, if funding is insufficient to acquire such interests, other tools could be pursued to meet resource conservation goals and objectives (Appendix A).

- *Curecanti: Great Scenery, Outstanding Resources, and Good Neighbors.* In cooperation with Gunnison and Montrose Counties, NPS produced an eight-page booklet that presents ideas on how agencies and landowners can work together to maintain the outstanding natural, cultural, recreational, and scenic resources in the Curecanti area (Appendix B).

A resource conservation tool created by the RPS/EIS study team as part of Alternative 2, the Proposed Action, is a concept called the Conservation Opportunity Area, or COA. The COA would consist of private lands outside of and adjacent to the proposed NRA boundary, where NPS would be authorized by Congress to work in partnership with neighbors in applying a wide range of tools over time to conserve resources and values identified as important to the NRA.

Another partnership tool that arose out of RPS/EIS data analysis and alternatives development was a concept called Joint Agency Management Effort, or JAME. The idea was to evaluate resources on the basis of issues that extend beyond the NRA, while recognizing the responsibilities of all

surrounding land-management agencies. The agencies and entities with which NPS entered into discussions included American Indian Tribes, BLM, Reclamation, CDOW, Colorado Department of Transportation (CDOT), USFS, Western, and Gunnison and Montrose Counties. The agencies decided that working cooperatively to address topics on a thematic basis would make greater sense and would be more effective to accomplish than to jointly administer geographic areas. The JAME is similar to cooperative efforts among agencies in other areas of the country that have been established to address resource management issues of mutual concern. At Curecanti, the agencies agreed to deal with invasive plant species (i.e., weeds) as the first JAME challenge.



Multiple agencies meet in a partnership effort

COST ESTIMATES

“Estimate the costs of implementing the approaches recommended in the study.”

Public Law 106-76

The costs of fully implementing the study’s recommendations will be spread over many

years into the future, and will depend primarily upon how many private landowners choose to work in partnership with NPS, and which tools for resource conservation are employed. This would occur only after congressional approval of this study's recommendations.

Numerous elements contribute to the total cost of implementing the proposed action. The greatest costs are expected to be incurred during the first ten years following congressional approval of this study, when NPS hopes to apply resource conservation tools to parcels of land considered most important to conserve. Many of the cost elements, such as a *Land Protection Plan* and boundary surveys and posting, are fairly predictable. However, some elements are quite uncertain, such as the direct costs of acquiring interests in land, since these will depend on the willingness of private landowners to participate in resource conservation efforts, and property values at the time. For these estimates, assumptions have been made regarding interests that might be acquired and future average property values. Due to the many uncertainties of acquiring interests in land, the estimates are presented as a range of costs.

Another factor that would influence the long-term costs to NPS is the degree of conservation partnerships that could develop as a result of implementing the Proposed Action. Examples include gaining assistance through matching grants, the ability to access other agency programs and funding, and the participation of regional and national land trusts and other conservation organizations. Such partnership support could help reduce costs to NPS.

The estimated costs are shown in the Alternatives chapter. Staffing requirements and an implementation strategy for the Proposed Action are also presented.

STUDY OPPORTUNITIES, INTERESTS, AND ISSUES

Following the initiation of the project through the Notice of Intent (NOI), a scoping open

house was held in Gunnison to educate the public about the RPS/EIS, to identify opportunities for resource conservation, and to receive comments and project-related concerns. Written and verbal comments received in response to the scoping process highlighted a variety of issues that the study should address. This type of information sharing continued throughout the study.

Curecanti is important to the local area and its economy; and because of this, people need to work together to maintain the quality of the area around Curecanti. Some people said that the greatest danger to Curecanti and its environs is sprawl development. Others wanted private development rights and opportunities preserved and more and better facilities on private land or within the NRA.

Many comments were in support of NPS efforts to conserve the viewshed and to provide habitat for wildlife, and for suggested methods by which resources could be better managed and conserved. Some comments were critical of NPS for the way in which it managed its campgrounds, operated its facilities, and managed wildlife.

Some respondents specified recreational uses they wanted to be allowed, as well as uses they wanted to be prohibited. But it was also suggested that the RPS/EIS should consider all environmental factors, not only recreational demand and use, and attempt to balance all interests.

Agencies that commented, especially Reclamation, wanted to maintain jurisdiction of, and adequate and continuous access to, their lands, land interests, and facilities (including dams, reservoirs, electric transmission facilities, and associated structures) to ensure safe, effective, and reliable operation and maintenance of the Aspinall Unit and the Uncompahgre Project. They felt the RPS/EIS must recognize and ensure conservation of the use of water, lands, and land interests as legally defined for those projects, and that existing agreements among the various agencies and water users must be honored and protected.

IMPACT TOPICS

Impact topics are natural, cultural, economic, social, or operational elements of the environment that could be affected by the range of alternative actions. These topics are used to focus the affected environment and the evaluation of the potential environmental consequences of the actions of each alternative on those topics. Impact topics were identified, based on legislative requirements, executive orders, topics specified in Director's Order 12 and Handbook (NPS 2001a), NPS *Management Policies 2006*, agency and public concerns, and resource information specific to the Curecanti NRA.

IMPACT TOPICS CONSIDERED

The impact topics considered for evaluation are listed in Table 1. This table includes key regulations or policies for each impact topic. Based on site-specific conditions, a number of the candidate impact topics were dismissed from further consideration. The rationale for dismissing each of these impact topics is provided in the text following the table. Those topics that were retained are described in more detail in the Affected Environment chapter and addressed in the Environmental Consequences chapter, where the impacts of the alternative actions on those topics are assessed in detail.

Four of the elements of the environment that are assessed in detail are traditionally done in EISs. In addition, they are required to be done by this study's enabling legislation. They are the natural, cultural, recreational, and scenic resources.

IMPACT TOPICS DISMISSED FROM FURTHER CONSIDERATION

The following impact topics were dismissed from further detailed analysis in this study. However, they will be revisited in future plans that may result from this study, such as a new or amended general management plan or implementation plan.

Floodplains

Executive Order 11988, "Floodplain Management," requires all federal agencies to avoid construction within the 100-year floodplain unless no other practicable alternative exists. Under NPS *Management Policies 2006* and Director's Order 77-2, Floodplain Management, NPS will strive to preserve floodplain values and minimize hazardous floodplain conditions.

Active floodplains on federal land within the study area are largely within the administrative area controlled by Reclamation for reservoir operations and managed by the NRA, and on other USFS, BLM, Reclamation, or CDOW lands. No federally-initiated development is proposed on any of these federal or private lands that would impact floodplains. Proposed conservation of one small floodplain and riparian area along Willow Creek could occur, but would result in a negligible to minor benefit.

Prime and Unique Farmlands

Prime farmland has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Unique farmland is land other than prime farmland that is used for production of specific high-value food and fiber crops such as fruits, vegetables, and nuts. At this time, there are no lands classified as prime or unique farmlands within the study area (NRCS 2004).

Air Quality

No effects to air quality would be expected as a result of actions related to this study. The air quality designation (Class II) of the area would not change as a result of the proposal.

Ecologically Critical Areas or Other Unique Natural Resources

The study area does not contain any designated ecologically critical areas, wild and scenic rivers, or other unique natural resources, as referenced in Title 40, Code of Federal Regulations, §1508.27. Therefore, there would

Table 1: Impact Topics Retained or Dismissed

Impact Topic	Retain or Dismiss	Primary Relevant Laws, Regulations, or Policies
Natural Resources		
Water quality	Retain	<ul style="list-style-type: none"> – Clean Water Act – Executive Order 12088 – <i>NPS Management Policies 2006</i>
Geology and paleontology	Retain	<ul style="list-style-type: none"> – <i>NPS Management Policies 2006</i> – NPS-77, Natural Resources Management Guidelines.
Vegetation, including wetlands	Retain	<ul style="list-style-type: none"> – Clean Water Act – Rivers and Harbors Act – Executive Order 11990 – Director's Order 77-1, Wetland Protection – <i>NPS Management Policies 2006</i> – NPS-77, Natural Resources Management Guidelines
Wildlife and habitats (including fisheries)	Retain	<ul style="list-style-type: none"> – NPS Organic Act of 1916 as amended (16 USC) – <i>NPS Management Policies 2006</i> – NPS-77, Natural Resources Management Guidelines
Special Status Species (endangered, threatened, species of concern, or other protected status)	Retain	<ul style="list-style-type: none"> – Endangered Species Act, and other equivalent state protective legislation – <i>NPS Management Policies 2006</i> – NPS-77, Natural Resources Management Guidelines
Natural lightscape (night sky)	Retain	<ul style="list-style-type: none"> – <i>NPS Management Policies 2006</i>
Natural soundscape	Retain	<ul style="list-style-type: none"> – Director's Order 47, Sound Preservation and Noise Management – <i>NPS Management Policies 2006</i>
Floodplains	Dismiss	<ul style="list-style-type: none"> – Rivers and Harbors Act – Executive Order 11988, Floodplain Management – <i>NPS Management Policies 2006</i> – Special Directive 93-4, Floodplain Management, Revised Guidelines for NPS Floodplain Compliance (1993)
Prime and unique farmland	Dismiss	<ul style="list-style-type: none"> – Council on Environmental Quality (1980) memorandum on prime and unique farmlands.
Air quality	Dismiss	<ul style="list-style-type: none"> – Clean Air Act – <i>NPS Management Policies 2006</i> – NPS-77, Natural Resources Management Guidelines.
Ecologically critical areas or other unique natural resources	Dismiss	<ul style="list-style-type: none"> – Wild and Scenic Rivers Act – Criteria for national natural landmarks in Title 36, Code of Federal Regulations, §62 – <i>NPS Management Policies 2006</i>
Energy requirements and conservation potential	Dismiss	<ul style="list-style-type: none"> – <i>NPS Management Policies 2006</i>

Impact Topic	Retain or Dismiss	Primary Relevant Laws, Regulations, or Policies
Cultural Resources		
Archeological resources	Retain	<ul style="list-style-type: none"> - National Historic Preservation Act - Archeological and Historic Preservation Act - Archeological Resources Protection Act - Native American Graves Protection and Repatriation Act - Antiquities Act of 1906 - National Environmental Policy Act - Title 36, Code of Federal Regulations, §800 - Executive Orders 11593 and 13007 - Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation - Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes - Director's Order 28, Cultural Resources Management - <i>NPS Management Policies 2006</i>
Historic districts and structures	Retain	<ul style="list-style-type: none"> - National Historic Preservation Act - Archeological and Historic Preservation Act - Archeological Resources Protection Act - National Environmental Policy Act - Title 36, Code of Federal Regulations, §800 - Executive Orders 11593 and 13007 - Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation - Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes - Director's Order 28, Cultural Resources Management - <i>NPS Management Policies 2006</i>
Cultural landscapes	Dismiss	<ul style="list-style-type: none"> - National Historic Preservation Act - Archeological and Historic Preservation Act - Archeological Resources Protection Act - National Environmental Policy Act - Title 36, Code of Federal Regulations, §800 - Executive Orders 11593 and 13007 - Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation - Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes - Director's Order 28, Cultural Resources Management - <i>NPS Management Policies 2006</i>
Museum collections	Dismiss	<ul style="list-style-type: none"> - Historic Sites Act of 1935 - Management of Museum Properties Act of 1955 (as amended) - Native American Graves Protection and Repatriation Act of 1990 - Endangered Species Act of 1973, as amended - Title 41, Code of Federal Regulations, §101, Federal Property Management Regulations - Title 43, Code of Federal Regulations, §3, Preservation of American Antiquities and Protection of Archeological Resources - Department Manual 411 DM, Managing Museum Property - Director's Order #28, Cultural Resources Management - <i>NPS Management Policies 2006</i>
Ethnographic resources	Dismiss	<ul style="list-style-type: none"> - Executive Order 13175, Consultation and Coordination with Indian Tribal Governments - <i>NPS Management Policies 2006</i>
Indian trust resources	Dismiss	<ul style="list-style-type: none"> - Department of the Interior Secretarial Orders 3175 and 3206

Impact Topic	Retain or Dismiss	Primary Relevant Laws, Regulations, or Policies
Visitor Use, Understanding, and Enjoyment		
Recreational opportunities	Retain	<ul style="list-style-type: none"> – NPS Organic Act – National Park System General Authorities Act – NPS <i>Management Policies 2006</i>
Interpretation and educational opportunities	Retain	<ul style="list-style-type: none"> – NPS Organic Act – National Park System General Authorities Act – NPS <i>Management Policies 2006</i>
Scenic Resources		
Viewsheds	Retain	<ul style="list-style-type: none"> – NPS <i>Management Policies 2006</i>
Regional Economic and Social Characteristics		
Economics	Retain	<ul style="list-style-type: none"> – Council on Environmental Quality (1978) regulations for Implementing the National Environmental Policy Act – NPS <i>Management Policies 2006</i>
Private land use within the NRA	Retain	<ul style="list-style-type: none"> – Director's Order #25, Land Protection – NPS <i>Management Policies 2006</i>
Neighboring private lands and landowners within the proposed lands	Retain	<ul style="list-style-type: none"> – Director's Order #25, Land Protection – NPS <i>Management Policies 2006</i>
Environmental justice	Dismiss	<ul style="list-style-type: none"> – Executive Order 12898
National Park Service, Reclamation, and Other Neighboring Agency Management and Operations		
NPS management/operations	Retain	<ul style="list-style-type: none"> – Reclamation law, as amended and supplemented (on Reclamation lands), in particular, Section 8, Colorado River Storage Project Act; and PL 89-72, as amended by Title XXVIII of PL 102-575 – CFR 43 Parts 420, 423, 429 – NPS <i>Management Policies 2006</i>
Reclamation management/operations	Retain	<ul style="list-style-type: none"> – Reclamation law, as amended and supplemented – Reclamation Manual, Policies, Directives, and Standards – Safety of Dams Program – Dam Security Program – CFR 43 Parts 420, 423, 429
Other agency management/operations	Retain	<ul style="list-style-type: none"> – Other agency laws and policies – Reclamation law, as amended and supplemented (on Reclamation lands), in particular, Section 8, Colorado River Storage Project Act; and PL 89-72, as amended by Title XXVIII of PL 102-575 – CFR 43 Parts 420, 423, 429 – 1983 BOR/BLM Interagency Agreement
Public health and safety	Dismiss	<ul style="list-style-type: none"> – NPS <i>Management Policies 2006</i>
Natural or depletable resource requirements and conservation potential	Dismiss	<ul style="list-style-type: none"> – NPS <i>Management Policies 2006</i>

be no impact to ecologically critical areas or other unique resources that require evaluation.

Energy Requirements and Conservation Potential

The alternatives do not identify actions that would result in the use or conservation of fuels; therefore, this topic was dismissed.

Cultural Landscapes

No cultural landscapes have been identified, surveyed, or documented within Curecanti NRA or the surrounding study area; therefore, this topic was not assessed.

Museum Collections

The scope of collections for Curecanti NRA includes archeological objects collected from within the NRA; and historic objects and archival material related to early settlement, to the Denver and Rio Grande narrow gauge railroad, and to the Town of Cimarron. Data from the 2005 Collections Management Report indicate that the total number of objects and specimens number 179,975; with total archival documents of 27,571. These items are managed as provided for in Director's Order #24: NPS Museum Collections Management and the NPS Museum Handbook.

The implementation of the Proposed Action would not have a direct impact on museum collections currently managed by NPS. However, if other agency lands are transferred into the NRA as a result of the Proposed Action, the agencies involved would need to jointly determine how to approach ownership and storage of collections related to those lands in order to ensure that the integrity of each collection remains as intact as possible. Entering into an administrative agreement would be considered. Collections and any associated records that would be transferred or exchanged among agreeing federal DOI and non-DOI agencies as a result of implementation of the Proposed Action would follow the guidelines found in the DOI

Departmental Manual (411) Museum Property Handbook, Volume I.

Ethnographic Resources

Ethnographic resources are defined as the natural and cultural materials, features, and places that are linked by a subject community to the traditional practices, values, beliefs, history, and/or ethnic identity of that community. In 2002, the NPS Intermountain Support Office, in cooperation with the NRA, sought to summarize American Indian tribal affiliation within and surrounding the NRA for the RPS/EIS. Historical records document Ute affiliation with the region from western Colorado and into eastern Utah. The Uncompahgre (or Taviwach) band also has a historic affiliation with this area. Other tribes identified with possible cultural affiliation include the Cheyenne, Comanche, Hopi, Navajo, Apache, White Mesa Ute (comprised of Paiute and Ute), Paiute, and the San Juan Southern Paiute (NPS 2002a). It was concluded that the primary tribes with which the study team should confer are the Northern Ute, the Southern Ute, and the Ute Mountain Ute.

While ethnographic resources have not yet been formally evaluated for their status as traditional cultural properties or sacred sites, it is possible that potentially eligible resources could be either outside the study area or in areas already experiencing heavy visitor use or other disturbances. However, it is expected that impacts to ethnographic resources as a result of the proposal would be negligible because of protection on federal lands.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry

out the mandates of federal law with respect to American Indian and Alaska Native tribes.

There are no Indian trust resources at Curecanti NRA or within the study area. The lands comprising the recreation area or the land units are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, the project would have negligible effects on Indian trust resources, and this topic was dismissed as an impact topic.

Environmental Justice

Executive Order 12898: General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The conservation of, or acquisition of, lands within the study area, adjacent to Curecanti NRA, is dependent upon willing and interested landowners. The alternatives do not impose

upon property rights through condemnation or any other procedure. In addition, any lands acquired and included within the NRA would be maintained and interpreted by NPS for all peoples regardless of race or income level. Therefore, there would be no disproportionate health or environmental effects on minorities or low-income populations or communities.

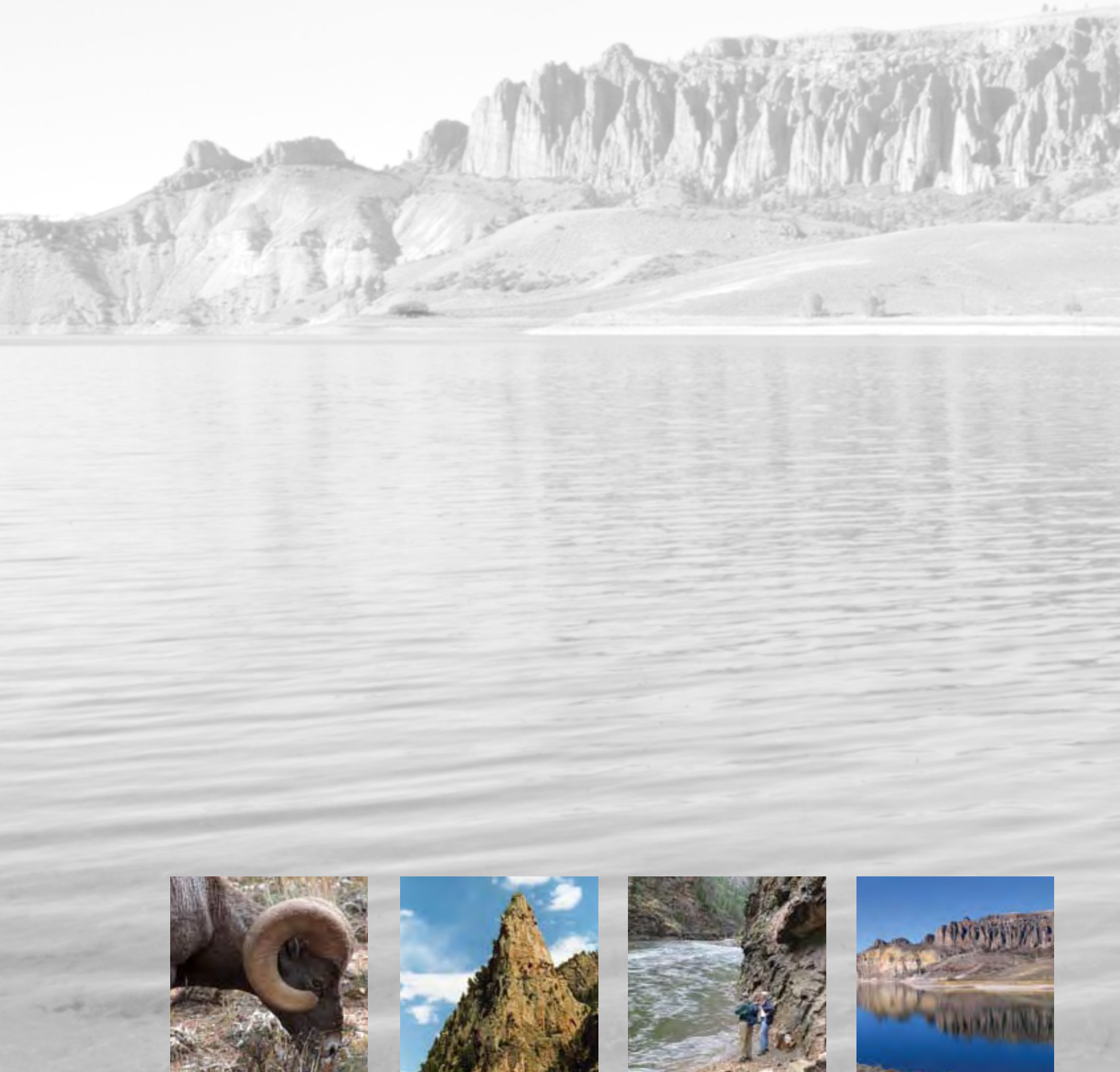
Public Health and Safety

The conservation and potential acquisition of lands adjacent to the NRA would not result in public health and safety issues because the potential use and disposition of these lands is landowner dependent. The alternatives in this study do not involve any proposals for new access or infrastructure that could impact public health and safety.

Natural or Depletable Resource Requirement and Conservation Potential

There are no actions proposed in the alternatives that would result in a change in requirements of natural or depletable resources or conservation potential. This topic is dismissed from further analysis.

Chapter 2: Alternatives, Including the Proposed Action



ALTERNATIVES, INCLUDING THE PROPOSED ACTION

DEVELOPMENT OF ALTERNATIVES

In response to the second and third requirements of the Resource Protection Study (RPS) congressional mandate, the study team evaluated a range of alternatives, and identified a variety of tools for conserving the important resources identified within the study area that were described under “Data Collection and Analysis” in the Purpose of and Need for Action chapter. The alternatives focus on the following seven elements.

- National Recreation Area Designation and Boundary
- Resource Conservation
- National Recreation Area Management
- Bureau of Reclamation (BOR) Operations
- Other Agency Operations

- Joint Agency Management Effort (JAME)
- Estimated Costs, Staffing Requirements, and Implementation Strategy

With regards to the NRA boundary, some preliminary background information will help to describe how the alternatives were developed. Numerous alternatives were considered for adjusting the boundary that currently surrounds the NRA, to include additional lands within the NRA that were thought to be necessary and appropriate for resource conservation, as well as visitor use and enjoyment, in keeping with the mission and management goals of the NRA and the purposes of this study. In some areas, land was considered for exclusion from the NRA. Collective knowledge about Curecanti NRA, its resources, and its visitors that was gained from numerous sources throughout the study influenced the development of the boundary scenarios. Those sources included public scoping (information gathering) and workshops (including the photo assessment project); meetings with other agencies, county planners, and local, state, and federal officials;



Curecanti Needle on Morrow Point Reservoir—The National Recreation Area’s most famous geological landmark

For both alternatives in the Draft RPS/EIS, the Bureau of Reclamation and Western Area Power Administration (Western) would continue their administrative jurisdiction and responsibilities within and adjacent to the national recreation area, including construction, operations, maintenance, replacement, and additions, consistent with Reclamation law, and other applicable laws and regulations. Formal establishment of the area as an NRA under Alternative 2 would not amend or supplement existing Reclamation law applicable to the Aspinall Unit or the Uncompahgre Project. Reclamation, Western, and the National Park Service would consult with each other as necessary and appropriate. Thus, there would be no adverse impacts to Reclamation and Western responsibilities under either alternative.

meetings with surrounding private landowners; and workshops with the NRA staff.

The preliminary boundary scenarios were based on criteria that focused on important resources within the study area that were identified during the data collection and analysis phase of the study. The criteria also included enhanced visitor understanding of significant resources, expanded land-based recreational opportunities, and administrative or managerial efficiencies that could be realized through the transfer of lands among the agencies. The criteria included the following items.

- Administrative Efficiency
- Archeological/Historical Sites
- Bighorn Sheep – Overall Range
- Elk – Severe Winter Range
- Gunnison Sage-grouse (all categories)
- Heron Rookery
- Historic Railroad Feature
- Lynx, Potential Habitat
- Management Issues/Logical Boundary
- Mule Deer – Severe Winter Range
- Paleontology/Geology
- Prairie Dog – Overall Range
- Pronghorn – Winter Range
- Raptor Range
- Rare and/or Imperiled Species

- Recreation Opportunities
- Scenic Qualities from Primary Overlook, or within 3-Mile Viewshed
- Understanding of Significant Resources
- Water Quality.

The various boundary scenarios were assessed at an “Impacts” workshop. The impacts of some of the scenarios were so similar to each other, that the scenarios were not considered further. Some of the scenarios were considered impractical and/or unfeasible to implement, and were not considered further. In addition, the study team strongly considered one of the concerns that had been expressed throughout the project — that NPS should not propose anything in the study that would be forced upon private landowners against their will or desires, or that would intrude upon their property rights. Furthermore, some landowners opposed any boundary being drawn around their property to include them within a future NRA, even though they would be able to retain their property rights. These concerns strongly influenced the selection of the Proposed Action, and the dismissal from detailed consideration of some alternatives that had initially been considered.

Ultimately, the study team came to the conclusion that besides the No-Action alternative (Continuation of Existing Conditions), one other boundary scenario was considered to be reasonable, and, therefore, is fully assessed in the Environmental

Consequences chapter. That scenario is presented as Alternative 2 (the Proposed Action). The other boundary scenarios are described, along with the reasons for elimination, near the end of this chapter under the “Alternatives Considered but Eliminated from Detailed Assessment” section.

For purposes of analysis during the development of alternatives, the public and private lands outside the existing NRA that were considered most important for conservation for NRA purposes, were grouped into eight “land units” according to geographical location, similarity of resource values, reasonably foreseeable activities, and land ownership. The land units are identified by the letters A through H, are shown on the map for Alternative 2, and are referenced throughout the Draft RPS/EIS. They consist of two types of land: (1) privately owned land within the Conservation Opportunity Area (COA) – Land Units A, C, D, E, and G; and (2) non-NPS agency lands that are included within the proposed NRA boundary shown in Alternative 2 – Land Units B, F, and H. Briefly defined, the COA consists of identified private land surrounding the NRA, in which the National Park Service would be authorized by Congress to work with willing landowners to conserve resources, including acquiring agreed-upon interests in land. The COA is described in more detail later in the discussion of Alternative 2, under the subheading of “Resource Conservation.”

The land units are defined below:

- Land Unit A (CO 92 COA): private lands north and south of Colorado State Highway 92 (CO 92) and Morrow Point Reservoir, including Black Mesa, Soap Mesa, Soap Creek, and Fitzpatrick Mesa
- Land Unit B (Blue Mesa Reservoir Agency): agency lands from Soap Creek east to Beaver Creek, including Dillon Pinnacles, Blue Mesa north and south shores, and Gunnison River Canyon
- Land Unit C (Gunnison River COA): private lands in the vicinity of Neversink and Riverway
- Land Unit D (Iola Basin COA): private lands in Iola Basin, and South Gunnison River Canyon
- Land Unit E (Sapinero/Blue Mesa COA): private lands in the vicinity of Sapinero Mesa, and Windy Point to Hunters Point
- Land Unit F (Gateview Agency): agency lands in the vicinity of Gateview Campground
- Land Unit G (West-End COA): private lands west of Fitzpatrick Mesa on the south side of Crystal Reservoir, and the area around Spring Gulch on the north side of Crystal Reservoir
- Land Unit H (West-End Agency): agency lands north and south of Crystal and Morrow Point Reservoirs

Collectively, all the land units comprise the “proposed lands” for Alternative 2, consisting of public lands recommended for addition to the NRA (the agency lands); and the lands recommended for inclusion in a COA (the private lands).

The criteria that were used to determine what land surrounding the existing NRA warranted conservation for NRA purposes are shown in Table 2 for each land unit. If a resource or other criterion occurs within a given land unit, it is identified by a dot in the matrix. If the dot is highlighted in yellow, the associated criterion is considered to be a primary reason for the inclusion of the land unit within the proposed NRA boundary or the COA. More detailed descriptions of specific resources, including their significance in the Curecanti region, are provided in the Affected Environment chapter.

The appropriateness of including additional public and private lands within an expanded NRA was evaluated according to NPS *Management Policies 2006*: Section 3.5 – Boundary Adjustments, including criteria for boundary adjustments. These criteria

TABLE 2: FACTORS CONSIDERED IN ESTABLISHING LAND UNITS

Criteria	Land Unit							
	A	B	C	D	E	F	G	H
	CO 92 COA	Blue Mesa Reservoir Agency	Gunnison River COA	Iola Basin COA	Sapinero /Blue Mesa COA	Gateview Agency	West-End COA	West-End Agency
Administrative Efficiency	•	•	•	•		•	•	•
Archeological/Historical Sites	•	•	•	•	•	•	•	•
Bighorn Sheep – Overall Range	•	•			•	•	•	•
Elk – Severe Winter Range	•	•	•	•	•	•	•	•
Gunnison Sage-grouse (all categories)		•	•	•	•	•		
Heron Rookery			•					
Historic Railroad Feature			•			•	•	
Lynx – Potential Habitat	•	•			•	•		•
Management Issues / Logical Boundary	•	•	•	•	•			•
Mule Deer – Severe Winter Range	•	•		•	•	•	•	•
Paleontology/Geology	•	•			•			•
Prairie Dog – Overall Range			•	•				•
Pronghorn – Winter Range		•		•				
Raptor Range	•	•	•	•	•	•	•	•
Rare and/or Imperiled Species	•	•	•	•	•	•	•	•
Recreation Opportunities	•	•	•	•	•	•		
Scenic Qualities from Primary Overlook or within 3-mile Viewshed	•	•	•	•	•	•	•	•
Understanding of Significant Resources	•	•	•	•	•	•		•
Water Quality	•	•	•	•		•	•	•

Notes:

A dot indicates the criterion is present within the land unit.

The addition of **yellow highlighting** indicates that not only is the criterion present, but it is of such significance, in combination with the other criteria present, to recommend that the land unit be included within the COA or proposed NRA boundary in Alternative 2.

identify when boundary adjustments may be recommended in order to carry out the purposes of the NRA. Boundary adjustments may be recommended to:

- Protect significant resources and values, or to enhance opportunities for public enjoyment related to NRA purposes
- Address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads
- Otherwise protect NRA resources that are important to fulfilling NRA purposes.

Further, if the acquisition would be made using appropriated funds, and is not merely a technical boundary revision, the criteria set forth by Congress at 16 USC 4601-9(c)(2) must be met. All recommendations for boundary changes must meet the following two criteria:

- The added lands would be feasible to administer, considering their size, configuration, and ownership; costs; the views of and impacts on local communities and surrounding jurisdictions; and other factors such as the presence of hazardous substances or exotic species
- Other alternatives for management and resource protection are not adequate.

The extent to which Alternative 2 (the Proposed Action) satisfies the boundary

adjustment criteria, and an evaluation of the effectiveness of Alternatives 1 and 2 in meeting the objectives of the RPS and the NRA mission, can be found near the end of this chapter. The complete texts for Section 3.5 of *NPS Management Policies 2006*, and 16 USC 4601-9(c)(2) are shown in Appendix C.

ALTERNATIVE 1: NO ACTION (CONTINUATION OF EXISTING CONDITIONS)

OVERALL CONCEPT

Under Alternative 1, the National Park Service would continue to operate with an emphasis on conserving the natural, cultural, recreational, and scenic resources within the existing NRA (see the map for Alternative 1). Bureau of Reclamation operations would continue unaffected. NPS would continue to cooperate with Colorado Division of Wildlife to address wildlife and habitat issues, and in managing fishing and hunting within the NRA. NPS would continue to work with neighboring land management agencies to resolve resource issues of mutual concern, as staff time and funding permit. Opportunities to partner with neighboring landowners in the service of resource conservation would be limited, and would be based largely on the involvement of other agencies, and based upon their funding and priorities. NPS participation would primarily consist of providing limited technical assistance and



Development adjacent to Curecanti NRA

advice. As a result, if recent development trends on private lands surrounding the NRA continue or increase, then the resources that know no boundary between the NRA and private land, especially scenic resources, would become increasingly vulnerable to adverse impacts, and NPS would have limited tools at its disposal to mitigate the impacts.

NATIONAL RECREATION AREA DESIGNATION AND BOUNDARY

Curecanti has yet to be legislatively established; however, it is regularly listed as a unit of the national park system in *The National Parks Index*, and it has been referred to in appropriations and other congressional bills as Curecanti National Recreation Area. The area currently consists of 41,790 acres of land and waters, which belong to the following federal agencies:

- Reclamation (managed by NPS, per agreement with Reclamation) = 40,360 acres
- NPS (managed by NPS) = 1,105 acres
- U.S. Forest Service (managed by NPS, per agreement with USFS) = 325 acres

Any boundary attributed to this area is unlegislated, administrative, and subject to change, based on agreements among and between the land management agencies involved, and rarely on legislative action. Under Alternative 1, the above situation would be unchanged. Curecanti would remain an unlegislated unit of the national park system, with only an administrative boundary.

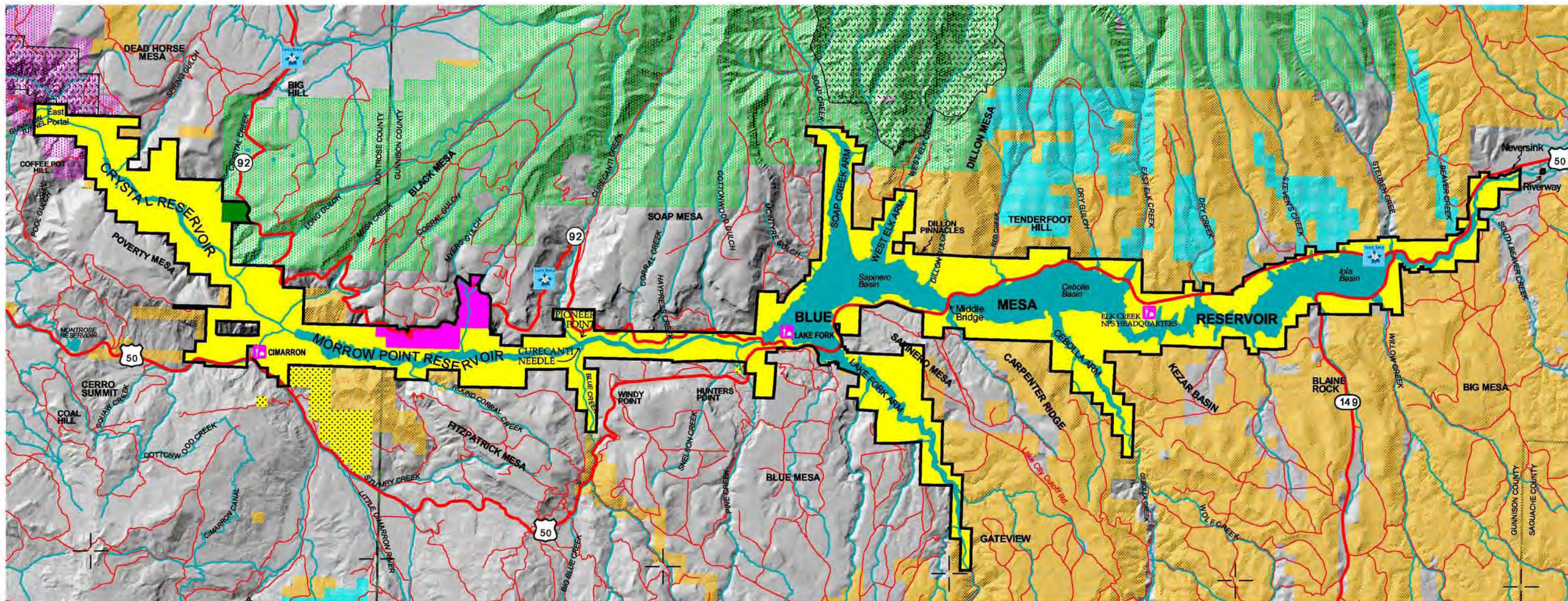
Since 1965, when NPS began administering the NRA under a Memorandum of Agreement (MOA) with Reclamation, from time to time managers made modifications to the land being administered. These administrative “adjustments” were mutually agreed upon between local agency managers, in consultation with Reclamation. However, these changes were not always reflected in the official NPS records. To rectify this situation, the RPS study team decided, as a starting point, to utilize a map that both NPS

and Reclamation had previously agreed to in writing. The title of that map is *Curecanti Unit, Upper Colorado River Storage Project, Colorado, Exhibit A, Version F (SA-CUR/7101-F)*, dated July, 1965, and commonly known as “Map F.” The study team then used this map to determine the acres agreed to, with some additional adjustments based on agreements that have been verified.

The sum total of the area being administered by NPS, as determined through this process, is 41,790 acres. This acreage differs from the total of 41,972 acres listed in the official index of the National Park Service, entitled *The National Parks: Index 2005 - 2007*, published in 2005 by the Government Printing Office. If, by passage of legislation, Congress approves the recommendations in the Proposed Action, an official legal description and map would then be prepared, and an official acreage would thus be generated, updating the acreage listed in the *Index*. However, if the proposed action is not implemented, and the area within the NRA remains essentially as it is now, Map F would be updated to reflect what NPS and Reclamation currently agree is the correct acreage, and the NPS index would be changed accordingly.

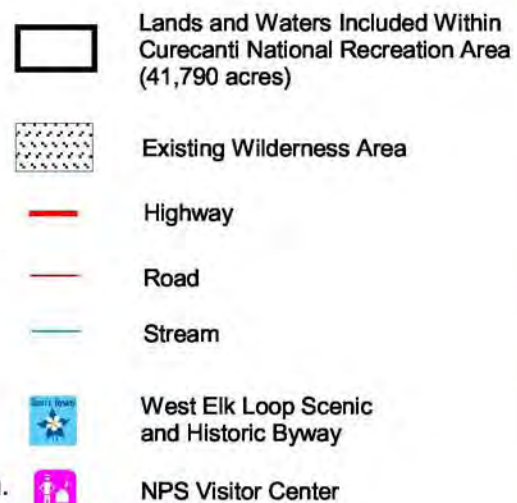
RESOURCE CONSERVATION

The National Park Service would have no legislated authority or available sources of funds to work with willing landowners outside the NRA to use a range of resource conservation tools, including, but not limited to, technical assistance, conservation easements, and, to some extent, fee simple acquisition. If a landowner were to be interested in conserving resource values on his or her property, NPS could provide only limited technical assistance. A landowner would be encouraged to contact other government agencies or land trusts for possible assistance or potential funding. NPS would continue cooperative efforts to maximize the success of partnerships wherever possible. Examples of land trusts include:



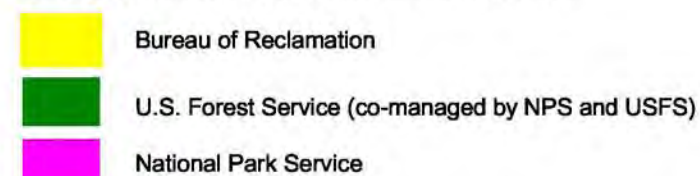
ALTERNATIVE 1: NO ACTION (CONTINUATION OF EXISTING CONDITIONS)

This alternative would include approximately 41,790 acres within the existing National Recreation Area (NRA) boundary. The National Park Service (NPS) would continue to manage the natural, cultural, and recreational resources of the NRA, and associated facilities, pursuant to Bureau of Reclamation (Reclamation) law, NPS law, the 1965 Memorandum of Agreement between NPS and Reclamation (1965 MOA), and other applicable laws and regulations. Reclamation would continue to manage the dams, reservoirs, power plants, access roads, and other related facilities, pursuant to Reclamation law, the 1965 MOA, and other applicable laws and regulations. There would be no Conservation Opportunity Area; and no lands would be transferred between NPS and other federal or state agencies. Compared to Alternative 2, NPS would be limited in its ability to work in partnership with adjacent private landowners in the service of resource conservation.

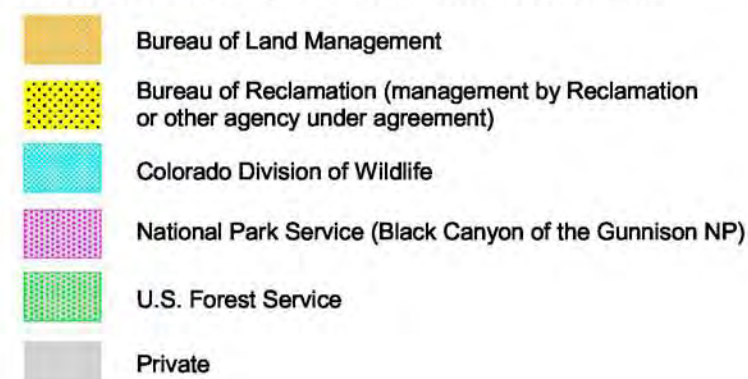


EXISTING LAND STATUS

Lands Within the National Recreation Area



Lands Surrounding the National Recreation Area



ALTERNATIVE 1: NO ACTION (CONTINUATION OF EXISTING CONDITIONS)

RESOURCE PROTECTION STUDY CURECANTI NATIONAL RECREATION AREA

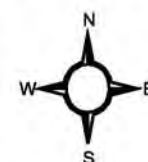
Gunnison and Montrose Counties, Colorado

National Park Service
U.S. Department of the Interior



IMDE 616
11/28/2006 20,023

NPS Disclaimer information: Property boundaries shown on this map are intended for study purposes only, and are not intended to be definitive regarding land ownership. County and agency land records will be used to verify ownership and definitively locate property lines and boundaries.



- Local land trusts, such as Gunnison Ranchland Conservation Legacy or Black Canyon Land Trust
- State or regional land trusts, such as Colorado Open Lands
- National land trusts, such as The Conservation Fund, The Nature Conservancy, or the Trust for Public Lands

NPS would continue to communicate and cooperate with those who hold private mineral/mining rights within the NRA, in order to provide appropriate measures to minimize impacts of development and operations that now exist, or might exist in the future. Rights would be purchased only if the owner would be willing to sell. However, since funds might not be available to purchase those rights, even if an owner wanted to sell, other resource conservation tools would be employed, such as identified in the *Toolbox of Incentives for Resource Conservation* in Appendix A.

NATIONAL RECREATION AREA MANAGEMENT

The National Park Service would continue to manage the natural, cultural, and recreational resources of the NRA and its associated facilities, pursuant to Reclamation law, NPS law, the 1965 MOA between NPS and Reclamation, and other applicable laws and regulations. However, under this alternative, the permanence of NPS as the manager of said resources would not be assured. Operational and maintenance agreements with Reclamation and other agencies would continue and be revised or updated, as necessary.

BUREAU OF RECLAMATION OPERATIONS

The Bureau of Reclamation would continue to operate and maintain the three dams, reservoirs (Blue Mesa, Morrow Point, and Crystal), power plants, access roads,

and other related facilities, to meet the purposes of the Colorado River Storage Project (CRSP), and the East Portal area to meet the purposes of the Uncompahgre Project; pursuant to Reclamation law, the 1965 MOA, and other applicable laws and regulations. Reclamation and its managing entities, and Western Area Power Administration (Western), would continue to have unrestricted access to their lands, land interests, and facilities. They would continue to operate, maintain, replace, and expand said facilities pursuant to their authorities to accomplish their missions.

Reclamation lands that are currently outside of the NRA would be managed in accordance with applicable Reclamation law, as amended or supplemented, and other applicable federal laws and regulations. Reclamation would work with appropriate agreed-upon managing agencies to ensure that its lands and their associated uses and resources are managed in a manner consistent with applicable laws and regulations, and in accordance with agreements between Reclamation and the other agencies.

OTHER AGENCY OPERATIONS

The National Park Service would continue to manage certain lands under an agreement with the U.S. Forest Service, including Ponderosa Campground. This agreement would, from time-to-time, be updated and revised. NPS would also continue to coordinate efforts and issues with BLM, CDOW, and USFS on adjacent agency lands; however, no additional transfer of lands would be anticipated.

JOINT AGENCY MANAGEMENT EFFORT (JAME)

As an on-going result of this RPS, the National Park Service has invited land management agencies with lands surrounding the NRA, and other federal and local government agencies, to work in partnership to address resource management issues that extend outside the NRA. These agencies include the BLM, Reclamation, Colorado

Department of Transportation (CDOT), CDOW, Colorado State Forest Service (CSFS), USFS, Western, and Gunnison and Montrose Counties. Under Alternative 1, this group would continue to meet to tackle resource issues on a thematic basis that are common to each agency. The agencies mutually agreed to work on issues pertaining to invasive plant species (i.e., weeds) as the first challenge of the JAME.

NPS would work with county planners and planning commissions to identify issues that affect, or potentially affect, the NRA. Whenever possible, solutions would be sought to mitigate impacts to resources.

ESTIMATED COSTS, STAFFING REQUIREMENTS, AND IMPLEMENTATION STRATEGY

Estimated Costs

To implement Alternative 1, there would be no additional costs beyond what is currently incurred, and what is expected to be incurred, by the government, because existing conditions would continue. Curecanti NRA and adjacent Black Canyon of the Gunnison National Park are jointly managed by the same superintendent and managers. The amount authorized for 2006 NPS operations (also known as ONPS) at Curecanti NRA is \$3,036,800. It is expected that this budget would be adjusted annually to cover cost-of-living increases and may be subject to other adjustments (for example, additional funding due to increased homeland security threats, or special assessments). As is currently the case, the ONPS budget may be supplemented with fee receipts and special project funds. Other annual sources of funding, that vary from year to year, include “soft” money, such as Repair/Rehab, and Cyclic Maintenance.

For direct comparison to the estimated costs of Alternative 2, the Proposed Action, the estimated cost to implement actions related to this study for Alternative 1 is \$500,000. This money would need to be

spent on missing and corrective surveys, posting, and some fencing along the existing administrative NRA boundary, even if the Proposed Action is not implemented. Under Alternative 1, there would be no additional recurring annual costs.

In the past, there have been instances where land has been acquired at fair market value to add to the NRA. Requests for congressional funding were made in those instances. This may continue to occur in the future, but to a significantly lesser extent than under Alternative 2 (the Proposed Action). Due to the uncertainty of those occurrences, and relatively low costs involved, no estimates are given for that potentiality.

Staffing Requirements

Currently, Curecanti NRA is operated by a staff of 53 full-time equivalent (FTE) employees. Staffing requirements would not change under Alternative 1, because existing conditions of NRA operations would continue.

Implementation Strategy

The strategy to implement Alternative 1 is for NPS to continue operating as it does now. The NRA would continue to work as much as existing funding and staffing permits in partnership with neighboring private landowners, land management agencies, county planners, land trusts, and others, to implement tools and to meet the goals and objectives of resource conservation in the Curecanti area. However, this would be to a significantly lesser extent than under Alternative 2 (the Proposed Action).

ALTERNATIVE 2: PROPOSED ACTION

OVERALL CONCEPT



NPS would cooperate with and assist private landowners to conserve resources surrounding Curecanti NRA

Under Alternative 2, it is recommended that Congress legislatively establish Curecanti NRA with a new boundary, and that the 1965 MOA between the Bureau of Reclamation (Reclamation) and the National Park Service (NPS) be revised accordingly. Reclamation operations would remain essentially the same as under Alternative 1; and NPS would manage lands within the NRA that it currently administers, as well as lands proposed for inclusion in the NRA from neighboring agencies. In addition, NPS would expand its efforts to conserve the natural, cultural, recreational, and scenic resources on certain lands surrounding the NRA, in partnership with willing landowners (see the map for Alternative 2). This would be accomplished by the following primary actions:

- Recommend that Congress establish a National Recreation Area, with a legislated boundary that includes agreed-upon additional lands now managed by adjacent federal and state agencies.

- Revise the 1965 MOA between NPS and Reclamation, and continue to work closely with Reclamation in the management of the NRA to ensure

that Reclamation and its managing entities and the Western Area Power Administration (Western), continue to accomplish their missions.

- Designate a Conservation Opportunity Area, consisting of identified private land surrounding the NRA, in which the National Park Service would be authorized by Congress to work with willing landowners to conserve resources, including acquiring agreed-upon interests in land.
- Work cooperatively with private landowners to implement a variety of tools for resource conservation, which would include but not be limited to providing technical assistance, encouraging and/or acquiring conservation easements, and to some extent, acquiring land in fee simple.
- Manage the NRA such that the natural, cultural, and scenic resources are conserved; and that water-based and land-based opportunities for recreation are made available to the public.

- Continue to work cooperatively with neighboring agencies in a Joint Agency Management Effort to resolve resource and visitor-use management issues of mutual concern. NPS would continue to cooperate with CDOW to address wildlife and habitat issues, and in managing fishing and hunting within the NRA.

One of the greatest differences between Alternatives 1 and 2 lies in the relationship between the National Park Service and surrounding private landowners. In recognition of the benefits of partnerships, and the potential impacts on natural, cultural, recreational, and scenic resources likely resulting from development of adjacent lands, under Alternative 2 (the Proposed Action), NPS would make a more concerted long-term effort to establish partnerships with neighboring landowners and others in the service of resource conservation.

If the recommendations in Alternative 2 are enacted, NPS would be given authority by Congress to formally work with landowners within a newly created COA, consisting of certain private lands, with the purpose of encouraging conservation of resources important to the NRA. Numerous incentives and tools for resource conservation would be made more readily available to landowners. With congressional authorization and subject to competing demands from other NPS units, there would be more opportunity for funds to be made available for acquisition of fee title or conservation easements from willing landowners in the COA; and additional funding would be provided for NPS to assist landowners in taking advantage of other incentives and tools.

Any arrangement made between NPS and a landowner would be on a cooperative basis. Potential long-term benefits would include enhanced resource conservation throughout the Curecanti area; property enhancement and financial and tax benefits for landowners; enhanced enjoyment, understanding, and appreciation for visitors to the NRA; an enriched local economy; and a sustained high

quality of life for local residents and all who visit the Curecanti area.



Reaching out to the public, a first step in creating partnerships

Alternative 2 embraces the philosophy of the Department of the Interior's former Secretary – the Four Cs: Communication, Consultation, and Cooperation, all in the service of Conservation. It also embraces the guidance of *NPS Management Policies 2006*, a summary of which follows (the full citations are available in Appendix C).

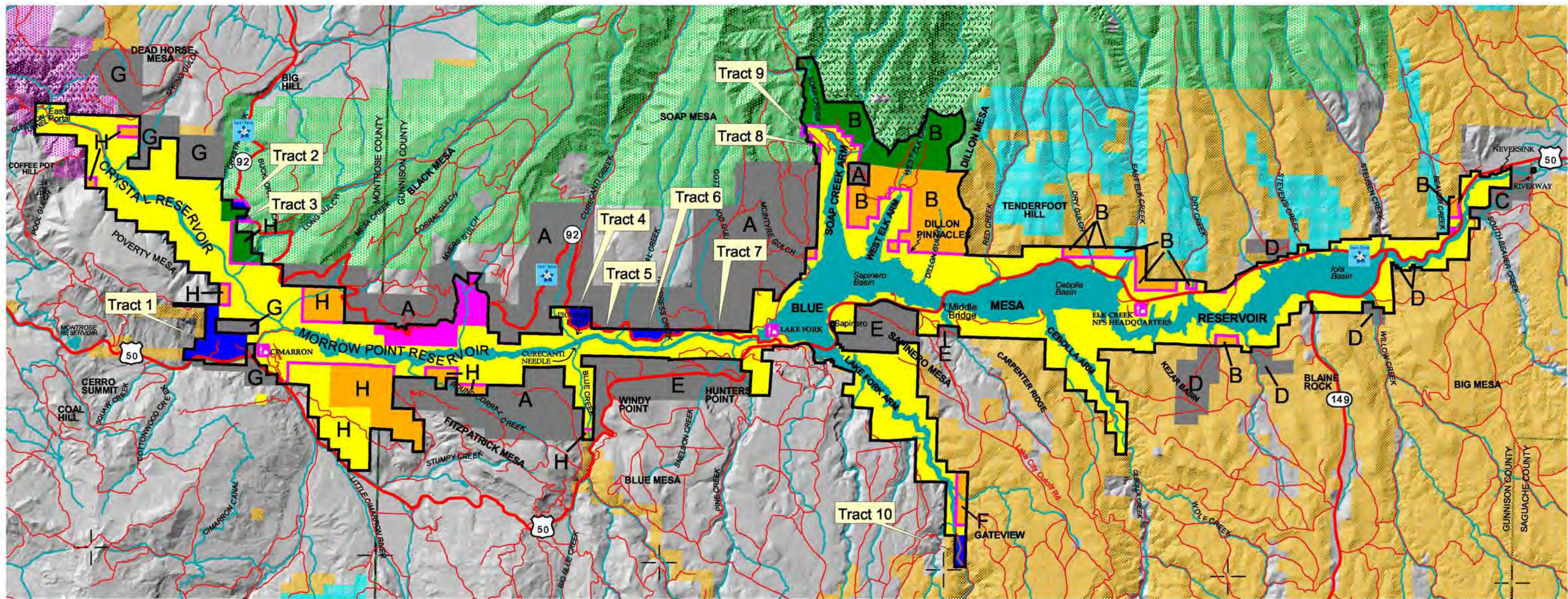
1.6 Cooperative Conservation Beyond Park¹ Boundaries

Cooperative conservation beyond park boundaries is necessary as the National Park Service strives to fulfill its mandate to preserve the natural and cultural resources of parks unimpaired for future generations. . . . Cooperative conservation activities are a vital element in establishing relationships that will benefit the parks and in fostering decisions that are sustainable. . . . The Service will also seek to advance opportunities for conservation partnerships.

4.1.4 Partnerships

The Service will pursue opportunities to improve natural resource management within parks and across administrative boundaries by pursuing cooperative conservation (with agencies and landowners). . . . The Service recognizes that cooperation . . . can accomplish

¹ In this context, the word “park” is a generic term for any unit of the national park system, be it a national park, a national monument, national historic site, national battlefield, national parkway, national seashore, national recreation area, or some other designation.



ALTERNATIVE 2: PROPOSED ACTION

This alternative would include 51,830 acres inside a legislated National Recreation Area (NRA) boundary, and 24,300 acres outside the boundary in a Conservation Opportunity Area (COA).² The proposed boundary would include the lands and waters within the existing NRA, with the immediate addition of 10,120 acres of mutually agreed-upon federal and state agency lands, less 80 acres of lands to be immediately deleted from the NRA.³ The 34,420 acres of COA and immediate additions are defined in this study as the "Proposed Lands." The National Park Service (NPS) would manage the natural, cultural and recreational resources of the NRA, and associated facilities, pursuant to Bureau of Reclamation (Reclamation) law, NPS law, including new legislation establishing the NRA, a revised Memorandum of Agreement between NPS and Reclamation (revised MOA), and other applicable laws and regulations. Reclamation would manage the dams, reservoirs, power plants, access roads, and other related facilities, pursuant to Reclamation law, the revised MOA, and other applicable laws and regulations. The ability of NPS to work in partnership with adjacent private land owners in the service of resource conservation would be greatly enhanced, compared to Alternative 1.

1. All acreages are approximate.
2. COA Defined: An area of private land surrounding the NRA where NPS would be authorized by Congress to use various tools to partner with neighbors to conserve resources. One of the many tools would be acquisition of interests in land, including fee simple, conservation easements, and access rights-of-way from willing sellers. NPS would be authorized to amend the NRA boundary to include properties that lie within the COA, if and when they are acquired.
3. Land adjustments with other agencies: Immediately upon passage of legislation, the following Proposed Lands would be added to the NRA — 5,840 acres of Bureau of Land Management (BLM) land; 2,640 acres of U.S. Forest Service (USFS) land; 1,500 acres of Reclamation withdrawn land; and 140 acres of Colorado Division of Wildlife (CDOW) land that would be managed by CDOW until such time that NPS can acquire it via exchange for federal lands. Ten "Tracts" have been identified for potential deletion from the NRA (refer to Alternatives Chapter for details). The immediate net addition to the NRA would be 10,040 acres.

- Proposed Curecanti National Recreation Area (NRA) Boundary (51,830 acres)
- Existing NRA (41,790 acres)
- Existing Wilderness Area
- Highway
- Road
- Stream
- West Elk Loop Scenic and Historic Byway
- NPS Visitor Center

LAND EXTERNAL TO PROPOSAL

- Bureau of Land Management
- Colorado Division of Wildlife
- National Park Service (Black Canyon of the Gunnison NP)
- U.S. Forest Service
- Private

"PROPOSED LANDS" DESCRIBED BY LAND UNIT

- A. Highway 92 COA (private lands)
- B. Blue Mesa Reservoir (agency lands)
- C. Gunnison River COA (private lands)
- D. Iola Basin COA (private lands)
- E. Sapinero/Blue Mesa COA (private lands)
- F. Gateview (agency lands)
- G. West-End COA (private lands)
- H. West-End (agency lands)

PROPOSED LAND STATUS

- Bureau of Land Management land to be transferred to NPS
- Bureau of Reclamation land, most of which remains within or is added to the NRA
- Colorado Division of Wildlife land to be acquired by NPS in exchange for mutually agreed-upon federal land
- National Park Service land remaining within the NRA
- U.S. Forest Service land to be transferred to NPS
- Ten "Tracts" of land proposed for deletion from NRA boundary subject to necessary approvals (see details for each Tract in Alternatives Chapter).
- Conservation Opportunity Area (private)

ALTERNATIVE 2: PROPOSED ACTION

RESOURCE PROTECTION STUDY CURECANTI NATIONAL RECREATION AREA

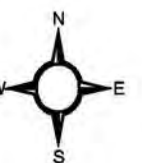
Gunnison and Montrose Counties, Colorado

National Park Service
U.S. Department of the Interior

2 0 2 4 Miles

IMDE 616
11/28/2006 20,024

NPS Disclaimer information: Property boundaries shown on this map are intended for study purposes only, and are not intended to be definitive regarding land ownership. County and agency land records will be used to verify ownership and definitively locate property lines and boundaries.



ecosystem stability and other resource management objectives when the best efforts of a single manager might fail. In addition, the Service will seek the cooperation of others in minimizing the impacts of influences originating outside parks by controlling noise and artificial lighting, maintaining water quality and quantity, eliminating toxic substances, preserving scenic views, improving air quality, preserving wetlands, protecting threatened or endangered species, eliminating exotic species, managing the use of pesticides, protecting shoreline processes, managing fires, managing boundary influences, and using other means of preserving and protecting natural resources.

NATIONAL RECREATION AREA DESIGNATION AND BOUNDARY

The “Proposed Lands” — Land to be Added to the Existing NRA, and the Conservation Opportunity Area

Under Alternative 2, it is recommended that Congress officially establish Curecanti as a National Recreation Area (NRA), with a legislated boundary. The new NRA would initially include 51,830 acres within its boundary. Outside and surrounding the NRA, 24,300 acres of private property would be designated as a Conservation Opportunity Area. Following the initial establishment of the new NRA boundary, as agreements are reached with neighboring land owners and agencies, the total acreage within the NRA would change over time by adding newly acquired land from willing landowners, by exchanging NRA land for private COA land, or by transferring agreed-upon land between NPS and other agencies. The COA and the proposed NRA boundary, including involved agency lands, are shown on the Alternative 2 map.

Upon passage of NRA legislation, the new boundary would immediately encompass the lands and waters within the existing NRA (41,790 acres), plus 10,040 net acres of mutually agreed-upon public lands that would be added to the NRA, but which would be administered by the National Park Service. The additional land would include

Reclamation lands (1,500 acres), BLM lands (5,840 acres), and USFS lands (2,560 net acres, consisting of 2,640 acres added, and 80 acres deleted). In addition, authority would be provided to include approximately 140 acres of CDOW land that would be managed by CDOW until such time that NPS can acquire it through an exchange for federal lands.

For purposes of this study, and found throughout the text, primarily with reference to Alternative 2 – the Proposed Action, the term “proposed lands” refers to 34,420 acres of land outside the existing NRA that are considered important for resource conservation, public recreation, and scenic values, in keeping with NRA and NPS goals and objectives. The proposed lands include the following lands that were just described (less the 80 acres of USFS lands that would be deleted from the NRA), specifically:

Public lands recommended to be transferred from other agencies to NPS to be included within the proposed NRA boundary immediately upon recommended passage of legislation that would establish the NRA (10,120 acres);

Private lands that are recommended to be included within the Conservation Opportunity Area, outside and adjacent to the proposed NRA boundary (24,300 acres).

All Reclamation lands, land interests, water and water interests, and facilities, whether within or outside of the NRA, would be retained under Reclamation jurisdiction for the operation, maintenance, and replacement of and additions to its projects. Management of various uses, as well as resources by other agencies, on Reclamation lands would be in accordance with Reclamation law, as amended and supplemented, and agreements with other agencies. Reclamation would have the ability at all times to construct, operate, maintain, and replace its facilities, including additions thereto. This ability includes access to all its lands, land interests, water and water interests, and facilities.

NPS would be given the authority to remedy inadvertent encroachment issues. Such remedies could include lease arrangements, buying and selling real property at fair market

value, or exchange. If such actions affect Reclamation land, NPS and Reclamation would coordinate efforts to resolve encroachment issues.

Lands to Be Deleted from the Existing NRA

A total of 1,243 acres of land have been identified for potential deletion from the existing NRA. These acres are shown as ten different “tracts” on the Alternative 2 map. As this study defines proposed lands, for clarity of discussion, especially in the Affected Environment and Environmental Consequences chapters, these deletions are not included in the term “proposed lands.”

In addition to the previously mentioned 80 acres of USFS land that would immediately be deleted from the NRA to be managed by USFS as part of the Gunnison National Forest, potential, eventual deletions would include 800 acres to BLM, and 363 acres that might be exchanged for private COA lands, on a willing landowner basis. These BLM- and COA-related deletions are Reclamation lands, and would be subject to a finding by Reclamation that such lands are no longer needed for Reclamation projects.

The locations of the tracts that might be exchanged for COA lands, and perhaps some additional tracts (subject to Reclamation concurrence), and the number of acres exchanged, would be identified in a land protection plan (LPP) that would be produced as one of the requirements of implementation of the Proposed Action. However, as mentioned, at least 363 acres of NRA land on the north side of CO 92, between Curecanti Creek and Blue Mesa Dam, have already been identified as being appropriate to exchange for private COA lands. These are shown as Tracts 4 through 7 on the Alternative 2 map.

Until such time that Reclamation revokes the lands that would be transferred out of the NRA to the BLM, NPS would consider entering into an agreement with BLM to manage those tracts. However, the 80 acres of land being recommended for deletion to be managed by USFS is not Reclamation land, and that deletion could occur as soon as NRA

legislation is passed and agreements between NPS and USFS are revised.

New NRA legislation should allow some flexibility for NPS managers to accomplish land exchanges with the identified tracts and with such tracts that might be identified in the future. If these potential exchanges were to occur, it would reduce the cost of acquiring interests in land that are shown later in the cost estimates for this alternative.

The ten tracts of land that are identified on the Alternative 2 map for potential deletion from the existing NRA consist of the following lands:

Tract 1: 680 acres to BLM, subject to Reclamation revocation

Tract 2: 42 acres to USFS, upon passage of NRA legislation

Tract 3: 21 acres to USFS, upon passage of NRA legislation

Tract 4: 162 acres to private interest, in exchange for COA land, subject to Reclamation revocation, and negotiation with landowner

Tract 5: 11 acres to private interest, in exchange for COA land, subject to Reclamation revocation, and negotiation with landowner

Tract 6: 159 acres to private interest, in exchange for COA land, subject to Reclamation revocation, and negotiation with landowner

Tract 7: 31 acres to private interest, in exchange for COA land, subject to Reclamation revocation, and negotiation with landowner

Tract 8: 3 acres to USFS, upon passage of NRA legislation

Tract 9: 14 acres to USFS, upon passage of NRA legislation

Tract 10: 120 acres to BLM, subject to Reclamation revocation.

RESOURCE CONSERVATION

Conservation Opportunity Area

A COA would be created outside, and adjacent to, the proposed NRA boundary. It would be comprised of 24,300 acres of private land where the National Park Service would be authorized by Congress to use resource conservation tools to partner with neighbors to conserve resources and values identified as important to the NRA. A variety of conservation tools, ranging from technical assistance to conservation easements to fee-simple acquisition, would be available to implement on these private lands subject to the willingness of the landowner to participate. It is currently envisioned that 2,400 acres would be necessary to acquire in fee simple; and 8,100 acres would be placed under conservation easement. However, it would be necessary to produce a land protection plan to establish land priorities, to determine which conservation tools are likely to be applied and where, and to make recommendations about what lands and/or land interests should be acquired from willing sellers.



Using conservation easements to conserve land adjacent to the NRA is an important tool of Alternative 2

The National Park Service would be authorized by Congress to negotiate with landowners and to seek necessary funding to implement these tools on properties within the COA. Some of the conservation tools may be implemented through NRA-based funding; some may be achieved through special project funds; and some may be accomplished through partner matches and other agency or

foundation grants. Land and conservation-easement acquisitions would be funded through the NPS Land Acquisition Ranking (LARS), in competition with the demands of other NPS units. No such authority would exist for lands outside the COA (with the exception of some technical assistance, if funding and staff were available). The National Park Service would be authorized by Congress to amend the proposed NRA boundary to include properties within the COA that are acquired in fee simple.

As an alternative to NPS ownership of conservation easements, land trusts and other conservation partners may be willing to acquire conservation easements, either by purchase or donation, as well as hold and monitor such easements. NPS would be willing to facilitate third-party acquisitions of conservation easements, which would serve to achieve resource conservation goals within the COA.

Resource Conservation Tools

An LPP would be developed to identify priorities and methods, or tools, for resource conservation within the COA. The LPP would meet the requirements of the National Environmental Policy Act (NEPA) to evaluate potential environmental and social impacts, and to provide opportunity for public review and comment prior to implementation.

Resource conservation tools that would be available for implementation under this alternative are summarized below. These tools are described more comprehensively in an NPS booklet titled *Toolbox of Incentives for Resource Conservation: A Handbook of Ideas for Neighbors in the Curecanti Area*, which is included in Appendix A. This toolbox identifies present and potential methods that can be employed to encourage Curecanti area neighbors to work in partnership to manage their lands for more effective resource conservation. Some of the incentives in this toolbox would require further analysis by NPS officials and, in some cases, would require congressional or legislative authorization and appropriation of funds.

Technical Assistance — NPS is currently able to provide a limited amount of environmental education and technical assistance to landowners. Under Alternative 2, NPS would be able to provide a broader range of assistance, such as:

- Offer, to a greater extent, advice regarding resource management and conservation measures, or directing individuals to appropriate sources of information
- Offer, to a greater extent, advice on siting and design considerations for aesthetically and environmentally sensitive development
- Offer, to a greater extent, jurisdictional advice, such as referring property owners to the appropriate government or organizational entity
- Offer, to a greater extent, advice on the location of wetlands, the need for permits, and ways to enhance wetlands habitat
- Provide information about various resource conservation practices, including those involving conservation easements and land trusts
- Provide assistance to obtain funding for worthwhile projects through government grants, such as U.S. Department of Agriculture cost-share grants to install animal waste-treatment units to promote cleaner surface water and groundwater, and state and federal funding to conserve habitat for endangered species.

General Agreements — General agreements and memorandums of understanding set the stage for short-term and long-term commitments in cooperative assistance, usually benefiting all parties involved. Agreements would be consistent with NPS and Reclamation law, regulations, and policies, and must be consistent and compatible with the purposes of the Reclamation projects.

- Examples include cost-sharing on projects that mutually benefit the parties, or understandings on how

certain activities or operations can occur. One party might agree to certain restrictions in return for other benefits, including technical assistance, labor, and/or materials needed to accomplish a project that would be of benefit to the property owner and NPS. Projects could include those that conserve wildlife and habitat, or those that reduce impacts to viewsheds.

- Agreements are especially useful if a conservation easement or fee simple acquisition is agreed upon, but funds are not yet available to implement. General agreements and memorandums of understanding clarify policies or procedures and can serve as the basis for cooperation among two or more parties. They are most likely to be useful for land owned by state or local governments, private nonprofit organizations, and other federal agencies, and by individuals or corporations who are supportive of NRA purposes, as well as resource-conservation initiatives. They may be terminated whenever any of the parties to the agreement wish, with proper notice.

Incentive Payments – Payments are made to property owners and other entities that enter into contracts to conserve or enhance recreational, cultural, and natural resources through a variety of grant programs, including those of NPS, US Fish and Wildlife Service, CDOW, and others.

Acquisition of Conservation Easements or Other Property Rights – In this program, NPS, another agency, or a land trust, acquires an interest in the property on a willing-seller basis, for conservation purposes. The types of tools used include acquisition of conservation easements or deed restrictions, mineral rights, and/or rights-of-way. Activities that are not in conflict with the purposes of the easement or deed are generally allowed, while specific restrictions ensure that uses of the property remain compatible with the conservation purposes spelled out in the easement or deed. Although the landowner continues to pay

property taxes, there may be significant income tax and estate tax benefits to the landowner.

Purchase and Retained Use and Occupancy — In this scenario, NPS would buy the property from a willing seller at fair-market value, and the owner would be allowed to remain on the property until death (life estate), or some other agreed-upon time period, such as 25 years. Life estates impact valuation, and appraisals are lowered using an actuary table on life expectancy. Since the owner would no longer be paying property taxes, the federal government may provide payment-in-lieu-of-taxes (PILT) to the county.

Fee Simple Acquisition — NPS acquires all rights or interests in the land on a willing-seller basis. Since the owner would no longer be paying property taxes, the federal government may provide PILT to the county. Acquisition could occur through a variety of methods, including:

- The landowner could be paid a fair-market-value price from sources of funding that might include congressional appropriations, such as the Land and Water Conservation Fund (LWCF); donated monies; or third party grants.
- Land could be exchanged between the property owner and a federal or state agency. For example, the LPP might identify lands to be exchanged in return for lands to be acquired.
- The landowner could donate land to the National Park Service, or sell land at a discount, and, in turn, receive certain tax advantages.

This study recognizes that the availability of federal funds for acquiring interests in land may be limited. However, many of the goals and objectives of Alternative 2 would still be achievable through the application of other tools that could be used to provide incentives to willing landowners for conserving resources.

Water rights would be specifically addressed as a condition of each sale, exchange, and/

or donation. In general, water rights are appurtenant to the land, unless specifically stated otherwise. Land exchanges between Bureaus of the United States simply affect how a particular parcel of land is administered, and all existing water rights remain the property of the United States. Water rights associated with land exchanges or purchases with the State of Colorado, as well as private landowners, would become the property of the United States, unless language in the sale or exchange states otherwise. Note that in Colorado, Instream Flow Rights, whether on federal, state, or private land, can only be held by the Colorado Water Conservation Board.

Private Land Use within the NRA

As in Alternative 1, NPS would continue to communicate and cooperate with those who hold private mineral/mining rights within the NRA in order to provide appropriate measures to minimize impacts of development and operations that now exist, or might exist, in the future. This would also be done with those who might hold such rights in the COA. Although the NPS would be managing a congressionally designated NRA under Alternative 2, there may still be insufficient funds available to purchase those rights if the owner were willing to sell. However, more emphasis and funding would be available to implement other resource conservation tools, such as those identified above and in the *Toolbox of Incentives for Resource Conservation* in Appendix A.

NATIONAL RECREATION AREA MANAGEMENT

Under this alternative, it is recommended that Congress legislatively establish Curecanti NRA with a new boundary, and that the 1965 MOA between NPS and Reclamation be revised (revised MOA). The National Park Service would manage the natural, cultural, and recreational resources of the NRA, and its associated facilities, pursuant to Reclamation law, NPS law, including the new NRA legislation, the revised MOA, and other

applicable laws and regulations. The new MOA would further define the administrative jurisdiction, roles, and responsibilities of Reclamation and its managing entities, NPS, and Western within the NRA. Under this alternative, the permanence of NPS as the manager of these resources would be assured. NPS would, as necessary, revise any operation and maintenance agreements between it and other agencies, including Reclamation, BLM, and USFS, to reflect management changes resulting from legislative establishment of the NRA.



Morrow Point Reservoir boat tour

In order to successfully implement the proposals in Alternative 2, it would be necessary to hire an FTE employee to

oversee the associated operations into the future. The duties and required skills of such a “partnership liaison” are described later in Alternative 2 under “Staffing Requirements.” In addition, as interests are acquired in private property, an additional FTE would be required to monitor and manage those lands.

BUREAU OF RECLAMATION OPERATIONS

The Bureau of Reclamation would operate and maintain the three dams, reservoirs, (Blue Mesa, Morrow Point, and Crystal), power plants, access roads, and other related facilities, to meet the purposes of the CRSP; and the East Portal area, to meet the purposes of the Uncompahgre Project; pursuant to Reclamation law, the revised MOA, and other applicable laws and regulations. Reclamation, and its managing entities, and Western, would continue to have unrestricted access to their lands, land interests, water and water interests, and facilities. They would continue to operate, maintain, replace, and expand said facilities pursuant to their authorities to accomplish their missions.

Reclamation lands currently outside of, but contiguous with, the current NRA, would be added to the NRA until such time as Reclamation determines that the lands are no longer necessary for project purposes. Pending such a determination, those lands would be administered by Reclamation and NPS for their respective purposes in accordance with Reclamation law, as amended and supplemented, other applicable federal laws and regulations, and an MOA between Reclamation and NPS. Upon such a determination that the lands are no longer necessary for Reclamation project purposes, the lands may be retained within the NRA under NPS management, or deleted from the NRA and transferred to another agency, or otherwise be disposed of, as allowed by law.

OTHER AGENCY OPERATIONS

NPS would coordinate with BLM, USFS, and CDOW to evaluate operations pursuant to the transfer of lands identified under Alternative 2. NPS may enter into new, or revised, agreements with any or all of these agencies to define responsibilities and cooperative efforts arising out of legislative establishment of the NRA. NPS would also continue to coordinate efforts and issues with BLM, USFS, and CDOW on adjacent agency lands, such as might occur through participation in the JAME, described below.

NPS would work with CDOW and BLM to explore the potential land exchange for state-owned land identified in Alternative 2. In the event that such an exchange is implemented, it may be possible to extinguish one or more agreements between NPS and CDOW.

In the event that NPS acquires private land within the COA in the vicinity of Mesa Creek (the NE¼ of Section 33, and the N½ of Section 34, and the NW¼ of Section 35, all in Township 49 North, Range 6 West, NMPM), it is recommended that land south of CO 92 (about 260 acres) be included within the NRA, and the land north of CO 92 (about 300 acres) be transferred to the administration of the USFS for inclusion within the Gunnison

National Forest. At that time, NPS would request that a small parcel of land (about 26 acres) south of CO 92 on Mesa Creek, now within the Gunnison National Forest, be transferred to the NRA (said parcel is located in the SW¼ SW¼ of Section 26, and the SE¼ SE¼ of Section 27, all in Township 49 North, Range 6 West, NMPM). It is recommended that the south right-of-way line of CO 92 in this area be the NRA boundary, but only if, and when, the land within the COA in this location is acquired from a willing seller. The recommendation is made for the future (and not shown on the Alternative 2 map for immediate implementation), because until such time as the COA land might be acquired in this area, it would be more efficient for this 26-acre parcel to be continued to be managed as a contiguous tract of the National Forest, instead of as a detached tract of the NRA.

JOINT AGENCY MANAGEMENT EFFORT

As described in Alternative 1, NPS and other federal, state, and local agencies would continue the JAME to address resource issues, such as noxious weeds, that are common to each agency.

NPS would be more proactive in working with County Planners and Planning Commissions. NPS would encourage Gunnison County to evaluate a potential Special Geographic Area to complement the efforts of partnership within the COA. NPS would also encourage Montrose

County, upon revision of their Master Plan, to establish a conservation overlay zone that includes the NRA and COA. Such a zone could be used to guide development decisions in that area.

ESTIMATED COSTS, STAFFING REQUIREMENTS, AND IMPLEMENTATION STRATEGY

Estimated Costs

The total cost of implementing Alternative 2 would occur over many years into the future, and it would depend primarily on the willingness and the degree of participation of private landowners in the effort, and the types of tools employed to conserve resources. Many factors contribute to the total cost of implementation. Perhaps the greatest, single, cost element would be acquiring interests in land, such as fee simple acquisition and conservation easements. Those costs are very uncertain because of numerous unpredictable and variable factors, such as:

- The number of landowners willing to participate
- Determination by a land protection plan (LPP) of priorities of land to conserve, and appropriate conservation tools
- Change in fair market value of property
- Availability of funds for acquisition of interests in land
- The time between property appraisals and availability of funds
- The interest and assistance from other parties, such as land trusts and conservation organizations
- Future changes in federal and state tax and estate laws that might affect landowners' decisions to sell or donate land or conservation easements.

The relatively high anticipated cost of acquiring interests in



Agency cooperation and COA tools will help conserve agrarian values in the future

land is a major reason that other tools are being considered to work in partnership with landowners to conserve resources, so that goals and objectives can be realistically achieved. Therefore, it would be necessary to develop an LPP early in the process to set priorities on which parcels of land are most important to conserve, and which tools would be adequate in each case. At that time, requests for funds for those parcels of land for which monies are required would be considered through the NPS land acquisition ranking system (LARS) in light of competing demands from other NPS units. Potential sources of funding are listed in the “Implementation Strategy” section of this chapter, below. However, to the greatest extent possible, NPS would pursue tools of a partnership nature with willing landowners, conservation organizations, land trusts, and other agencies, including matching grants and similar cost-sharing efforts, that could result in lower direct costs to NPS, while still satisfying resource conservation goals and objectives, as well as landowner goals and objectives.

In order to arrive at an estimate of the direct costs for acquiring interests in land, assumptions have been made on the number of acres that might be identified in a future LPP for conservation easements and fee simple acquisition, all of which would be consummated only if land owners were willing to participate. The most likely scenario is that a relatively small percentage of the 24,300 acres of private land in the COA would be so managed. Current thinking is that approximately one tenth (2,400 acres) would eventually be acquired in fee simple, and approximately one third (8,100 acres) would eventually be placed under conservation easements. There is a potential for some NRA lands to be exchanged for private COA lands, subject to landowner agreement. This would reduce the cost of acquiring interests in land, shown on the following pages (see also the discussion of potential deletions from the NRA in the section on National Recreation Area Designation and Boundary, earlier in this chapter).

Because of the uncertainty in predicting future property values, the estimated costs per acre of land used in the calculations are based on current market values (see a discussion of Property Values in the Affected Environment chapter, under Neighboring Private Lands and Landowners within the Proposed Lands). Future market values could be greater or less than those used in the calculations. For fee simple acquisition of land within Gunnison County, a median value of \$2,750 per acre was used; and within Montrose County, \$1,000 per acre.

For conservation easements, or CEs, a factor of 60% of the fee simple value was used to come up with \$1,650 per acre in Gunnison County, and \$600 per acre in Montrose County. However, with increased interest and activity from regional and national land trusts and other conservation organizations, the costs of acquiring CEs could be reduced because of additional matching funds, increased emphasis on discounted sales of CEs, and increased emphasis on donations of CEs. In such cases, third parties would likely be the holders and monitors of CEs, and federal acquisitions would be combinations of donations, tax incentives, and bargain sales. Because of these factors, it is estimated that acquisition of the CEs in the COA would be 50% of face value of the CEs; or \$825 per acre in Gunnison County and \$300 per acre in Montrose County.

Because of the many unknowns that influence the cost of acquiring interests in land, including donations and third party involvement, and what interests would eventually be acquired, the estimated costs to the government are presented as a range. Since most of the land in which NPS might be acquiring an interest would probably be located in Gunnison County, the land values for Gunnison County were used in the calculations. Thus, \$2,750 per acre was used to calculate the high range for fee simple acquisition, and \$825 per acre was used to calculate the high range for CEs. The low range was determined by assuming that up to 2,500 acres of the most important land in the COA in which NPS feels it should

acquire an interest would at least come under conservation easements at approximately \$825 per acre.

In addition to the direct costs of acquiring interests in land, there are a number of other cost items that would be incurred with the implementation of Alternative 2 that are more predictable. These include a land protection plan; land appraisals tied to acquisition of land and conservation easements; environmental assessments to determine, among other things, the presence of hazardous materials; associated closing costs, such as title commitments and recording fees; surveys for the proposed NRA boundary; marking, or “posting” the entire boundary; fencing about one-fourth of the boundary in selected areas; and specific implementation plans to determine necessary and appropriate resource management, interpretation, and visitor use and understanding on newly acquired lands. These are one-time expenditures that are expected to occur during implementation of Alternative 2.

Other costs that would occur on an annual basis are for staffing that would be required to implement Alternative 2. One dedicated position would be needed to serve as a “partnership liaison” between the NRA and its neighbors to implement the study’s recommendations over the long term. The anticipated duties of that position are described later in this chapter under Staffing Requirements. In addition, as new lands are added to the NRA, work would be required associated with the management of those lands, and new facilities that might be constructed on them for visitor use and resource conservation. This work would be spread over all divisions of the NRA. Personnel required to fill the dedicated position and to perform the additional work associated with managing new lands are estimated to be the equivalent of two full-time employees.

Estimated Costs of Implementing the Proposed Action: The estimated costs of implementing the Proposed Action are shown below. The figures include the direct costs of acquiring interests in land, and the expected

costs of establishing the initial proposed NRA boundary, as well as incorporating changes to the boundary that might reasonably occur.

- One-Time Costs:
 - Acquiring interests in land from willing private landowners within the COA = \$2,000,000 to \$13,283,000
 - Fee Simple Acquisition (High Range): 2,400 acres @ \$2,750/acre = \$6,600,000
 - Acquisition of Conservation Easements (High Range): 8,100 acres @ \$825/acre = \$6,683,000
 - Land Protection Plan = \$150,000
 - Land Appraisals, Environmental Assessments, and Closing Costs = \$300,000
 - Boundary Surveys and Posting = \$800,000
 - Boundary Fencing = \$240,000
 - Specific Implementation Plans for New Lands = \$200,000
- One-Time Costs = \$3,690,000 to \$14,973,000**

- Recurring Annual Costs: In addition to the One-Time Costs shown above, as the Proposed Action becomes fully implemented, there will be an annual cost of \$160,000 for the equivalent of two full-time employees, as shown below.
 - Upon initiation of implementation — an additional full-time NRA staff “partnership liaison” position, at \$80,000 per year
 - Upon acquisition of sufficient interests in land — the equivalent of one additional full-time employee for resource and visitor management and protection, interpretation, construction and maintenance, and administration associated with the management of newly acquired interests in land, at \$80,000 per year

This study recognizes that the availability of federal funds for acquiring interests in land may be limited. However, many of the goals and objectives of Alternative 2 would still be achievable through the application of other tools that could be used to provide incentives to willing landowners for conserving resources.

Management Requirements

Partnership Liaison — A new “partnership liaison” position would be added to the NRA staff to implement the Proposed Action, and to oversee and sustain its operation into the future. That person would need to have a wide range of knowledge, skills, and abilities in order to perform a broad variety of duties associated with the position. The duties and qualifications associated with the position would include the following.

- Perform as the NRA liaison with private landowners, adjacent land-management agencies, regional and national land trusts, conservation organizations, county planners and officials, and other neighbors and stakeholders
- Write and implement a land protection plan
- Work with private landowners to implement the tools of resource conservation, including negotiations leading to acquiring interests in land
- Coordinate appraisals and environmental assessments
- Implement boundary surveys, marking and posting, and fencing
- Write grant proposals
- Monitor conservation easements
- Provide and/or coordinate technical assistance to neighboring private landowners in the areas of natural, historical, and archeological resource

conservation and enhancement, especially preserving and improving natural habitat, and conserving water quality; planning, siting, and design considerations for development; and protecting life and property from wildfire

- Coordinate the JAME
- Coordinate the development and implementation of specific implementation plans for new lands

NRA Operations — As more interests in land are acquired over time from other government agencies and from willing private landowners, there would be an increasing requirement for NRA staff in the following areas of operations:

- To monitor and conserve the natural and cultural resources on those lands
- To coordinate the administration of grazing permits that exist on lands transferred to the NRA
- To provide for additional recreational and interpretive opportunities, and the safety of NRA visitors
- To construct and maintain the necessary and appropriate facilities for resource conservation and visitor use, such as fencing and trails
- To provide administrative support for technical assistance to neighbors.

Eventually, this work would require the equivalent of one additional FTE, shared among all five operating divisions at the NRA: Resource Stewardship and Science; Interpretation, Education, and Technology; Visitor Protection and Fee Collection; Facility Management; and Administration.

Implementation Strategy

Alternative 2 would be implemented over a period of many years. NRA staff is currently making some efforts in partnering with other land management agencies, county planners, land trusts, and, to a lesser extent, private landowners, to identify and achieve goals related to resource conservation in the Curecanti area. However, the real benefits of Alternative 2 would

not occur until the study's recommendations have been approved, legislation is enacted, additional staff is hired, required funding is appropriated, and the proposed actions and appropriate tools of resource conservation are implemented. The greatest amount of implementation is expected to occur within the first ten years of congressional approval of this study's recommendations.

The following actions would be required to fully implement Alternative 2.

- Congress would need to approve the recommendations in this study and establish the following:
 - Official designation of Curecanti National Recreation Area, with a new legislated boundary
 - Authorization for NPS to manage the NRA
 - Approval of the COA concept
 - Authorization for NPS to work with willing landowners to employ tools of resource conservation in the COA, including acquisition of interests in private property
 - Approval of NPS to adjust the proposed NRA boundary accordingly, when appropriate interests in land are acquired.
- There are three levels of specificity of management direction and legislative language associated with the recommendations of this RPS: (1) the RPS and associated Report to Congress, or Report; (2) proposed legislation; and (3) a revised MOA between NPS and Reclamation.
 1. This RPS document presents the intent of the proposed legislation that would create the NRA. The Report to Congress, which will be written jointly by Reclamation and NPS, will identify issues that need to be addressed in the legislation. Although these issues are discussed to a certain extent in the RPS, they

will be addressed in more detail in the body of the Report to Congress.

2. The legislation would specify the management responsibilities of Reclamation and NPS within the new NRA. The legislation should show the same level of specificity as the Report. Both NPS and Reclamation would have opportunities to review and provide input into the legislation. Although it is not known as of yet who would prepare such legislation, it is anticipated that NPS would be the preparing agency.
 3. A new MOA between NPS and Reclamation, and coauthored by both agencies, would be written to describe, in detail, the responsibilities of the two agencies regarding the administration and management of the NRA. The preparation of a new MOA would be mandated by the legislation. It is expected to be similar to the existing 1965 MOA between the two agencies, wherein the following responsibilities would continue:
 - a. NPS would manage the natural, cultural, and recreational resources, and associated facilities.
 - b. Reclamation would manage all facilities associated with Reclamation projects.
 - c. In areas where management responsibility overlaps, the two agencies would work together, when necessary, to resolve conflicting uses with full respect for the legislative mandate of the other agency. The ability to operate the Aspinall Unit and Uncompahgre Project for their authorized purposes would be given priority.
- The NRA must assign someone on staff to serve as a “partnership liaison”. This

may require hiring one FTE, and would require an increase in ONPS funding.

- Consultation and coordination in the service of resource conservation must be increased between the NRA and its neighbors.
- An LPP must be developed to identify land conservation priorities and to define the “tools” of resource conservation appropriate for each parcel of land.
- Land appraisals and environmental assessments must be completed for lands that might be acquired.
- Agreed-upon interests in land must be acquired. In some cases, private landowners may agree to donate or exchange land or interests in land. Where that is not the case, and purchase is required, sources of funding might include the following:
 - The Land and Water Conservation Fund
 - Line-item appropriations
 - Federal and State grants
 - NPS cost-share program
 - Nonprofit organizations and friends of the NRA
 - Private sector donations
 - Third-party entities, such as land trusts and conservation organizations.
- Boundary surveys must be completed, and the new boundary marked, posted, and fenced, where necessary.
- Additional staff must be hired to manage additional lands in which interests are acquired.
- Resource data for newly acquired lands must be obtained and analyzed in preparation for a new GMP or implementation plan.
- A new general management plan or implementation plan must be written for the NRA to determine

how newly acquired lands would be managed, where new resource-based recreational and interpretive opportunities would be provided, and what developments would be necessary and appropriate to provide for those opportunities.

FINDINGS AND GUIDING PRINCIPLES REGARDING THE STUDY’S RECOMMENDATIONS

In the course of conducting the RPS, numerous findings and guiding principles were identified that need to be emphasized and carefully considered when implementing the study’s recommendations, especially regarding new NRA legislation that might be enacted, and revised or new agreements among Reclamation, NPS, and/or other agencies. Many of those findings and principles relate to laws, policies, regulations, and the missions of the two agencies, by which Reclamation and NPS must operate. Some of these apply equally to Reclamation and NPS, as Federal agencies within the DOI. However, some of these are unique to each agency, since they have different missions. These important findings and principles are summarized below.

- The Uncompahgre Project and the Aspinall Unit of the CRSP, their associated facilities, lands, water, and other resources, and their use by the public, are significant public benefits within, and adjacent to, the NRA.
- The majority of the lands currently within the NRA, and some currently outside of it, were withdrawn or acquired for Reclamation purposes, including the Uncompahgre Project and the Aspinall Unit of the CRSP.
- The current presence of NPS within, and administration of, most of the NRA for recreation and other purposes is pursuant to and subject to Reclamation law, as amended and supplemented, which generally requires that such

administration be consistent or compatible with the primary purposes of all Reclamation projects. Thus, Reclamation has existing legal rights within and adjacent to the NRA that predate and take precedence over NPS's rights or uses.

- Reclamation operations along the three reservoirs under the CRSP Act continue to provide recreational and scenic values that support legislative designation of the area as the Curecanti NRA. Any legislation for the NRA should allow that situation to continue, without any additional limitations on Reclamation's operational capabilities.
- The prior intent of the DOI was that contiguous Reclamation lands along the Gunnison River upstream of the Black Canyon of the Gunnison National Park (BLCA) were to be administered by NPS for recreational and other purposes pursuant to Reclamation law. The 1965 MOA between Reclamation and NPS provided for such management on Aspinall Unit lands pursuant to Section 8 of CRSPA, and allowed for the future inclusion of additional acquired or withdrawn lands. For example, in 1978, Uncompahgre Project lands in the East Portal area were added to the MOA and the NRA. However, the 1965 MOA did not address future deletion of lands from the NRA, nor were there appropriate supplemental agreements to address the management of deleted lands by another federal agency. A revised MOA should address both the addition and deletion of lands to and from the NRA, as well as the management of deleted lands by another federal agency, or disposition thereof to private, state, or other ownership.
- Both BOR and NPS have differing missions and management directives within, and adjacent to, the NRA. The current management agreement between Reclamation and NPS

should be updated to better reflect the roles and responsibilities of the respective agencies.

- There are numerous and varied existing legal rights on lands within the study area that may affect management of the NRA. These rights either need to be recognized and honored, or they need to be acquired through appropriate means. Either way, these rights will affect management of the NRA. These rights include, but are not limited to, reserved mineral rights (such as the Dickerson decomposed granite pit), transmission rights-of-way (Western, Gunnison County Electric Association, Qwest Communications, and others), and access rights (Lake Fork Cove and Blue Mesa Village subdivisions, Sapinero, and others).

IMPORTANT CONSIDERATIONS REGARDING RECOMMENDATIONS TO CONGRESS

This study's Proposed Action recommends that Congress enact legislation regarding the official designation of Curecanti NRA. The study team has identified the following considerations to be of paramount importance in drafting any such legislation.

- Congress should designate the area identified in the proposed action as the "Curecanti National Recreation Area."
- Any such NRA designation and associated legislation should protect Reclamation's ability to meet its mission, including project operation, maintenance, replacement, and land addition or expansion, if and when necessary, on all of its lands within and adjacent to the NRA. Reclamation's ability to meet its mission and to conduct project-related operations on any of its lands should not be diminished or hindered as a result of the designation of the area as an NRA. Likewise, any such NRA

designation and associated legislation should provide NPS reasonable and appropriate authority to meet its mission within and adjacent to the NRA, provided that Reclamation's prior authority to meet its mission on the same lands is not diminished or hindered in any way.

- Any such NRA designation and associated legislation should allow for future adjustments to the proposed NRA boundary that are mutually acceptable to Reclamation, NPS, and other affected Federal and State agencies.
- Any legislation establishing the NRA should provide for coordinated management through an agreement between Reclamation and NPS that identifies their respective roles and responsibilities. This legislation should be relatively broad and not overly specific on how the NRA is to be managed. Other documents would go into more detail describing how the NRA should be managed. These documents would include a new MOA between Reclamation and NPS, and a revised NPS GMP or implementation plan for the NRA.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ASSESSMENT

NATIONAL RECREATION AREA BOUNDARY

Boundary Alternative A

This alternative was not presented in the Fall 2003 newsletter, but was considered early in the alternatives development process. Alternative A would have created a legislative boundary of 51,830 acres, including the existing NRA lands (41,790 acres) and agency land transfers (10,040 acres net), as

described in Alternative 2 (the Proposed Action). However, unlike Alternative 2, a COA comprised of private land is not identified. Thus, there would be no congressionally approved authority for NPS to work cooperatively with landowners to apply conservation tools within a designated area.

This alternative was dismissed from further consideration, because it did not adequately address the mandate from Congress to "identify practicable alternatives that protect the resource value and character of the land within and surrounding the Curecanti National Recreation Area."

Boundary Alternative B

This alternative was introduced as Alternative 3 in the Fall 2003 newsletter. It would have created a legislated boundary of 59,380 acres.² In addition to land transferred from other agencies, as described in Alternative 2 (the Proposed Action), a COA would have been designated that includes 7,550 acres of private land within the legislated NRA boundary, and 16,750 acres of private land outside the NRA boundary. Lands within the legislated boundary would have included:

- 41,790 acres of existing NRA lands
- 10,040 net acres from other agencies
- 7,550 acres of private land.

This alternative was dismissed from further consideration, because the range of possible future actions and potential impacts under this alternative are not substantially different from those of Alternative 2 (the Proposed Action). Because the lands transferred among the agencies and the extent of the COA are the same, the location of the boundary is the only major difference. The only differences in impacts associated with the boundary location appeared to be varying landowner perceptions of government control among the alternatives, whereas, in effect, landowners would have the same control over what happens to their property in all alternatives.

² The acreages shown here differ from those in the Fall 2003 newsletter. As a result of input received from the newsletter and further analysis by the study team, the acreages have been adjusted to be consistent with the current recommendations.

Furthermore, comments received in response to the Fall 2003 newsletter indicated that there is a perception that this alternative would have greater adverse impacts on private landowners than Alternatives 1 or 2.

Boundary Alternative C

Identified as Alternative 4 in the Fall 2003 newsletter, Boundary Alternative C would have created a legislative boundary of 76,130 acres³. It would have included lands transferred from other agencies (same as in Alternative 2) and the entire COA of 24,300 acres of private land. Lands within the legislated boundary would have included:

- 41,790 acres of existing NRA
- 10,040 acres of land from other agencies
- 24,300 acres of private land.

As described in Boundary Alternative B, this alternative was dismissed from further consideration because the range of possible future actions and potential impacts are not substantially different from those of Alternative 2 (the Proposed Action). Furthermore, as in Boundary Alternative B, comments received in response to the Fall 2003 newsletter indicated that there is a perception that this alternative would have greater adverse impacts on private landowners than Alternatives 1 and 2.

Boundary Alternative D

This alternative was not presented in the Fall 2003 newsletter. It would have created a legislative boundary of 76,130 acres, including land transferred from other agencies and the 24,300 acres of private land identified as important to the NRA for resource conservation. However, in this alternative, the 24,300 acres of private land would not be identified as a Conservation Opportunity Area. Rather, it would be designated for fee simple acquisition by NPS on a willing-landowner basis.

This alternative was dismissed from further consideration, because it is expected to be prohibitively expensive. In addition, based on comments received on alternatives that were included in the Fall 2003 newsletter, it is expected that Boundary Alternative D would be perceived as having the greatest adverse impact on private landowners of all alternatives. Thus, it is not a practicable alternative as required by legislation authorizing the study.

NATIONAL RECREATION AREA MANAGEMENT

Different scenarios for management of the NRA have been considered throughout the planning process, none of which would affect the boundary alternatives. These scenarios include management of various sections of the NRA by various agencies other than NPS, including BLM, Reclamation, USFS, and Colorado State Parks. These alternative management scenarios were dismissed from further consideration for the following reasons:

- BLM, Colorado State Parks, and the USFS provided input during consultation and stated that they are not interested in directly managing the NRA.
- Reclamation manages its facilities, reservoirs, lands, land interests, water and water interests in the area, to meet CRSP and Uncompahgre Project purposes, and it has contracted with NPS for management of recreation and certain other resources on Reclamation lands within the NRA. NPS, under a current agreement with Reclamation, already manages the natural, cultural, and recreational resources of the NRA and is interested in continuing to do so.

³ The acreages shown here differ from those in the Fall 2003 newsletter. As a result of input received from the newsletter and further analysis by the study team, the acreages have been adjusted to be consistent with the current recommendations.

THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

Alternative 2 (the Proposed Action) is also the Environmentally Preferred Alternative. The reasons are stated below.

The Environmentally Preferred Alternative is defined by the Council on Environmental Quality (CEQ) as the alternative that best meets the following criteria or objectives, as set out in Section 101 of the *National Environmental Policy Act*: (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (2) ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences; (4) preserve important natural, cultural, and historic aspects of our national heritage, and maintain, whenever possible, an environment that supports diversity and a variety of individual choice; (5) achieve a balance between population and resource use that would permit high standards of living and a wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

According to the “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations” (40 CFR 1500-1508), Federal Register Vol. 46, No. 55, 18026-18038, March 23, 1981: Question 6a), “Generally this means the alternative that causes the least damage to the biological and physical environment. It also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources.”

This discussion also summarizes the extent to which each alternative meets Section 102(1) of the *National Environmental Policy Act*, which asks that agencies administer their own plans, regulations, and laws so that they are consistent, to the fullest extent possible, with the policies outlined above.

Alternative 1 would satisfy to some extent the majority of the six requirements detailed above. However, Alternative 1 would not give NPS the authority or funding to acquire interests in land, or to implement other resource conservation tools with willing landowners. Some private lands surrounding the NRA would likely be developed within the next 5 to 10 years, potentially resulting in impacts to multiple resources or scenic vistas, depending upon the location of the property. Thus, Alternative 1 would not ensure aesthetically pleasing surroundings, prevent degradation of the environment, or achieve a balance between population and resource use that permits a wide sharing of amenities. Alternative 1 would not be the Environmentally Preferred Alternative because of the potential impacts of development on visitor enjoyment, natural, cultural, and historic resources, and other opportunities in the NRA. For this reason, Alternative 1 is not preferred from an environmental perspective.

Alternative 2 would more completely satisfy the six requirements through establishment of the COA. Under this alternative, NPS would be authorized to support landowners in voluntary implementation of resource conservation tools; to seek partnerships with landowners; or to fund acquisitions and additions to the NRA. NPS would work closely with local counties, neighboring land management agencies, and other organizations, to reach the common goals of resource conservation and public recreation. These efforts, in combination with the COA, would help sustain the economic benefits of the NRA, while helping to ensure the preservation of important natural, cultural, and historic aspects of our national heritage, including preservation of a renewable energy resource, and to maintain an environment that supports diversity and a variety of individual choices.

Based on the analysis associated with the RPS at Curecanti NRA, Alternative 2 is considered the Environmentally Preferred Alternative by best fulfilling NPS responsibilities as trustee of sensitive habitat; by ensuring safe, healthful, productive, and aesthetically and culturally

pleasing surroundings; and by achieving a balance between population and resource use that would permit high standards of living and a wide sharing of life's amenities.

EXTENT TO WHICH THE PROPOSED ACTION MEETS BOUNDARY ADJUSTMENT CRITERIA

NEED AND OPPORTUNITY

As stated in the opening section of this chapter, NPS *Management Policies 2006* lists five conditions or reasons for when NPS may recommend boundary revisions. The first three criteria focus on the need and opportunity for boundary adjustment, based on the quality and character of the resources adjacent to the current NRA on lands that may be transferred or acquired. Boundary adjustments may be appropriate for any one or more of these three criteria listed. The remaining two criteria focus on the suitability and feasibility of NPS undertaking the boundary adjustment.

Alternative 2 (the Proposed Action) provides the opportunity for Federal lands to be transferred among agencies and for the acquisition of private land, if a landowner is interested. All the land units within the proposed lands have significant resources or opportunities for recreation, as well as for visitor understanding. Land Units B (Blue Mesa Reservoir Agency), F (Gateview Agency), and H (west of Fitzpatrick and Black Mesas) contain other agency lands that are proposed for transfer to address operational or management issues. The following are examples of land units within the COA that contain resources worthy of seeking partnerships between NPS and landowners to more effectively conserve each unit.

- Land Unit A (CO 92 COA): Contains scenic qualities and severe winter range for elk and mule deer.
- Land Unit C (Gunnison River COA): Contains scenic qualities, heron

rookery, and portions of historic the narrow gauge, railroad corridor along the Gunnison River between Riverway and Neversink.

- Land Unit E (Sapinero/Blue Mesa COA): Contains scenic qualities, offers opportunities to enhance and protect Gunnison Sage-grouse habitat on Sapinero Mesa, and provides opportunity to acquire access to currently undeveloped scenic overlooks on Sapinero Mesa and Windy Point.

SUITABILITY AND FEASIBILITY

The feasibility of managing federal and private lands, considering their size, configuration, ownership, acquisition costs, mineral and grazing rights, leases, potential hazardous wastes, and other factors, are addressed generally, because private lands would only be acquired if a land owner is willing to transfer their lands. Acquisition is only needed if other methods of conservation are not adequate. As resource conservation tools, particularly conservation easements and fee simple acquisition, are considered for implementation on private parcels, the feasibility of managing these properties would be considered in more detail by the National Park Service.

Size: All land units are of significant size. Within each land unit, NPS is most interested in conserving resources on those parcels that are larger in size.

Configuration: All land units are now contiguous to the NRA; however, some noncontiguous parcels could be added to the NRA if NPS should acquire property that was located away from the proposed NRA boundary, even though it would be within the COA. In most cases, agency land transfers would occur in locations where other agency land is adjacent to the existing NRA, where the transfer would help clarify the proposed NRA boundary, and where the acquiring agency could more easily administer the lands.

Ownership: Land units within the COA are comprised of private lands. Private lands would not be acquired unless a landowner is willing. Other land units within the proposed NRA boundary are owned by state or other federal agencies. Agreement in principle among all agencies involved has been established for transfer of these lands.

Cost: Costs would be determined by fair market values and negotiations between NPS and private landowners for potential agreements, acquisition of conservation easements, and acquisition in fee simple. They would be based on opportunity, priorities set by an LPP, availability of funding, and the willingness of private landowners.

Access: The need for access to acquired private properties within each land unit would be determined at the time of acquisition, and would be met on a case-by-case basis.

Potential hazardous waste and other factors: Due diligence would be performed on all private parcels before easements or fee simple acquisition occur. Leases, grazing rights, mineral rights, hazardous waste issues, and other factors would be evaluated at that point in time to determine the suitability of the property for inclusion within the NRA.

Grazing: Leases would be dealt with on a case-by-case basis. If a conservation easement were to be acquired on a piece of property contiguous with USFS land on which a grazing lease exists, use would most likely be allowed to continue if compatible with the terms and conditions of the conservation easement. If such lands were to be acquired in fee simple, then the grazing lease might be terminated. Decisions would be made on a case-by-case, willing-landowner basis. NPS would likely enter into agreements with other agencies where a portion of an allotment falls within the NRA boundary, so that the agency would continue to have authority to manage the allotment, subject to consultation with NPS. Where an allotment exists on agency land to be included within the NRA boundary under Alternative 2, NPS would likely enter into an agreement with the transferring agency

to allow grazing to continue as long as such grazing was compatible with other uses.

EFFECTIVENESS OF ALTERNATIVES IN MEETING STUDY OBJECTIVES AND NRA MISSION

In addition to assessing impacts of the alternatives on the environment, the study team analyzed the effectiveness of the alternatives in meeting the goals and objectives of the RPS, and in providing the tools necessary for management to meet the NRA's mission. A summary of that analysis is shown in Table 3. This analysis was an important consideration in the study team's recommendation of Alternative 2 as the Proposed Action.

SUMMARY OF ALTERNATIVES

Table 4 provides a summary of alternatives.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Table 5 provides a summary of environmental consequences. NOTE: Because there would be no major adverse impacts to a resource or value contained within the NRA, whose conservation is: (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's GMP or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values as a result of implementing either Alternative 1 or Alternative 2.

TABLE 3: EFFECTIVENESS OF ALTERNATIVES IN MEETING STUDY OBJECTIVES AND NRA MISSION

Study Objectives and NRA Mission	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
(1) Assess the natural, cultural, recreational, and scenic resource value and character of the land within and surrounding Curecanti NRA (including open vistas, wildlife habitat, and other public benefits).	Objective met by completion of RPS	Objective met by completion of RPS
(2) Identify practicable alternatives that conserve the resource value and character of the land.	Does not meet objective. Only resources within the NRA and on other federal lands would be conserved and managed for resource values. Limited incentives to conserve resource values would be available to private landowners.	Meets objective. Tools, funding, and NPS staff would be available to encourage and assist landowners to conserve resources and character of the land surrounding Curecanti.
(3) Recommend a variety of economically feasible and viable tools to achieve the above.	Partially meets objective. NPS would have no authority or sources of funding to seek partnerships or assist landowners in conservation efforts.	Fully meets objective. NPS would have authority and funding, if appropriated, to work with willing landowners to conserve resources through implementation of resource conservation tools, including acquiring additional land to incorporate within an expanded NRA.
(4) Estimate the costs of implementing the approaches recommended by the study.	Meets objective. NPS estimates one-time costs to be \$500,000; with no additional recurring annual costs.	Meets objective. NPS estimates one-time costs to be \$3,690,000 to \$14,973,000, including acquiring interests in land from willing landowners; plus recurring annual costs of \$160,000 per year for additional staff and related expenditures.

Study Objectives and NRA Mission	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
(5) Find ways acceptable to Congress that would allow NPS to work in partnership with landowners and others to conserve the natural, cultural, recreational, and scenic resources and character of the land.	Partially meets objective. Authorization to partner and provide funding for efforts such as conservation easements and land acquisition would have to be continuously requested from Congress on a case-by-case basis.	Fully meets objective. Authorization and expected funding would be present for NPS and landowners to utilize the <i>Toolbox of Incentives for Resource Conservation</i> to conserve the natural, cultural, recreational, and scenic resources and character of the land.
(6) Formally establish Curecanti NRA for permanence of resource conservation and public recreation.	Does not meet objective. Curecanti would not be legislatively established by Congress as an NRA, and in all probability would continue to be without a legislated boundary.	Meets objective. The new NRA would include 51,830 acres, with an additional 24,300 acres in the COA, some of which could ultimately be added to the NRA through negotiations with willing landowners.
NRA MISSION: Conserve, protect, and interpret the nationally significant and diverse natural, cultural, and scenic resources of Curecanti, balanced with the provision of outstanding recreational opportunities, and consistent with the purposes of the CRSP Act and other applicable laws; and manage the area as a part of the greater riverine ecosystem, coordinating with other land management agencies.	Lacks the authority and tools to fully meet NRA Mission.	Provides the authority and tools to fully meet NRA Mission.

TABLE 4: SUMMARY OF ALTERNATIVES

Action Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
Area designation	Commonly identified as a National Recreation Area, but with no enabling legislation or legislated boundary.	Designated by Congress as a National Recreation Area, with enabling legislation and a legislated boundary.
NRA management	NPS would continue to manage the natural, cultural, and recreational resources of the NRA, and associated facilities, pursuant to Reclamation law, NPS law, the 1965 MOA between NPS and Reclamation, and other applicable laws and regulations. However, the permanence of NPS as the manager of said resources would not be assured.	NPS would manage the natural, cultural, and recreational resources of the NRA, and associated facilities, pursuant to Reclamation law; NPS law, including new legislation establishing the NRA; a revised MOA, which would further define the administrative jurisdiction, roles, and responsibilities of Reclamation and its managing entities, NPS, and Western within the NRA; and other applicable laws and regulations. The permanence of NPS as the manager of these resources would be assured.
Reclamation projects management	Reclamation and its managing entities, and Western, would continue to construct, operate, maintain, replace, and expand their facilities pursuant to Reclamation law, the 1965 MOA, and other applicable laws and regulations, and would have unrestricted access to their lands and facilities.	Reclamation and its managing entities, and Western, would construct, operate, maintain, replace, and expand their facilities pursuant to Reclamation law, the revised MOA, and other applicable laws and regulations; and would have unrestricted access to their lands and facilities.
Acres of land within NRA by agency source	Reclamation (NPS managed per agreement with Reclamation) – 40,360 acres NPS – 1,105 acres BLM – None USFS (NPS managed) – 325 acres CDOW – None	Reclamation (NPS managed per agreement with Reclamation) – 41,860 acres NPS – 1,105 acres BLM (NPS managed) – 5,840 acres USFS (NPS managed) – 2,885 acres CDOW (NPS managed, if acquired by exchange) – 140 acres

Note: Under Alternative 1, NPS would manage other agency lands under agreement with each agency. Under Alternative 2, NPS would manage Reclamation land under agreement with Reclamation; however, lands that Reclamation deems are no longer necessary for the project would be transferred to NPS, unless otherwise identified by this study. Also, other agency lands would be transferred to NPS to administer and manage.

Action Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
Total initial acres within NRA	41,790 acres	51,830 acres (Increase of 10,040 acres)
Land managed under agreement to be deleted from NRA	None	USFS – 80 acres The 80 acres of USFS land managed under agreement with USFS are not Reclamation withdrawn; therefore, upon passage of legislation, NPS would return these lands to USFS to manage.
Possible future deletion of Reclamation land from NRA, subject to approval and revocation by Reclamation, for potential purposes stated	None	To be managed by BLM (NPS interim management) – 800 acres There is a potential for some NRA lands to be exchanged for private COA lands, subject to landowner agreement. Although the location of those NRA lands, and the number of acres would be confirmed by a future LPP, 363 acres on the north side of CO 92 have already been identified as appropriate NRA lands to be exchanged for COA lands.
Conservation Opportunity Area	None	Private – 24,300 acres A COA would be established adjacent to the proposed NRA boundary. NPS would be authorized by Congress to use resource conservation tools to partner with neighbors to conserve resources and values identified as important to the NRA.
Legislated authority to implement resource conservation tools	NPS could provide only limited technical assistance. Landowners would have to work with other agencies and organizations to utilize tools such as conservation funding and establishment of conservation easements.	An LPP would be written and implemented. NPS would be authorized to implement tools for resource conservation and to secure funding to assist willing landowners within the COA.
Resource conservation tools	NPS could provide only limited technical assistance to adjacent landowners regarding resource conservation issues.	NPS would implement tools outlined in the <i>Toolbox of Incentives for Resource Conservation</i> . These include technical assistance, general agreements, incentive payments, acquisition of conservation easements or other property rights, purchase and retained use and occupancy, and fee simple acquisition.

Action Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
Joint Agency Management Effort (JAME)	NPS, and other land management agencies with lands adjacent to the NRA, would continue to meet to address resource issues that are common to each agency. NPS would continue to cooperate with CDOW to address wildlife and habitat issues, and in managing fishing and hunting within the NRA.	Same as Alternative 1.
Estimated costs of implementation	\$500,000 for one-time costs; with no additional recurring annual costs.	<p>\$3,690,000 to \$14,973,000 for one-time costs, including acquiring interests in land from willing landowners; plus recurring annual costs of \$160,000 per year for additional staff and related expenditures.</p> <p>This study recognizes that the availability of federal funds for acquiring interests in land may be limited. However, many of the goals and objectives of Alternative 2 would still be achievable through the application of other tools that could be used to provide incentives to willing landowners for conserving resources.</p>
Staffing requirements	No change in existing staff.	<p>Initially, one additional FTE staff position to implement the Proposed Action during the first ten years, and to oversee its operation into the future. As implementation nears completion, the need for a full time employee may decrease, but many of the functions of the “partnership liaison” position would remain indefinitely.</p> <p>As interests in land are acquired, one additional FTE, shared among all five operating divisions at the NRA, for operations associated with acquisition of new lands from other government agencies and from willing private landowners.</p>

TABLE 5: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
Natural Resources¹		
Water Quality	The continuation of or increase in current land use practices within the proposed lands, particularly development, could cause long-term moderate to short-term localized major impacts from increased sedimentation or contaminant loading into waters within the proposed lands.	The increased likelihood that landowners would use resource conservation tools to conserve resources on their property would result in long-term minor to major beneficial impacts on water quality.
Geology and Paleontology	Private lands in the vicinity of Sapinero Mesa and the area southeast of Morrow Point Reservoir would be vulnerable to long-term minor to moderate adverse impacts from development and other land uses that could result in disturbance and degradation to geological and paleontological resources. Resources in other locations with lower development potential would likely be conserved into the foreseeable future.	Minor to moderate long-term beneficial impacts would occur as a result of increased conservation of geological and paleontological resources through resource conservation activities.
Vegetation, Including Wetlands; and Wildlife, Including Raptors and Fisheries	<p>The displacement of native vegetation communities by noxious weeds that spread from lands adjacent to the NRA would result in long-term minor to moderate adverse impacts to NRA lands. These impacts would be minimized where joint agency management efforts are underway. Where private lands within the proposed lands lack weed management efforts or occur in land units susceptible to development (such as D, E, and G), long-term moderate to major adverse impacts would result from the spread of noxious weeds or alteration and loss of native vegetation communities.</p> <p>Riparian and wetland communities in Land Units C (Gunnison River COA) and D (Iola Basin COA) would be susceptible to moderate to major long-term adverse impacts through land use practices, invasion of noxious weeds, or development. Riparian and wetlands within the NRA would largely be protected, but those communities adjacent to private lands with weed issues would be susceptible to long-term moderate to major</p>	Beneficial impacts to vegetation and wildlife resources would result from landowners' application of resource conservation tools and participation in partnerships. Benefits would be greatest in those areas of highest development potential, such as Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). With participation partnerships and the application of resource conservation tools, long-term benefits to native vegetation, riparian and wetland communities, big game, and raptor habitat within NRA and COA lands would range from minor to major, and those to fisheries resources would range from negligible to minor. Intensity of impacts would be dependent on location, level of landowner participation, and types of tools implemented. However, if development occurs on private lands within the COA with no concern for resource conservation, adverse impacts to vegetation and wildlife resources would be similar to those described under Alternative 1.

¹ Public Law 106- 76 specifically requested that NPS evaluate natural, cultural, recreational, and scenic resources within, and surrounding, the NRA.

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
	<p>adverse impacts.</p> <p>Long-term minor to moderate adverse impacts to big game habitat and raptor use of the NRA would result from exotic species invasion and continuing habitat fragmentation on adjacent lands, particularly Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). Loss of habitat due to noxious or exotic plant species invasion, land development, or other land uses would result in long-term moderate to major adverse impacts on elk and mule deer severe winter range and bighorn sheep overall range. Raptor habitat and activities would be similarly affected.</p> <p>Fisheries within the NRA would not be directly impacted, though water quality impacts from activities outside the NRA could result in indirect short- to long-term negligible to minor effects to fisheries inside and outside the NRA.</p>	
Special Status Species	<p>Implementation of Alternative 1 would not cause direct effects to any special status species or associated habitats within the NRA. However, loss and fragmentation of habitats would continue and possibly increase in private land units outside the NRA, impacting species and habitats within the proposed lands. Federal species that may be affected and would likely be adversely affected include the bald eagle. Likewise, state listed species including the American peregrine falcon, greater sandhill crane, Gunnison Sage-grouse, and Colorado River cutthroat trout would experience minor to moderate impacts to individuals or habitat within the proposed lands, while impacts to long-billed curlew would be minor. The great blue heron and Gunnison's prairie dog, both sensitive species, would also be affected by indirect impacts from habitat alteration or disturbance. Impacts to heron would be moderate to major, while those to prairie dogs would be minor to moderate. Sensitive plant individuals or populations may be affected and could be lost due to activities outside the NRA, potentially</p>	<p>Implementation of Alternative 2 would benefit special status wildlife species and therefore would not adversely affect the bald eagle, Colorado River cutthroat trout, American peregrine falcon, greater sandhill crane, Gunnison Sage-grouse, long-billed curlew, great blue heron, nor Gunnison's prairie dog. Special status plant species would also experience beneficial impacts. Through decreased potential for development and other land use activities that are detrimental to habitats, all special status species within the proposed lands would have opportunities for increased conservation and potential for populations to expand. Benefits would be greatest on Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA), where development potential is currently the highest, but resources on other private lands within the COA would benefit as well.</p>

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
	resulting in minor to moderate adverse impacts to skiff milkvetch, Gunnison milkvetch, Black Canyon gilia, Colorado desert parsley, Rocky Mountain thistle, or hanging garden Sullivantia.	
Natural Lightscape (Night Sky)	<p>Except for Reclamation's primary jurisdiction areas around the dams, night sky values within the NRA and on other adjacent federal and state lands would continue to be conserved through federal and state land management activities.</p> <p>Private portions of the proposed lands that remain in their current undeveloped condition would also continue to contribute to the existing high quality natural lightscape in the area. However, private portions of the proposed lands surrounding the NRA would continue to be increasingly subject to future development and other land uses in Alternative 1 that could interfere with night sky values within the NRA. This could result in long-term minor to moderate adverse impacts to the natural lightscape/night sky resource.</p>	<p>As in Alternative 1, except for Reclamation's primary jurisdiction areas around the dams, night sky values within the NRA and on other adjacent federal and state lands would continue to be conserved through federal and state land management activities.</p> <p>Within the COA, some of the areas most prone to development are located on private property in Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). In Alternative 2, there would be greater availability of resource conservation tools to private landowners, and congressionally authorized increased efforts on the part of NPS to work in partnership with private landowners to conserve natural lightscapes within the COA. Increased awareness and cooperation in these areas would be beneficial to both local and NRA-wide lightscapes for visitors and residents alike. This would help maintain existing night sky quality, and result in long-term minor to moderate beneficial impacts to this resource.</p>
Natural Soundscape	<p>Except where motorized recreational vehicles and boats are authorized, and except for Reclamation's primary jurisdiction areas around the dams, the soundscapes within the NRA, and on other adjacent federal and state lands would continue to be conserved through federal and state land management activities.</p> <p>Private portions of the proposed lands that remain in their current undeveloped condition would also continue to contribute to the existing high quality of the natural soundscape in the area. However, private portions of the proposed lands surrounding the NRA would continue to be increasingly subject to future development and other land uses in Alternative 1 that could interfere with soundscape values within the NRA. This</p>	<p>As in Alternative 1, except where motorized recreational vehicles and boats are authorized, and except for Reclamation's primary jurisdiction areas around the dams, the soundscapes within the NRA, and on other adjacent federal and state lands would continue to be conserved through federal and state land management activities.</p> <p>Within the COA, some of the more vulnerable areas to development are located on private property in Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). Under Alternative 2, there would be greater availability of resource conservation tools for private landowners, and congressionally authorized increased efforts on the part of NPS to work in partnership with private landowners to</p>

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
	could result in long-term, minor to moderate adverse impacts to this resource.	conserve natural soundscapes within the COA. Increased awareness and cooperation in these areas would be beneficial to both local and NRA-wide soundscapes for visitors and residents alike. This would help maintain existing soundscape quality, and result in long-term minor to moderate beneficial impacts to this resource.
Cultural Resources²		
Archeological Resources, and Historic Districts and Structures	Federal actions within the NRA would result in short and long-term direct minor beneficial impacts on cultural resources. Potential development on Land Units C (Gunnison River COA) and G (West-End COA) could, when coupled with other federal activities, result in indirect minor to moderate adverse cumulative impacts on cultural resources within the NRA, through excavations, and by altering the scene or context of the resource.	The direct short- and long-term minor beneficial impact resulting from federal management practices within the NRA coupled with the beneficial impacts associated with potential conservation easements and/or additions to the NRA would result in direct short- and long-term minor beneficial impacts on cultural resources inside and outside the proposed NRA boundary.
Visitor Use, Understanding, and Enjoyment		
Recreational Opportunities ³	<p>Unmet potential for certain types of land-based recreation in the proposed lands surrounding the NRA would result in long-term minor to moderate adverse impacts to the NRA visitor's recreational experience and enjoyment. Long-term minor to moderate adverse impacts on the natural resources on non-NRA lands would be possible from the unrestricted motorized access by some visitors, and resultant change to sensitive habitat areas. Land Units A (CO 92 COA) and C (Gunnison River COA) would be susceptible to long-term minor to moderate adverse impacts as a result of trespass by visitors, including illegal landing of hang-gliders on NRA lands. Historic grazing would continue in Long Gulch-Beartrap, and crossing of the Crystal trail by cattle could result in long-term negligible to minor adverse impacts on the visitor experience due to grazing use.</p> <p>The potential for future development and</p>	<p>Long-term minor to moderate beneficial impacts to recreational opportunities and visitor enjoyment would result from landowners' willing participation in partnerships with NPS, and the use of tools for resource conservation. Intensity of impacts would be dependent on location, level of landowner participation, and types of tools implemented. Benefits would be greatest in those areas within the COA with the greatest potential for enhancement of trail connections, trail access to new scenic overlooks and backpacking camping areas, cross-county skiing, access to climbing areas, connectivity for mountain biking, and access to legal hang-gliding landing areas. These areas include Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), and E (Sapinero/Blue Mesa COA).</p> <p>As in Alternative 1, there is a potential in Alternative 2 for long-term major adverse impacts on scenic resources, and the resultant long-term major adverse impact on</p>

² Public Law 106- 76 specifically requested that NPS evaluate natural, cultural, recreational, and scenic resources within and surrounding the NRA.

³ Public Law 106- 76 specifically requested that NPS evaluate natural, cultural, recreational, and scenic resources within and surrounding the NRA.

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
	<p>other types of land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations on private lands surrounding the NRA could have a long-term major adverse impact on the scenic resources in the area. The scenic resource is considered to be a key resource for enjoyment of the NRA. Therefore, there could also be a long-term major adverse impact on visitor enjoyment and appreciation of an otherwise nationally significant and spectacular geological and natural landscape setting.</p>	<p>visitor enjoyment and appreciation of the NRA and its surroundings due to incompatible development and land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations, within the COA. This is because the actions proposed in this alternative would be on a volunteer, or willing basis on the part of the private sector. However, if the actions proposed in Alternative 2 are implemented, and the tools and concepts of partnership, cooperation, and conservation are truly enacted, then there would be long-term major and beneficial impacts on the scenic resources. This would result in a long-term major beneficial impact on visitor enjoyment, experience, and appreciation of the NRA and its surroundings.</p>
Interpretation and Educational Opportunities	<p>Within the NRA, interpretive services and educational programs would continue as currently managed. Moderate to high development potential on land adjacent to the NRA (Land Units C [Gunnison River COA] and E [Sapinero/Blue Mesa COA]) could have long-term negligible to minor adverse impacts on future opportunities for expanded interpretive services and educational programs.</p>	<p>Beneficial impacts to interpretive and educational opportunities would result from COA landowners' participation in partnerships with NPS, and implementation of resource conservation tools. Benefits would be greatest in those areas with the potential for trail access to new interpretive and scenic overlooks, including Land Units A (CO 92 COA) and E (Sapinero/Blue Mesa COA). This would also provide the opportunity for facilitated access to overlooks of unique geologic formations such as the Curecanti Needle, resulting in long-term minor to moderate beneficial impacts. Land Units B (Blue Mesa Reservoir) and C (Gunnison River COA) would provide interpretive opportunities associated with a long distance trail connection to Riverway and Gunnison, and opportunities for access for the mobility impaired, school programs, and Night Sky viewing, resulting in long-term moderate beneficial impacts.</p> <p>Land Unit E (Sapinero/Blue Mesa COA) would provide opportunity for a joint-agency managed visitor center facility with direct access for visitors from US 50, resulting in a long-term moderate to major benefit. (Provision of such a visitor center, as well as other recreational and interpretive opportunities suggested in Alternative 2, would depend on a new General</p>

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
		Management Plan or Implementation Plan for the NRA.)
Scenic Resources⁴		
Viewsheds	<p>Scenic resources within the NRA and on other adjacent federal and state lands would continue to be conserved through federal and state land management activities. Important scenic features such as the Dillon Pinnacles and Curecanti Needle would be protected, resulting in long-term major beneficial impacts on scenic resources. Private lands within the COA that remain in their current undeveloped condition would also continue to contribute to the existing high quality natural landscape in the area.</p> <p>However, private lands in the COA (surrounding the NRA) proposed for Alternative 2 would continue to be increasingly subject to future development and other land uses in Alternative 1 that might be incompatible with NRA goals and objectives. This could result in long-term major adverse impacts to the scenic resource, depending upon factors such as decisions by landowners, county land use regulations, and population growth. The degree of impact would depend upon type of development and land use; whether development remains localized within a few areas, or becomes increasingly widespread over time; and whether it would occur in the foreground, middle ground, and/or background of the viewer.</p> <p>Future development and other types of land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations on private lands in the COA could result in a long-term major adverse impact on the spectacular geological and natural landscape setting, which can be seen from within the NRA, and which is considered to be a key resource for visitor enjoyment of</p>	<p>Some of the more important scenic areas, and those more vulnerable to development, are located on private property in Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA).</p> <p>Conservation of scenic views associated with these areas would be beneficial to both local and NRA-wide viewsheds and individual scenic features, for visitors and residents alike. The availability of resource conservation tools to private landowners, and congressionally authorized increased efforts on the part of NPS to work in partnership with private landowners to conserve viewsheds and scenic resources within the COA, would help maintain the existing scenic resource. The degree to which viewsheds and individual scenic features on private lands within the COA would be conserved is highly dependent upon the willingness and cooperation of landowners. Should landowners implement tools such as conservation easements or fee simple acquisition, long-term major beneficial impacts to the scenic resources would occur.</p> <p>As in Alternative 1, there is a potential in Alternative 2 for adverse impacts on scenic resources, due to certain types of development and land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations within the COA surrounding the NRA. This would occur if private landowners choose not to take advantage of the tools for resource conservation that are available, and if they choose to develop, or otherwise use their lands for purposes that are incompatible with NRA goals and objectives. This is because the actions proposed in Alternative 2 would be on a</p>

⁴ Public Law 106-76 specifically requested that NPS evaluate natural, cultural, recreational, and scenic resources within and surrounding the NRA.

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
	the NRA.	volunteer, or willing, basis on the part of the private sector. However, if the actions proposed in Alternative 2 are implemented, and the tools and concepts of partnership, cooperation, and conservation are truly enacted on behalf of both NPS and private landowners, then there would be no long-term adverse impacts to the scenic resource, the conservation of which is essential to the enjoyment of the NRA by visitors and residents alike.
Regional Economic and Social Characteristics		
Economics	<p>Economic conditions within the county would remain unchanged assuming private lands within the proposed lands remained in existing conditions and all other factors such as NRA visitation, visitor expenditures, and payments-in-lieu-of-taxes (PILT) remained at current levels.</p> <p>If private lands were developed, expenditures and employment associated with construction-related activity and new residents could result in short-term minor to long-term negligible beneficial impacts within the local economy. Increased development would also result in long-term negligible to minor beneficial impacts to county revenues through increased property taxes, although associated infrastructure costs could offset some of this benefit.</p> <p>Conversely, development that eroded scenic or other key resource values could create long-term negligible to minor adverse impacts to visitation in the NRA and to the quality of life currently enjoyed by area residents. Overall, the long-term beneficial impacts associated with localized development could be offset or exceeded by the adverse impacts that could result from increased development in sensitive resource areas.</p>	<p>The implementation of resource conservation tools would most likely maintain or improve regional economic health by encouraging growth in the retail and service industries, in non-labor total personal income, and in visitor spending resulting in long-term minor to moderate beneficial impacts. If land is acquired, or comes under conservation easements, long-term negligible to moderate adverse impacts to county revenues could occur, depending upon the land conservation method and the land classification of the property. Any losses in tax revenue could be offset by payments in lieu of taxes, and decreased provision of infrastructure associated with preserved open space.</p>
Private Land Use Within the NRA	Currently the only privately owned interests within the NRA are mineral and/or mining rights. Under this alternative NPS would continue to work cooperatively with owners of such rights through a permitting process to allow the owner to exercise	Currently the only privately owned interests within the NRA are mineral and/or mining rights. As in Alternative 1, NPS would continue to work cooperatively with owners of such rights through a permitting process to allow the owner to exercise those rights

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
	those rights while minimizing adverse impacts on NRA resources or visitor enjoyment. Therefore, this alternative would have no impact on privately held rights.	while minimizing adverse impacts on NRA resources or visitor enjoyment. However, under Alternative 2, there would be more programmatic funding and authorization to pursue greater incentives for resource conservation, that might provide a greater opportunity for financial benefit to the owner of the rights, while more closely meeting NPS resource conservation goals and objectives. Thus, this alternative could provide a minor to moderate long term beneficial impact for the owner of the rights.
Neighboring Private Lands and Landowners Within the Proposed Lands	Because landowners would continue to have the freedom to manage their properties within the limits of county land use regulations, there would be no adverse impacts to the control they have over their property due to actions by NPS. However, the NRA's ability to assist landowners to preserve important resources would be limited, since funding would be unavailable to purchase conservation easements or to pursue fee simple acquisition without Congressional appropriation. This would result in moderate to major adverse impacts to landowners who are interested in working in partnership with NPS towards enhanced resource conservation. Changes in land use and property values would most likely occur, but would range from adverse to beneficial depending upon landowner preferences.	Landowners would be under no obligation to negotiate with the National Park Service, nor would NPS have any condemnation or other authority to take private lands within the COA without full consent of and compensation to the landowner. Because landowners would continue to have full private property rights within the limits of county land use regulations, there would be no adverse impacts to the control they have over their property. With congressional authorization, and subject to competing demands from other NPS units, there would be more opportunity for funds to be made available for acquisition of fee title or conservation easements from willing landowners in the COA. This could be a major beneficial impact to interested landowners. The availability of a full range of resource conservation opportunities and tax benefits could result in long-term minor to major benefits to interested landowners. Changes in land use and property values would most likely occur, but would range from adverse to beneficial depending upon landowner preferences.
National Park Service, Reclamation, and Other Neighboring Agency Management and Operations		
National Park Service Administrative Management, and Operations	The ongoing requests for information related to resource conservation on adjacent private lands, and potential resource and visitor use impacts associated with potential development of private lands adjacent to the NRA would result in long-term minor adverse impacts to NPS operations.	If funding is not provided to hire the necessary staff that would be needed to perform the additional office and field duties that would be required to implement Alternative 2, there would be a long-term major adverse impact on NPS operations. If additional staff is available to perform these duties, there is expected to be a long-term

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
	<p>There would be a minor beneficial impact on NPS ability to meet its mission through the Joint Agency Management Effort, which has been initiated as part of this RPS. However, under Alternative 1, progress is limited due to lack of staff time to fully realize the potential opportunities. Under Alternative 2, there would be more staff time available to pursue this effort.</p>	<p>moderate beneficial impact to NPS operations, due to enhanced cooperation from landowners and other neighbors in the realm of resource conservation. It is for these reasons that this study recommends an increase in the NRA's base funding to hire two additional full-time-equivalent (FTE) employees to accomplish these tasks, and to make Alternative 2 become a reality.</p> <p>There would be a long-term minor to moderate beneficial impact on NPS ability to meet its mission, due to appropriately worded legislation for the NRA, improved wording in a new MOA with Reclamation, and increased consultation and cooperation between NPS and other agencies, including Reclamation. This improvement in consultation and cooperation among the agencies is already happening, through the Joint Agency Management Effort, which is integral to the RPS.</p> <p>Land transfers between NPS and other agencies would simplify existing boundaries between agencies and improve NPS operations in site-specific areas, resulting in long-term negligible to minor beneficial impacts to NPS.</p>
Reclamation's Primary Operations	<p>The Bureau of Reclamation and Western Area Power Administration would continue their responsibilities within and adjacent to the national recreation area, including construction, operations, maintenance, replacement, and additions, consistent with Reclamation law, and other applicable laws and regulations. Reclamation, Western, and the National Park Service would consult with each other as necessary and appropriate. Thus, there would be no adverse impacts to Reclamation and Western responsibilities under Alternative 1.</p>	<p>As with Alternative 1, the Bureau of Reclamation and Western Area Power Administration would continue their responsibilities within and adjacent to the national recreation area, including construction, operations, maintenance, replacement, and additions, consistent with Reclamation law, and other applicable laws and regulations. Formal establishment of the NRA under Alternative 2 would not amend or supplement existing Reclamation law applicable to the Aspinall Unit or the Uncompahgre Project. Reclamation, Western, and the National Park Service would consult with each other as necessary and appropriate. Thus, there would be no adverse impacts to Reclamation and Western responsibilities under Alternative 2.</p>

Impact Topics	Alternative 1: No Action (Continuation of Existing Conditions)	Alternative 2: Proposed Action
Reclamation and Other Neighboring Agency Administrative Management, and Operations	The existing condition requires Reclamation to develop, negotiate, implement, and maintain local agreements with at least two land management agencies (NPS and BLM) for its lands within and adjacent to the NRA. This activity and the associated personnel and costs for coordinating management on these lands create a minor long-term expense for all three agencies.	<p>New NRA legislation, a revised agreement between Reclamation and NPS, and streamlining or potential elimination of other agreements among various agencies, would provide a long-term minor beneficial impact to Reclamation operations, by reducing associated personnel costs for managing the lands and agreements.</p> <p>Other agencies, such as USFS, BLM, and CDOW would experience negligible to moderate beneficial impacts to operations, depending upon the location and change in agency responsibility associated with the land transfers. In some locations, long-term negligible adverse impacts could occur to existing maintenance schedules, where an agency would assume new responsibilities.</p>

Chapter 3: Affected Environment



AFFECTED ENVIRONMENT

INTRODUCTION

PRIMARY ELEMENTS OF THE ENVIRONMENT AFFECTED BY ACTIONS

The purpose of the Affected Environment chapter is to describe the primary elements of the environment that would be affected by the actions proposed in either or both Alternative 1 and Alternative 2. These elements are called “impact topics”, and are summarized in the Purpose and Need chapter under “Impact Topics Considered.” As shown in the table of Impact Topics Retained or Dismissed in that chapter, some of the topics that the study team initially thought might be affected were ultimately dismissed from detailed assessment. Those topics that were retained are described in further detail in this Affected Environment chapter, and addressed in the Environmental Consequences chapter, where the impacts of the alternative actions on those topics are assessed in detail.

Four of the elements of the environment that are assessed in detail are traditionally done so in environmental impact statements. In addition, they are required to be done so by this study’s enabling legislation. They are the **natural, cultural, recreational, and scenic** resources.

LAND UNITS

Throughout this chapter, reference is made to “land units,” which were defined earlier in the Alternatives, Including the Proposed Action chapter, under “Development of Alternatives.” They were created for purposes of analysis during the development of alternatives. They consist of the public and private lands outside the National Recreation Area (NRA), but within the larger study area, that were considered most critical for conservation.

A total of eight land units were identified, according to geographical location, similarity of resource values, reasonably foreseeable activities that occur within them, and land ownership. The land units, identified by the letters A through H, are shown on the Alternative 2 map; and are referenced throughout the Draft Resource Protection Study (RPS) / Environmental Impact Statement (EIS). They consist of two types of land: (1) privately-owned land within the Conservation Opportunity Area (COA) of Alternative 2, defined as Land Units A, C, D, E, and G; and (2) non-NPS agency lands that are included within the proposed NRA boundary shown in Alternative 2, defined as Land Units B, F, and H. For ease of reference, the land units are again listed here:

Land Unit A (CO 92 COA): private lands north and south of Colorado State Highway 92 (CO 92) and Morrow Point



Soap Mesa – a portion of Land Unit A

Reservoir, including Black Mesa, Soap Mesa, Soap Creek, and Fitzpatrick Mesa

Land Unit B (Blue Mesa Reservoir Agency): agency lands from Soap Creek east to Beaver Creek, including Dillon Pinnacles, Blue Mesa north and south shores, and Gunnison River Canyon

Land Unit C (Gunnison River COA): private lands in the vicinity of Neversink and Riverway

Land Unit D (Iola Basin COA): private lands in Iola Basin and South Gunnison River Canyon

Land Unit E (Sapinero/Blue Mesa COA): private lands in the vicinity of Sapinero Mesa and Windy Point to Hunters Point

Land Unit F (Gateview Agency): agency lands in the vicinity of Gateview Campground

Land Unit G (West-End COA): private lands west of Fitzpatrick Mesa on the south side of Crystal Reservoir and the area around Spring Gulch on the north side of Crystal Reservoir

Land Unit H (West-End Agency): agency lands north and south of Crystal and Morrow Point Reservoirs.

Collectively, all the land units comprise the “proposed lands” for Alternative 2, consisting of public lands recommended for addition to the NRA (the agency lands); and lands recommended for inclusion in a COA (the private lands).

The criteria that were used to establish each land unit are shown in Table 2. This table first appeared in the Alternatives, including the Proposed Action chapter under “Development of Alternatives,” and appears again below for ease of reference. If a resource or other criterion occurs within a given land unit, it is identified by a dot in the matrix. If the dot is highlighted in yellow, the associated criterion is considered to be a primary reason for the inclusion of the land unit within the proposed NRA boundary or the COA in Alternative 2. More detailed descriptions

of specific resources, including their significance in the Curecanti region, are provided later in this chapter.

NATURAL RESOURCES

TOPOGRAPHY AND CLIMATE

The climate of the Curecanti region is influenced by the surrounding topography. Extremely cold winters are common, due to cold mountain air settling in the basin. The January record low is -44.86° F. Average low and high temperatures vary from -10° to 30° F in winter and 36° to 80° F in summer. Air in this region is also very dry, and precipitation averages only 11 to 12 inches per year. These characteristics contribute to the unique composition of plant communities at Curecanti NRA and the surrounding area, including sagebrush dominated vegetation at elevations where pinyon-juniper forests would otherwise be expected to dominate (Emslie 2003).

WATER RESOURCES

Within the boundaries of Curecanti NRA, the Gunnison River is dammed at three locations to form Blue Mesa Reservoir, Morrow Point Reservoir, and Crystal Reservoir. These reservoirs and infrastructure make up the Wayne N. Aspinall Storage Unit, one of four storage units in the Bureau of Reclamation’s (Reclamation) Colorado River Storage Project (CRSP). The Aspinall Unit produces electricity, regulates the flow of the Gunnison River, and controls floods, in addition to providing water storage for the Upper Colorado River Basin (NPS 2003). Also, within the NRA downstream of Crystal Dam are a diversion dam and tunnel and associated facilities that are part of Reclamation’s Uncompahgre Project. The diversion dam and tunnel transport irrigation water to the Uncompahgre Valley.

Above the reservoirs, the Gunnison River flows freely through a floodplain of mature

TABLE 2: FACTORS CONSIDERED IN ESTABLISHING LAND UNITS

Criteria	Land Unit							
	A	B	C	D	E	F	G	H
	CO 92 COA	Blue Mesa Reservoir Agency	Gunnison River COA	Iola Basin COA	Sapinero /Blue Mesa COA	Gateview Agency	West-End COA	West-End Agency
Administrative Efficiency	•	•	•	•		•	•	•
Archeological/Historical Sites	•	•	•	•	•	•	•	•
Bighorn Sheep – Overall Range	•	•			•	•	•	•
Elk – Severe Winter Range	•	•	•	•	•	•	•	•
Gunnison Sage-grouse (all categories)		•	•	•	•	•		
Heron Rookery			•					
Historic Railroad Feature			•			•	•	
Lynx – Potential Habitat	•	•			•	•		•
Management Issues / Logical Boundary	•	•	•	•	•			•
Mule Deer – Severe Winter Range	•	•		•	•	•	•	•
Paleontology/Geology	•	•			•			•
Prairie Dog – Overall Range			•	•				•
Pronghorn – Winter Range		•		•				
Raptor Range	•	•	•	•	•	•	•	•
Rare and/or Imperiled Species	•	•	•	•	•	•	•	•
Recreation Opportunities	•	•	•	•	•	•		
Scenic Qualities from Primary Overlook or within 3-mile Viewshed	•	•	•	•	•	•	•	•
Understanding of Significant Resources	•	•	•	•	•	•		•
Water Quality	•	•	•	•		•	•	•

Notes:

A dot indicates the criterion is present within the land unit.

The addition of **yellow highlighting** indicates that not only is the criterion present, but it is of such significance, in combination with the other criteria present, to recommend that the land unit be included within the COA or proposed NRA boundary in Alternative 2.

narrowleaf cottonwoods and then into a narrow canyon before entering Blue Mesa Reservoir. Blue Mesa is the largest of the three impoundments, and is the largest body of water in Colorado, consisting of 96 miles of shoreline, and extending over 20 miles in length. The purposes of Blue Mesa Reservoir include, among others, water storage and hydropower production (NPS 2003).

Morrow Point Dam, located 12 miles below Blue Mesa Dam, creates a deep, narrow reservoir between the steep walls of the Black Canyon. The primary function of Morrow Point Dam is the production of hydroelectricity. With two generators, its power capacity is almost twice the power capacity of Blue Mesa's power plant.

Crystal Dam is located 6 miles below Morrow Point Dam. Crystal Dam stabilizes the flow of water in the Gunnison River and produces hydroelectricity (NPS 2003). Together, the three dams produce enough electricity to support a community of 240,000 persons.

Downstream of Crystal Dam near the eastern boundary of Black Canyon of the Gunnison National Park (BLCA) is the Gunnison Diversion Dam and East Portal of the Gunnison Tunnel; both features of the Uncompahgre Project. The diversion dam and tunnel divert water from the Gunnison River to the Uncompahgre Valley for irrigation. Below the diversion dam the Gunnison River once again runs free through the national park towards Grand Junction and its eventual confluence with the Colorado River.

Major tributaries to the reservoir system include Cebolla Creek, Lake Fork of the Gunnison River, and the Cimarron River. At least 17 smaller tributaries flow into the NRA from the north and south. Threats to future water quality include urban housing and resort development in canyons and along drainages, and other associated changes from historic land-use practices. Because the NRA has a relatively long history of water quality and quantity monitoring (ca. 1980), NRA personnel have been able to clearly identify present water resource issues.

The NRA is currently monitoring 21 reservoir and adjacent tributary sites in an effort to assess current and minimize future impacts to water quality from internal and external sources. This effort is combined with similar efforts at BLCA and is focused on complying with National Park Service Policy and the Government Performance and Review Act (GPRA), as well as following the Clean Water Act and applicable State regulations. Credible water quality data is required to accurately characterize the water quality within the NRA. Most of the sites demonstrate water quality that is considerably better than State standards, and NPS policy encourages the preservation of this high quality.

Colorado Water Quality Standards — Classification of Waters

Water quality standards for the Gunnison River Basin have been established as part of Regulation No. 35 drafted by the Colorado Department of Public Health and Environment's (CDPHE) Water Quality Control Commission (CDPHE 2002). Under these regulations, water bodies are designated for specific uses. Blue Mesa, Morrow Point, and Crystal Reservoirs are designated to be suitable for class I, Cold Water Aquatic Life; class 1a, Recreation (Primary Contact); Water Supply; and Agriculture, as defined below:

- Waters designated as class I, Cold Water Aquatic Life, are defined as waters capable of sustaining a wide-variety of cold-water biota, including sensitive species. Waters with this designation are considered capable of sustaining such biota where physical habitat, water flows or levels, and water quality conditions result in no substantial impairment of the abundance and diversity of species.
- Waters designated as class 1a, Recreation (Existing Primary Contact), are defined as waters that are suitable for recreational activities in or on the water when the ingestion of small quantities of water is likely to occur.

- The Water Supply designation applies to surface waters that are suitable for potable water supplies. After receiving standard treatment these waters would meet Colorado drinking water regulations.
- The Agriculture designation applies to surface waters suitable for irrigation of crops usually grown in Colorado, and that are not hazardous as drinking water for livestock, and can be classified for agricultural use.

Resource Significance

In an otherwise arid habitat, the reservoirs and stream systems of the area are important resources. These systems support riparian communities and wildlife and fisheries habitat and provide water for human development activities. Streams and reservoirs within the proposed lands also provide recreational opportunities.

GEOLOGY AND PALEONTOLOGY

The landforms and scenery of the Curecanti area are formed by the underlying geology, which has been sculpted by over 2 million years of erosive activity by the Gunnison River. Precambrian-aged granitic and metamorphic basement rocks, some greater than 1.7 billion years old, form much of the landscape in the eastern portion of the national recreation area. Sedimentary rocks such as sandstone, limestones, and shales laid down by ancient water bodies are also found in the hills

surrounding the Blue Mesa Reservoir. Red and green colored shales along the lakeshore are part of the fossil-rich Jurassic-age Morrison Formation. In some places, these rocks are overlain by sandstones of the Dakota Formation, which in turn is overlain by the Mancos Formation, both of Cretaceous age.

The older rocks are capped by Tertiary volcanic rocks, the result of past volcanic activity from the West Elk Mountains. An impressive example of eroded volcanic material in the area is the Dillon Pinnacles, northeast of Blue Mesa Dam. This assortment of strangely shaped spires and towers is formed from rock known as West Elk Breccia. It consists of cemented lava, rock, and mud spewed from the West Elks about 30 million years ago. Ash erupted from the San Juan Mountains a few million years later and rimmed the breccia with zones of tuff (ash flow). The tuff caps the mesas that surround Curecanti NRA. When the tuff weathers away, formations like the Dillon Pinnacles are created by erosion.

The volcanic activity and resulting landforms also dictated the course of the Gunnison River and its eventual carving of Black Canyon through the Gunnison Uplift and underlying rocks over a billion years old. Black Canyon extends for nearly 50 miles, beginning just below Blue Mesa Dam and continuing to the confluence with the North Fork. The canyon is dramatically steep, formed of gneisses, schists, and granites, as can be seen on the walls enclosing Morrow Point and Crystal Reservoirs and at the downstream end of the NRA at East Portal.



The Dillon Pinnacles

The region's geologic trademark is the Curecanti Needle, a quartz monzonite formation that rises 700 feet from the waters of Morrow Point Reservoir. It is visible from the reservoir surface or from the overlook at Pioneer Point along CO 92. Back in the heyday of railroad travel, the Denver and Rio Grande Railroad highlighted the unique pyramidal shape of the Curecanti Needle by featuring it on their logo for the "Scenic Line of the World."

During the Jurassic Period, there was an abundance of life in the area surrounding Curecanti NRA. Rocks deposited during this time, such as the Morrison Formation, can be rich in fossils, including those of dinosaurs. During a study of the Morrison ecosystem that transects North America from Canada into New Mexico, an apatosaur dinosaur was discovered along the shoreline of Blue Mesa Reservoir. The discovery was unique for the area, and yielded the southernmost specimen of the 140 million-year-old *Allosaurus* (Fiorillo et al. 1996; Landis 2000). In addition, the find revealed a previously unknown resource of significance. Detailed study of the Morrison Formation in Curecanti NRA and the surrounding area has and would likely continue to yield insights into the rock unit (Fiorillo et al. 1996). More fossils are likely to be imbedded in the rock formations surrounding Curecanti NRA, especially in the famous Morrison Formation.

Land units A (CO 92 COA), B (Blue Mesa Reservoir Agency), E (Sapinero/Blue Mesa COA), and H (West-End Agency) are known to include fossil resources and/or to have a high potential for future discoveries. These include the areas north and south of CO 92 and Morrow Point Reservoir, north of Blue Mesa Reservoir, Sapinero Mesa, Blue Mesa, and areas west of Fitzpatrick Mesa.

Resource Significance

The fossil-rich formations of the NRA offer the potential for preservation and/or future discovery and study of fossils of various species. The formations also provide an opportunity for interpretation, to provide visitors with a better understanding of the resources.

VEGETATION AND WILDLIFE

Vegetation, Including Wetlands

The majority of the Curecanti landscape is best classified as semiarid shrubland. In most areas within the NRA, the upland plant community is dominated by three subspecies of big sagebrush, black sagebrush, and native grasses. Slight differences in elevation, moisture, or soil structure can result in visible differences in vegetation community composition. The immediate area is often characterized by narrow canyons with steep rocky walls that support little vegetation. Tall cottonwood trees and lush undergrowth are associated with riparian areas found mostly at the eastern end of the NRA near the Gunnison River and the many side drainages that feed into the reservoirs. In these areas, the narrowleaf cottonwood with its deep roots helps stabilize the riverbank while retaining nutrients and moisture for understory plant growth. Intermittent drainages support juniper, Gambel oak, and shrubs including serviceberry and wild rose. Higher elevation and shady, cooler areas are characterized by scattered stands of ponderosa pine, Douglas fir, and spruce trees. The landscape east of the NRA has been altered by humans and is characterized by pastureland used primarily for cattle grazing and hay production.

Important vegetation resources in the Curecanti region include riparian and wetland communities associated with the Gunnison River and tributaries. Specific land units with valuable riparian communities include units C (Gunnison River COA), D (Iola Basin COA), and E (Sapinero/Blue Mesa COA). Some specific wetland areas have been mapped, and many others are likely to be found scattered throughout the same locations as riparian communities (Gunnison County Wetland Survey, CNHP 2002; and National Wetlands Inventory, USFWS). These maps are available through NPS, Gunnison County, and the USFWS National Wetlands Inventory Program.

Some of these wetland communities, including those associated with the Gunnison River and tributaries, are under jurisdiction of the

U.S. Army Corps of Engineers (the Corps). Filling of these 'jurisdictional' wetlands is regulated by the Corps under Section 404 of the Clean Water Act. These wetlands are also protected by County regulations. Non-jurisdictional wetlands are often isolated from perennial drainage systems and are not protected by federal, state, or local laws. However, federal land agencies such as NPS, USFS, and BLM have policies that address management of both jurisdictional and non-jurisdictional wetlands that occur on their lands as mandated by Executive Order 11990. In addition, the Colorado Division of Wildlife recognizes wetlands as areas of high habitat value for wildlife, and manages these resources accordingly. There are no official regulations for non-jurisdictional wetlands on private lands. Future cooperative conservation actions with private landowners would include more detailed assessment of impacts to wetlands on such lands.

Exotic or noxious plant species present a threat to native vegetation communities. The NRA and other federal lands are often managed for control of noxious weed invasion. However, federal funding is not always available for such efforts, and privately-owned lands in the proposed lands might not have organized

weed control efforts in place. Noxious weed management is one of the tasks being undertaken by the Joint Agency Management Effort (JAME), a program to facilitate cooperation in dealing with resource issues that cross agency and private land boundaries.

Wildlife

Mammalian inventories were conducted in 2001 and 2002 at select National Park Service areas in the Northern Colorado Plateau Network, including Curecanti NRA. Of 60 species that researchers thought were likely to occur within the NRA, 36 species in 2001 and 48 species in 2002 were observed. Common mammals observed during inventories include mule deer, coyote, mountain lion, bobcat, raccoon, least chipmunk, various bats, Colorado chipmunk, deer mouse, bushy-tailed woodrat, several voles, and the western jumping mouse (USGS 2003).

BIG GAME—Important habitat for big game species is located in portions of Curecanti NRA and surrounding areas. Severe winter range for American elk and mule deer, winter range for pronghorn, and overall range for bighorn sheep exist in the area as shown in Table 6 and discussed below.

TABLE 6: BIG GAME HABITAT IN PROPOSED LANDS

Species	Habitat Type	Acres within NRA	Acres by Land Unit
American Elk	Severe Winter Range	18,000	A = 4,800
			B = 150
			D = 130
			E = 2,720
			G = 240
			Total = 8,040
Mule Deer	Severe Winter Range	16,000	A = 7,300
			B = 150
			D = 130
			E = 890
			G = 100
			Total = 8,570
Bighorn Sheep	Overall Range	14,600	B = 2,000
Pronghorn	Winter Range	260	B = 80
			D = 1,125
			Total = 1,205

Habitat for American elk consists of semi-open forests or forest edges adjacent to meadows and alpine tundra. Elk are both grazers and browsers with a diet that consists of shrubs, forbs, and grasses (Fitzgerald et al. 1994). In the Rocky Mountain region, elk typically migrate between high elevation areas in spring and summer to lower, warmer areas in the fall and winter. In the Upper Gunnison Basin region, summer range for elk is widespread and includes Curecanti NRA and the surrounding area. Summer concentration areas are located at higher elevations north of the NRA. Winter concentration areas and severe winter range is located within and adjacent Curecanti NRA. Within the NRA, approximately 18,000 acres of severe winter elk range are protected. Outside of the NRA, the proposed lands encompass approximately 8,000 acres of severe winter range for elk, found in Land Units A (CO 92 COA), B (Blue Mesa Reservoir Agency), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA) (Table 6). This habitat is extremely important during unusually harsh winters when survival of elk can be threatened by lack of accessible food supply.

Mule deer occupy all ecosystems in Colorado from grasslands to alpine tundra. They reach their greatest densities in shrublands on rough, broken terrain, with abundant browse and cover. Winter diets of mule deer consist of browse from a variety of trees and shrubs (74%) and forbs (15%). Summer diets are 50% browse, and forb consumption increases to 46% (NDIS). As with elk, winter habitats are often at lower elevations, and winter concentration and severe winter range are located within and adjacent to Curecanti NRA. Within the NRA, approximately 16,000 acres of severe winter mule deer range is protected, while Land Units A (CO 92 COA), B (Blue Mesa Reservoir Agency), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA) include a total of 8,600 acres of such habitat.

Suitable habitat (overall range) for bighorn sheep is widespread in the area, including 14,600 acres within Curecanti NRA and 2,000 acres in Land Unit B (Blue Mesa

Reservoir Agency). Historically, bighorn sheep ranged throughout the canyons of the Gunnison River and the surrounding mountainous regions. However, populations declined throughout the 1900s due to habitat conversion, competition, and disease. Beginning in the 1970s, and as recent as 1995, CDOW reestablished a bighorn population in the area through transplanting animals. Sheep have been transplanted into various areas including Dillon Mesa, Lake Fork, and the Gunnison Gorge. Area herds did well until a particularly severe winter in 1978 resulted in high mortality. Since 1978, the total local population count has fluctuated between 25 and 35 animals (CPCESU 2002).

Pronghorn habitat consists of grasslands and semi-desert shrublands in areas with topography that supports good visibility. They are most abundant in shortgrass or midgrass prairies and least common in xeric habitats, such as those surrounding Curecanti NRA. Pronghorn diet consists of a variety of forbs and grasses, and they sometimes consume and tolerate species that are hazardous to livestock. Winter range for pronghorn exists primarily in the Kezar Basin, which is south of Iola Basin of Blue Mesa Reservoir. It occurs on 260 acres of NRA land; on 80 acres of land unit B (Blue Mesa Reservoir Agency), which is currently managed by the Bureau of Land Management (BLM); and on 1,125 acres of private land in land unit D (Iola Basin COA).

BIRDS—There are approximately 225 species of birds documented in the area of Curecanti NRA (Hyde and Cook 1980). Common birds include the horned lark, black-capped chickadee, white-breasted nuthatch, dipper, American robin, mountain bluebird, hermit thrush, warbling vireo, western meadowlark, red-winged blackbird, pine siskin, black-billed magpie, common raven, and various jays, warblers, juncos, sparrows, finches, woodpeckers, and towhees.

Many species of waterfowl and shorebirds migrate through the Gunnison Basin region or remain as summer residents. Common water and shorebirds found at Curecanti NRA include the spotted sandpiper, ring-billed

gull, and green-winged teal. Nesting areas are more likely to be found in inland areas and in the narrow portions of the reservoir arms where habitat is more suitable and water-based recreation activity is restricted. Waterfowl and shorebirds that nest in these areas include killdeer, common snipe, mallard and common merganser. In addition, great blue herons wade along the shoreline in these narrow reservoir arm areas. A heron rookery is located in the Cooper Ranch/Neversink area in the eastern portion of the NRA and in Land Unit C (Gunnison River COA).

Common raptors at Curecanti NRA include red-tailed hawk, Swainson's hawk, golden eagle, bald eagle, and American kestrel. Great horned owls nest in the area and are common year-round, and flammulated owls are common in the summer months.

Of the birds recorded in the NRA, four are federally or state listed as regionally threatened, endangered, or candidate species, including bald eagle, whooping crane, and yellow-billed cuckoo. The Gunnison Sage-grouse, a unique species native to the region and prevalent in the sagebrush communities within the NRA, was designated as a federal candidate species for listing under the Endangered Species Act on December 28, 2000. On April 18, 2006, the U.S. Fish and Wildlife Service (USFWS), the agency responsible for the determination of the bird's status, decided not to list it as endangered or threatened, and has removed it from the candidate species list. However, NPS still considers the Gunnison Sage-grouse to be a NRA sensitive species.



Gunnison Sage-grouse

In addition to the federal status mentioned above, the Sandhill crane, peregrine falcon, Gunnison Sage-grouse, and long-billed curlew are listed as state special concern species. Special status species are discussed later in this chapter.

FISHERIES—Construction of the dams along the Gunnison River has altered the fisheries of the area through inundation of riparian areas, alteration of flows and water temperatures, and alteration of spawning habitat. However, Curecanti NRA provides one of the best cold-water fishing opportunities in the nation partly due to the spawning run of Kokanee salmon in the Gunnison River above Blue Mesa Reservoir. Other game fish common to Curecanti NRA include lake trout (Mackinaw trout), brook trout, rainbow trout, and brown trout. The Colorado Division of Wildlife (CDOW) maintains populations of game species through stocking. Due to seasonal water fluctuations, there is a lack of development of aquatic plant or invertebrate communities to provide concentrated shoreline feeding areas for fish (CDOW 2002b). Instead, zooplankton in interior surface waters is the main food source for sport fish in Blue Mesa Reservoir.

AMPHIBIANS AND SNAKES—Snakes common to Curecanti NRA include the smooth green snake, Great Basin gopher snake, garter snake, and striped whipsnake. A variety of lizards and salamanders are also found here. Breeding areas for lizards are generally in upland areas away from the shoreline, while primary habitat for amphibians would be in the narrow portions of reservoir arms and along the shoreline.

Resource Significance

The lack of development and the uniquely pristine nature of the wildlife habitat within and surrounding the NRA contribute to the significance of the wildlife resources and their importance to regional populations. This is especially true for big game species, including American elk, mule deer, bighorn sheep, and pronghorn that rely on range in the area. In addition, the proposed lands provide important raptor habitat and fisheries resources.

Riparian communities are underrepresented within the NRA. Riparian vegetation provides valuable habitat for wildlife. Threats to the health of riparian communities include

streamside development, grazing, pollution, exotic plants, and changes to the flood regime. These activities have taken a large toll, especially when considering the original inundation and loss of riparian habitat caused by the filling of the three reservoirs.

THREATENED, ENDANGERED, AND OTHER SPECIAL STATUS SPECIES

Species listed by both the U.S. Fish and Wildlife Service (USFWS) and the Colorado Wildlife Commission, and those of special concern to the NRA, all of which could potentially be impacted by the actions in Alternatives 1 and 2, are listed in Table 7, and described in more detail in this section. Species protected by the Endangered Species Act are listed by USFWS as federally threatened or endangered. In addition, USFWS lists candidate species that are considered for listing at a later date. While not protected under the Endangered Species Act, candidate species are also considered when analyzing impacts of actions that may potentially affect them.

A letter was sent by Curecanti NRA staff to the Grand Junction office of USFWS on May 21, 2001 requesting a list of federally threatened and endangered species in the vicinity of the NRA. USFWS responded on June 28, 2001 and subsequently updated this response on March 17, 2005, with a list of the following species: seven federally endangered species—the black-footed ferret, bonytail, Colorado pikeminnow, humpback chub, razorback sucker, Uncompahgre fritillary butterfly, and clay-loving wild-buckwheat; four federally threatened species—bald eagle, Canada lynx, Mexican spotted owl, and Uinta Basin hookless cactus; and three candidate species—Boreal toad, Gunnison Sage-grouse, and yellow-billed cuckoo. Subsequent to this latest update, USFWS decided not to list the Boreal toad and the Gunnison Sage-grouse as endangered or threatened, and has removed them from the candidate species list. However, the state of Colorado and Curecanti NRA still consider the Gunnison Sage-grouse to be a special status species. No critical habitat for

federal special status species was identified in the proposed lands.

The Colorado Wildlife Commission maintains a list of special status species including state-listed threatened, endangered, or special concern species. The federally-listed species mentioned above are also given special status by the state. Other state listed species that may potentially be affected by the actions at Curecanti NRA include the American peregrine falcon, Colorado River cutthroat trout, greater Sandhill crane, Gunnison Sage-grouse, and long-billed curlew. These species are listed as special concern species and do not have protected status. However, they have been determined by the Colorado Wildlife Commission to be at risk of eventual threatened or endangered status.

The NRA considers all federally- and state-listed species to be special status. Other species of concern that the NRA considers to be special status, which may potentially occur in the proposed lands, include bighorn sheep, Great blue heron, Gunnison's prairie dog, Adobe thistle, Black Canyon gilia, Colorado desert parsley, Gunnison milkvetch, hanging garden sullivan, and skiff milkvetch (Table 7).

Federal Species

Suitable foraging habitat for bald eagle exists along the entire length of Curecanti NRA, as the reservoirs provide an ample food source for bald eagles in the area. Winter eagle activity is concentrated around the Gunnison River and the reservoir shorelines. Nesting generally occurs in large trees that occur along the Gunnison River (such as the Neversink / Cooper Ranch area) and along tributaries (both within and outside the current NRA). Foraging individuals are likely to be active throughout the remainder of the NRA.

The black-footed ferret once ranged throughout grasslands and mountain basins of North America, but is now extirpated from the majority of its range including southern Colorado. The occurrence of the black-footed ferret in the proposed lands is extremely unlikely and the species is not evaluated further in this document.

TABLE 7: SPECIAL STATUS SPECIES IN THE VICINITY OF CURECANTI NATIONAL RECREATION AREA

Common Name	Scientific Name	Status	Applicable Land Units
Federal Special Status Wildlife Species			
Bald eagle	<i>Haliaeetus leucocephalus</i>	FT ST	All
Black-footed ferret	<i>Mustela nigripes</i>	FE SE	N/A
Bonytail	<i>Gila elagans</i>	FE SE	N/A
Canada lynx	<i>Lynx Canadensis</i>	FT SE	A, B, E, F, H
Colorado pikeminnow	<i>Ptychocheilus lucius</i>	FE ST	N/A
Humpback chub	<i>Gila cypha</i>	FE ST	N/A
Mexican spotted owl	<i>Strix occidentalis lucida</i>	FT ST	N/A
Razorback sucker	<i>Xyrauchen texanus</i>	FE SE	N/A
Uncompahgre fritillary butterfly	<i>Boloria acrocneuma</i>	FE	N/A
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	FC SSC	N/A
State Special Status Wildlife Species			
American peregrine falcon	<i>Falco peregrinus anatum</i>	SSC	A, E, G, H
Colorado River cutthroat trout	<i>Oncorhynchus clarki pleuriticus</i>	SSC	A, B (potential reintroduction sites)
Greater Sandhill crane	<i>Grus Canadensis tabida</i>	SSC	C
Gunnison Sage-grouse	<i>Centrocercus minimus</i>	SSC	B, C, D, E
Long-billed curlew	<i>Numenius americanus</i>	SSC	All
NRA Sensitive Wildlife Species			
Bighorn sheep	<i>Ovis canadensis</i>	PS	B
Great blue heron	<i>Ardea herodias</i>	PS	C
Gunnison's prairie dog	<i>Cynomys gunnisoni</i>	PS	B
Federal Special Status Plants Species			
Clay-loving wild-buckwheat	<i>Eriogonum pelinophilum</i>	FE	N/A
Uinta Basin hookless cactus	<i>Sclerocactus glaucus</i>	FT	N/A
NRA Sensitive Plants Species			
Adobe thistle	<i>Cirsium perplexans</i>	G2 S2	Near: G, H
Black Canyon gilia	<i>Gilia pentstemonoides</i>	G3 S3	A, E, H
Colorado desert parsley	<i>Lomatium concinnum</i>	G2 S2	G
Gunnison milkvetch	<i>Astragalus anisus</i>	G3 S2	C, D
Hanging garden sullivantia	<i>Sullivantia hapemanii</i>	G3, T3, S3	A, B, E
Skiff milkvetch	<i>Astragalus microcymbus</i>	G1 S1	B, C, D

Status Key

FC = Federal Candidate Species
 FE = Federal Endangered Species
 FT = Federal Threatened Species
 PS = NRA Sensitive Species
 SE = State Endangered Species

SSC = State Special Concern Species
 ST = State Threatened Species
 S1 = Critically Imperiled in Colorado
 S2 = Imperiled in Colorado
 S3 = Vulnerable in Colorado

G1 = Globally Critically Imperiled
 G2 = Globally Imperiled
 G3 = Globally Vulnerable
 T3 = Globally vulnerable at
 infraspecific level

Source: Colorado Division of Wildlife, 2000

The bonytail, Colorado pikeminnow, and humpback chub are all members of the minnow family that are endemic to the Colorado River Basin. The Razorback sucker is a large sucker that is also endemic to the Colorado River system. The alteration of the river system by damming and water development activities has changed the flow regime, temperature, and sedimentation qualities of the river system, making much of the former range of these species uninhabitable. In addition, the introduction of many non-native fish and other aquatic animals, plants, pathogens, parasites, and chemical contaminants have affected the river system's ecosystem (Mueller and Marsh 2003). Of these species, only the Colorado pikeminnow and razorback sucker (stocked) are known to inhabit the Gunnison River, though not within the proposed lands. None of these fish are analyzed further in this document.

Canada lynx occur at elevations of 9,000 to 14,500 feet in forests, meadow, or tundra environments. Northern coniferous forests are the preferred habitat of the lynx (NDIS). Snowshoe hare is the primary prey of lynx. Other prey includes squirrels, beavers, muskrats, deer, caribou, and moose (Fitzgerald et al. 1994). Lynx potentially could occupy higher elevation areas surrounding Curecanti NRA. According to the Colorado Division of Wildlife's Natural Diversity Information Source (NDIS), overall lynx range encompasses western portions of the Curecanti region. A recent project which used CDOW data along with vegetation cover type data to map potential lynx habitat on BLM managed lands (Baker - CNHP, CDOW), found Land Units A (CO 92 COA), B (Blue Mesa Reservoir Agency), E (Sapinero/Blue Mesa COA), F (Gateview Agency), and H (West-End Agency) to contain potential habitat for the species. However, at this time, the lynx is not known to reside within the proposed lands and is not analyzed further.

The Mexican spotted owl nests in closed canopy forests and narrow rocky canyons in remaining habitat in the southwestern United States. Although potential habitat may occur in the area, the species is not known to exist within the

proposed lands. The Mexican spotted owl is not analyzed further in this document.

The federally endangered Uncompahgre fritillary butterfly lives in patches of snow willow at high elevations, and has very limited habitat, a small population size, and low genetic variability, which may affect long-term population stability (USGS 2005). The species is susceptible to trampling by recreationists and grazing animals. Though known to occur in alpine meadows in Gunnison County, due to lack of suitable habitat, the Uncompahgre fritillary is not expected to occur within the proposed lands and is not analyzed further in this document.

In the western United States, yellow-billed cuckoo habitat consists of old growth riparian woodlands with dense understories, while in other portions of the country more open woodlands are adequate (Kingery 1998). In the proposed lands, the locations of potential occurrence for this species would be in the riparian corridors such as those along the Gunnison River or its tributaries. The yellow-billed cuckoo is designated as a non-game species within Colorado. As that designation applies, it is not legal to take, harass, or threaten the species. There have been historical infrequent summer records of non-breeding yellow-billed cuckoo occurrences within the NRA (Andrews and Righter 1992; Hyde and Cook 1980), but there is no evidence of breeding by the species in Gunnison County (Kingery 1998). There are no known recent sightings within the NRA or proposed lands, and the species is not analyzed further in this document.

Clay-loving wild buckwheat is a federally endangered plant found in Mancos shale badlands, in salt desert shrub communities. Populations are known to exist in west-central Montrose County, but are not expected to occur within the proposed lands. This species is not evaluated further in this document.

The Uinta Basin hookless cactus is a federally threatened plant found on hills and mesas in the Colorado and Gunnison river valleys on gravelly soils (CNPS 1997). It is known to occur in north-central Montrose County, well

west of the proposed lands (CNHP). This species is not expected to occur within the proposed lands, and is not analyzed further in this document.

State Listed Species

The American peregrine falcon has been federally delisted, but remains a state species of concern. The falcon occupies a variety of habitats at elevations of 3,000 to 10,000 feet and usually nests in high cliff ledges. Peregrines are known to occur nearby in the Black Canyon of the Gunnison National Park, especially near the Painted Wall area. They also regularly nest within the NRA, but have the most potential for occurrence in the proposed lands in Land Units A (CO 92 COA), E (Sapinero/Blue Mesa COA), G (West-End COA), and H (West-End Agency) (Andrews and Righter 1992; Hyde and Cook 1980).

Colorado River cutthroat trout historically occupied portions of the Colorado River drainage in Wyoming, Colorado, Utah, Arizona, and New Mexico (GMUG MIS Assessment). Populations of the species have dramatically declined due to land management practices and hybridization with non-native salmonids, and current populations of the species occur primarily in headwater streams and lakes (CRCT Task Force 2001; GMUG MIS). The Colorado River cutthroat trout is known to occur in the Gunnison River below Crystal Reservoir, Antelope Creek (a tributary to North Beaver Creek), Road Beaver Creek (a tributary to Cebolla Creek), as well as in the national park. Potential cutthroat trout reintroduction sites within the proposed lands include West Elk Creek, Curecanti Creek, and East Elk Creek, in Land Unit A (CO 92 COA) and B (Blue Mesa Reservoir Agency).

The greater Sandhill crane occupies a variety of habitats including crops, grasslands, mudflats, and riparian areas at 3,000 to 10,000 feet in elevation. The area along Curecanti NRA and the Gunnison River is considered to be suitable habitat for the species during migration, primarily in spring, but is not a known breeding area for the species (Kingery 1998; Andrews and Righter 1992).

Sandhill cranes are most likely to occur in riparian communities or in agricultural areas surrounding the NRA. Land Unit C (Gunnison River COA), along the Gunnison River, supports potential habitat for the greater Sandhill crane.

The Gunnison Sage-grouse has been dropped as a candidate for federal listing, but remains a state species of concern. The bird has important habitat located within Curecanti NRA and surrounding areas. The NRA is currently engaged in monitoring programs for the Gunnison Sage-grouse lek (breeding) sites in cooperation with the Colorado Division of Wildlife. This native to the Gunnison Basin was recognized in 2000 to have different coloration and mating rituals from the Northern Sage-grouse. The breeding population size is small, totaling only 4,000 individuals, with up to 3,000 of those believed to reside in Saguache or Gunnison counties, Colorado (BLM 2001). The birds nest in big sagebrush-dominated communities from April to July. Within the NRA, a historic Gunnison Sage-grouse lek occurs near the shoreline at the Stevens Creek campground.

Threats to Gunnison Sage-grouse include degradation of habitat, habitat loss or fragmentation, and physical disturbance, especially during critical mating, nesting, or brooding periods. Habitat degradation or loss has resulted from land treatments that convert sagebrush landscapes to developed or fragmented areas. Roads, utility and energy development, urban, or agricultural development are examples of activities that can threaten Gunnison Sage-grouse habitat. Physical disturbance to the species may occur through off-highway vehicle use, harassment by scientific studies or bird watching, gaining access to fishing spots, and hunting other animals. Hunting of Gunnison Sage-grouse was discontinued a number of years ago. Land unit E (Sapinero/Blue Mesa COA) contains critical winter range, while units B (Blue Mesa Reservoir Agency), C (Gunnison River COA), and D (Iola Basin COA) contain severe winter range for Gunnison Sage-grouse. Sage-grouse nesting areas are found within units B (Blue Mesa Reservoir Agency) and D (Iola Basin

COA), while a brood area is located in Land Unit C (Gunnison River COA).

Habitat of the long-billed curlew includes croplands, grasslands, shrublands, and wetland and riparian areas at elevations of 3,000 to 5,000 feet. They are known to occur as springtime migrants throughout Gunnison County, including the vicinity of Curecanti NRA (Andrews and Righter 1992). However, there is no evidence that they breed throughout most of western Colorado, including within Gunnison County (Kingery 1998). In Colorado, the long-billed curlew is primarily an eastern plains species.

NRA Sensitive Species

Curecanti NRA contains a variety of species that the staff considers to be native species of concern. These include bighorn sheep (discussed with big game species), great blue heron, Gunnison Sage-grouse (previously discussed under State Listed Species), and Gunnison's prairie dog. The NRA has not yet completed a comprehensive identification and evaluation of all native species of concern.

The great blue heron is a summer resident of Curecanti NRA. Nesting locations are located within the NRA and on adjacent lands. The Gunnison River supports important habitat and this nesting location is one of only two heronries in Gunnison County (Bio-Environs 2001). Great blue heron nesting occurs in mature narrowleaf cottonwoods in the Neversink / Cooper Ranch area within the NRA, as well as in Land Unit C (Gunnison River COA). The nesting colony is an important resource, and monitoring has taken place since 1987. Management for maintenance and establishment of future generations of riparian vegetation community is important to the success of the colony.

The Gunnison's prairie dog lives in short- to medium-height grass prairies and plateaus at moderate to high elevations. Gunnison's prairie dogs are restricted to southwestern and south-central Colorado. They range in elevation from 6,000 to 12,000 feet. As with all prairie dog species, populations are much smaller than they were historically

due to eradication, habitat loss, and disease. In Curecanti NRA, Gunnison's prairie dogs inhabit the sagebrush grassland communities.

Adobe thistle (Rocky Mountain thistle) is found in Mesa, Montrose, Delta, Eagle, and Ouray counties on barren gray shale slopes and adobe hills in open areas and disturbed sites in mixed shrublands and pinyon juniper woodlands (CNHP 2002). It is found within the Curecanti NRA in the vicinity of Morrow Point Reservoir. Other areas of concern for the species include Land Units G (West-End COA) and H (West-End Agency).

Black Canyon gilia is a Colorado endemic that grows in cracks in vertical walls, on narrow ledges, and cliff rims at elevations of 6,800 to 9,000 feet in Gunnison, Montrose, Ouray, Hinsdale, and Mineral counties in 13 known populations (CNPS 1997). Within the proposed lands, the species may potentially occur or be of concern in or near Land Units A (CO 92 COA), E (Sapinero/Blue Mesa COA), and H (West-End Agency) (NPS Map - tes_63.rtl).

Colorado desert parsley grows on adobe hills and plains in rocky soils derived from Mancos Formation shale. It is associated with arid shrub communities, typically saltbush (CNPS 1997). A portion of Land Unit G (West-End COA) is within an area of concern for the species (NPS Map - species_rank_eo.rtl 3/22/01).

Two sensitive milkvetch species that occur in the NRA, Gunnison milkvetch and skiff milkvetch, are listed by the Colorado Natural Heritage Program (CNHP) as globally and state critically imperiled and globally and state imperiled, respectively. The Gunnison milkvetch and the skiff milkvetch occur in dry upland sagebrush areas at elevations of approximately 7,500 to 8,500 feet (CNHP 2002).

Gunnison milkvetch has been found occasionally on the sagebrush floor of the Gunnison Basin, and is a concern in Land Units B (Blue Mesa Reservoir Agency) and C (Gunnison River COA) (CNPS 1997, NPS Map - tes_63.rtl). Skiff milkvetch is known only from locations in and near the South Beaver Creek drainage (CNPS 1997). Land units

known to contain occurrences or potential habitat for skiff milkvetch include Land Units B (Blue Mesa Reservoir Agency), C (Gunnison River COA), and D (Iola Basin COA) (NPS Map - tes_63.rtl).

Hanging garden sullivantia is the only species in this genus found in Colorado. Found in hanging gardens and wet cliffs of various geology including limestone, shale, and quartzite (CNHP 1999). It is known to occur at the bottom of the Black Canyon of the Gunnison (NPS 1997). Exact locations within the proposed lands are unknown, but habitat that could support the species is found in Land Units A (CO 92 COA), and E (Sapinero/Blue Mesa COA) (Dangoule Bockus, pers. comm. 04/05/2005).



Dark nights provide stargazing opportunities

Resource Significance

The proposed lands contain habitat that is important for the conservation of special status wildlife and plant species that are significant resources of the NRA and the entire nation. Continued and increased conservation of important habitat offers unique opportunities to contribute to the preservation of such species. Special status species that are significant in the area include American peregrine falcon, bald eagle, bighorn sheep, Colorado River cutthroat trout, great blue heron, greater Sandhill crane, Gunnison Sage-grouse, Gunnison's prairie dog, long-billed curlew, Adobe thistle, Black Canyon gilia, Colorado desert parsley, Gunnison milkvetch, hanging garden sullivantia, and skiff milkvetch.

NATURAL LIGHTSCAPE (NIGHT SKY)

NPS areas protect resources so that they may be shared with visitors for generations to come. These include the dark star-lit skies of night. However, each year new light sources eat away at this vanishing resource. Forty percent of Americans live under night skies so bright that their eyes no longer have to

adjust to night vision. Two-thirds of the U.S. population cannot see the Milky Way, and more than half of today's young people have never seen it at all.

NPS areas have no authority to require that neighboring landowners and cities lessen glare. The 1916 Organic Act, which created the national park system, calls for conserving scenery and other resources for future generations. It does not specifically mention light.

Light by light, we are losing sight of the unknown. The universe awash in stars — a source of wonder and inquiry since civilization began — is being obliterated by mega-wattage spilling into the sky from every corner: malls, airports, ballparks, theme parks, billboards, car dealerships, miniature golf courses, and the neighbor's driveway.

NPS launched the Night Sky Team after a 1999 study of 189 NPS areas found two-thirds reporting light pollution. Beginning in 2004, the NPS Night Sky Team partnered with the Northern Colorado Plateau Network to expand night sky inventories at NPS areas in the Colorado Plateau. The goal was to capture night sky brightness approximating the twentieth percentile atmospheric clarity (as estimated by Bext or atmospheric extinction) to establish a baseline of light pollution. Additionally, light pollution sources were to be identified and relative contributions established.

Field visits were made to Black Canyon and Curecanti in 2004 to evaluate night sky. The night sky quality monitoring report completed in 2006 indicates that on a clear night most light pollution is restricted to the near horizon leaving the majority of the sky in the vicinity of the park in good condition. Within the immediate vicinity, the communities of Grand Junction, Fruita, Delta, and Montrose are equally bright. Increasing amounts of night light present a threat to the quality of the NRA's night sky programs and the visitor experience and enjoyment, but also presents a threat to the quality of life of local residents.

Resource Significance

One of the significant resources now available to NRA visitors is the night sky. It is a resource worthy of attention and conservation, and offers opportunities for lay persons and astronomers to ponder the universe.

NATURAL SOUNDSCAPE

"Soundscape" refers to the total ambient acoustic environment, which is made up of both natural sounds and human-made sounds. Part of the NPS mission is to protect soundscapes as a vital component of the visitor's enjoyment of a site. Both the sounds of the wild and the sounds meaningful in historic settings are protected in the National Park System.

Though human-made sounds can be heard within the NRA from sources such as traffic from surrounding highways, overhead aircraft, and motorized watercraft use within the reservoirs, overall, the soundscape of much of the NRA appears to be well preserved, as certain portions of the NRA offer a sense of serene solitude. NRA backcountry trails give visitors opportunities to hear natural sounds. Pine Creek, Curecanti Creek, Mesa Creek, and Crystal Creek Trails are examples of excellent places to listen to natural sounds, and if conditions are favorable, to experience serenity and quiet.

Additional data on ambient soundscape environments and noise intrusions would be needed to more fully evaluate the present condition within the NRA. However, it should be recognized that noise intrusions internal to the NRA (such as NPS and concession construction activities, new recreational technologies, etc.) and external to it (private development construction, mowing of lawns, increased local traffic, etc.) could serve to degrade the present condition.

Resource Significance

One of the significant resources now available to NRA visitors is the soundscape. It is a resource worthy of attention and conservation, and offers opportunities for visitors to enjoy a reprieve from the often bustling sounds of their everyday lives.

CULTURAL RESOURCES

HISTORICAL BACKGROUND

As early as 10,000 years ago, this area appears to have supported a series of human adaptations to desert, plateau, and mountain conditions. Paleo-Indian tradition dated from pre-9000 B.C. and 5000 B.C. In about 6500 B.C. there was a dual emphasis with the addition of gathering plant foods. This coupling of food gathering and hunting successfully continued in the Upper Gunnison Basin until American Indian and Euro-American contact (NPS 1994).

The Archaic period with its hunting adaptation is represented in the NRA's archeological record from approximately 4000 B.P. through A.D. 1. There also appears to be considerable evidence of aboriginal occupation dating from approximately A.D. 400–1600. The first evidence of an Indian group in the Upper Gunnison Basin, which was recognized and named by Euro-Americans, is that of the Utes who migrated to the Colorado area from the Great Basin in A.D. 1200–1300 (NPS 1994).

Artifacts and radiocarbon dates collected from the area of the NRA range from 8000 B.C. until about A.D. 1500 and appear to document essentially continuous intermittent use of the Upper Gunnison Basin since the end of the Pleistocene. The historic period for American Indians in western Colorado begins with first written account of contact with Ute groups and ends in approximately 1881 with their movement to reservations. The NRA also contains many unrecorded sites reflecting late nineteenth century Euro-American activity including small-scale ranching, mining, and logging as well as construction camps that supported expansion of the railroad (NPS 1994).

The Denver and Rio Grande Railroad (D&RG), later renamed the Denver and Rio Grande Western Railroad (D&RGW), was the most successful narrow gauge railroad to cross the Rocky Mountains. The tracks connected the Front Range cities of Denver, Colorado Springs, and Pueblo with Salida. The main line ran from Salida over Marshall Pass to Gunnison, through the Black Canyon to Cimarron, and over Cerro Summit to Montrose, on to Grand Junction, and into Utah. From the Gunnison area, branch lines ran to Lake City and mining areas at Crested Butte. Built in 1881–1882, the D&RGW operated passenger service until 1940 and freight trains until 1949. Given the rugged terrain in some areas, narrow gauge (3 feet

between the rails rather than the standard 4 feet 8½-inch gauge) was used to save on construction costs and to negotiate tighter curves. Thus, the D&RGW narrow gauge was an active railroad through the Black Canyon above Cimarron for nearly 70 years, until the line was abandoned in 1949.

The construction of the Gunnison Diversion Tunnel (1905–1909) was an engineering marvel for its day. One of the first projects of the Reclamation Service, now known as the Bureau of Reclamation, it was one of the largest tunnel projects to be attempted at the time, 11 feet wide by 12 feet high, stretching almost six miles through hard rock, clay, sand, and shale. The construction itself was very treacherous work, and the average stay of men working on the tunnel was about 2 weeks. The tunnel was steamy because of hot water seepages, underground streams often flooded the tunnel, and there were many other dangers to face. The tunnel is still in use today, as it diverts water from the Gunnison River at East Portal for irrigating the otherwise desert-like Uncompahgre Valley. It is also designated as a National Historic Civil Engineering Landmark.

Above the Diversion Tunnel, Reclamation also constructed three large dams on the Gunnison River, together known as the Wayne N. Aspinall storage unit, between 1962 and 1976. The Aspinall unit is one of the four

main units of the Upper Colorado River Storage Project (UCRSP). The three dams in the Aspinall Unit work as a system to store water, produce electricity, and regulate water flow. There is no question the dams have altered the natural environment. However, they have provided a variety of benefits to communities and citizens, especially in the area of agriculture.



Cimarron Canyon rail exhibit

ARCHEOLOGICAL RESOURCES

Sporadic archeological research in the Curecanti area began as early as the 1930s, but the first formal research was prompted in 1962 by Reclamation plans to construct the three dams along the Gunnison River. Surveys in the area of Blue Mesa Reservoir identified 10 sites with 8 below the proposed high water line behind the Blue Mesa Dam that were believed to reflect short-term occupations by nomadic Indian groups. Under Executive Order 11593, surveys were undertaken in 1976 with the University of Colorado that identified another 130 archeological sites, most within the vicinity of Blue Mesa Reservoir. Examinations in the late 1970s with both University of Colorado and NPS staff from the Midwest Archeological Center (MWAC) uncovered additional features including the remains of an isolated hearth that generated a radiocarbon date of approximately 8,000 B.C. In 1984, the Curecanti Archeological District was listed on the National Register of Historic Places. Between 1980 and 1984, MWAC undertook five seasons of construction-related research. Construction-related research projects were undertaken between 1991 and 1992 by MWAC, as well as by Powers Elevation Company and Alpine Archeological Consultants. A mix of new sites, isolated finds, and previously



Cultural resources help us answer questions about our past

recorded sites were inventoried. Two formerly unrecorded sites were added to the Curecanti Archeological District nomination (NPS 1994).

Within Land Unit B (Blue Mesa Reservoir Agency), north of Blue Mesa Reservoir, important cultural material, including archeological resources, has been documented. Areas on the northeastern edge of the land unit, near North Beaver Creek, also contain cultural resources eligible for listing on the National Register of Historic Places.

HISTORIC STRUCTURES AND RESOURCES

Five structures are currently listed on the fiscal year (FY) 1999 NPS List of Classified Structures (LCS) for Curecanti NRA. One structure, the Gunnison Diversion Tunnel, is additionally listed as a National Historic Civil Engineering Landmark.

Important railroad features occur in Land Units C (Gunnison River COA), F (Gateview Agency), and G (West-End COA), and include encampments, foundations, ovens, and railroad grade features, as well as archeological resources.

Cimarron is home to a display of historic railroad cars that includes Locomotive No. 278, its coal tender, a boxcar, and caboose, which resides on the D&RG truss (also known as trestle) in the Cimarron River Canyon near the town of Cimarron. Built by Baldwin Locomotive Works in Philadelphia in 1882, Locomotive No. 278 served as a mainline freight and helper engine on the Crested Butte Branch and this section of the D&RG's main line for over 70 years. The city of Montrose leased the locomotive, tender, and caboose to NPS in 1989 for 99 years. The truss or steel deck span bridge was installed in 1891, and was listed on the National Register of Historic Places in 1976 as the last remaining structure representing the narrow gauge railroad (NPS nd-b).

Other historic resources occur within the proposed lands, such as an old school house at Sapinero and the U.S. Forest Service (USFS) Sapinero Guard Station (Land Units E [Sapinero/Blue Mesa COA] and A [CO 92 COA]).

The Old Spanish Trail was designated as a National Historic Trail, a component of the National Trails System, by Public Law 107-325, on December 4, 2002. The trail was a trading and traveling route that connected Santa Fe with Los Angeles, and was used between 1829 and approximately 1847. The northern route passed through what is now the eastern end of Curecanti NRA and Land Unit C (Gunnison River COA), and possibly

skirted Land Unit D (Iola Basin COA), although the exact location of the trail has yet to be located in this area (NPS nd-c).

RESOURCE SIGNIFICANCE

The prehistoric and historic stories of human culture in the Curecanti area are recorded in the traces and tracks left by American Indians, miners, railroaders, and ranchers. These signs document not only human struggles to survive but also how changing human value systems, economics, social, and technological changes, and the importance of water have shaped the use and character of the land and its people. Cultural history contains archeological examples of some of the oldest villages found in North America, predating the pyramids of Egypt. The narrow-gauge railroad exhibited in Cimarron graphically portrays the story of technology's effects of shaping people and using land. It is likely that the proposed lands contain additional significant cultural resources that are associated with archeological and historic resources found within the NRA.

VISITOR USE, UNDERSTANDING, AND ENJOYMENT

RECREATIONAL OPPORTUNITIES

Curecanti NRA is located in a sparsely populated area of Colorado. The nearest cities, including population and distance to NRA headquarters at Elk Creek, include: Gunnison (16 miles, population 5,400); Montrose (50 miles, population 12,300); and Grand Junction (111 miles, population 42,000). The nearest large metropolitan area is Denver (200 miles, population 555,000). The Front Range of Colorado (stretching from Pueblo in the south to Fort Collins in the north) is home to 3.5 million people; 462,000 people live in the Western Slope region of Colorado, and 147,000 in the Central Mountain Region.

Approximately 1 million visitors use the NRA's facilities annually. The peak season

is from Memorial Day to Labor Day, with activities focusing on water-based recreation and camping. However, there is potential to expand land-based recreational opportunities through the implementation of Alternative 2 (the Proposed Action) in this Draft Resource Protection Study. While the NRA is open year-round, due to its high altitude setting, approximately half of the visits occur in June, July, and August.

Annual Visitor Use

Annual recreation visitor data for 1996 to 2005 indicate that visitation has varied slightly (see Table 8). Annual visitor numbers first reached over 1 million in 1983, and except for a drop in visitor numbers in 2002, have been between 879,000 and 1,145,000 yearly since then. The impacts of higher gas prices, low reservoir levels due to drought, wildfire occurrence, and lower fishing success during some years are believed to have had an impact on the number of visits.

The recreation area is situated adjacent to Black Canyon of the Gunnison National Park, and is en route for many people who tour other national parks in the region (e.g., Rocky Mountain, Mesa Verde, Arches, and Canyonlands). Based on ranger observation, most visitors to the NRA are from Colorado (NPS 2002b).

Based on the available data, no dramatic increase in NRA visitation is anticipated over the next 10 years. However, general population trends in Colorado suggest an annual increase of 2% per year, and an increase in population could mean an increase in visitor numbers (CDOLA 2002). Gunnison County has a large number of summer residents and second home owners who visit the NRA on a regular basis.

Monthly Visitor Use

Based on the 10-year average, 54% of the annual visitation occurs during June, July, and August. Based on monthly visitor statistics, an average of 5,619 people visit the recreation area each day in June, July, and August (NPS Public Use Statistics Office).

TABLE 8: ANNUAL VISITATION AT CURECANTI
NATIONAL RECREATION AREA, 1996–2005

Year	Number of Visitors	Percentage Change from Previous Year
1996	1,017,256	+2.4%
1997	966,680	-5.0%
1998	973,652	+0.7%
1999	1,044,523	+7.3%
2000	1,022,320	-2.1%
2001	879,776	-13.9%
2002	732,713	-16.7%
2003	1,008,810	+37.7%
2004	1,006,102	-0.3%
2005	882,768	-12.3%
10-Year Average	953,460	--

(NPS Public Use Statistics Office)

Visitor Activities

Curecanti NRA is a relatively narrow strip of land and water stretching eastward approximately 40 miles from the eastern border of the Black Canyon of the Gunnison National Park along the Gunnison River corridor. It is surrounded by hundreds of thousands of mostly undeveloped acres of Reclamation, BLM, USFS, and Colorado Division of Wildlife lands, and private property that in some areas is being developed. The predominant setting provides a rural character with a spattering of developed sites, mostly along U.S. Highway 50 (US 50). The construction of three CRSP dams along the Gunnison River between 1962 and 1976 transformed this locale into a water-based recreation destination. There are three reservoirs along the Gunnison River within the NRA; Crystal Reservoir, Morrow Point Reservoir, and Blue Mesa Reservoir. Because Crystal and Morrow Point Reservoirs lie deep within the canyon of the Gunnison River, boating there is limited by horsepower restrictions.

Blue Mesa Reservoir is approximately 20 miles long at full pool and has 96 miles of shoreline.

It is divided into three basins: Iola, Cebolla, and Sapinero—all suitable for water-based recreation. Full reservoir pool sits at 7,519.4 feet above sea level. Water temperatures remain quite cold year-round, which somewhat restricts water-based recreation activities to the warmer summer months. Water related activities include the use of powerboats, canoes, sailboats, sailboards, and kayaks. Other recreational activities include sightseeing, photography, wildlife watching, fishing, hunting, swimming, hiking, backpacking, developed and backcountry



A variety of recreational boating opportunities are already available on Curecanti reservoirs, arms, and inlets. Alternative 2 would expand the opportunities for land-based recreation.

camping, and picnicking. In winter, the NRA supports a variety of activities, including snowshoeing, Nordic skiing, ice skating, ice fishing, and snowmobiling.

Scenic US 50 stretches east-west along the recreation area. Therefore, Curecanti NRA is experienced by many “accidental visitors” who get out of their vehicles to walk along the shore and beaches, sightsee, find solitude, or take photographs. Developed marinas, picnic areas, campgrounds, and boat ramps are accessible from the highway, and there are numerous undeveloped pullouts and overlooks.

Curecanti NRA’s recreation is currently mostly water-based, because the area was established primarily to include and immediately surround the reservoirs created for the water storage project. Therefore, a relatively small amount of adjacent land was included within the original NRA. However, surrounding the current NRA, are a variety of land-based recreational opportunities on public lands administered by other agencies, including BLM, CDOW, and USFS. And potential opportunities for enhanced resource understanding and additional resource-based recreation exist on surrounding lands that are currently under private ownership. These existing and potential opportunities are appropriate to the purpose and mission of the NRA. The National Park Service is therefore consulting with neighboring agencies and communicating with neighboring private landowners to explore ways of enhancing the enjoyment, and the recreational and educational experience of visitors to the NRA.

The following is a list of recreational opportunities (existing and potential), within and surrounding the NRA, as identified at workshops and open houses with the public and with the staff. It is not within the scope of this study to identify which of these opportunities would or would not be provided within the NRA. That would be done during a future planning process relating to a new general management plan, implementation plan, or other planning effort. It would be based on a number of factors, such as appropriateness to the resource, compatibility

with each other, and impacts on resources and visitor enjoyment.

- Aerial activities (cliff diving, float planes, hang-gliding, hot-air ballooning, model airplanes, parasailing)
- Artistic experiences (creative)
- Backpacking
- Biking (frontcountry, mountain)
- Boating (ice-boating, motorized, non-motorized, river kayaking, and sailing)
- Camping, designated
- Cross-country skiing
- Dog sledding
- Facility-based activities (attending conferences, dining, lodging)
- Fishing (including ice-fishing)
- Hiking (interpretive, backcountry, single or multi-day experience)
- Horseback riding
- Hunting (archery and firearms)
- Ice climbing
- Ice skating
- Interpretation and education (attending interpretive programs, educational day camp, educational residential camp, educational seminars, exploring cultural resources, exploring visitor centers and exhibits, learning about the resource, research, and touring the dams)
- Jogging and trail running
- Night-sky viewing
- Observation (bird watching and other wildlife)
- Off-road vehicle use
- Photography
- Picnicking
- Rock climbing
- Scuba diving and snorkeling

- Sightseeing (motorized and non-motorized)
- Snowmobiling
- Snowshoeing
- Swimming
- Water skiing (towed, or self-propelled), wake boarding, and tubing
- White-water rodeo
- Windsurfing

The most popular existing visitor activities and potential recreational uses are discussed below in more detail.

CAMPING AND PICNICKING—There are 10 developed campgrounds with about 390 campsites, and 21 backcountry/boat-in campsites within the NRA. There are 19 picnic areas within the recreation area, with many of these located adjacent to campgrounds or other developed facilities. Record high numbers of campers (including tent and RV camping) occurred in the late 1980s, with 120,000 overnight stays per year. The 10-year average for annual overnight stays is 63,780, which includes tent campers, RV campers, and backcountry campers (NPS Public Use Statistics Office).

HIKING, BACKPACKING, SIGHTSEEING, WILDERNESS-LIKE EXPERIENCE, AND OTHER RECREATIONAL ACTIVITIES—There are designated hiking trails along the northern side of the reservoirs including the Crystal Creek Trail, Mesa Creek Trail, Hermits Rest Trail, Curecanti

Creek Trail, and Dillon Pinnacles Trail. The pinnacles are the dominant geologic feature along Blue Mesa Reservoir. The Dillon Pinnacles Trail is very popular, offering spectacular views of the reservoir, the distant San Juan Mountain peaks, and the interestingly eroded volcanic pinnacles.

Two trails to the reservoirs are reached from US 50. The Mesa Creek Trailhead, which is on the north side of Crystal Reservoir just below Morrow Point Dam, is accessed from the south side of the reservoir by crossing a footbridge over to the northern shoreline. Parking for the trailhead is reached via the road leading from Cimarron to the dam. The Pine Creek Trail, which runs along the south shore of Morrow Point Reservoir just below Blue Mesa Dam, is accessible from a trailhead just off US 50.

Backcountry areas that offer opportunities for solitude occur within the current NRA primarily on Crystal and Morrow Point Reservoirs. However, access can be difficult. Some of the arms on Blue Mesa Reservoir offer similar opportunities. However, boat and vehicle noise may be clearly audible. Greater potential exists on proposed lands for such solitude opportunities, especially Land Units A (CO 92 COA), B (Blue Mesa Reservoir Agency), and H (West-End Agency). An example of a potential extended backcountry opportunity is a continuous trail along the north rim above the Gunnison River, linking Gunnison Gorge National Conservation Area, Black Canyon of the Gunnison National Park, and Curecanti National Recreation Area.

Backcountry/boat-in camping opportunities exist on all the reservoirs. Due to the narrowness of reservoir arms and creek outlets, the visitor is more in touch with the surrounding landscape and geology. Though the NRA offers multiple opportunities for backcountry camping on the reservoirs, there is limited opportunity for backpacking experiences elsewhere in the NRA. However, potential exists within the proposed lands for backpacking, especially in Land Units A (CO 92 COA), B (Blue Mesa Reservoir Agency), and H (West-End Agency).



Hikers on Curecanti Creek Trail



Boat-in camping offers backcountry experiences

Horseback riding is currently an approved activity in some areas, such as the Dillon Pinnacles Trail to access the West Elk Wilderness north of Curecanti NRA. Horse corrals are located at Dry Gulch and Ponderosa campgrounds and outside the NRA at Soap Creek Campground (USFS).



Alternative 2 would expand opportunities for horseback riding within Curecanti NRA.

Mountain biking is a popular activity in Gunnison County. Several trails exist on public lands east of the NRA, and bicyclists also enjoy riding paved and unpaved roads. US 50 raises a safety concern due to vehicle speed; however, much of US 50 has been widened to include 8-foot paved shoulders. There is a potential to designate bicycle trails in the NRA, and a desire on the part of the local trails commission to find a trail to connect the NRA to the City of Gunnison.

The potential to connect trails elsewhere is greatly enhanced by using existing roads and trails within the proposed lands, such as in Land Units C (Gunnison River COA) and D (Iola Basin COA). For example, an east-west bicycle trail might be appropriate south of Blue Mesa Reservoir.

For cross-country skiing enthusiasts, there are several areas that offer good skiing to those who enjoy the challenge of breaking trail or following informally established routes; however, there are no groomed ski trails. Skiers can ski the frozen, snowy surface of Blue Mesa Reservoir, ski the level road to the East Elk Creek Campground, or beyond to the Sapinero Wildlife Area for a round-trip distance of 4 miles.

Cross-country skiing is highly dependent on sufficient snow accumulation, which has varied greatly over the years. Skiing within the NRA is popular on the frozen surface of Blue Mesa Reservoir. However, skiing within the NRA at higher elevations is greatly restricted, because the NRA does not currently include higher elevations. Areas north of Blue Mesa Reservoir are generally closed to conserve severe winter deer and elk range. However, some land units would offer additional potential for cross-country skiing at higher elevations, particularly Land Units A (CO 92 COA) and E (Sapinero/Blue Mesa COA).



Cross-country skiing opportunities at Curecanti NRA would expand under Alternative 2.

Ice Climbing is an appropriate activity. However, there are limited locations where sufficient ice flows accumulate, and some of these locations have difficult or no public access. The potential to improve and/or open up such access occurs in Land Units A (CO 92 COA) and E (Sapinero/Blue Mesa COA).

Sightseeing is an important aspect of all recreational activities, as well as an end in itself, for NRA visitors and highway travelers. The natural open spaces and the spectacular geological and mountainous setting for streams, lakes, and canyons are key contributors to visitor enjoyment of the NRA. More detailed information about scenic resources can be found later in this chapter.



Fall sightseeing opportunities along the West Elk Loop Scenic and Historic Byway (CO 92)

FISHING AND HUNTING—Fishing and hunting are permitted within the NRA in accordance with federal and Colorado state regulations. Colorado Division of Wildlife (CDOW) has concurrent jurisdiction in the management of fish and wildlife in the NRA, and federal regulation adopts non-conflicting state statutes that deal with harvesting of fish and wildlife. Under both Alternatives 1 and 2, NPS would continue to cooperate with CDOW on related matters. Therefore, there would be no change in the way fishing and hunting are managed under either alternative.

Fishing is generally permitted in units of the national park system unless specifically prohibited. There is no regulation prohibiting fishing within Curecanti NRA. Fishing is one of the primary activities at the NRA, as the area provides some of the best cold-water

fishing opportunities in the nation. Federal and state fish hatcheries stock over 3 million fish in Curecanti's reservoirs each year. Brook trout are found in local tributaries, while brown, rainbow, and Mackinaw (lake trout) are common fish in Curecanti's reservoirs. Blue Mesa is also well known for its nationally significant kokanee salmon fishery. Fishing from both boats and the shoreline are popular at Blue Mesa Reservoir, and from hand-carried watercraft at Crystal and Morrow Point Reservoirs.



Fishing is a primary draw to the rivers and reservoirs of Curecanti NRA

Hunting is permitted in units of the national park system when authorized by specific statute or regulation, and not subsequently prohibited by regulation. Hunting is authorized within Curecanti NRA by Title 36, Code of Federal Regulations, §751. For purposes of public safety and wildlife management, the Superintendent's Compendium can and does close specific locations to hunting (for example, no hunting within 100 yards of developed areas). Under the Proposed Action, some minor changes could occur to the total acreage open to hunting. For example, if a private parcel is acquired from a willing seller, additional land may become available for hunting that is not now open to the public. Under Alternative 2, land proposed to be transferred to the NRA from other agencies would continue to support hunting if hunting is currently permitted on such land.

Land units of private property within the COA provide a potential to expand fishing and/or hunting opportunities into areas not

now publicly accessible, subject to future acquisitions from willing landowners (such as through exchange, purchase of fee simple interest, obtaining a right-of-way or easement) or landowner agreement. Public comment suggested a need to seek greater fishing opportunities along Curecanti Creek by CO 92 (Land Unit A), to improve fishing access along the south shore of Blue Mesa Reservoir east of the Middle Bridge (Land Unit E), and along the Gunnison River (Land Unit C).

WATER-BASED RECREATION—Swimming is allowed in Blue Mesa Reservoir; however, there are no “designated” swim beaches within the NRA, and swimming is not permitted from docks, launch ramps, or unanchored boats. Water skiing occurs on Blue Mesa Reservoir typically in the late months of July and August when waters are at their warmest.

Watercraft use has occurred on Blue Mesa Reservoir since the reservoir was created in 1965. Fishing and recreational boating are the main activities.



Sailboats capture the stiff afternoon breeze across Blue Mesa Reservoir

Based on angler surveys conducted by the Colorado Division of Wildlife in 2001, approximately 14,635 boats used Blue Mesa Reservoir during the May to October season. The largest group of motorized watercraft using the reservoir is fishing boats. In 2002, 1,160 annual boating permits were issued for Curecanti NRA, and 4,137 2-day to 2-week permits were issued. All motorboats are required to have permits displayed on them. During a holiday weekend, such as Fourth of July, there can be up to 200 boats on the reservoir.



Fishing from boats, one of the most popular activities on Blue Mesa Reservoir

Kayakers, canoeists, and sailors also visit the recreation area, but make up a small percentage of reservoir users. Due to the cold temperature of the water and the common high afternoon winds, canoeing and kayaking is concentrated along shorelines and in the narrower arms of the reservoir and east of the Lake City Bridge. Windsurfing on Blue Mesa Reservoir has been a popular activity in the past. Recent years have seen some decline; yet windsurfing still occurs, primarily in Iola Basin.

There are designated, paved launch ramps on Blue Mesa Reservoir at Lake Fork Marina, Elk Creek Marina, Ponderosa, Stevens Creek, and Iola. When reservoir levels are low, some of these designated ramps are not usable.



Elk Creek, one of two marinas on Blue Mesa Reservoir

frontcountry area of Blue Mesa Reservoir and continuing east along the Gunnison River.

Much of the land surrounding the existing NRA is ideally suited to provide more of the popular recreational activities that are currently available on a somewhat limited basis within the NRA. Alternative 2 (the Proposed Action) of the study, would provide the potential to greatly expand these land-based recreational opportunities for NRA visitors.

There are two marinas operated by concession on Blue Mesa Reservoir: at Elk Creek and at Lake Fork. Services include showers, groceries, fishing supplies, slip rentals, boat rentals (aluminum fishing boats, pontoon boats, and speed boats), gas sales, boat repairs, and dry boat storage. The concession offers guided fishing on Morrow Point Reservoir. A restaurant is located at Elk Creek near the marina.

INTERPRETATION AND EDUCATIONAL OPPORTUNITIES

Visitors to Curecanti can use NRA and other information resources to plan their visits. An NPS website provides information about camping and other activities. The public information office can mail pre-visit materials to those requesting them by phone or mail.

Curecanti NRA offers outreach and educational programs that are designed to increase awareness and foster an appreciation for the NPS mission and the natural, cultural, and recreational resources of the NRA.

Personal service programs are provided for over 10,000 pre-school, K-12, college/university students, and lifelong learners in 11 communities, 6 school districts, and colleges and universities across the nation. Undergraduate and graduate level courses are offered annually for teachers.



Boat dock and slip rentals at Elk Creek Marina

Resource Significance

Recreational opportunities in the NRA related to hiking and trail access, scenic overlook development, wildlife viewing, backcountry camping, increased hunting and fishing access, and other low impact recreational activities are currently limited to a few key sites. In addition, the majority of recreational opportunities currently available within the NRA are found along US 50 in the more developed

Interpretive Facilities

Elk Creek Visitor Center, the NRA's principal visitor center is located 16 miles west of Gunnison on US 50. This visitor center provides information on visitor activities, and has a wide-variety of interpretive publications for sale. Evening programs are offered on some summer evenings at the nearby Elk Creek Campground Amphitheater.

Visitor trends at the Elk Creek Visitor Center suggest this facility is currently underused, with as few as 200 visits per day during the peak summer months. In comparison, the visitor center located at the nearby Black Canyon of the Gunnison National Park receives 2,000 visits per day in summer. Visitor use and trends suggest that a different location for the principal visitor center would serve the public more effectively. Lands surrounding the NRA that are being examined in this study might provide such an opportunity. For example, other more ideal locations might be just east of Sapinero, or at Hunters Point. Both locations would have easy access to and from US 50. The consideration of a specific location would be addressed in a new general management plan, or implementation plan for the NRA, should the Proposed Action of this RPS be implemented.

A second visitor center is located at Lake Fork. Located off US 50 near the Blue Mesa Dam, this visitor center provides a photo display related to history and resources of Curecanti and a sales outlet. Due to staff and funding shortages, the Lake Fork facility was not open in the 2005–2006 seasons.

A third visitor center is located at Cimarron, on US 50 approximately 45 miles west of Gunnison and 20 miles east of Montrose. It provides exhibits on the Denver and Rio Grande Railroad that operated its narrow gauge line in this area from 1881 until 1949. A sales outlet for interpretive materials, with an emphasis on railroad history, is located at the Cimarron visitor center.

Parking turnouts along the highways within the proposed lands provide opportunities for enhanced interpretive and educational activities that support the NRA's purpose. Areas such as Land Units A (CO 92 COA) and E (Sapinero/Blue Mesa COA) offer views of geological formations such as the Dillon Pinnacles, as do other locations in the NRA. North and South Beaver Creek (Land Units B [Blue Mesa Reservoir Agency] and C [Gunnison River COA]) could provide a variety of interpretive opportunities. Areas along US 50, particularly through Land Unit E

(Sapinero/Blue Mesa COA), could provide an opportunity for new opportunities to capture visitors and other highway users to interpret Blue Mesa Reservoir and other area resources.

Resource Significance

Interpretation and educational opportunities are essential for sharing the importance of the resources at the NRA with visitors and students of all ages. Continued outreach education is an essential component of the program; such efforts help instill a sense of reverence for the land, and encourage recreational uses that are compatible with, yet do not degrade the resources.

Opportunities for visitor facilities and interpretive activities would be enhanced by Alternative 2 (the Proposed Action). Potential locations for both occur in some areas of the proposed lands, especially within Land Unit E (Sapinero/Blue Mesa COA).

SCENIC RESOURCES

Covering Gunnison and Montrose Counties, the reservoirs and canyons of Curecanti NRA offer a premier wild setting that contains a variety of magnificent scenic resources. The Curecanti area is recognized nationally and locally for its high scenic qualities and viewsheds, especially those experienced from the waters of Blue Mesa Reservoir and the West Elk Loop Scenic and Historic Byway, where segments of US 50 and CO 92 play an important role.

Scenic viewsheds and overlook points play a major role in the visitor experience and recreational enjoyment of the NRA, particularly from Blue Mesa Reservoir and along the CO 92 corridor that skirts the Black Canyon that contains Morrow Point and Crystal Reservoirs. Curecanti receives a great many “accidental visitors,” travelers who encounter the scenic landscapes while driving highways within and adjacent to the NRA. Many of these travelers use roadside overlooks and pull-outs to sightsee and photograph the outstanding landscapes.



Sapinero Basin on Blue Mesa Reservoir

Based on a Visitor Satisfaction Survey conducted by NPS at Curecanti during the summer of 1998, visitors feel that scenic resources are very important to their sense of enjoyment of the NRA. Following are summarized responses to statements on the survey that relate to the scenic resource:

A total of 390, or 98% of the people who responded to the following statement on the survey, agreed or strongly agreed with the statement: *I am visiting Curecanti because I want to enjoy distant and unobstructed views.*

A total of 321, or 98% agreed or strongly agreed with the statement: Preserving natural views surrounding Blue Mesa Lake (Reservoir) from increasing development is important to me.

A total of 321, or 98% disagreed or strongly disagreed with the statement: There should be no limits to development on the land surrounding Blue Mesa Lake (Reservoir).

A total of 276, or 70% disagreed or strongly disagreed with the statement: *Humans have the right to modify the natural environment to suit their needs.*

Many of the scenic vistas observed by visitors are outside of the NRA on public or private lands. Some of these vistas are on land units within the proposed lands and are observed from existing overlooks within the NRA, as well as from the highways and reservoirs. Additionally, vistas within the NRA and beyond the NRA are seen from these land units. These important views are listed below.

- Lands surrounding CO 92 (Land Unit A) are visible from Blue Mesa Dam Overlook, Pioneer Point, Hermit's Rest, and Crystal Creek Trailhead within the NRA. From CO 92, visitors can observe Morrow Point Reservoir, Curecanti Needle, Blue Mesa Reservoir, and Crystal Reservoir within the NRA, and Fitzpatrick Mesa, Blue Mesa (including Hunters Point and Windy Point) on lands adjacent to the NRA. These views on adjacent private lands are contained primarily within Land Units A (CO 92 COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). The San Juan Mountains are visible to the south.



View from Colorado Highway 92

- Soap Mesa (Land Unit A) is observed from Sapinero, the Dillon Pinnacles

Overlook and Trail, Ponderosa Campground, McIntyre Gulch, and Blue Mesa Reservoir within the NRA. From Soap Mesa, one can see Blue Mesa Reservoir within the NRA and Fitzpatrick Mesa, Sapinero Mesa, and Blue Mesa adjacent to the NRA (Land Units A [CO 92 COA] and E [Sapinero/Blue Mesa COA]), and the San Juan and West Elk Mountains in the far distance.



Soap Mesa from Soap Creek Road

- Sapinero Mesa (Land Unit E) is visible from the following areas within the NRA: US 50 and CO 92; Sapinero and Dillon Pinnacles Overlooks; Soap Creek Road; Ponderosa Campground; McIntyre Gulch; Lake Fork Campground and Marina; Blue Mesa Reservoir;

and Elk Creek Campground. From Sapinero Mesa, visitors can view lands above CO 92 and Soap Mesa in Land Unit A (CO 92 COA) adjacent to the NRA, Blue Mesa Dam and Blue Mesa Reservoir, and the West Elk Mountains, Sawatch Range, and Continental Divide in the far distance. There is a potential location for a future visitor center in this area adjacent to and south of US 50. However, further analysis of such a facility would more appropriately be carried out in a future general management plan or implementation plan.

- Blue Mesa (Land Unit E), including Hunters Point and Windy Point, is visible from existing overlooks along CO 92 (Blue Mesa Dam Overlook, Pioneer Point, and Hermit's Rest) and the US 50 corridor. Areas within the NRA below (north of) Windy Point provide what is likely the most impressive views of the Curecanti Needle, Chipeta Falls, the rugged cliffs and waters of Morrow Point Reservoir and scenic Soap Mesa. However, access is not available to this location due to the proximity of private lands. From Hunters Point, the view toward Blue Mesa Reservoir includes, within its landscape, the Dillon Pinnacles, West Elk



Looking southeast to Sapinero Mesa from Soap Creek Road

Mountains, and Soap Mesa. With its immediate access from US 50, it is a site that may be suitable for the future location of a visitor center. This would be addressed in a new general management plan or implementation plan for the NRA.



Curecanti Needle, as seen from the South Rim of the Black Canyon, near Windy Point

- Fitzpatrick Mesa (Land Unit A), south of Morrow Point Reservoir, is visible from existing overlooks along CO 92 (Pioneer Point and Hermit's Rest), and from several pull-outs along CO 92. From Fitzpatrick Mesa, visitors can view Morrow Point Reservoir within the NRA, CO 92



Aerial view of several tributaries to the Black Canyon of the Gunnison, including Spring Gulch (distant left)

corridor, including lands to the north, Blue Mesa, and Soap Mesa (Land Units A [CO 92 COA] and E [Sapinero/Blue Mesa COA]), and the West Elk and San Juan Mountains and Sawatch Range in the far distance.



Fitzpatrick Mesa

- Spring Gulch on the northwest end of Crystal Reservoir (Land Unit G) is visible from overlooks along East Portal Road and the Black Canyon of the Gunnison South Rim Drive.

- Agrarian and riparian landscapes are visible from US 50 and overlooks within the NRA, between Lake City Bridge and the eastern entrance to the NRA.



Gunnison River west of Gunnison

High quality natural or agrarian landscapes were identified by the public during a photo assessment workshop during the study process. Many of these areas are within existing vistas and land units identified above and include some scenes that are thought to best depict Gunnison and Montrose Counties. Specific areas identified within these land units or other nearby areas include the following:

- Area along CO 149 past Iola, including Blaine Rock, as seen from Blue Mesa Reservoir
- Open bluffs and viewsheds north of Blue Mesa Reservoir at East Elk Creek
- South side of Blue Mesa Reservoir as seen from Bay of Chickens
- Land to the south of Middle Bridge
- Land between Lake City Cutoff Road and Sapinero
- Sapinero Mesa west into Lake Fork Canyon
- Land near and to the south of Blue Mesa dam as seen from Blue Mesa Reservoir
- West Elk Creek and Soap Creek area north of Blue Mesa Reservoir,

including land north of Dillon Pinnacles, the peninsula between West Elk Arm and Soap Creek Arm, and the land along Soap Creek Road

- Soap Mesa plateau, from and including Cottonwood Gulch area to Pioneer Point
- Intersection of CO 92 and Soap Creek Road
- CO 92 west of Corral Creek, Curecanti Creek and Meyers Gulch, and east of Deadman's Curve
- Land along US 50 west of Blue Mesa Dam
- Vicinity of first switchback on US 50 north of Blue Creek that provides a good view of Sheep Mountain
- Fitzpatrick Mesa
- Hillside southeast of Cerro Summit as seen from CO 92 west of Montrose County line
- Top of East Portal Road.

Examples of unique geological and/or visually attractive features were also identified, suggesting places within the NRA that still need to be protected, or places outside the NRA that might need more conservation. Such sites included the north side of US 50 between Dry Creek and Red Creek, containing West Elk Breccia rock formation (ancient volcanic mudflow), and Morrison Formation, which is known to contain dinosaur fossils elsewhere. Soap Creek cliffs, Dillon Pinnacles, Curecanti Needle, and Curecanti Creek at hairpin curve on CO 92 were also suggested as areas that may need additional conservation, whether within or outside the NRA.

RESOURCE SIGNIFICANCE

An appreciation of the unique aspects of the scenic vista has long been associated with this area. As the 1965 Memorandum of Agreement between Reclamation and NPS was being developed for management of the NRA, scenic resource values were recognized as part and

parcel of the natural resource environment. In 1999, when Congress passed Public Law 106-76, which called for this study, the concept of scenic resource values took its independent place along with the other natural, cultural, and recreational resource values to be assessed.

The scenic vistas within and adjacent to the NRA are an important component of visitor enjoyment, experience, and appreciation. The scenic resources contribute to the national and regional significance of Curecanti NRA, as well as the West Elk Loop Scenic and Historic Byway that passes through and beyond the NRA. Besides the important geologic formations that are evident in the NRA, the open mountain vistas and natural landscapes within and surrounding the NRA are untouched in comparison to many other mountain park-like areas. Scenic vistas seen from existing corridors such as US 50, CO 92, CO 149, and from the water surface of Blue Mesa Reservoir within the NRA provide a varied and exceptional visual experience. Opportunities to enjoy a variety of recreational water and land-based activities within such a spectacular setting are unique to the NRA.

The extremely scenic geological and natural landscape setting is considered to be a key resource for enjoyment of the NRA. Development on private lands surrounding the NRA, especially within the COA, has been increasing in the past few years. There is a potential for development of privately held mineral rights at a number of locations within the NRA. This is already occurring at the Dickerson Pit near Beaver Creek, towards the east end of the NRA, along US 50. If such development should continue without regard for potential impacts on viewsheds and other resources important to the NRA, the recreation and overall experience at Curecanti may well be diminished along with its unique vistas and rural setting. It is essential that the scenic resource be conserved, in order for Curecanti to retain its unique and spectacular setting for recreational activities. Alternative 2 (the Proposed Action), provides tools to accomplish this end in cooperation and partnership with the counties and neighbors.

REGIONAL ECONOMIC AND SOCIAL CHARACTERISTICS

REGIONAL SETTING

Curecanti NRA is a 40-mile-long area located in Gunnison and Montrose Counties in southwestern Colorado. The eastern edge of the NRA lies approximately 5 miles west of the City of Gunnison. The Cimarron area of the NRA is 20 miles east of Montrose, while the western-most area of the NRA, at East Portal, is 16 miles northeast of the City of Montrose. Black Canyon of the Gunnison National Park, also administered by NPS and adjacent to Curecanti NRA on its west end, lies entirely within Montrose County.

Gunnison County encompasses approximately 3,257 square miles, or 2,084,480 acres. Within the county, USFS administers over 1.2 million acres of the Gunnison, Uncompahgre, and White River National Forests; BLM administers over 300,000 acres; Reclamation administers 31,161 acres; and NPS administers 32,223 acres (including land being administered under agreements with Reclamation and USFS). There are five wilderness areas and numerous state-owned wildlife and resource management areas. Crested Butte is home to the Crested Butte Mountain Resort, offering year-round activities.

Montrose County encompasses 2,247 square miles (1,438,080 acres). Of this total, the USFS administers over 320,000 acres of the Gunnison, Uncompahgre, and Manti-La Sal National Forests; BLM administers over 620,000 acres; Reclamation administers 30,677 acres; and NPS administers 36,820 acres (including land being administered under agreements with Reclamation and USFS). There are two wilderness areas, one national park, one national conservation area, and three state wildlife areas.

POPULATION

Colorado is the seventh fastest growing state in the United States (CDOLA 2002), and the Gunnison basin as a whole is experiencing

an explosive increase in both permanent population and seasonal visitation (CDOLA 2002). Gunnison county ranks twenty-third (top 36%) and Montrose County ranks twenty-first (top 33%) for rate of population change in the state (CDOLA 2002).

The Gunnison County population increased approximately 3.1% annually from 1990 to 2000 resulting in a 36% change over the 10-year period (Table 9). Montrose County population rose approximately 3.2% annually between 1990 and 2000, resulting in a 37% growth rate, slightly higher than Gunnison County. Annual growth rates in Montrose County have been above the annual 2.71% rate of the state. However, since 2000, Gunnison County annual growth has been only slight (less than 1%), whereas Montrose County continues to show annual growth between 2 and 3%. By 2020, population in Gunnison and Montrose Counties is expected to reach approximately 20,346 and 50,530 persons, respectively (CDOLA 2002).

Including annexation, the city of Montrose has sustained an annual growth over the last five years of 6%, while the city of Gunnison has shown a slight decrease.

TABLE 9: POPULATION ESTIMATES

Town or County	1990	2000	2005
Gunnison County	10,273	13,956	14,264
Montrose County	24,423	33,432	37,880
City of Gunnison	4,636	5,409	5,303
City of Montrose	8,854	12,344	16,070

Source: Colorado State Demography Office
(dola.colorado.gov/dlg/demog)

ECONOMIC CONDITIONS

In Gunnison and Montrose Counties, approximately 75% of jobs are in wage and salary positions where people work for someone else. The remaining jobs (25%) are individuals that are self-employed. Unemployment averaged 6.4% for Gunnison County and 4.8% for Montrose County in

November 2003. Unemployment in Colorado was 5.6% during the same period (Colorado Labor Market). Wage rates are below the statewide averages.

Employment by industry in Gunnison County has remained relatively unchanged since 1985, except for some decline in sectors such as mining. In 2000, the largest employment sectors included Wholesale/Retail (26%) and Services (27%) followed by Government (15%), Construction (10%), and Financial/Insurance/Real Estate (7%). The remaining sectors such as agriculture and mining were 5% or less. In Montrose County, the employment distribution is similar. The Service (25%) and Wholesale/Retail sectors (24%) are largest, followed by Government (13%), Manufacturing (10%), Construction (10%), and Agriculture (8%) (Montrose County 2001). In both counties, the Service sectors not only provide the most jobs but have demonstrated the most new job growth from 1970 to 1997. The largest component of the Service sector in Gunnison County relates to recreation, whereas in Montrose County it is health services (Wilderness Society 1999). Tourism is a major industry for the region, with visitors coming year-round to enjoy activities such as skiing, rafting, fishing, kayaking, camping, hiking, and sightseeing (Region 10).

Non-labor income is the largest component of Total Personal Income (TPI) in both Gunnison and Montrose Counties. Non-labor income includes income sources such as dividends, interest, rent, and transfer payments, such as social security and other pension programs. Non-labor income represented 28% of TPI in both Gunnison and Montrose Counties in 1970. In 1997, non-labor income remained at 28% of TPI in Gunnison County, whereas it grew to 40% of TPI in Montrose County. Both figures are indicative of a growing retirement community and households with investment income. The Service industries have also accounted for between 13% and 20% of income growth in counties within the same time period (Wilderness Society 1999) (Region 10).

Gunnison County per capita retail sales in 2002 averaged \$28,321 and retail sales totaled

\$397.2 million. Gunnison County per capita sales exceeded the statewide average by 23%. Montrose County per capita sales in 2002 averaged \$19,495 and retail sales totaled \$692.7 million. Montrose County per capita sales were 84.8% of the Statewide average. City of Montrose is the dominant trade center in the area with 2002 retail sales of \$586.6 million (CDH nd) (Region 10).

In 2001, the average wage paid workers in Gunnison County was only 63% of the Colorado average and 68.8% for Montrose County. Gunnison County per capita personal income was \$22,762 and \$23,007 for Montrose County. For that time period, the State average per capita income was \$33,455 (CDH nd) (Region 10).

Agricultural sales of livestock and crops by Gunnison County farmers and ranchers totaled \$7 million in 2001 and \$96.2 million by Montrose County farmers and ranchers (CDH nd) (Region 10).

The median price of a 1,500 square foot home in Gunnison County as of January 2002 was \$227,985 (\$151.99 per square foot), and in Montrose County it was \$139,470 (\$92.98 per square foot) (CDH nd). The average sale price of a home in the City of Gunnison and surrounding area increased 12.3% from 2000 to 2002, and in Montrose County the increase was 2.4% (CDH nd) (Region 10).

NRA CONTRIBUTION TO REGIONAL ECONOMY

Visitors to Curecanti, NRA staff, and their households are integral to the regional economic and social structure. Some key dimensions of the NRA's role within the region are described below.

Curecanti NRA provides economic stimulus with ongoing operating and capital expenditures. The budget for fiscal year 2005 was \$3,041,000. Salaries for interpretation, law enforcement, and search and rescue activities comprise the largest share of the budget. The remaining funds are allocated for activities such as facility operating and

maintenance, resource conservation, and management services. Portions of the NRA's annual expenditures circulate through the regional economy in the form of consumer and business purchases, yielding indirect economic benefits.

In addition to the direct stimulus attributable to the NRA, spending by its visitors contributes to the local economy. Evaluation of visitor spending in and around units of the national park system, based on 2005 dollars, indicates that an average party of visitors to a NPS unit, such as the NRA, spends \$42.72 per day if the party is from the local area; \$62.84 per day if the party comes from outside the local area; and \$193.37 per day if the visit includes an overnight at a local motel (NPS 2006b).

Money Generation Model version 2 (MGM2) is an economic model developed for NPS to estimate local and non-local tourism on the local economy. Economic impacts of visitor spending are estimated in the MGM2 using multipliers for local areas for each unit of the park system (NPS 2006b). This includes the direct and secondary economic effects in gateway communities around the park unit in terms of jobs, personal income and value added. Value added is the sum of personal income, profits and rents and indirect business taxes. The following are the results of applying MGM2 to evaluate Curecanti NRA economic impacts using 2005 data (NPS 2006b):

- Total Visits - 904,433
- Total Combined Sales- \$35,571,000
- Total New Jobs Created - 697
- Value Added - \$20,330,000

PAYMENTS IN LIEU OF TAXES

"Payments in Lieu of Taxes" (or PILT) are Federal payments to local governments that help offset losses in property taxes due to nontaxable Federal lands within their boundaries. Payments are calculated following a formula that takes into account a variety of factors: acres of eligible land, county population, consumer price index, and

previous year payments from other federal agencies, including state pass-through laws that require payments to pass from counties to local communities or entities rather than staying with the county government (Bodine and Koontz 2003).

In 2003, federal payments in lieu of taxes amounted to \$342,195 for Gunnison County and \$1,250,560 for Montrose County. Of the approximately 1.6 million acres of federal land in Gunnison County and 900,000 acres in Montrose County, Reclamation lands and land interests and NPS lands that make up the NRA and the national park, represent only 2.5% and 6% of these total acres and PILT payments by respective county (BLM 2003).

QUALITY OF LIFE

Residents of both counties, as well as the respective county governments, recognize that the environmental resources within the counties are an important component of their economies, including recreation and tourism.



Conserving resources enhances quality of life

A 2002 Community Profile Survey developed by the Gunnison County Planning Commission with Board of County Commissioners surveyed 4,500 houses with a 41% response rate on a variety of issues. Those responding were asked to rate how important the environment /open space

would be to them in terms of importance facing Gunnison County over the next 5 years using a scale of 1 to 5 (five being the least important). Forty percent indicated that it was the most important issue. Those ranking it at a level 2 were between 20 and 25% and level 3 between 15 and 20%. When asked how they perceived growth in the East River Valley, more than 40% of those responding indicated that regulations should be changed to direct growth. Another 30% indicated that regulations should be changed to limit growth. When asked “what do you value most about living in Gunnison County”, the value of scenery was ranked as one of the important reasons by over 75% of survey respondents (levels 1 through 6 out of 13) (Michaelson nd).

Montrose County conducted a community survey in late 1999 asking residents to respond to the draft Master Plan. Eighty of the 119 respondents indicated that planning and zoning was essential. Eighty respondents believe that the county is not taking sufficient steps to direct growth, and a majority indicated that they would like to see much less population growth than in the previous few years (Montrose County 2001).

PRIVATE LAND USE WITHIN THE NATIONAL RECREATION AREA

All surface lands and waters within the NRA are currently owned by the federal government. However, in a number of locations throughout the NRA, there exist retained oil, gas, and/or other mineral rights on acquired land, such as represented in Table 10.

This situation, where one party owns the surface and another party owns the subsurface minerals is known as a “split estate.”

At this time, only the Dickerson Pit (Pit) is under operation. The Pit is a privately operated mineral materials site within the NRA that has been in existence since 1927. In 1963, Reclamation purchased the surface rights

TABLE 10: RESERVED SUB- SURFACE INTERESTS

T	R	Section	Previous Owner	Interests Reserved
49N	2W	13	Cooper, M.	oil & gas
49N	2W	22	Benson, S., et al.	oil & gas
49N	2W	22	Charter, et al.	oil & gas
49N	2W	22	Cox, E.	oil & gas
49N	2W	22	Hackett, E.	oil & gas
49N	2W	22	Harris, E.	oil & gas
49N	2W	22	Matchett, T.	oil & gas
49N	2W	22	McKelvey, J.	oil & gas
49N	2W	22	Owen, P.	oil & gas
49N	2W	22	Rueger, R.	oil & gas
49N	2W	22	Wright, S.	oil & gas
49N	2W	23	Clark, W.	oil & gas
49N	2W	23	Larimore, et al.	oil & gas
49N	2W	23	McClure, A.	oil & gas
49N	2W	13, 24	Harris, E.	oil & gas
49N	2W	19, 20, 29, 30	Oswald, M.	oil, gas & minerals
49N	2W	19, 29, 30	Keenan, F.	oil, gas & minerals
49N	2W	21, 22, 27	Rippling River Ranch	oil & gas
49N	2W	21, 28, 29	Burris, C.	oil & gas
49N	2W	23	Wood, F.	oil, gas, coal & minerals
49N	2W	23	Wright, F.	oil & gas
49N	2W	24	Costello, A.	oil & gas
49N	2W	24	Dickerson, R.	oil, gas & decomposed granite
49N	2W	24	Doran, L.	oil & gas
49N	2W	26	Eagle Rock Resort, Inc.	oil, gas & minerals
49N	2W	26	Herman, A.	oil & gas
49N	2W	26	Nelson, G.	oil & gas
49N	2W	27, 28, 29, 31, 32, 34	Blackstock, E.	oil, gas, coal & minerals
49N	2W	29	Gunnison School Dist.	oil & gas
49N	2W	29	Killion, R.	oil & gas
49N	2W	29	Kleitz, D.	oil & gas
49N	2W	29	Laskowski, A.	oil & gas
49N	2W	31	Bannister, O., et al.	oil & gas
49N	2W	31	Howe, K.	oil & gas
49N	2W	31	Reiss, P.	oil & gas
49N	2W	31	Sunderlin, R.	oil & gas
49N	2W	32, 33	Woodward, D.	oil & gas
49N	3W	25, 26	Holman, J.	oil & gas
49N	3W	27, 28, 29, 32, 33, 34	Miller, A.	oil & gas
49N	3W	28, 29, 30, 31, 32	Moncrief, W.	oil & gas
49N	3W	34, 35	Trout Haven Inc.	oil & gas
49N	3W	35	Dyer, D.	oil & gas
49N	3W	36	Abrahamson, J.	oil & gas
49N	3W	36	Sunderlin, R.	oil & gas
48N	4W	1, 2	Holman, J.	oil & gas
48N	4W	2, 3, 4, 10	Austin, N.	oil & gas
48N	4W	3, 4	Curecanti Sheep Co.	oil & gas

T	R	Section	Previous Owner	Interests Reserved
49N	4W	14, 15, 16, 21, 22, 23	Carpenter, F.	oil & gas
49N	4W	16, 21, 27, 28, 29, 33	LeValley, J.	oil & gas
49N	4W	26, 27	Gilmore, L., et al.	oil & gas
49N	4W	28	Goodwin, C.	oil & gas
49N	4W	32	Cotten, C.	oil & gas
49N	4W	32	Curecanti Sheep Co.	oil & gas
49N	4W	32	Lucas, E.	oil & gas
49N	4W	32	Oswalt, H.	oil & gas
49N	4W	32, 33	Santarelli, R.	oil & gas
49N	4W	33, 34, 35	Holman, J.	oil & gas
48N	6W	5	Bliss, R.	oil & gas
48N	6W	5	Brack, L., et al.	oil & gas

Source: Cooper, Katherine, NPS, Land Resources Program Center, November 2000

for 79.57 acres from Mrs. Ruth Dickerson for the Colorado River Storage Project. Mrs. Dickerson reserved the right to continue to mine and remove “decomposed granite and the materials intermixed therewith” from a portion of the conveyance, creating a 33.16-acre split mineral estate, together with the right of ingress and egress over the mineral estate. The Pit is located immediately west of US 50, the primary access road through the NRA, east of Blue Mesa Reservoir along the Gunnison River. In 1965, NPS assumed jurisdiction over the area, including the Pit, pursuant to a Memorandum of Agreement with Reclamation. The Pit operations have been regulated since the 1980s under NPS special use permits. On February 17, 2003, the current operator, Gunnison Gravel and Earthmoving, submitted a proposed Plan of Operations to expand the Pit from the existing permitted operation (12.4 acres) to the maximum 33.16 acres. The NRA has completed an environmental assessment of the proposal and in 2006 issued a special use permit allowing the expansion, subject to the exclusion of a portion of the area that contains significant cultural resources.

NEIGHBORING PRIVATE LANDS AND LANDOWNERS WITHIN THE PROPOSED LANDS

Land Ownership

Private property within Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA) have been included within the proposed lands because of the regionally or nationally important, or potentially important natural, cultural, recreational, or scenic resources that occur on these properties. There are a total of 125 different private ownerships within the COA. They consist of individuals, joint ownerships, partnerships, and corporations. Some entities own more than one property within the COA. Many landowners live within Montrose and Gunnison Counties or in other Colorado locations. Some owners live in nearby states such as Texas, New Mexico, and Arizona; or in more distant states, such as North Carolina and Alabama. Some properties have been held by the same family (including descendants) for decades, while other properties may have had a recent conveyance to new owners.

In 2005, there were 168 individual parcels of private land throughout the COA, ranging in size from 0.25 acre to 3,258 acres. The average number of acres per parcel varies according to general location and land use

(Gunnison County and Montrose County GIS departments).

- Within Land Unit A (CO 92 COA), parcels on the north side of Morrow Point Reservoir in the vicinity of Black Mesa and Curecanti Creek average approximately 150 acres, although 40% of the parcels are almost 200 acres or more. In the Soap Creek area, 50% of the parcels are 5 acres or less, but one large parcel is over 2,000 acres in size. Parcels south of Morrow Point Reservoir on Fitzpatrick Mesa also average between 150 and 200 acres.
- Land units C (Gunnison River COA) and D (Iola Basin COA) along the Gunnison River and near Southeast Iola Basin include only a handful of private properties ranging in size from approximately 3 acres to 386 acres.
- Within Land Unit E (Sapinero/Blue Mesa COA) on Sapinero and Blue Mesas, 75% of the parcels are less than 10 acres in size, while 2 of the remaining 4 parcels are almost 500 acres. Parcels at Hunters Point and Windy Point average between 50 and 100 acres, respectively.
- Land unit G (West-End COA) consists of 18 parcels, 4 of which are north of the current NRA and 14 south. Ten parcels are under an acre. The largest parcel is about 60 acres.

Existing Land Uses

The predominant land uses on private property within the proposed lands consist of agriculture, primarily cattle and sheep grazing, and are limited to low residential use.

Land unit A (CO 92 COA) along CO 92 and north of Morrow Point Reservoir supports ranching activities, including cattle and commercial elk; and some limited extractive uses, such as timber removal. A few residential structures are found in the area. Residential development increases in the vicinity of Soap Creek Road, although it continues to be limited. Existing conservation easements

conserve a significant amount of acreage from being developed, and are held by the Rocky Mountain Elk Foundation and Colorado Open Lands. Still within Unit A, lands south of Morrow Point Reservoir support agriculture uses such as sheep grazing.

CO 92 currently weaves in and out of the NRA. As people drive along the highway, or stop and exit their vehicles along the highway, they are often confused whether they are on public land (i.e., the NRA) or private land. This is of special concern during the hunting season, where hunters may inadvertently hunt on private land. Another area that may suffer private trespass due to the current boundary situation is a location where access is gained to a popular climbing/ice climbing route. The landowner of one large ranch in this area has proposed exchanging land with the NRA, whereas CO 92 could, in essence, become the boundary line between the NRA and private land. The NRA parcels affected are shown on the Alternative 2 (Proposed Action) map as Tract 4, Tract 5, Tract 6, and Tract 7.

Land unit C (Gunnison River COA) along the Gunnison River supports cattle ranching and limited residential use. Land unit D (Iola Basin COA) has grazing activities, residential use, and commercial uses. Land unit E (Sapinero/Blue Mesa COA) is comprised of low-density residential use, limited commercial use along US 50, and some grazing activity between Hunters and Windy Point. Private lands within Unit G (West-End COA) on the western end of the proposed lands include a few residences, but are generally vacant with regard to structures, and used for grazing.

Some private lands within the proposed lands are currently subdivided, for sale, or have a high probability of being developed in the near future. These private lands generally occur in the vicinity of major transportation corridors and in the vicinity of other development, such as along US 50 near Sapinero Mesa, Hunters Point, Windy Point, and Cimarron. Private lands along CO 92 and in the vicinity of Willow Creek face a moderate probability of being developed in the near future because of their accessibility (Roberts 2004).

Development on private lands adjacent to the NRA has increased in recent years and is expected to continue into the future. Insensitive and/or unchecked development, including development of mineral/mining rights that might exist, especially on lands within the COA, could have an adverse impact on the spectacular natural scene, which makes the NRA such a significant resource in which to recreate, sightsee, and take pictures. In turn, it could have an adverse impact on the quality of life for local residents and on the overall quality of the visitor experience.

In general, assessed land values in Gunnison County grew from \$373 million in 2002 to almost \$390 million in 2003, a 4.5 % growth in assessed values. Montrose assessed land values grew by 2.5% from \$301 million to \$305 million. Gunnison County and other mountain communities reported some of the largest increases in assessed value in recent years, a trend that is expected to continue, although to a lesser degree (State of Colorado 2002).



Development on private land adjacent to the NRA, but not within the COA

Property Values

As stated in the Alternatives chapter, one of the tools for resource conservation being considered in the Proposed Action is to acquire interests in land from willing landowners. As described in the Estimated Costs section of that chapter, the future direct costs of acquiring such interests are very uncertain. Therefore, for the purposes of developing the estimated cost of implementing the Proposed Action, the following current ranges of market values were used as guidance. They are based on records of land sales occurring over recent years on vacant and/or agricultural land within what is proposed as the COA:

Range of Market Values

Within Gunnison County — \$1,500 to \$4,000 per acre

Within Montrose County — \$500 to \$1,500 per acre

NATIONAL PARK SERVICE, RECLAMATION, AND OTHER NEIGHBORING AGENCY MANAGEMENT AND OPERATIONS

A number of federal, state, and local agencies have lands and/or facilities located within the existing NRA and/or the proposed lands for the RPS Proposed Action, including NPS, Reclamation, BLM, USFS, Colorado Division of Wildlife, and Western Area Power Administration (Western). Each agency has individual interests regarding the potential expansion of Curecanti NRA. A primary and shared concern amongst the agencies is that the mission, land management, and operational responsibilities of each agency within the proposed lands are evaluated to ensure that all responsibilities are considered in developing the RPS recommendations.

This section identifies agency lands within the proposed lands more specifically those areas considered for inclusion within the NRA

for the Proposed Action. It also generally describes each agency's management responsibilities for those areas.

NATIONAL PARK SERVICE

NPS manages the natural and cultural resources, public recreation, and associated facilities at Curecanti NRA and Black Canyon of the Gunnison National Park as one operating unit with two districts. The Blue Mesa District includes the area from Riverway west to Morrow Point Dam, and the Black Canyon District from Morrow Point Dam (including the Cimarron Visitor Center) west to and including the national park.

A Superintendent has overall authority and utilizes five divisions for operating the two areas: (1) Resource Stewardship and Science; (2) Interpretation, Education, and Technology; (3) Visitor Protection and Fee Collection; (4) Facility Management; and (5) Administration and Concession Management. The staff consists of approximately 32 permanent positions, 5 term positions, and 44 seasonal positions. This work force is supplemented by over 5,000 hours per year of Volunteers-in-Parks service.

Staff expertise is provided by a number of specialized positions, including an outdoor education specialist, an information technology specialist and computer assistant, an ecologist, hydrologist, aquatic biologist, terrestrial biologist, archeologist, interpretive specialists, law enforcement specialists, climbing/backcountry ranger, GIS specialist, fee collection personnel, and specialized maintenance and administrative positions.

Enforcement Operations

Law enforcement staff provide visitor and resource protection, road and boat patrols, search and rescue services, fire protection, and a variety of other services. However, during parts of the year the NRA lacks sufficient permanent staff coverage to meet some visitor needs. Additional seasonal staff is added to provide coverage during the primary visitor season, particularly from mid-May through

Labor Day. Occasionally, Colorado Division of Wildlife Officers provide patrols to monitor fishing and hunting activities.

Infrastructure and Maintenance Operations

The NRA infrastructure includes 3 visitor centers, 10 campgrounds, 7 self-guiding trails, 12 miles of hiking trails, 22 miles of roadways, 1 central maintenance facility (which also serves as the central maintenance facility for Black Canyon of the Gunnison National Park), the main NRA headquarters (which also serves as headquarters for Black Canyon of the Gunnison NP), and 22 employee housing units for on-site protection and management of NRA resources. Primary facilities are shown on the Existing Conditions map.

There are 12 permanent and 19 seasonal maintenance workers. This recurring staff is often supplemented and supported using special project funds, contracts, and the assistance or expertise from other NPS areas, and other organizations, as available.

Grazing

When the NRA was originally created, some BLM grazing allotments, or portions thereof, were included within it. NPS and BLM addressed the issue through creating Memorandums of Understanding that allow BLM to continue management of grazing in these areas in cooperation with NPS.

Grazing also occurs on USFS land being managed by NPS under an agreement with the Forest Service. The areas where this occurs include the Bear-Trap Long Gulch allotment (with 10 permittees) and the Soap Creek allotment (currently vacant).

Land Unit F: Gateview Agency Lands

NPS facilities in Land Unit F (Gateview Agency; and identified as Tract 10 on the Alternative 2 Proposed Action map) along the Lake Fork arm are adjacent to extensive BLM lands. Because of the distance for NPS to travel to maintain the facilities at Gateview, a full day is required to do fundamental

maintenance of garbage pickup, check water systems, and clean facilities. Because of the more frequent presence of BLM staff in this area (south along the Lake Fork), the potential operating efficiencies of transferring Gateview Campground to BLM was considered during the course of the study.

NPS facilities in the Gateview area include roads, a small campground, restrooms, a photovoltaic chlorinated well system, bear-proof trash cans, and historic resources such as railroad-related features. All facilities are currently maintained by NPS.

Should NPS transfer its administrative jurisdiction for land and resources that it manages under agreement with Reclamation to another agency, a supplemental agreement between NPS and the receiving agency would need to be completed.

BUREAU OF RECLAMATION

The mission of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. To accomplish that mission, Reclamation must have administrative jurisdiction of its lands, land interests, water and water interests, and facilities necessary to fulfill and protect the authorized purposes of its respective projects. According to Reclamation law, other uses may be allowed on Reclamation lands, so long as they are compatible or consistent with a project's purposes or the purpose for which Reclamation obtained lands or land interests.

Bureau of Reclamation Projects

Most of the lands within the current NRA, and some adjacent lands, were withdrawn or acquired for Reclamation purposes (refer to Existing Conditions map in Chapter 1). Reclamation currently operates and maintains two projects and uses its land, land interests, water and water interests, and facilities to fulfill and protect the respective project purposes:

- Uncompahgre Project
- The Wayne N. Aspinall Unit (Aspinall Unit) of the Colorado River Storage Project.

A third nearby Reclamation project, the Fruitland Mesa Project, was authorized but never constructed.

Uncompahgre Project

The Uncompahgre Project (originally the Gunnison Project) was authorized by the Secretary of the Interior on March 14, 1903, under the provisions of the Reclamation Act of 1902 to provide agricultural irrigation water to about 76,300 acres in the Uncompahgre River Valley. The Act of June 22, 1938 authorized the Secretary of the Interior to enter into a contract for the sale or development of power on the Uncompahgre Project. Uncompahgre Project facilities within or adjacent to the NRA include, but are not necessarily limited to the:

- Gunnison River Diversion Dam;
- Gunnison Tunnel;
- River Portal Tunnel Road; and
- Residence, outbuildings and appurtenances of the Uncompahgre Valley Water Users.

The Uncompahgre Project is operated and maintained by the Uncompahgre Valley Water Users Association (UVWUA) under a contract with Reclamation. Withdrawn lands associated with the Uncompahgre Project in the vicinity of the East Portal of the Gunnison Tunnel were added to the current NRA in 1978 and are managed by NPS for recreation and other purposes in accordance with the 1965 MOA with Reclamation.

Aspinall Unit, CRSP

The Aspinall Unit (formerly the Curecanti Unit) of the CRSP was authorized by the CRSP Act of April 11, 1956 (70 Stat. 105). Reclamation operates and maintains the Aspinall Unit, its facilities, and its lands and land interests to meet project purposes. The presence of

the three reservoirs has created water-based recreational opportunities.

Aspinall Unit related facilities within or adjacent to the NRA include, but are not necessarily limited to the:

- Blue Mesa, Morrow Point, and Crystal Dams and Reservoirs;
- Access roads to each of the three dams;
- Power plants and associated electric transmission facilities serving each dam;
- Communication facilities and associated access roads; and
- Electrical transmission lines and associated access roads (now operated/maintained by Western).



Morrow Point Dam, one of three large dams managed by Bureau of Reclamation within the Curecanti project

Bureau of Reclamation Lands

The Secretary of the Interior is authorized to acquire private lands and to withdraw public land from entry or other disposition under the public land laws necessary for the construction, operation, and maintenance of Reclamation projects. The Secretary is also authorized to dispose of recreation facilities and facilities that benefit fish and wildlife to federal, state, and local government agencies by lease, transfer, exchange, or conveyance upon such terms and conditions as would best promote their development and operation in the public interest.

Reclamation withdrew lands from the public domain for Reclamation purposes, and acquired other lands and land interests for the above projects and purposes. Lands and land interests held by Reclamation within and adjacent to the NRA include about 39,958 acres of withdrawn lands, 11,465 acres of acquired lands, and 983 acres of land interests including various rights-of-way and easements. Reclamation withdrew and/or acquired some lands and interests for mitigation purposes for the Aspinall Unit, and transferred them to other federal, state, or local agencies for management.

Reclamation utilizes and manages its lands and land interests for Reclamation project purposes. NPS manages recreation and certain other resources on Reclamation lands and land interests within the NRA in accordance with the 1965 Memorandum of Agreement with Reclamation. BLM manages the lands withdrawn for the Fruitland Mesa Project.

Land Unit D: Iola Basin COA

The study team considered making recommendations for conserving private lands in the vicinity of Willow Creek on the south side of Iola Basin because the area contains important riparian habitat, is a popular location for parasailing and hang gliding activities, and requires adjustments to the administrative boundary. Acquisition of interests in this area would enhance conservation of habitat, simplify the management of recreational activities, and improve administrative efficiency.

BUREAU OF LAND MANAGEMENT

The proposed lands encompass lands managed by BLM. All BLM lands are managed according to actions outlined in specific resource management plans individually developed for each field office. Natural, cultural, and recreational resources are managed to accomplish a variety of multiple use objectives. These vary according to the attributes of the individual area.

The Gunnison Field Office is responsible for the management and stewardship of more than 600,000 acres of public land in the upper Gunnison River basin in southwest Colorado. BLM lands north and south of Blue Mesa and Morrow Point Reservoir within the proposed lands are managed by the Gunnison Field Office.

The Uncompahgre Field Office is responsible for the management and stewardship of more than 900,000 acres of public lands in southwestern Colorado. BLM lands from the southern point of Crystal Reservoir to the west within the proposed lands are managed by the Uncompahgre Field Office.

BLM lands adjacent to the NRA were evaluated during the study. These lands are located in Land Units B (Blue Mesa Reservoir Agency), F (Gateview Agency), and H (West-End Agency), and are described below. Land unit D (Iola Basin COA) is also discussed because of activities on adjacent BLM lands.

Livestock grazing occurs both within the proposed lands and within the current NRA. Some of the lands withdrawn by Reclamation for the Curecanti Project included BLM lands and their associated grazing allotments. Some allotments have all the federal portion of the allotment entirely within the NRA, while other allotments have some of the federal portion within the NRA and some on adjacent BLM land. However, in all cases, BLM manages these grazing allotments under an agreement with NPS.

Land Unit B: Blue Mesa Reservoir Agency Lands

BLM lands are scattered throughout this land unit and are managed by the Gunnison Field Office. The land unit stretches east from Soap Creek Arm to Neversink along the Gunnison River and includes one small piece of land that is located on the southeast side of Iola Basin near Kezar Basin. All the BLM lands within this land unit, excluding the piece near Kezar Basin, are within the West Antelope Area of Critical Environmental Concern (ACEC) or the Dillon Pinnacle ACEC. An ACEC is an area managed by BLM that contains important historic, cultural, and scenic resources, fish or

wildlife resources, or other natural systems or processes (BLM 1991).

The Dillon Pinnacle ACEC, adjacent to the NRA just east of the West Elk Arm, was created to protect the regionally significant vertical spires or pinnacles that are outstanding examples of eroded volcanic mudflows. The pinnacles are a predominant scenic feature from many locations within the NRA, particularly from US 50 along Blue Mesa Reservoir. BLM manages this area to protect both its scenic and geologic attributes. Recreational use also occurs in the area.

The West Antelope ACEC extends from Dillon Mesa east to West Antelope Creek near Gunnison (north side of study unit) and is managed to provide important wildlife habitat for wintering elk, deer, and bighorn sheep. Land uses are permitted that do not remove or damage elk and deer crucial winter range. Several state wildlife areas are located within the midst of the ACEC, further supporting the management of these winter range attributes. The ACEC also receives some dispersed recreation use in the vicinity of Dillon Gulch, but generally public access is difficult.

The Haystack Cave, located near the NRA, has yielded a significant number of fossils, particularly faunal specimens. The area is managed for public use, but is often vandalized, despite an existing gate (BLM 1991).

Grazing — Several grazing allotments include small percentages of NRA land within them. These include the Stevens Creek, Steuben Creek, and Beaver Creek allotments. These allotments are managed by the BLM Gunnison Field Office.

Land Unit D: Iola Basin COA

Hang gliders currently take flight from Big Mesa on BLM land in the southeast portion of Iola Basin and often times land on private or NPS property in the vicinity of Willow Creek near Iola Basin. Grazing occurs in the landing site on the private land. Although historically the landowner has allowed the hang gliders to land, more recently this activity is being

denied, as the leaseholder of the grazing rights has not supported the hang gliding activity.

Grazing — One grazing allotment, Iola, includes a small percentage of NRA land within it. This allotment is managed by the BLM Gunnison Field Office.

Land Unit F: Gateview Agency Lands

A variety of recreational activities in this area are managed by BLM. Many recreationists raft the Lake Fork of the Gunnison River and take out of the river in the vicinity of Gateview Campground, a facility currently managed by NPS. Fishing occurs along the Lake Fork with some parking occurring within the campground. Historic features associated with the narrow gauge railroad are also in the area.

Grazing — Several grazing allotments include small percentages of NRA land within them. These include the Sapinero Mesa, Ten Mile Springs, and Big Willow allotments. These allotments are managed by the BLM Gunnison Field Office.

Land Unit H: West-End Agency Lands

BLM lands are scattered throughout this land unit, and are managed by both the Gunnison Field Office, and the Uncompahgre Field Office. Parcels within this land unit occur north and south of Crystal and Morrow Point Reservoirs, and west of Cimarron. A large area under BLM administration occurs on the western edge of Fitzpatrick Mesa, which is managed for wildlife habitat and grazing. Some severe winter elk range and mountain lion hunting also occur in this area.

Grazing — Several grazing allotments include more NRA lands than BLM lands — these include the Pine Mesa, Windy Point, Blue Creek, Round Corral Spring, North Cimarron, and Spring Gulch allotments. The Round Corral Creek, Fitzpatrick Mesa, Highway, Rawhide/Coffee Pot, and Dead Horse allotments contain a smaller percentage of NRA lands within them. The BLM Gunnison Field Office manages the Pine Mesa, Windy Point, Blue Creek, Round Corral Spring, Round Corral Creek, Fitzpatrick Mesa, and

North Cimarron allotments; while the BLM Uncompahgre Field Office manages the Dead Horse, Highway, Spring Gulch, and Rawhide/Coffee Pot allotments.

COLORADO DEPARTMENT OF TRANSPORTATION / FEDERAL HIGHWAY ADMINISTRATION

The Colorado Department of Transportation (CDOT) holds easements and rights-of-way for the highways that pass through the existing NRA and Land Units A (Highway 92 COA), E (Sapinero/Blue Mesa COA), G (West-End COA), and H (West-End Agency). CDOT, in coordination with the Federal Highway Administration (FHWA), is responsible for maintenance, construction and safety activities, and traveler enhancements that occur on the routes they administer— US 50, CO 92, and CO 149. (CDOT 2005)

CDOT and NPS consult on an as needed basis whenever the activities of one agency have the potential to affect the operations of the other agency. Some highway maintenance activities have the potential to impact resources, and/or visitor access to NRA areas and facilities, and/or the enjoyment thereof. When possible, NPS and CDOT identify such issues early on in project planning and work together to identify ways to reduce such impacts.

A portion of the facilities at the East Cimarron day-use area lies outside the NRA boundary within the CDOT right-of-way for US 50. These facilities provide rest and restroom opportunities for both NRA visitors and highway travelers.

The West Elk Loop Scenic and Historic Byway is a component of the state byway program administered under CDOT. The byway passes through the existing NRA and Land Units A (Highway 92 COA) and H (West End). NPS and the byway exchange information on activities and objectives via direct NPS representation on the byway's steering committee.

COLORADO DIVISION OF WILDLIFE

A number of state wildlife areas exist within the proposed lands in Land Unit B (Blue Mesa Reservoir Agency) that are managed to protect wildlife habitat and to provide public opportunities for hunting and fishing. Three areas located north of Blue Mesa Reservoir and surrounded by the West Antelope ACEC were evaluated in more detail for the RPS. They include the Gunnison State Wildlife Area (SWA), the Centennial SWA, and the Sapinero SWA. The Gunnison SWA is located 6 miles west of Gunnison on US 50 and runs north along



Big game hunting, a popular fall time activity within and surrounding the NRA

Beaver Creek. The Centennial SWA is 6 miles further west and just north of US 50 (12 miles from Gunnison) and is comprised of approximately 1,800 acres. The Sapinero SWA is also accessed from US 50, just west of the Centennial SWA. It is a 1,728-acre parcel situated between West Elk Creek on the west and Dry Creek on the east and is intermingled with BLM lands

(CDOW 2004a). NRA facilities operated under agreement between CDOW and NPS occur on CDOW land within Sapinero SWA, at Dry Gulch campground, and near the East Elk Creek group camp site.

Some of these CDOW lands are Reclamation wildlife mitigation lands for the Aspinall Unit, which were transferred to CDOW. They need to continue to be managed for wildlife purposes.

U.S. FOREST SERVICE

Lands in the Gunnison and Paonia Ranger Districts of the Gunnison National Forest occur within the proposed lands. The Gunnison National Forest is one of three national forests administered under the Grand

Mesa, Uncompahgre, and Gunnison National Forests (GMUG). The GMUG is managed under one Forest Supervisor. Each District is managed by a District Ranger and his/her staff.

At present, the GMUG is in the midst of a Forest Plan Revision that would be completed in the next several years. The forest lands within the proposed lands are part of the Gunnison Basin Geographic Area and North Fork Valley Geographic Area. Working groups (citizens and agency representatives) are assisting the Forest Service in identifying vision statements and management themes for how these lands should be managed. At present, there is a strong emphasis on protection of wildlife corridors and critical winter range in the area with provision for recreational opportunities (USFS 2004b). During the course of the RPS, several areas were considered for transfer between the Forest Service and NPS because of their proximity to Curecanti NRA, existing agreements, and additional discussions that have occurred between the agencies. These lands are located on the north side of the NRA in the vicinity of Soap Creek and along CO 92.

Land Unit B: Blue Mesa Reservoir Agency Lands – Land South of West Elk Wilderness

The Gunnison Ranger District of the Gunnison National Forest adjoins BLM and Reclamation lands to the north of Blue Mesa Reservoir. These combined lands surround the Soap Creek and West Elk Arms of Blue Mesa Reservoir and the northern portion of Soap Creek Road (also designated as Forest Road 721) that originates from CO 92 near Blue Mesa Dam.

The Soap Creek Campground is located within this unit on USFS lands approximately 7.25 miles north on Forest Road 721 and another 0.5 miles along Forest Road 824. The campground is comprised of 21 designated sites that include parking spurs, fire grates, vault toilets, and other camping amenities. The campground is currently maintained via a concession contract. Horse corrals located at the campground are busy during hunting season. Fifth-wheel campers often park in

undesigned areas in the vicinity of the corrals, often times resulting in more camping use outside of the campground than within the designated sites. Overnight use occurs at the corrals, including one outfitter that uses the corrals as an overnight stop.

Ponderosa Campground is located within the NRA, just 1.75 miles south of Soap Creek Campground. NPS provides service and patrols to the Ponderosa Campground.

The vacant Soap Creek grazing allotment exists within this unit. Even when grazed, the number of cattle was minimal, but they often wandered into the campground.

Some snowmobiling use occurs on USFS and other public lands in the area. However, it is minimal and mainly occurs on existing roads.

Land Unit H: West-End Agency Lands – Long Gulch/Beartrap Area

GRAZING — The Paonia District of the Gunnison National Forest lies north of CO 92 and Morrow Point and Crystal Reservoirs. The district manages a 30,000-acre grazing allotment in the Long Gulch/Beartrap area

with only a small portion within the NRA. The allotment is used for early-season cattle by a grazing pool of 10 permittees. Cattle currently cross and graze on lands co-managed by NPS and USFS under an agreement. The parcel contains the Crystal Trailhead and v which NPS maintains. The cattle use this area for a week or two early in the summer. However, little or no conflict with NRA visitors has resulted from this brief use.

WESTERN AREA POWER ADMINISTRATION

Western owns and operates a number of facilities, including transmission lines and communication sites, as well as the roads that provide access to these facilities that lie within or adjacent to Curecanti NRA. Western facilities are shown on the Existing Conditions map. Table 11 identifies the type of facility and provides the facility name. The transmission lines cross a variety of land units within the proposed lands.

As a power marketing administration within the U.S. Department of Energy, Western is tasked with the safe and reliable delivery of

TABLE 11: WESTERN AREA POWER ADMINISTRATION FACILITIES

Facility Type	Facility Name
Transmission Line	Curecanti-Rifle 230-kilovolt (kV)
Transmission Line	Curecanti-Crystal 115-kV
Transmission Line	Curecanti-Poncha 230-kV
Transmission Line	Curecanti-Morrow Point 230-kV
Transmission Line	Curecanti-Blue Mesa 115-kV
Transmission Line	Blue Mesa-Salida 115-kV
Communication Site	Dead Horse Mesa Passive Reflector
Communication Site	Crystal Microwave Site
Communication Site	Sheeps Knob Microwave Site
Communication Site	Black Mesa Passive Reflector
Communication Site	Hermits Point Passive Reflector
Communication Site	Morrow Point Microwave Site
Communication Site	Curecanti Microwave Site
Substation	Curecanti Substation
Substation and Communication Site	Blue Mesa Substation and Microwave Site

Source: Western 2004

electric power generated by Reclamation power plants at Aspinall Unit dams. In order to accomplish this task, Western requires continuous and uninterrupted access to facilities in order to properly conduct operation and maintenance activities. Roads cannot be closed unless alternative access is provided. Facilities cannot be relocated to enhance recreational opportunities or improve scenic resources, unless all parties are in agreement and funding is authorized to implement the project.

In addition, Western maintains and operates the various communication sites needed to effectively operate the Aspinall Unit dams for Reclamation. Western is responsible for maintaining communication equipment. They

must be able to access those communication sites at any given time to provide maintenance functions such as replacing batteries, adjusting reflectors, and upgrading or replacing radio equipment. Thus, the sites and access to them are not only important to Western, but are also critical to Reclamation's operation of the project (Western 2004).



Autumn colors abound along Colorado Highway 92 above Morrow Point Reservoir

Chapter 4: Environmental Consequences



ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter of the Draft Resource Protection Study (RPS) / Environmental Impact Statement (EIS) analyzes the beneficial and adverse impacts of the actions in Alternatives 1 and 2 on each of the retained impact topics that are outlined in the Purpose of and Need for Action chapter, and described in detail in the Affected Environment chapter. In addition, a summary of the primary differences between the two alternatives is contained in the table on the last page of the Summary, near the beginning of this document.

GENERAL METHODOLOGY FOR ASSESSING IMPACTS

DEFINITIONS AND FOUNDATION FOR ANALYSIS

Four of the elements of the environment that are assessed in detail in this chapter are traditionally done so in environmental impact statements. In addition, they are required to be done so by this study's enabling legislation. They are the **natural, cultural, recreational, and scenic** resources.

The analysis is organized by impact topic. Under each topic is a listing of relevant policies and regulations, an overview of the topic-specific methodology, if applicable, and definitions of the impact thresholds, followed by the impacts of each alternative. The Summary of Environmental Consequences table displays the impacts of all alternatives on each topic (shown at the end of the Alternatives, Including the Proposed Action chapter).

The impact analyses were based on the extensive mapping of resources that occurred during the early phases of the project, as well as on information provided by NRA staff and relevant references and technical literature

citations. Each analysis by impact topic involved the following steps.

- Identify the area of analysis or geographic area that would be affected. For most impact topics, the area of analysis includes the current NRA and the proposed lands for the RPS. The term “proposed lands” refers to (1) public lands adjacent to the NRA that were identified through the study process to warrant transfer to NPS for inclusion within the NRA for more overall efficient management for all agencies concerned, in keeping with each agency's mission; and (2) private lands that warranted increased conservation measures relating to NRA goals and objectives, to be included within a Conservation Opportunity Area (COA), outside the proposed NRA boundary. The proposed lands are a feature of Alternative 2 – the Proposed Action, and are a subset of the larger “study area” that was initially examined at the beginning of the study. The proposed lands are divided into eight land units, A through H, to facilitate analysis.
- Identify the resources within the proposed lands and individual land units that could be impacted.
- Determine how the actions of each alternative would affect these resources, and characterize those impacts. Under Alternative 1 (the No-Action alternative), identify the baseline condition or existing impacts using the terms defined below. Identify the impacts of Alternative 2 (the Proposed Action), by qualitatively measuring the change in resource condition between existing conditions (Alternative 1) and Alternative 2.

Potential impacts of both alternatives are described in terms of type (beneficial or adverse, direct or indirect); context (site-specific, local, or regional); duration (short-term or long-term); and intensity (negligible, minor, moderate, or major).

This is consistent with the regulations of the Council on Environmental Quality (CEQ) that implements the National Environmental Policy Act (NEPA). More exact interpretations of intensity, duration, and type of impact are given for each impact topic examined. Definitions of intensity and duration vary by topic; but for all impact topics, the following definitions for type of impact were applied.

Beneficial: A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.

Adverse: A change that declines, degrades, and /or moves the resource away from a desired condition or detracts from its appearance or condition.

Direct: An effect that is caused by an action and occurs in the same time and place.

Indirect: An effect that is caused by an action, but occurs later in time or is farther removed in distance, and is still reasonably foreseeable.

RESOURCE CONSERVATION AND DEVELOPMENT ASSUMPTIONS

Throughout this chapter, reference is made to land units, which were defined earlier in the Alternatives, Including the Proposed Action chapter and the Affected Environment chapter. They were created for purposes of analysis during the development of alternatives. Collectively, they constitute the “proposed lands,” which consist of the public and private lands outside the NRA that were considered most important for conservation, and that are included within the larger overall study area.

A total of eight land units were identified, according to geographical location, similarity of resource values, reasonably foreseeable activities that occur within them, and land ownership. The land units are identified by the letters A through H, are shown on the map for Alternative 2 (Proposed Action), and are referenced throughout the Draft RPS/EIS. They consist of two types of land: (1) privately-

owned land within the COA – Land Units A, C, D, E, and G; and (2) non-NPS agency lands that are included within the proposed NRA boundary shown in Alternative 2 – Land Units B, F, and H. For ease of reference, the land units are again defined below.

Land Unit A (CO 92 COA): private lands north and south of Colorado State Highway 92 (CO 92) and Morrow Point Reservoir, including Black Mesa, Soap Mesa, Soap Creek, and Fitzpatrick Mesa

Land Unit B (Blue Mesa Reservoir Agency): agency lands from Soap Creek east to Beaver Creek, including Dillon Pinnacles, Blue Mesa north and south shores, and Gunnison River Canyon

Land Unit C (Gunnison River COA): private lands in the vicinity of Neversink and Riverway

Land Unit D (Iola Basin COA): private lands in Iola Basin, and South Gunnison River Canyon

Land Unit E (Sapinero/Blue Mesa COA): private lands in the vicinity of Sapinero Mesa, and Windy Point to Hunters Point

Land Unit F (Gateview Agency): agency lands in the vicinity of Gateview Campground

Land Unit G (West-End COA): private lands west of Fitzpatrick Mesa on the south side of Crystal Reservoir, and the area around Spring Gulch on the north side of Crystal Reservoir

Land Unit H (West-End Agency): agency lands north and south of Crystal and Morrow Point Reservoirs

Collectively, all the land units comprise the “proposed lands” for Alternative 2, consisting of public lands recommended for addition to the NRA (the agency lands); and the lands recommended for inclusion in a COA (the private lands).

The criteria that were used to determine the area of each land unit are shown in Table 2. This table first appeared in the Alternatives, Including the Proposed Action chapter, and then in the Affected Environment chapter. It again appears below, for ease of reference. If a resource or other criterion occurs within a given land unit, it is identified by a dot in the matrix. If the dot is highlighted in yellow, the associated criterion is considered to be a primary reason for the inclusion of the land unit within the proposed NRA boundary or the COA for Alternative 2.

The impact analysis under each impact topic focuses on both area-wide impacts, and impacts that are specific to each land unit. Impacts are highly dependent upon future landowner actions, because the rights of landowners are not affected by either alternative. Although NPS may facilitate resource conservation opportunities, all landowners would continue to have the freedom to exercise their personal property rights. Because landowner choices cannot be predicted by this plan, certain assumptions were necessary regarding land development to determine qualitative impacts.

Alternative 1 Assumptions

As noted in the Alternatives, Including the Proposed Action chapter, NPS would have no authority to expend funds for acquisition of fee title or conservation easements outside the existing NRA and would not be able to acquire funds for such a purpose without such congressional authorization. In addition, NPS would probably have limited success in going to Congress to seek funding for individual pieces of property or to add land to the NRA on an ad hoc basis.

NPS might be able to use very limited operating funds and/or special project funds to implement partnered projects within and outside the NRA, and would rely more on funding from other agencies and organizations to accomplish goals such as wildlife habitat or wetland improvement projects. Therefore, for purposes of analysis, it was assumed in this alternative that there is a greater likelihood

that more of the private lands adjacent to the NRA would be developed over time than in Alternative 2, and that resource values could be compromised.

Some land units within the proposed lands are more likely to be developed than other land units within the 5-to 10-year timeframe of this NEPA analysis. Based on their knowledge of the lands surrounding the NRA, members of the study team identified this development probability in Table 12. Please note that these are only assumptions for purposes of analysis. The definition of each level of development follows.

- *Low* – Because of topography and other issues, there is limited access and little development in the area. Included are areas where conservation easements are already in place. The likelihood of development in the near future is small.
- *Moderate* – Topography does not exclude development, and some access is available. Current landowners may not be interested in selling their property.
- *High* – The area is easily accessible, and some development already exists in the area.
- *Very High* – Direct access exists to major transportation corridors. Development is imminent, or some subdivision/development has already occurred. Some owners have stated they are interested in selling.

Lands with a high or very high development potential are the most likely to be developed within the next 10 years. Lands with low potential would most likely remain in their current, undeveloped state for some time into the future.

Alternative 2 Assumptions

The congressional authorization of the COA; the proactive efforts by the National Park Service to conserve lands surrounding the NRA; support from third party benefactors, such as conservation organizations and friends of the NRA; and the availability of funds from

Table 2: Factors Considered in Establishing Land Units

Criteria	Land Unit							
	A	B	C	D	E	F	G	H
	CO 92 COA	Blue Mesa Reservoir Agency	Gunnison River COA	Iola Basin COA	Sapinero /Blue Mesa COA	Gateview Agency	West-End COA	West-End Agency
Administrative Efficiency	●	●	●	●		●	●	●
Archeological/Historical Sites	●	●	●	●	●	●	●	●
Bighorn Sheep – Overall Range	●	●			●	●	●	●
Elk – Severe Winter Range	●	●	●	●	●	●	●	●
Gunnison Sage-grouse (all categories)		●	●	●	●	●		
Heron Rookery			●					
Historic Railroad Feature			●			●	●	
Lynx – Potential Habitat	●	●			●	●		●
Management Issues / Logical Boundary	●	●	●	●	●			●
Mule Deer – Severe Winter Range	●	●		●	●	●	●	●
Paleontology/Geology	●	●			●			●
Prairie Dog – Overall Range			●	●				●
Pronghorn – Winter Range		●		●				
Raptor Range	●	●	●	●	●	●	●	●
Rare and/or Imperiled Species	●	●	●	●	●	●	●	●
Recreation Opportunities	●	●	●	●	●	●		
Scenic Qualities from Primary Overlook or within 3-mile Viewshed	●	●	●	●	●	●	●	●
Understanding of Significant Resources	●	●	●	●	●	●		●
Water Quality	●	●	●	●		●	●	●

Notes:

A dot indicates the criterion is present within the land unit.

The addition of **yellow highlighting** indicates that not only is the criterion present, but it is of such significance, in combination with the other criteria present, to recommend that the land unit be included within the COA or proposed NRA boundary in Alternative 2.

TABLE 12: PROBABILITY OF DEVELOPMENT BY LAND UNIT

Region of Proposed Lands	Description and Geographic Location	Probability of Development in Near Future
Land Unit A CO 92 COA	Private lands in COA North and south of CO 92 and Morrow Point Reservoir: Black Mesa, Soap Mesa, Soap Creek, Fitzpatrick Mesa	Low to Moderate <u>Low</u> : Fitzpatrick Mesa and parts of Soap Mesa <u>Moderate</u> : Black Mesa, Soap Mesa, Soap Creek
Land Unit B Blue Mesa Reservoir Agency	Agency lands from Soap Creek east to Beaver Creek: Blue Mesa north shore, Iola Basin south shore, Gunnison River Canyon	Not applicable – all federal land
Land Unit C Gunnison River COA	Private lands in COA Neversink, Riverway	Moderate
Land Unit D Iola Basin COA	Private lands in COA South Gunnison River Canyon, southeast Iola Basin	Low to High <u>Low</u> : Gunnison River Canyon <u>High</u> : Southeast Iola Basin
Land Unit E Sapinero/Blue Mesa COA	Private lands in COA Sapinero Mesa; Windy Point; Hunters Point	Very high
Land Unit F Gateview Agency	Agency lands in Gateview area	Not applicable – all federal land
Land Unit G West-End COA	All private COA lands west of Fitzpatrick Mesa and Spring Gulch (on both sides of Crystal reservoir)	Low to High <u>Low</u> : all areas but Cimarron <u>High</u> : Cimarron area
Land Unit H West-End Agency	Agency lands west of Fitzpatrick Mesa and Black Mesa (on both sides of Crystal Reservoir), including USFS land near Long Gulch.	Not applicable – all federal land

Congress would improve the likelihood of future resource conservation on private lands. This likelihood is emphasized and assumed in the impact analysis for Alternative 2. However, success of this alternative is dependent in large part upon the interest and cooperation of private landowners.

Although resource conservation mechanisms would be available, it is recognized that property owners may choose not to exercise any of these options. Thus, it is assumed in the Alternative 2 impact analysis that a range of actions are possible on any private parcel, including: (1) continuation of existing conditions, where no land conservation tool would be implemented (same as Alternative 1); and (2) a land conservation tool is implemented, such as NPS providing assistance through general agreements or incentive payments, or acquisition of an interest in the land, such as conservation easements or fee simple acquisition. In turn, a range of impacts could occur.

Recognizing that a range of impacts are possible under Alternative 2, the analysis for each impact topic focuses on the potential impacts under the assumption that some degree of landowner cooperation would occur. However, it is also recognized that the impacts of Alternative 1 (the No-Action alternative) could also occur under Alternative 2 (the Proposed Action), if there is no cooperation on the part of landowners. In any event, impacts will be further assessed in more detail at the time a *land protection plan* is produced. At that time, which tools of resource conservation to apply to which tracks of land within the COA will be clearly defined.

CUMULATIVE IMPACTS

The CEQ regulations to implement the National Environmental Policy Act require the assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably

foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts are considered for all alternatives, including the No-Action alternative. Cumulative impacts were determined by combining the impacts of the alternative being considered with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at the NRA, and if applicable, the surrounding region. These projects, also known as cumulative actions, are grouped and listed below according to agency, county, and land trusts and conservation groups.

National Park Service Plans or Actions

Black Canyon of the Gunnison National Park and Gunnison Gorge National Conservation Area Act of 1999. This Act recognizes the many significant ecological, geological, scenic, historical, and recreational values of lands within and adjacent to the Black Canyon of the Gunnison. The Act established the Black Canyon of the Gunnison National Park, the Gunnison Gorge National Conservation Area, and the Gunnison Gorge Wilderness, and expanded the Black Canyon of the Gunnison Wilderness. When Congress changed the designation of Black Canyon from a national monument to a national park, land was transferred from the Bureau of Land Management (BLM) to NPS to be included within the national park boundary. The Act also provided for the continuance of existing grazing leases that now occur within the park on the former BLM land, through the lifetime of the current permit holders. The Act provided that NPS could acquire by purchase, donation, or exchange, specific land or conservation easements, subject to the approval of the property owner. A subsequent Act (2003) further modified the boundary of the national park, and identified additional private land, again subject to landowner approval. The 2003 Act provided that Reclamation would retain administrative jurisdiction over the Crystal Dam Access Road, and land, facilities, and roads of the Bureau of Reclamation in the East Portal Area

for the maintenance, repair, construction, replacement, and operation of any facilities relating to the delivery of water and power under the jurisdiction of Reclamation.

Fire Management Plan. A fire management plan was approved in 2006 for Curecanti National Recreation Area and Black Canyon of the Gunnison National Park. The plan identifies a strategy for managing wildfire, and using fire as one of many management tools. NPS wildfire and prescribed fire events will be coordinated with other agencies (BLM, USFS, Reclamation, and Colorado State Forest Service) and affected private landowners. The plan provides NPS with greater flexibility to manage wildfire and to utilize fire as one of many possible tools to address resource issues.

Other Federal Agency Plans or Actions

Bureau of Land Management. A variety of plans exist that outline management objectives for BLM land in the region surrounding the NRA. They include the Gunnison Area and Uncompahgre Basin Resource Management Plans, the Gunnison Sage-grouse Conservation Plan, the Gunnison Gorge National Conservation Area Resource Management Plan, and area-wide fire management plans. Although BLM is an agency that manages for multiple-use objectives, all of its plans manage regionally important natural resources such as elk and mule deer winter range, Gunnison Sage-grouse, and riparian habitat to preserve these resources. Cultural and recreational resources are also managed to preserve their integrity and to provide resource-based recreation opportunities, respectively.

U. S. Bureau of Reclamation. Reclamation intends to prepare a draft EIS to describe potential effects of operational changes for the Aspinall Unit that are related to compliance with the Endangered Species Act (ESA). The purpose of Reclamation's proposed action is to operate the Aspinall Unit to avoid jeopardy to endangered species while maintaining the congressionally authorized Unit purposes. Alternative operations will be considered. The Aspinall Unit (formerly the Curecanti Unit) of the CRSP was authorized by the CRSP Act of

April 11, 1956 (70 Stat. 105). Reclamation operates and maintains the Aspinall Unit, its facilities, its lands and land interests, and its water and water interests to meet project purposes. The presence of the three reservoirs has created water-based recreation opportunities.

U.S. Forest Service. The Gunnison National Forest adjoins the NRA along its northern side. USFS manages land for values similar to the NRA and the BLM, such as wildlife habitat and recreational resources, but has additional mandates to manage for other multiple use objectives, including extractive industries, such as timber. The Grand Mesa, Uncompahgre, and Gunnison (GMUG) National Forests are combined into one administrative unit. At present, forest plans are in the process of being amended. The process was begun in 2001, and a draft plan was released for public review and comment in spring 2007. The plan identifies thirteen management areas representing a continuum from low management intensity with a high degree of naturalness, to high management intensity with low levels of naturalness. After public comments are received and evaluated, the USFS will update the plan and provide a final version for public review. Information on this project can be obtained at the following website: www.fs.fed.us/r2/gmug/policy/plan_rev.

Western Area Power Administration. Western and/or other utilities could propose that existing transmission line corridors within and adjacent to the NRA be upgraded, or new corridors be added, to handle additional capacity in order to adequately distribute electric power across this east/west pathway. There are a limited number of options available to the utility industry for routes to move product to the market, whether the product is electricity, oil or gas, or even water; and existing rights-of-way provide an opportunity that may not exist elsewhere.

State Agency Plans or Actions

Colorado Department of Transportation / Federal Highway Administration. Highway easements and/or rights-of-way (ROW) are in place along US 50 and CO

92; therefore, additional land acquisition activity or potential conflicts with the RPS are not likely. Future work on US 50 between Montrose and Monarch Pass will involve modernizing the road, such as providing 8-foot shoulders where possible. Road widening is not anticipated, unless viable opportunities present themselves. Some improvements may occur to highway intersections, and minor road improvements may be made along US 50.

West Elk Loop Scenic and Historic Byway.

The West Elk Loop is one of 25 scenic byways designated by the State of Colorado. It covers 204 miles of two-lane roads through parts of rural western Colorado that afford spectacular views of wilderness areas, canyon rims, and a variety of other memorable mountain environments. Portions of the byway are located along CO 92 and US 50 within the proposed lands.

The road begins in Carbondale and follows CO 133 south over McClure Pass to Paonia Reservoir, Paonia, and Hotchkiss. The road continues to head south from Hotchkiss on CO 92 veering to the east near the Black Canyon of the Gunnison and Black Mesa. It joins US 50 at Blue Mesa Reservoir and travels into Gunnison. From Gunnison, the road travels north to Crested Butte and turns west over Kebler Pass, with the loop ending at Paonia Reservoir.

In 2000, the West Elk Byway Corridor Management Plan was completed. The goals identified in the chapter addressing resource conservation in that document appear to be similar to the objectives of the RPS.

County Plans or Actions

Gunnison County Comprehensive Plan.

The Gunnison County Comprehensive Plan is currently in process, and is being developed in response to a requirement of state law. The vision of the plan is to provide physical and economic direction for the county-- as a road map for coordination between Gunnison County and local cities and towns to address future growth. The plan defines areas with the least and most development constraints,

identifies infrastructure needs, and anticipates and plans for impacts. It establishes overall direction for the county and specifically addresses issue areas such as housing, transportation, economic development, agriculture, transportation, recreation, and the environment. Two components of the plan have been completed and adopted: (1) the Crested Butte to Gunnison Corridor Plan; and (2) the Upper Crystal River Valley Plan. The county has not yet begun to study the area east and west of Gunnison, which includes the Curecanti area. The county has indicated that they may adapt certain aspects and/or recommendations for the Curecanti area that come out of the RPS, after they have undertaken the planning process for the western portions of the county.

Gunnison County Land Use Regulation

(LUR). The purpose of the Gunnison County LUR, created in 2001, is to promote the health, safety, and general welfare of the citizens of Gunnison County by giving reasonable consideration to the social, economic and environmental characteristics of the community and the compatibility of proposed land use changes with existing uses. The LUR proposes to conserve environmental resources by maintaining environmental quality; preserving quality and quantity of water resources; preserving wildlife habitat; and regulating land use in natural hazard areas. The LUR also allows for the establishment of special geographic areas, or SGAs, if the county determines that certain economic or resource issues might be more adequately addressed with modification of the LUR within the SGA. The county has used the SGA process sparingly, and any interest in considering an SGA for the Curecanti area will likely occur after the completion of the Gunnison County Comprehensive Plan.

Montrose County Master Plan. The vision for the Montrose County Master Plan (Montrose County 2001) is as follows.

Montrose County should retain its outstanding scenic and natural qualities while providing quality employment, housing, education and recreation to its residents.

Tourism recreation, agriculture and light industries will remain important segments of the economy; efforts will be made to diversify and encourage sustainable economic development. The majority of the county's youth should be able to have a career and eventually raise a family within the county. A healthy and vibrant community will continue to evolve, and the rural character and hometown atmosphere of Montrose County will be maintained.

The county is broken into four geographic areas, with portions of the NRA in the Maher/Black Canyon area and the South Valley area. NPS lands, north and east of the Gunnison River, fall within the Maher/Black Canyon area. Lands south of the river, including US 50, are located within the South Valley area that includes Montrose. The relevant land use policies include the following:

- Maher/Black Canyon: Preserve the rural character and ranching heritage of the Maher/Black Canyon area, and prepare for any impacts increased visitation at the Black Canyon of the Gunnison National Park may place on the Maher/Black Canyon area.
- South Valley: Support the development of land in a manner that is consistent with, or does not conflict with, agricultural practices. Manage the development of land in a manner that is efficient and cost-effective for the taxpayers of the county.

Conservation Easements and Land Trusts

As of 2004, approximately 33,000 acres of land within Gunnison County were in easements or other types of open space. This represented approximately 10% of all private land in the county (Michaelson). Another large 10,000-acre easement is held by the Rocky Mountain Elk Foundation north of CO 92.

- Crested Butte Land Trust - 2,500 acres (8% of 33,000 acres) – focuses on ecological/biodiversity resources, watershed, and riparian resources

- Gunnison Ranchland Conservation Legacy – 14,000 acres (42%) – focuses on preserving/conserving ranches and ranchland
- Nature Conservancy – 8,357 acres (25%)
- Additional conservation easements – 4,913 acres (15%)
- Additional open spaces – 3,148 acres (10%).

Other Plans or Actions

DeGette's Wilderness Bill. U.S.

Representative Diane DeGette has proposed that the West Elk Wilderness Area be expanded to the south to include that area of land between Coal Creek and Red Creek. The area would encompass lands currently administered by three agencies – USFS, BLM, and NPS - and would include some lands in Land Unit B being proposed to be included in the NRA in Alternative 2. The National Park Service has not taken an official position on this proposal, and it is not being analyzed in the Draft RPS/EIS. However, if this wilderness were to be designated, and the land were to be included in the NRA, then NPS would work closely with USFS to develop management guidelines that are compatible with the rest of the West Elk Wilderness, while being true to the purpose and mission of the NRA. This would be addressed in an updated general management plan or implementation plan for the NRA. Otherwise, due to the relatively long and narrow configuration of the NRA; the presence of highways, back-country roads, motorized recreational watercraft, off-road vehicles, and snowmobiles within or surrounding the NRA; and the presence of dams, power generating equipment, and related facilities, and mechanized operational requirements of Reclamation in performing their mission; the study team concluded that no other area within the NRA or the surrounding COA is suitable for Wilderness designation. Furthermore, any land that Reclamation has withdrawn for their projects would be inappropriate for Wilderness

designation due to project operational requirements, as mandated by Congress in the Colorado River Storage Project Act.

IMPAIRMENT ANALYSIS

National Park Service management policies require an analysis of potential effects to determine whether or not actions would impair NPS area resources. The fundamental purpose of the national park system, as established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve area resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting resources and values.

These laws give the National Park Service the management discretion to allow impacts to area resources and values when necessary and appropriate to fulfill the area's purposes, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the National Park Service the management discretion to allow certain impacts within a national park system unit, that discretion is limited by the statutory requirement that the agency must leave area resources and values unimpaired, unless a particular law directly and specifically provides otherwise.

The impairment that is prohibited by the Organic Act and the General Authorities Act is an impact that, in the professional judgment of the NPS manager, would harm the integrity of area resources or values. Impairment may result from NPS activities in managing the area, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the area. An impact to any area resource or value may constitute an impairment, but an impact would more likely constitute an impairment if it has a major or severe adverse effect upon a resource or value, where that resource or value is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the area

- Key to the natural or cultural integrity of the area, or to opportunities for enjoyment of the area
- Identified for conservation by the area's general management plan or other relevant NPS planning documents.

A determination of whether there is impairment, or not, is included in the "Conclusion" section for each alternative for each impact topic relating to NRA resources and values. The determinations are based on the above definition of impairment. The term "impairment," as defined above, does not apply to visitor recreation, regional economic and social characteristics, or National Park Service and neighboring agency operations, because for purposes of this analysis, they are not considered to be "resources," such as natural resources, cultural resources, and scenic resources.

NATURAL RESOURCES

WATER QUALITY

Guiding Policies and Regulations

Current laws and policies require certain desired conditions be achieved for water quality at Curecanti National Recreation Area. Refer to the following box for details.

DESIRED CONDITIONS FOR WATER QUALITY	SOURCE
Surface water and groundwater are perpetuated as integral components of NRA aquatic and terrestrial ecosystems, consistent with the primary purposes of Reclamation's projects; and the quality meets or remains better than all applicable water quality standards.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i> - NPS- 77, "Natural Resources Management Guidelines" - <i>Clean Water Act</i> - Executive Order (EO) 11514 "Protection and Enhancement of Environmental Quality"
Conserve the scenery, natural and cultural resources.	NRA Purpose

Methodology

Water quality impacts were qualitatively assessed using the "General Method for Assessing Impacts", including land conservation and development assumptions, identified at the beginning of the chapter. The following impact thresholds were established in order to measure the relative changes in water quality (overall, localized, short term and long term, cumulative, beneficial and adverse) as a result of the alternative actions.

Negligible: The impact to water resources would be localized and incalculable.

Minor: The impact to water resources would be localized and calculable.

Moderate: The effect on water resources would be calculable and would result in a change in water chemistry and/or biota over a relatively wide area or stream reach.

Major: The effect on water resources would be calculable and would substantially change the water chemistry and/or biota over a large area or stream reach within and outside of the proposed lands.

Impacts are short-term when water quality recovers in less than 1 day. Long-term impacts occur when the recovery period is 30 days or more.

Impacts of Alternative 1 – No Action

Analysis

Depending upon land development patterns on private lands within the proposed lands, sedimentation and loading of water quality contaminants into NRA waters could potentially increase in drainages adjacent to developed areas. Without adequate mitigation, degradation of water quality could occur within the NRA and proposed lands, resulting in short- to long-term moderate to major impacts. Degraded water quality could lead to impacts to water-based recreational activities, resulting in long-term moderate to short-term major impacts to visitor use, enjoyment, appreciation, and understanding. Some minor beneficial impacts would occur from the continuation of baseline understanding of water quality conditions through long-term cooperative monitoring efforts, including basin-wide partnerships and cooperation with USGS.

Drainages most at risk of degradation include Cebolla Creek, Lake Fork, Steuben Creek, Pine Creek, and the Gunnison River above Blue Mesa Reservoir. Currently, degradation is an issue at Cimarron Creek, where *E coli* regularly exceeds standards in the summer months.

Cumulative Impacts

Development, grazing, off-road vehicle use, and other disturbance causing activities occurring on public and private lands adjacent to the proposed lands could continue to cause sedimentation and loading of contaminants in

nearby water systems, including the Gunnison River and tributaries. Best management practices of federal and county agencies that manage or regulate land use in the area, such as the BLM, Forest Service, and Gunnison and Montrose Counties, would minimize some of these impacts on regional water quality by controlling or mitigating impact-related uses. In addition, private lands with conservation easements would not likely contribute to cumulative effects on regional water quality because of restricted development rights. These best management practices and conservation efforts would mitigate some of the adverse impacts of other land use activities, that when combined with the impacts of Alternative 1, would result in cumulative impacts on area water quality that are long-term minor to moderate.

Conclusion

The continuation of, or increase in, current land use practices within the proposed lands, particularly development, could cause long-term moderate to short-term localized major impacts from increased sedimentation or contaminant loading into waters within the proposed lands.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

Impacts of Alternative 2 – Proposed Action

Analysis

There would be no direct impacts to water quality within the NRA, including those lands transferred from other agencies. Other impacts would vary with level of participation in land

conservation tools, as well as the types of tools implemented. Since it is likely that landowners within the COA would support some level of partnership and participation in the tools that are authorized by Congress, long-term minor to moderate beneficial impacts could result. Through mechanisms such as conservation easements and fee simple acquisition, it is likely that development would be limited, conserving important resource attributes such as vegetation and surface soils. These efforts would result in less potential for sediment and other run-off from private lands. In addition, agricultural practices allowed under an easement would most likely be monitored, minimizing the potential for contaminant loading into waters of the NRA and proposed lands. The quality of existing water-based recreation activities would be maintained.

Cumulative Impacts

As described in Alternative 1, a variety of land use activities contribute to adverse water quality impacts within the region. However, some of these impacts are mitigated by ongoing best management practices implemented by land management agencies or local counties. Other land conservation activities outside the proposed lands also contribute to improved regional water quality. These activities when combined with the minor to major beneficial impacts associated with increased land conservation activities in Alternative 2, would result in cumulative, minor to moderate beneficial impacts.

Conclusion

The increased likelihood that landowners would use tools to conserve resources on their property would result in long-term minor to major beneficial impacts on water quality.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other

relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

GEOLOGY AND PALEONTOLOGY

Guiding Policies and Regulations

Current laws and policies require that certain desired conditions be achieved for geology and paleontology at Curecanti National Recreation Area. Refer to the following box for details.

Moderate: The effect on geological or paleontological resources would be readily apparent and result in a change to their character over a relatively wide area.

Major: The effect on geological or paleontological resources would be readily apparent and substantially change their character over a large area within and outside of the proposed lands.

Because most geological and paleontological resources are non-renewable, any effects would be long-term.

DESIRED CONDITIONS FOR GEOLOGY AND PALEONTOLOGY	SOURCE
Paleontological resources, including both organic and mineralized remains in body or trace form, are conserved, preserved, and managed for public education, interpretation, and scientific research.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i> - NPS- 77, "Natural Resources Management Guidelines"
Natural geologic resources and processes function in as natural a condition as possible, except where special management considerations are allowable under policy, especially to protect facilities, operations, and public safety.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i>
Conserve the scenery, natural and cultural resources.	<ul style="list-style-type: none"> - NRA Purpose

Methodology

Potential impacts to paleontological resources were evaluated using the "General Methodology for Assessing Impacts." The following impact thresholds were established to measure the potential changes in number of local paleontological sites as a result of the alternative actions.

Negligible: The impact would be localized and not detectable, or would be at the lowest levels of detection.

Minor: The effects to geological and/or paleontological resources would be localized and slightly detectable.

Impacts of Alternative 1 – No Action

Analysis

Paleontological resources within Land Units A (CO 92 COA) and E (Sapinero/Blue Mesa COA) could be susceptible to long-term minor to moderate adverse impacts if future land use resulted in disturbance of areas where resources exist. Land Unit E would be especially vulnerable due to the very high development potential of this area. Resources in areas that would be transferred between agencies (Land Units B [Blue Mesa Reservoir Agency] and H [West-End Agency]) would continue to be conserved, as federal management would continue.

Cumulative Impacts

Regional paleontological resources could be affected by land use practices and activities occurring outside the proposed lands, such as development of private lands, off-road vehicle use and other recreational opportunities, and other land-disturbing activities. However, federal land management agencies charged with conservation of such resources would minimize or eliminate some of these impacts through monitoring and other management activities. Cumulatively, these land-disturbing activities when combined with impacts associated with Alternative 1 could potentially cause minor long-term adverse impacts to geological or paleontological features throughout the region.

Conclusion

Private lands in the vicinity of Sapinero Mesa and the area southeast of Morrow Point Reservoir would be vulnerable to long-term minor to moderate adverse impacts from development and other land uses that could result in disturbance and degradation to geological and paleontological resources. Resources in other locations with lower development potential would likely be conserved into the foreseeable future.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

Impacts of Alternative 2 – Proposed ActionAnalysis

Though some disturbance to resources within the proposed lands would still

be likely, minor to moderate long-term beneficial impacts would be expected due to increased conservation of resources on lands brought into the NRA through transfer or through the use of other tools by landowners within the COA.

Cumulative Impacts

Under Alternative 2, cumulative impacts to geological and paleontological resources in the region would be similar to Alternative 1. However, the potential for landowners to implement resource conservation tools within the COA under Alternative 2 would reduce the degree of adverse impacts related to Alternative 1, resulting in cumulative negligible adverse impacts to these resources.

Conclusion

Minor to moderate long-term beneficial impacts to geological and paleontological resources would occur as a result of an increase in resource conservation activities.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

VEGETATION AND WILDLIFE**Guiding Policies and Regulations**

Current laws and policies require that certain desired conditions be achieved for vegetation and wildlife at Curecanti National Recreation Area. Refer to the following box for details.

DESIRED CONDITIONS FOR VEGETATION AND WILDLIFE	SOURCE
Populations of native plant and animal species function in as natural a condition as possible except where special management considerations are warranted.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i> - NPS- 77, "Natural Resources Management Guidelines"
Native species populations that have been severely reduced in or extirpated from Curecanti National Recreation Area are restored where feasible and sustainable.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i>
Invasive plant and animal species are reduced in numbers and area, or are eradicated from natural areas of Curecanti National Recreation Area. Such action is undertaken wherever such species threaten the native vegetation or wildlife resource or public health, or when control is prudent and feasible.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i> - EO 13112, "Invasive Species" - NPS- 77 "Natural Resources Management Guideline"
Conserve the scenery, natural and cultural resources.	<ul style="list-style-type: none"> - NRA Purpose

Methodology

Available information on wildlife and vegetation resources in the proposed lands was compiled. Where possible, map locations of sensitive resources within the various land units were consulted. Analyzed resources such as native vegetation communities, wildlife habitats, and special status species may occur in suitable habitat within the proposed lands, irrespective of ownership or managing agency. In addition, habitats extend beyond the boundary of Alternative 2's proposed lands, and the evaluated resources are recognized as part of the larger ecosystem. The analyses of impacts include lands within the NRA as well as within the larger area of proposed lands, as stated. The following impact thresholds were established to measure the relative changes in vegetation and wildlife resources as a result of the alternative actions.

Negligible: Wildlife, including native fish, and their habitats would not be affected or the effects would be at or below levels of detection and would not be measurable or of perceptible consequence to wildlife populations. Impacts would be within the range of natural variability. No native vegetation (including riparian and wetland communities) would be affected, or some

individual native plants could be affected as a result of the alternative, but there would be no measurable or perceptible changes in plant community size, integrity, or continuity.

Minor: Effects to wildlife or habitats would be measurable or perceptible, but localized within a small area. While the mortality of an individual animal might occur, the viability of wildlife populations would not be affected, and the population, if left alone, would recover. Effects on native plants, riparian communities, or wetlands would be measurable and perceptible, but would be localized within a small area. The viability of the plant community would not be affected, and the community, if left alone, would recover.

Moderate: Effects to wildlife populations or habitat would occur over a relatively large area. The change would be readily measurable in terms of abundance, distribution, quantity, or quality of population. A change would occur over a relatively large area within native vegetation, riparian or wetland communities that would be readily measurable in terms of abundance, distribution, quantity, or quality.

Major: Effects to wildlife populations or habitats would be readily apparent, and would substantially change wildlife populations over

a large area within or outside the proposed lands. Effects on native plant communities, riparian communities, or wetlands would be readily apparent and would substantially change vegetation community types over a large area.

Impacts to wildlife and vegetation are short-term if they could recover in less than one year and in less than three years or growing seasons, respectively. Long-term impacts would occur if wildlife would require more than one year, and vegetation would require more than three years or growing seasons to recover.

Impacts of Alternative 1 – No Action

Analysis

Native Vegetation. Within the NRA, management for conservation of native plant communities would continue. Adverse impacts would include the likely continuation and possible increase in the spread of noxious or exotic plant species into the NRA from adjacent lands that are not managed for weed control. Displacement of native species by these species would result in long-term minor to moderate adverse impacts to native plant communities. Where federal agencies and other entities are cooperating to manage noxious weeds on lands adjacent to the NRA, localized minor beneficial impacts would be realized within the NRA. Overall impacts would vary according to the level of funding made available to mitigate and control weed populations within the NRA.

The spread of noxious or exotic plant species, as well as development and other land uses, could also displace native vegetation communities on private and federal lands in the proposed lands, resulting in localized long-term moderate to major adverse impacts within the proposed lands. Land Unit E (Sapinero/Blue Mesa COA) has a very high development potential, and portions of Land Units D (Iola Basin COA) and G (West-End COA) also have high development potential. These lands would be most susceptible to alteration of native vegetation should these areas be disturbed during development.

Riparian and Wetland Communities.

Riparian and wetland communities within the NRA and other federal agency lands would continue to be conserved as consistent with agency policies. Riparian and isolated (non-jurisdictional) wetlands located outside the NRA include those potentially present in proposed Land Units C (Gunnison River COA) and D (Iola Basin COA). These land units include areas of moderate to high development potential. Only jurisdictional wetlands are subject to regulation by the Corps on private lands. Under Alternative 1, moderate adverse impacts to riparian and isolated wetland communities in these areas would likely occur through continuation or increase in land uses such as development, haying and grazing. In addition, the invasion of noxious weeds into these communities could cause moderate long-term impacts to riparian or wetland communities within the NRA or Land Units C and D of the proposed lands. Jurisdictional wetlands are protected from filling activities by Section 404 of the Clean Water Act, which requires appropriate mitigation for impacts. Wetland or riparian communities present on public lands outside of the NRA would be minimally impacted, as policies of land management agencies call for beneficial protection of such areas in most instances.

Big Game Wildlife Species. Important habitat for big game within the NRA and surrounding proposed lands includes severe winter range for elk and mule deer, as well as overall range for bighorn sheep, and winter range for pronghorn. Big game habitat within the NRA would continue to benefit from conservation. However, impacts to big game use of habitats within the NRA could occur as a result of habitat fragmentation on adjacent lands from development or other land uses. Long-term minor to moderate impacts to big game movements into and out of the NRA would occur from the continuation or increase in habitat fragmentation on adjacent lands. This could lead to the overuse of NRA range and long-term moderate impacts to habitat for elk, mule deer, bighorn sheep, and pronghorn as a result of degradation. In addition, the spread of noxious or exotic plant species onto NRA lands would likely continue and possibly

increase, resulting in habitat degradation and long-term minor to moderate impacts to NRA big game habitat. Impact intensities would vary with funding for mitigation of invasive weed populations.

Table 13 displays the types of habitat and acres of each within the NRA that would continue to be conserved within the NRA as well as those acres on land units adjacent to the NRA that may be directly affected by land use activities.

of current federal agency management and low to moderate development potential, respectively. Beneficial impacts to this area, and other big game habitats in federal agency lands within the proposed lands would continue due to agency management policies.

An additional threat to bighorn sheep includes the risk of disease transmission to wild herds from domestic sheep populations. This risk would continue in areas such as Fitzpatrick

TABLE 13: BIG GAME HABITATS – NO- ACTION ALTERNATIVE

Species	Habitat Type	Acres within Current NRA	Acres within Privately Owned Portions of Proposed Lands Surrounding NRA
American Elk	Severe Winter Range	18,000	7,890
Mule Deer	Severe Winter Range	16,000	8,420
Bighorn Sheep	Overall Range	14,600	None
Pronghorn	Winter Range	260	1,125

Habitat located on lands outside of the NRA would be susceptible to long-term moderate to major adverse impacts from loss of severe winter range due to noxious or exotic plant species invasion, development, or other land use. This would include approximately 7,890 acres of severe winter range for elk and 8,420 acres of severe winter range for mule deer. Severe winter range for elk and mule deer in Land Units D (Iola Basin COA) and E (Sapinero/Blue Mesa COA) (2,850 and 1,020 acres respectively) is most vulnerable due to high or very high development potential of those lands. Bighorn habitat of particular concern is located in Land Unit E and portions of Land Unit G, where potential for development is very high and high, respectively. Pronghorn winter range on other federal lands and on private lands within the proposed lands is located in Land Unit B (Blue Mesa Reservoir Agency) and Land Unit D (Iola Basin COA). These areas are somewhat protected from direct impacts by the existence

Mesa, where domestic sheep grazing occurs in close proximity to bighorn sheep habitat.

Localized beneficial effects would continue to occur through current cooperative efforts including agreements with landowners, counties, and joint agency management efforts. Benefits would be realized on NRA lands and adjacent proposed lands where cooperative efforts are occurring.

Raptors. Protection for raptors within the NRA and other federally managed lands in the proposed lands would continue. The loss and fragmentation of habitat on private lands in the COA adjacent to the NRA would likely continue and possibly increase, resulting in indirect long-term minor to moderate adverse impacts to raptor use within the NRA. Long-term moderate to major adverse impacts are possible on privately owned lands within the proposed lands, resulting from loss of raptor habitat and hunting grounds due to exotic

plant species invasion, development, or other land use.

Fisheries. There would be potential for land use activities that cause sedimentation or pollution runoff, such as development or grazing that occurs outside of the NRA, to negatively impact water quality, resulting in indirect short-term to long-term negligible to minor effects to fisheries within the NRA as well as in land units outside the NRA. Long-term cooperative monitoring efforts including Basin-wide partnerships and cooperation with USGS would continue to provide baseline understanding of water quality conditions. Protection for fisheries resources within the NRA and other federally managed portions of the proposed lands would continue.

Cumulative Impacts

Regionally, some vegetation, riparian communities and wetlands, and wildlife resources would likely experience moderate to major short- to long-term adverse impacts from the continuation or increase in developed land uses, such as residential development, that would result in loss of native vegetation or their displacement by the spread of noxious weeds. Minor to moderate localized long-term beneficial impacts would likely result to resources on lands outside of the NRA and proposed lands from continued current regional cooperative efforts, including resource conservation agreements with land owners, the Joint Agency Management Effort (JAME), and other federal land management activities. When combined with the impacts of Alternative 1, these land development and federal land management activities would result in moderate long-term cumulative adverse impacts.

Conclusion

The displacement of native vegetation communities by noxious weeds that spread from lands adjacent to the NRA would result in long-term minor to moderate adverse impacts to NRA lands. These impacts would be minimized where joint agency management efforts are underway. Where private lands within the proposed lands lack weed

management efforts or occur in land units susceptible to development (such as D, E, and G), long-term moderate to major adverse impacts would result from the spread of noxious weeds or alteration and loss of native vegetation communities.

Riparian and wetland communities in Land Units C (Gunnison River COA) and D (Iola Basin COA) would be susceptible to moderate to major long-term adverse impacts through land use practices, invasion of noxious weeds, or development. Riparian and wetlands within the NRA and other agency lands would largely be conserved, but those communities adjacent to private lands with weed issues would be susceptible to long-term moderate to major adverse impacts.

Long-term minor to moderate adverse impacts to big game habitat and raptor use of the NRA would result from exotic species invasion and continuing habitat fragmentation on adjacent lands, particularly Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). Loss of habitat due to noxious or exotic plant species invasion, land development, or other land uses would result in long-term moderate to major adverse impacts on elk and mule deer severe winter range and bighorn sheep overall range. Raptor habitat and activities would be similarly affected.

Fisheries within the NRA would not be directly impacted, though water quality impacts from activities outside the NRA could result in indirect short- to long-term negligible to minor effects to fisheries inside and outside the NRA.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others

operating within the NRA, there would be no impairment of the NRA's resources or values.

Impacts of Alternative 2 – Proposed Action

Under Alternative 2, a COA would be established that would encompass private lands within the proposed lands. The NRA would be congressionally authorized to partner with landowners within the COA for the purpose of resource conservation. This would provide enhanced opportunities for beneficial effects to biological resources in the proposed lands through participation by COA landowners in partnerships. In addition, the Proposed Action would include a net addition of 10,040 acres to the NRA from federal and state agency transfers.

Impacts to specific resources are detailed below. Impact intensities would vary with level of participation by landowners in resource conservation activities and the types of tools implemented, ranging from technical assistance and agreements to conservation easements and acquisition. In addition, the potential for development based on ease of access, existing development in the area, and topography also factors into prediction of impact intensity. Resources within land units with the highest potential for development would gain the most benefits from landowner use of tools for resource conservation.

Analysis

Native Vegetation. Within the NRA, management for conservation of native plant communities would continue, and no direct impacts from Alternative 2 would occur. Native vegetation on the net 10,040 acres of land that would be transferred to the NRA from other agencies would not be impacted directly, as management strategies would be similar to those existing, and resource conservation would continue. Impacts from encroachment of noxious weeds from adjacent COA lands into the NRA would vary with degree of use of the resource conservation tools. Under low levels of participation, impacts to native vegetation from displacement by noxious weeds from adjacent land would be similar to

those that are possible under the Alternative 1. Localized, long-term minor to moderate beneficial impacts would result on NRA lands adjacent to areas where agencies and landowners work cooperatively (for example, via JAME) to reduce potential for the spread of noxious weeds. Likewise, in other areas adjacent to private lands within the COA that participate in resource conservation, widespread minor to moderate beneficial effects could occur through reduced spread of exotic species into the NRA. The intensity of beneficial effects would vary with the type of tools that landowners would choose. Beneficial effects would be minor to moderate with participation in technical assistance, general agreements, and incentive payment programs, while participation in conservation easements or acquisition programs would result in moderate to major beneficial effects. In addition, impact intensities would vary with funding for mitigation that may be available to control weed populations within the NRA.

Impacts to private lands within the COA would vary with levels of participation and types of resource conservation tools implemented. With low participation rates, development would most likely occur in Unit E (Sapinero/Blue Mesa COA) and portions of units D (Iola Basin COA) and G (West-End COA), where the development potential is highest. If development would take place in these areas, localized long-term moderate to major adverse impacts would be possible, as under Alternative 1. However, with participation in the congressionally approved tools in these portions of the COA, direct and indirect long-term moderate to major beneficial impacts could result. Impacts to COA lands in land units with low development potential would also be beneficial, though at minor levels, due to lower development potential. Intensity of beneficial impacts to COA land units would vary based on which types of tools would be implemented, from those related to acquisition of interests in land, to lower levels of conservation, such as technical assistance and general agreements.

Riparian and Wetland Communities. Riparian communities within the NRA,

including those on lands transferred from other federal agencies, would continue to be conserved under agency resource management policies. Riparian and wetland communities in the COA portion of the proposed lands include those in Land Units C (Gunnison River COA) and D (Iola Basin COA). Portions of these land units are located in areas with moderate to high development potential. Beneficial protections of most jurisdictional wetlands would continue to occur on all lands under Section 404 of the Clean Water Act. If conservation tools were implemented in private land units, long-term beneficial effects to non-jurisdictional riparian and wetland vegetation communities would likely result. Effects would range from minor to major, depending on the types of tools and level of conservation enacted.

Big Game Wildlife Species. Habitat for elk, mule deer, bighorn sheep, and pronghorn within the NRA, and on agency-transferred lands would benefit from resource conservation tools identified in Alternative 2. Some level of participation by landowners in resource conservation activities would be expected, resulting in minor to major long-term beneficial impacts to big game species by enhanced conservation of habitat within the COA. Table 14 displays the habitat type and acreage of each big game species that would

be conserved within the NRA, as well as the total acres within the COA that could benefit big game habitat if resource conservation tools were implemented.

Habitat located on private lands within the COA would be susceptible to adverse impacts from loss of severe winter range due to noxious or exotic plant species invasion, development, or other land use, as under Alternative 1. Severe winter range for elk and mule deer that is located in Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA) is most vulnerable, due to high or very high development potential of at least a portion of lands within those units. Likewise, bighorn habitat of particular concern is located in Land Units E (Sapinero/Blue Mesa COA) and G (West-End COA) due to high development potential. On the other hand, pronghorn winter habitat within Land Unit D (Iola Basin COA), on the south side of the reservoir, is somewhat protected due to lower development threats. Beneficial impacts resulting from conservation of private lands within the COA would be of higher intensity in these areas versus land units with lower levels of development potential. In addition, conservation easements and fee simple acquisition by NPS would most likely yield moderate to major beneficial impacts,

TABLE 14: BIG GAME HABITATS – PROPOSED ACTION

Big Game Species	Habitat Type	Total Acres of Habitat under NPS Management within Proposed NRA	Acres on Private Lands within COA by Land Unit that Could Benefit from Inclusion in COA
American Elk	Severe Winter Range	25,000	7,890 (Land Units A, D, E, G)
Mule Deer	Severe Winter Range	23,000	8,420 (Land Units A, D, E, G)
Bighorn Sheep	Overall Range	20,500	None
Pronghorn	Winter Range	340	1,125 (Land Unit D)

Land units containing at least some lands with high or very high development potential.

while less intensive tools would result in minor to moderate benefits to big game habitat.

Pronghorn winter range that is located on BLM land south of Iola Basin in land unit B (Blue Mesa Reservoir Agency) would remain protected when that parcel is transferred to the NRA. Additional pronghorn winter range on adjoining private land is somewhat protected due to lower development pressures; however, conservation efforts in cooperation with landowners could still serve to benefit pronghorn and their habitat. An additional threat to bighorn sheep includes the risk of disease transmission to wild herds from domestic sheep populations. This risk would continue in areas such as Fitzpatrick Mesa, where domestic sheep grazing occurs in close proximity to bighorn sheep habitat.

In addition to partnership benefits, localized beneficial effects would continue to occur through current cooperative efforts including agreements with landowners, counties, and JAME. Benefits would be seen on NRA lands and adjacent proposed lands where cooperative efforts are occurring.

Raptors. Protection for raptors and habitat within the NRA, including federal agency transfer lands, would continue. It is likely that participation in these programs would occur, resulting in long-term beneficial impacts within the NRA and COA from reduced loss and fragmentation of adjacent habitats. Intensity of beneficial impacts would range from minor to major depending upon landowner participation and types of tools implemented. Beneficial effects would be minor to moderate with implementation of tools where no interest would be acquired by NPS, and moderate to major when interest is acquired.

Fisheries. There would be no direct impact to fisheries resources within the NRA from implementation of the proposed action. As in Alternative 1, land use activities outside of the NRA could negatively impact water quality, resulting in indirect short-term to long-term negligible to minor effects to fisheries within the NRA as well as in the COA. Implementation of resource conservation tools under Alternative 2 would likely result

in reduced potential for indirect impacts to fisheries from degradation of water quality. Beneficial impacts would likely be negligible to minor due to the low potential for adverse impacts to fisheries resources.

Long-term cooperative monitoring efforts including basin-wide partnerships and cooperation with USGS would continue to provide baseline understanding of water quality conditions. Protection for fisheries resources within the NRA, including federal transfer lands, would continue.

Cumulative Impacts

Cumulative impacts would be similar to Alternative 1, except land development and federal land management activities outside the proposed lands, in combination with decreased impacts of Alternative 2 (due to resource conservation activities) would result in minor to moderate cumulative adverse impacts.

Conclusion

Beneficial impacts to vegetation and wildlife resources would result from landowners' participation in resource conservation partnerships. Benefits would be greatest in those areas of highest development potential, such as Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). By taking advantage of resource conservation tools that would be available under this alternative, long-term benefits to native vegetation, riparian and wetland communities, big game, and raptor habitat within NRA and COA lands would range from minor to major and those to fisheries resources would range from negligible to minor. Intensity of impacts would be dependent on location, level of landowner participation, and types of tools implemented. However, if development occurs on private lands within the COA, adverse impacts to vegetation and wildlife resources would be similar to those described under Alternative 1.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified

in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

SPECIAL STATUS SPECIES

Guiding Policies and Regulations

Current laws and policies require that certain desired conditions be achieved for special status species at Curecanti National Recreation Area. Refer to the following box for details.

Negligible: The action would not affect a listed species or habitat at any detectable level, or would be discountable. For purposes of Section 7, for analysis of federally listed species, the determination would be *no effect*.

Minor: Effects on special status species or designated critical habitat would be discountable (i.e., adverse effects are unlikely to occur or could not be easily measured, detected, or evaluated) or are completely beneficial, barely perceptible, and would affect a few individuals of sensitive species or have very localized impacts upon their habitat within Curecanti NRA or the proposed lands. For purposes of Section 7, for analysis of federally listed species, the determination would be *may affect / not likely to adversely affect*.

Moderate: The action would cause measurable effects on (1) a relatively moderate number of individuals within a sensitive species population; (2) the existing dynamics

DESIRED CONDITIONS FOR SPECIAL STATUS SPECIES	SOURCE
Federal and state- listed endangered or threatened species and their habitats are conserved and sustained.	<ul style="list-style-type: none"> - <i>Endangered Species Act</i> - Equivalent state protective legislation - <i>NPS Management Policies 2006</i> - NPS 77, "Natural Resources Management Guidelines"
Conserve the scenery, natural and cultural resources.	- NRA Purpose

Methodology

Information regarding threatened, endangered, and otherwise designated special status species was gathered from consultation with U.S. Fish and Wildlife Service, NPS specialists, and Colorado Division of Wildlife. The methodology described under "General Methodology for Assessing Impacts" was used to determine resource impacts. In addition to the standard impact thresholds, terms used by USFWS during Section 7 consultation are included for use when determining potential impacts to species with federal status.

between multiple species (e.g., predator-prey, herbivore-forage, vegetation structure-wildlife breeding habitat); or (3) a relatively large habitat area or important habitat attributes within the NRA or proposed lands. A sensitive species population or habitat might deviate from normal levels under existing conditions, but would remain indefinitely viable within the NRA. For purposes of Section 7, for analysis of federally listed species, the determination would be *may affect / likely to adversely affect*.

Major: The action would have impacts that would involve a disruption of habitat or

breeding grounds of a sensitive species such that casualty or mortality would result in removal of individuals from the population and the species could be at risk of extirpation from the area. For purposes of Section 7, for analysis of federally listed species, the determination would be *likely to jeopardize the continued existence of a species or adversely modify critical habitat*. This would not necessarily constitute impairment unless the impact to the listed species or its habitat would be affected to the point that the NRA's purpose could not be fulfilled and the species could not be enjoyed by current and future generations of NRA visitors.

Short-term impacts are those that occur for one year or less during the plan implementation. Long-term effects extend beyond plan implementation and last longer than one year in terms of population, community, or designated critical habitat recovery.

Impacts of Alternative 1 – No Action

Analysis of Federal Species

As discussed in the Affected Environment chapter, most of the species mentioned by USFWS in their list of federally listed species in the vicinity of the NRA were not carried forward for analysis in this chapter due to a lack of occurrence of these species within the evaluated land units of the NRA. The only federally listed species carried forward for analysis is the bald eagle.

Bald eagle: There would be no direct effect to bald eagles or their habitat within the NRA under Alternative 1. Protection for bald eagle within the NRA and other federally managed lands would continue. However, the loss and fragmentation of bald eagle habitat and hunting grounds adjacent to NRA lands due to development or other land use would likely continue and possibly increase. This would result in indirect long-term minor to moderate impacts to bald eagle activity within the NRA, and direct and indirect long-term moderate adverse impacts on proposed lands outside the NRA. Therefore, implementation of Alternative 1 may affect and would likely adversely affect bald eagle or its habitat within

the NRA or surrounding proposed lands, particularly if development occurred at a high rate, as is possible in some areas of Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA).

Analysis of State Species

American peregrine falcon: There would be no direct impact to peregrine falcons or their habitat within the NRA under Alternative 1. Protection for peregrine falcon habitat within the NRA and on other federally managed lands within the proposed lands would continue. However, the loss and fragmentation of habitat and hunting grounds due to development, or other land use adjacent to NRA lands would likely continue and possibly increase resulting in indirect long-term minor to moderate impacts to Peregrine Falcon use within the NRA. Since the falcon tends to use the canyons, and since the canyons are under federal protection, there would probably be minor, or at most, moderate direct and indirect long-term adverse impacts to peregrine falcons on lands outside the NRA.

Colorado River cutthroat trout. No direct effect would occur to the Colorado River cutthroat trout within the NRA or other federally managed lands within the proposed lands. Degraded water quality outside of the NRA would potentially lead to minor to moderate adverse impacts to the species, both inside and outside the NRA. Baseline understanding of water quality conditions would continue through long-term cooperative monitoring efforts including Basin-wide partnerships and cooperation with USGS.

Greater sandhill crane: There would be no direct impact to the greater sandhill crane or its habitat within the NRA under Alternative 1. Management for protection of this and other wildlife species would continue within the NRA and other federally managed lands. However, the loss and fragmentation of habitat adjacent to NRA lands due to development or other land use would likely continue and possibly increase, resulting in indirect long-term minor adverse impacts to

greater sandhill crane use within the NRA, and direct and indirect long-term moderate adverse impacts outside of the NRA.

Gunnison Sage-grouse. There would be no direct impacts to Gunnison Sage-grouse or habitat within the NRA. Protection would continue on approximately 12,000 acres of Sage-grouse habitat within the NRA and on other federally managed lands. However, the fragmentation of habitat adjacent to these lands would likely continue and possibly increase, resulting in indirect long-term minor to moderate adverse impacts to Gunnison Sage-grouse use within the NRA.

On privately owned lands within the proposed lands, long-term moderate to major adverse impacts are possible on up to 1,700 acres of Sage-grouse habitat from loss of habitat due to exotic plant species invasion, development, or other adverse land uses. Habitat within the NRA is not adequate to sustain a viable population without support from resources that are available on adjacent habitat outside of the NRA. Localized minor to moderate beneficial effects would occur through current cooperative efforts with the Gunnison Sage-grouse Working Group and the Gunnison Sage-grouse Rangewide Conservation Plan. Benefits would be seen on NRA lands and adjacent outside lands where cooperative efforts are occurring.

Implementation of Alternative 1 may affect and would likely adversely affect Gunnison Sage-grouse or its habitat. Though moderate to major impacts are possible, continuing efforts related to the Gunnison Sage-grouse Working Group would likely mitigate some of these impacts within the proposed lands.

Long-billed curlew: There would be no direct impact to the long-billed curlew or its habitat within the NRA from Alternative 1. Protection for long-billed curlew habitat within the NRA and other federally managed lands would continue. The loss and fragmentation of habitat due to development, or other land use adjacent to NRA lands would likely continue and possibly increase resulting in indirect long-term minor impacts to long-billed curlew use within the NRA and

direct and indirect long-term minor adverse impacts on proposed lands.

Analysis of NRA Sensitive Species

Great blue heron: There would be no direct impact to the great blue heron or its habitat within the NRA from implementation of Alternative 1. Protection for great blue heron habitat within the NRA would continue. On private lands within the proposed lands, loss and fragmentation of habitat would likely continue and possibly increase, resulting in indirect long-term minor to major adverse impacts to great blue heron use within and outside of the NRA.

Within Land Unit C, direct and indirect long-term moderate to major adverse impacts are possible on lands from continued suppression of cottonwood tree establishment and disturbance of the rookeries by land use activities. Given the rarity of the rookeries in the general area, these impacts could threaten the long-term viability of the great blue heron in Gunnison County.

Gunnison's prairie dog: There would be no direct impact to the Gunnison's prairie dog or its habitat within the NRA from implementation of Alternative 1. Protection for the species within the NRA would continue. On private lands within the proposed lands, loss and fragmentation of habitat would likely continue and possibly increase, resulting in indirect long-term minor to moderate adverse impacts to the Gunnison's prairie dog and its habitat.

Sensitive Plants: Special status plant species of interest to this analysis include adobe thistle (Rocky Mountain thistle), Black Canyon gilia, Colorado desert parsley, Gunnison milkvetch, hanging garden Sullivantia, and skiff milkvetch. Within the NRA, no direct effects would occur to any special status plant species from implementation of Alternative 1. Within privately owned areas within the proposed lands, direct or indirect long-term minor to moderate adverse impacts could result from loss of individuals or populations related to development or other land use.

Cumulative Impacts

Adverse cumulative impacts to special status species include the continued existence of exotic fish species in rivers and tributaries and the effects on Colorado River cutthroat trout viability. Beneficial management practices and conservation efforts on federal lands and properties with conservation easements (outside the proposed lands) would minimize adverse impacts to special status species where applicable. Cooperative efforts between agencies would also benefit certain species. An example is the Gunnison Sage-grouse Rangewide Conservation Plan that outlines the strategy of the Gunnison Sage-grouse Working Group to increase grouse populations in the Gunnison Basin. The management strategies and monitoring activities set forth by the cooperative group of federal, state, and county agencies and organizations would result in moderate to major beneficial impacts to such species. The above actions to manage listed species on a regional basis in combination with other cumulative effects and with Alternative 1 impacts, would result in minor to moderate adverse impacts to special status species in the region.

Conclusion

Implementation of Alternative 1 would not cause direct effects to any special status species or associated habitats within the NRA. However, loss and fragmentation of habitats would continue and possibly increase in private land units outside the NRA, impacting species and habitats within the proposed lands. Federal species that may be affected and would likely be adversely affected include the bald eagle. Likewise, state listed species including the American peregrine falcon, Colorado River cutthroat trout, greater sandhill crane, and Gunnison Sage-grouse, would experience minor to moderate adverse impacts to individuals or habitat within the proposed lands; while impacts to long-billed curlew would be minor. The great blue heron and Gunnison's prairie dog, both NRA sensitive species, would also be adversely affected by indirect impacts from habitat alteration

or disturbance. Impacts to heron would be moderate to major, while those to prairie dogs would be minor to moderate. Sensitive plant individuals or populations may be affected and could be lost due to activities outside the NRA, potentially resulting in minor to moderate adverse impacts to adobe thistle (Rocky Mountain thistle), Black Canyon gilia, Colorado desert parsley, Gunnison milkvetch, hanging garden Sullivantia, and skiff milkvetch.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

Impacts of Alternative 2 – Proposed Action

Analysis

There would be no direct impact to any federal, state, or NRA sensitive species or associated habitats from implementation of Alternative 2. Under low levels of participation by landowners in the COA in land protection plans, impacts could be similar to those described under Alternative 1. However, some participation in partnerships and use of land protection tools would be expected to yield direct and indirect minor to major long-term beneficial impacts to federal species such as bald eagle due to increased protection of habitat. The potential for environmentally insensitive development, or other high impact land use on private lands within the COA would decrease, reducing the loss and fragmentation of habitats for bald eagle, especially on Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). Federal special status

species or their habitats may be affected, but are not likely to be adversely affected under Alternative 2.

State listed species such as the American peregrine falcon, Colorado River cutthroat trout, greater sandhill crane, Gunnison Sage-grouse, and long-billed curlew, would also benefit from decreased habitat loss and fragmentation and increased conservation. Approximately 13,000 acres of Gunnison Sage-grouse habitat would be protected within the NRA; and an additional 1,700 acres of habitat would potentially be conserved on private property in Land Units C, D, and E through partnerships and use of resource conservation tools. These species and associated habitats would experience minor to moderate long-term beneficial impacts under Alternative 2.

The NRA sensitive great blue heron and its habitat would likely experience minor to major beneficial impacts under Alternative 2 through potential long-term conservation of the heron rookery in Land Unit C (Gunnison River COA), and other riparian habitat in Land Unit D (Iola Basin COA). In addition, the Gunnison's prairie dog would benefit from conservation of COA Land Units C and D (Gunnison River and Iola Basin), as well as Land Unit H, which contain overall range for the species.

Sensitive plant species, including adobe thistle (Rocky Mountain thistle), Black Canyon gilia, Colorado desert parsley, Gunnison milkvetch, hanging garden Sullivantia, and skiff milkvetch, would likely experience minor to moderate beneficial impacts under Alternative 2 from reduced potential for loss of individuals or populations from development or other land use.

The intensity of beneficial impacts on private COA lands would vary with the level of partnership and the types of conservation tools implemented. These beneficial impacts would also carry over onto adjacent public lands within the NRA.

Cumulative Impacts

Continued regional cooperative efforts between federal, state, and local agencies would contribute moderate to major beneficial impacts to certain species such as the Gunnison Sage-grouse. The contribution from Alternative 2 to cumulative effects would also be beneficial, though some adverse impacts could still occur outside of the NRA and the proposed lands due to development and other land use activities. Overall, cumulative effects to special status species in the region would be minor to major beneficial.

Conclusion

Implementation of Alternative 2 would benefit special status wildlife species and therefore would not adversely affect the bald eagle, Gunnison Sage-grouse, Colorado River cutthroat trout, American peregrine falcon, greater sandhill crane, long-billed curlew, great blue heron, or other sensitive species. Special status plant species would also experience beneficial impacts. Through decreased potential for development and other land use activities that are detrimental to habitats, all special status species within the proposed lands would have opportunities for increased conservation and potential for populations to expand. Benefits would be greatest on Land Units D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA), where development potential is currently the highest. However, resources on other private lands within the COA would benefit as well.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

NATURAL LIGHTSCAPE (NIGHT SKY)

Guiding Policies and Regulations

Current laws and policies require that certain desired conditions be achieved for natural lightscapes at Curecanti National Recreation Area. Refer to the following box for details.

Impacts of Alternative 1 – No Action

Analysis

Except for Reclamation's primary jurisdiction areas around the dams, natural lightscapes within the NRA would continue to be conserved through management policies that limit artificial light, especially in natural areas. Private portions of the proposed lands

DESIRED CONDITIONS FOR NATURAL LIGHTSCAPE	SOURCE
Artificial outdoor lighting will be limited to basic safety, security, and operational requirements, and will be shielded when possible. NPS will coordinate with neighbors and local government agencies to find ways to minimize the intrusion of artificial light into the night scene in the NRA, in an effort to conserve this segment of the natural resource.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i> - NRA Purpose
Conserve the scenery, natural and cultural resources.	- NRA Purpose

Methodology

The analyses of impacts include lands within the NRA as well as within the larger area of proposed lands, as stated. The following impact thresholds were established to measure the relative changes in natural lightscapes as a result of the alternative actions.

Negligible: The impact would be barely detectable, would not occur in primary resources areas, or would affect few visitors.

Minor: The impact would be slight but detectable, would not occur in primary resource areas, or would affect few visitors.

Moderate: The impact would be readily apparent, would occur in primary resource areas, or would affect many visitors.

Major: The effect would be severely adverse or exceptionally beneficial, would occur in primary resource areas, or would affect the majority of visitors.

surrounding the NRA that remain in their current undeveloped condition would also continue to contribute to the existing high quality night sky surrounding the NRA.

Cooperation from neighbors and local government agencies would minimize the intrusion of artificial light from adjacent areas into the night scene in the NRA. There are currently greater restrictions pertaining to outdoor lighting within the Gunnison County Land Use Resolution, and no substantial restrictions pertaining to lighting associated with development within Montrose County.

With the ever-increasing probability that privately owned portions of the proposed lands would eventually be developed, it is a reasonable assumption that more and more outdoor lights will be installed along with the developments. In general, a single light source may not be a significant problem. However, the accumulative effect of additional development could result in long-term, minor to moderate, adverse impacts to the night sky, depending upon factors such as decisions by

landowners, county land use regulations, and population growth.

Land Units A (CO 92 COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA) would be more likely impacted by development in the near future. This is due to their accessibility from US 50, CO 92, and CO 149, and local roads such as Soap Creek Road; and to the existence of other development in the vicinity. Rapid expansion and commercial growth in Montrose and to a lesser extent Delta are a direct threat to Black Canyon. The terrain in the Montrose area does deflect some of the light generated in the city at night. Black Canyon and Curecanti currently offer popular night sky programs several times through out the year and work with local astronomical societies to host star gatherings in the parks. Black Canyon and Curecanti are two of the darkest national parks measured in southwestern Colorado.

Scientific research regarding elements of night sky is on-going. As the NPS collects and analyzes data, that information will be shared with neighbors and local officials to develop complementary approaches to night sky conservation through a variety of environmentally friendly techniques in urban and residential site planning and design.

Distance is the primary component in light pollution. Light diminishes to the negative 2.5 power of distance, so that a town of 10,000 10 miles away will appear 6x brighter than a town of 10,000 20 miles away. This principal makes the distance to specific areas of the park an important factor.

Topography also plays an important role. A town like Gunnison at a high elevation will appear to be brighter than a town in a valley or obscured by mountains. A site down in a canyon will be darker than one up on the mesa.

A third factor is the brightness of the town's lights. There can be significant gains or losses in environmental quality depending on how bright the lights a town chooses to install and whether those lights are shielded. Vail, Colorado for example, has very subdued lights

and approximately 1,000 lumens per capita of installed outdoor lights. In contrast, Las Vegas has approximately 5,000 lumens per capita.

Degradation of the night sky condition also depends on other factors such as the growth rate of the surrounding communities; types of industries; and the conservation efforts employed to reduce night light. Given the residential growth within the state and the demonstrated increase statewide in light pollution, a threat does exist to the quality of night sky experienced in this region.

Night skies also play a role in defining wilderness characteristics found in places such as the Black Canyon Wilderness and nearby USFS Wilderness areas. Much remains to be understood about the possible ecological disruption in these areas due to nocturnal habitat loss as a result of increased night light.

Cumulative Impacts

Conservation and planning activities occurring throughout the proposed lands within Gunnison and Montrose Counties could result in a variety of impacts to local and regional night sky resources. The Gunnison County Comprehensive Plan is expected to evaluate a wide range of factors in developing a strategy for growth in the Curecanti area. Efforts from the Comprehensive Plan could result in long-term beneficial impacts on night sky resources adjacent to the NRA by considering such resources in the development and implementation of recommendations.

Long-term management plans by agencies such as the U.S. Forest Service and BLM would continue to conserve night sky values. This would result in beneficial impacts.

CDOT/FHWA highway modernization plans could influence development along the US 50 corridor, further affecting the highway corridor and its aesthetics. Such development could result in long-term, localized minor to moderate adverse impacts on the night sky resource.

The long-term minor to moderate adverse impacts to night sky values that could result

from Alternative 1 from potential development and land use in the proposed lands surrounding the NRA, when combined with the potential adverse and beneficial impacts of other regional planning and conservation efforts, could result in cumulative long-term minor to major adverse impacts to natural lightscapes in the region.

Conclusion

Except for Reclamation's primary jurisdiction areas around the dams, night sky values within the NRA and on adjacent federal and state lands would continue to be conserved through federal and state land management activities. Private portions of the proposed lands that remain in their current undeveloped condition would also continue to contribute to the existing high-quality natural landscape in the area.

However, private portions of the proposed lands surrounding the NRA would continue to be increasingly subject to future development and other land uses in Alternative 1 that could interfere with night sky values within the NRA. Even with county regulations, this could result in long-term minor to moderate adverse impacts to the natural lightscape/night sky resource.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

Impacts of Alternative 2 – Proposed Action

Analysis

As in Alternative 1, except for Reclamation's primary jurisdiction areas around the

dams, night sky values within the NRA and on other adjacent federal and state lands would continue to be conserved through implementation of federal and state land management plans. Thus impacts to natural lightscape resources on public lands would be the same in Alternatives 1 and 2.

On private portions of the COA, the availability of resource conservation tools to private landowners, and increased congressionally authorized efforts on the part of NPS to conserve resources, would help maintain existing night sky quality. Should landowners implement resource tools such as conservation easements or fee simple acquisition, long-term minor to moderate beneficial impacts could occur, depending upon the degree of development or conservation. However, the availability of such tools would increase the likelihood that some or all of the resources within the COA would be conserved.

Some of the areas that have more potential for private development, and in turn, more potential for adverse impacts on night sky values, are located in Land Units A (CO 92 COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). These areas have been identified in Alternative 1, and include areas such as Sapinero Mesa, Soap Mesa, Blue Mesa, and Cimarron.

In general, there is expected to be a long-term minor to moderate beneficial impact on night sky resources through implementation of Alternative 2. This would result from the creation of the COA and the authorization and ability of NPS to work in more meaningful partnerships with private landowners within the COA; increased cooperation between NPS and its neighbors; and the implementation of the tools for resource conservation. Also, working with local government, visible night sky improvement might occur with the implementation of a lighting protocol that reduces light emissions (NPS, Night Sky Quality Monitoring Report, Prepared by Chad Moore, November 8, 2006).

Cumulative Impacts

Cumulative impacts related to the actions in Alternative 2 would be more beneficial than Alternative 1. Many local and regional planning and conservation activities would continue to result in long-term, minor to major beneficial impacts to local and regional night sky values. Without cooperation of private landowners in the COA, the overall cumulative impact of Alternative 2 could be adverse, as in Alternative 1. However, with the cooperation of private landowners, the potentially beneficial impacts associated with the resource conservation tools suggested in Alternative 2 could result in long-term, moderate, beneficial, cumulative impacts. The overall impact of these combined efforts of federal, state, and local agencies, as well as private landowners that conserve the natural lightscape resources on their land would be positive and widespread.

Conclusion

Some of the areas where there is more potential for development, and in turn, more potential for adverse impacts on natural lightscapes, are located on private property in Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). Conservation of these areas would result in long-term minor to moderate beneficial impacts to both local and NRA-wide lightscapes for NRA visitors and

residents alike. The availability of resource conservation tools to private landowners, and congressionally authorized increased efforts on the part of NPS to work in partnership with private landowners to conserve natural lightscapes within the COA, would help maintain existing night sky quality.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

NATURAL SOUNDSCAPE**Guiding Policies and Regulations**

Current laws and policies require that certain desired conditions be achieved for natural soundscapes at Curecanti National Recreation Area. Refer to the following box for details.

DESIRED CONDITIONS FOR NATURAL SOUNDSCAPE	SOURCE
In those areas of the NRA where visitors have the opportunity to experience natural quiet and solitude, recreational use is managed to preserve this condition. Noisier conditions are accepted along roads, in areas surrounding the dams and related Reclamation operations and facilities, and where motorized recreational pursuits, such as motor boating and snowmobiling are allowed.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i> - DO 47, "Sound Preservation and Noise Management"
Conserve the scenery, natural and cultural resources.	- NRA Purpose

Methodology

The analyses of impacts include lands within the NRA as well as within the larger area of proposed lands, as stated. The following impact thresholds were established to measure the relative changes in natural soundscapes as a result of the alternative actions.

Negligible: The impact would be barely detectable, would not occur in primary resource areas, or would affect few visitors.

Minor: The impact would be slight but detectable, would not occur in primary resource areas, or would affect few visitors.

Moderate: The impact would be readily apparent, would occur in primary resource areas, or would affect many visitors.

Major: The effect would be severely adverse or exceptionally beneficial, would occur in primary resource areas, or would affect the majority of visitors.

Impacts of Alternative 1 – No Action

Analysis

Except where motorized recreational vehicles and boats are authorized, and except for Reclamation's primary jurisdiction areas around the dams, natural soundscape within the NRA would continue to be conserved through management policies that limit manmade sounds in certain areas. The locations within the NRA that currently offer the best opportunities for solitude and enjoyment of natural sounds would continue to do so. Private portions of the proposed lands surrounding the NRA that remain in their current undeveloped condition would also continue to contribute to the existing high quality of the soundscape surrounding the NRA.

Coordination with neighbors and local government agencies would minimize the intrusion of excessive noise from adjacent areas and activities into quiet areas of the NRA. However, there is an increasing probability that privately owned portions of the proposed lands would experience

property development and other land uses that could interfere with natural ambient sound and overall soundscape values. Increased development would result in increased traffic and other activities that could impact the soundscape of the region. This could result in long-term minor to moderate adverse impacts to the NRA's natural soundscape depending upon factors such as decisions by landowners, county land use regulations, and population growth.

Land Units A (CO 92 COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA) would be more likely to be impacted by development in the near future, and are therefore more likely to experience adverse impacts on the natural soundscape. This is due to their accessibility from US 50, CO 92, and CO 149, and local roads such as Soap Creek Road; and to the existence of other development in the vicinity.

Cumulative Impacts

Conservation and planning activities occurring throughout the proposed lands and within Gunnison and Montrose Counties could result in a variety of impacts to local and regional soundscape values. The Gunnison County Comprehensive Plan is expected to evaluate a wide range of factors in developing a strategy for growth in the Curecanti area. Efforts from the Comprehensive Plan could result in long-term beneficial impacts on soundscape resources adjacent to the NRA by considering such resources in the development and implementation of recommendations.

Long-term management plans by agencies such as the U.S. Forest Service and BLM would continue to be in place. This would result in beneficial impacts to the soundscape resource.

CDOT/FHWA highway modernization plans could influence development along the US 50 corridor, further affecting the highway corridor and its aesthetics, including the soundscape. Such development could result in long-term, localized minor to moderate adverse impacts on the area's natural soundscape.

The long-term minor to moderate adverse impacts to soundscape values that could result from potential development and land use in the proposed lands surrounding the NRA under Alternative 1, when combined with the potential adverse and beneficial impacts of other regional planning and conservation efforts, could result in cumulative long-term minor to moderate adverse impacts to natural soundscapes in the region.

Conclusion

Except where motorized recreational vehicles and boats are authorized, and except for Reclamation's primary jurisdiction areas around the dams, the soundscape within the NRA and on other adjacent federal and state lands would continue to be conserved through federal and state land management activities. Private portions of the proposed lands that remain in their current undeveloped condition would also continue to contribute to maintaining the natural soundscape in the area.

However, private portions of the proposed lands surrounding the NRA would continue to be increasingly subject to future development and other land uses in Alternative 1 that could interfere with soundscape values within the NRA. This could result in long-term, minor to moderate adverse impacts to natural soundscapes.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

Impacts of Alternative 2 – Proposed Action

Analysis

As in Alternative 1, except where motorized recreational vehicles and boats are authorized, and except for Reclamation's primary jurisdiction areas around the dams, natural soundscape values within the NRA and on other adjacent federal and state lands would continue to be conserved through implementation of federal and state land management plans. Thus impacts to such resources on public lands would be the same in Alternatives 1 and 2.

On private portions of the COA, the availability of resource conservation tools to private landowners, and increased congressionally authorized efforts on the part of the National Park Service to conserve resources, would help maintain existing soundscape quality. Should landowners implement resource conservation tools such as conservation easements or fee simple acquisition, long-term minor to moderate beneficial impacts could occur, depending upon the degree of development or conservation. However, the availability of such tools would increase the likelihood that some or all of the resources within the COA would be conserved, and the natural soundscapes would be preserved or enhanced.

Some of the areas that have more potential for private development, and in turn, more potential for adverse impacts on natural soundscapes, are located in Land Units A (CO 92 COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). These areas have been identified in Alternative 1, and include areas such as Sapinero Mesa, Soap Mesa, Blue Mesa, and Cimarron.

In general, there is expected to be a long-term minor to moderate beneficial impact on soundscape resources through implementation of Alternative 2. This would result from the creation of the COA and the authorization and ability of the National Park Service to work in more meaningful partnerships with private landowners within the COA; increased cooperation between NPS

and its neighbors; and the implementation of the tools for resource conservation.

Cumulative Impacts

Cumulative impacts related to the actions in Alternative 2 would be more beneficial than Alternative 1. Many local and regional planning and conservation activities would continue to result in long-term, minor to major beneficial impacts to local and regional soundscape values. Without cooperation of private landowners in the COA, the overall cumulative impact of Alternative 2 could be adverse, as in Alternative 1. However, with the cooperation of private landowners, the potentially beneficial impacts associated with the resource conservation tools suggested in Alternative 2 could result in long-term, moderate, beneficial, cumulative impacts on the natural soundscape. The overall impact of these combined efforts of federal, state, and local agencies, as well as private landowners that conserve the natural soundscape resources on their land, would be positive and widespread.

Conclusion

Some of the areas that have more potential for development, and in turn, more potential for adverse impacts on the natural soundscape, are located on private property in Land Units

A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). Conservation of these areas would be beneficial to both local and NRA-wide soundscapes for visitors and residents alike. The availability of resource conservation tools to private landowners, and congressionally authorized increased efforts on the part of the National Park Service to work in partnership with private landowners to conserve natural soundscapes within the COA, would help maintain and/or enhance existing soundscape quality. This could result in long-term, minor to moderate beneficial impacts to natural soundscapes.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

CULTURAL RESOURCES

Guiding Policies and Regulations

Current laws and policies require that certain desired conditions be achieved for cultural resources at Curecanti National Recreation Area. Refer to the following box for details.

“Protection of Historic Properties”), impacts to cultural resources were identified and evaluated by (1) determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that were either listed on or eligible to be listed on the National Register of Historic Places; (3) applying the criteria of adverse

DESIRED CONDITIONS FOR CULTURAL RESOURCES	SOURCE
Conserve the natural and historic objects within the NRA unimpaired for the enjoyment of future generations.	- NPS Organic Act of 1916
Preserve, conserve, and encourage the continuation of the diverse traditional prehistoric, historic, ethnic, and folk cultural traditions that underlie and are a living expression of our American heritage.	- National Historic Preservation Act
Protect and preserve for American Indians access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.	- American Indian Religious Freedom Act
Secure, for the present and future benefit of the American people, the protection of archeological resources and sites that are on public lands.	- Archeological Resources Protection Act
Accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners; and avoid adversely affecting the physical integrity of such sacred sites.	- Executive Order 13007
The National Park Service must be respectful of these ethnographic resources, and carefully consider the effects that NPS actions may have on them.	- NPS <i>Management Policies 2006</i>
Conserve the scenery, natural and cultural resources, and wildlife.	- NRA Purpose

Methodology and Assumptions

In this assessment, impacts to cultural resources (archeological resources and historic structures) are described in terms of type, context, duration, and intensity, which is consistent with the CEQ regulations. These impact analyses are intended, however, to comply with the requirements of both the *National Environmental Policy Act* and Section 106 of the *National Historic Preservation Act* (NHPA). In accordance with the Advisory Council on Historic Preservation’s regulations implementing Section 106 (36 CFR 800,

effect to affected cultural resources either listed on or eligible to be listed on the National Register; and (4) considering ways to avoid, minimize, or mitigate adverse effects.

Under the Advisory Council’s regulations, a determination of either *adverse effect* or *no adverse effect* must also be made for affected, National Register eligible cultural resources. An *adverse effect* occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualify it for inclusion on the National Register (e.g., diminishing the integrity of the

resource's location, design, setting, materials, workmanship, feeling, or association). Adverse effects also include reasonably foreseeable effects caused by the Proposed Action that would occur later in time, be farther removed in distance or be cumulative (36 CFR 800.5, "Assessment of Adverse Effects"). A determination of *no adverse effect* means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion on the National Register.

CEQ regulations and DO 12 also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact (e.g., reducing the intensity of an impact from major to moderate or minor). Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation only under the *National Environmental Policy Act*. It does not suggest that the level of effect as defined by Section 106 is similarly reduced. Although adverse effects under Section 106 may be mitigated, the effect remains adverse.

Certain important research questions about human history can only be answered by the actual physical material of cultural resources. Archeological resources have the potential to answer, in whole or in part, such research questions. An archeological site(s) can be eligible to be listed on the National Register of Historic Places if the site(s) has yielded, or may be likely to yield, information important in prehistory or history. An archeological site(s) can be nominated to the National Register in one of three historic contexts or levels of significance: local, state, or national (National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation*).

For purposes of analyzing impacts to archeological resources, thresholds of change for the intensity of an impact are based upon the potential of the site(s) to yield information important in prehistory or history, as well as the probable historic context of the affected site(s):

Negligible: The impact is at the lowest level of detection or barely measurable, with no perceptible consequences, either adverse or beneficial, to archeological resources. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor Adverse Impact: The impact would affect an historic structure, site, or district, or an archeological site with the potential to yield information important in prehistory or history. The historic context of the affected site(s) would be local. For purposes of Section 106, the determination of effect would be *adverse effect*.

Minor Beneficial Impact: A site would be preserved in its natural state. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate Adverse Impact: The impact would affect an archeological site with the potential to yield information important in prehistory or history. The historic context of the affected site would be statewide. For a National Register eligible or listed historic structure, or historic district, the impact is readily apparent, and/or changes a character-defining feature(s) of the resource to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *adverse effect*.

Moderate Beneficial Impact: The site would be stabilized. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major Adverse Impact: The impact would affect an archeological site with the potential to yield important information about human history or prehistory. The historic context of the affected site would be national. The impact is severe or of exceptional benefit for eligible or listed historic structures or historic districts. The impact changes a character-defining feature of the resource, diminishing the integrity of a National Register eligible or listed resource to the extent that it is no longer eligible or listed on the National Register. For purposes of Section 106, the determination of effect would be *adverse effect*.

Major Beneficial Impact: Active intervention would be taken to preserve the site. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Impacts of Alternative 1 – No Action

Analysis

Under this alternative the area contained within the existing NRA would remain essentially unchanged, except for occasional future changes that Congress might authorize on a piece-by-piece basis. NPS would continue best management practices for cultural resources as agreed to with Reclamation, resulting in short and long-term direct, minor beneficial impacts. Limited technical assistance would be available from NPS to private landowners interested in conserving cultural resource values on their private properties. The potential for development on lands outside the NRA, primarily on Land Units C (Gunnison River COA) and G (West-End COA), could result in indirect short and long-term, minor to moderate adverse impacts to cultural resources within the NRA by alterations to the scene or the context of the resource.

Continuing federal protection of the lands inside the NRA would continue to reduce the potential for illegal collection or damage to cultural resources but would have no effect on those resources outside the NRA.

Cumulative Impacts

Even with the potential for continued federal protection of lands within the NRA, activities on neighboring lands would still have the potential for indirect long-term minor to moderate adverse cumulative impacts. On a cumulative basis, potential impacts from illegal collecting or damaging NRA resources that are readily accessible from neighboring lands would likely occur with the advent of development on surrounding private lands.

Conclusion

Federal actions within the NRA would result in short and long-term direct minor beneficial impacts. Potential development

on Land Units C (Gunnison River COA) and G (West-End COA) could result in indirect minor to moderate adverse impacts to cultural resources within the NRA, by altering the scene or context of the resource.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

Impacts of Alternative 2 – Proposed Action

Analysis

The negotiation of conservation easements and/or the addition of lands to the NRA would have short and long-term minor beneficial impacts on cultural resources both within the NRA and on public and private lands neighboring the NRA. The same would be true of railroad features in Land Unit C (Gunnison River COA). Land Unit G (West-End COA) would realize a short and long-term minor beneficial impact, both within the NRA as well as outside, with the increased conservation of the historic town-site and the railroad resources associated with that location.

Cumulative Impacts

On a cumulative basis, implementation of Alternative 2 could result in minor beneficial impacts to those cultural resources both within and outside the proposed NRA boundary through additional federal management and access to federal assistance.

Conclusion

The direct short- and long-term minor beneficial impact resulting from federal management practices within the NRA coupled with the beneficial impacts associated

with potential conservation easements and/or additions of private land to the NRA would result in direct short- and long-term minor beneficial impacts inside and outside the proposed NRA boundary.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

Section 106 Summary

This Environmental Impact Statement provides detailed descriptions of two alternatives (including a no-action alternative) and analyzes the potential impacts associated with possible implementation of each alternative.

Application of best federal land management practices to lands outside the NRA as described under Alternative 2 would improve conservation of cultural resources either by direct acquisition or landowner participation in conservation easements or other partnered arrangements. Common management practices could result in negligible to minor benefits (*no adverse effect*) for cultural resources both within and outside the proposed NRA boundary.

To help reduce impacts on cultural resources, resources would continue to be monitored on a regular basis. Vulnerable resources listed on or potentially eligible for the National Register of Historic Places would have priority for conservation measures. The NRA staff would continue to actively work with tribes to conserve ethnographic resources and privacy for traditional activities. Appropriate resource management actions could include monitoring and site stabilization; and visitor management

actions could include signing, ranger patrols, and interpretive messages.

In cases where it was determined there was a potential for adverse impacts (as defined in 36 CFR 800) to cultural resources listed on or eligible for listing on the National Register of Historic Places, the National Park Service would coordinate with the State Historic Preservation Officer of Colorado to determine the level of effect on the property, and to determine what mitigation would be needed.

The NRA staff would continue to educate visitors regarding archeological and ethnographic site etiquette to provide long-term conservation for surface artifacts, architectural features, and traditional activities. If necessary, additional mitigation measures would be developed in consultation with the state historic preservation officer and the three American Indian tribes who are most affiliated with the NRA: Northern Ute; Southern Ute; and Ute Mountain Ute. These three tribes will receive copies of this Environmental Impact Statement for review and comment. It will also be sent to the Colorado State Historic Preservation Officer and to the Advisory Council on Historic Preservation for review and comment as part of the Section 106 compliance process.

Pursuant to 36 CFR 800.5, implementing regulations of the *National Historic Preservation Act* (revised regulations effective January 2001), addressing the criteria of effect and adverse effect, the National Park Service finds that the implementation of the Proposed Action in the Curecanti Resource Protection Study, with identified mitigation measures, would be beneficial, and would not result in any new adverse effects (*no adverse effect*) to archeological or historic resources currently identified as eligible for or listed on the National Register of Historic Places.

VISITOR USE, UNDERSTANDING, AND ENJOYMENT

RECREATIONAL OPPORTUNITIES

Guiding Policies and Regulations

Current laws and policies require that certain desired conditions be achieved for recreation opportunities at Curecanti National Recreation Area. Refer to the following box for details.

access for recreational use and potential overlook sites, could occur on many land units within the proposed lands, irrespective of ownership or managing agency. The analyses of impacts include lands within the NRA and lands within the proposed lands. Cumulative impacts include effects from the alternatives to lands outside of the proposed lands, as well as effects from unrelated actions to lands within the proposed lands. Impact intensities are as follows:

Negligible: Visitors would likely be unaware of any effects associated with implementation of the

DESIRED CONDITIONS FOR RECREATIONAL OPPORTUNITIES	SOURCE
Provide outstanding recreational opportunities.	<ul style="list-style-type: none"> - NPS Organic Act of 1916 - NRA Mission
Visitors have opportunities to enjoy the NRA in ways that leave resources unimpaired for future generations.	<ul style="list-style-type: none"> - NPS Organic Act of 1916 - NPS <i>Management Policies 2006</i>
Provide public recreational facilities on lands withdrawn or acquired for the development of Colorado River Storage Project and Uncompahgre Project, and allow for recreational use and enjoyment of Reclamation lands and water areas in a manner that is consistent with the projects' purposes.	<ul style="list-style-type: none"> - Reclamation law, as supplemented and amended
Visitor facilities and services are provided for the safe and full use and enjoyment of the area for recreational purposes.	<ul style="list-style-type: none"> - Memorandum of Agreement between NPS and Reclamation, February 11, 1965
Recreational uses are promoted and regulated. Basic visitor needs are met in keeping with NRA purposes.	<ul style="list-style-type: none"> - NPS Organic Act of 1916 - Title 36, Code of Federal Regulations - NPS <i>Management Policies 2006</i>
Provide for the enjoyment of the scenery and the natural and historic objects and the wildlife therein.	<ul style="list-style-type: none"> - NPS Organic Act of 1916

Methodology

This section analyzes the impacts of alternatives on recreation opportunities, including visitor use and enjoyment within the proposed lands. All available information on potential recreation opportunities was compiled. Where possible, map locations were consulted. Analyzed activities, including

alternative. There would be no noticeable change in visitor use and experience or in any defined indicators of visitor satisfaction or behavior.

Minor: Changes in visitor use and/or enjoyment would be slight but detectable, but would not appreciably limit or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable.

Moderate: Few critical characteristics of the desired visitor experience and enjoyment would change, and/or the number of participants engaging in an activity would be altered. The visitor would be aware of the effects associated with implementation of the alternative and would likely be able to express an opinion about changes. Visitor satisfaction would begin to either decline or increase as a direct result of the effect.

Major: Multiple critical characteristics of the desired visitor experience and enjoyment would change, and/or the number of participants engaging in an activity would be greatly reduced or increased. The visitor would be aware of the effects associated with implementation of the alternative and would likely express a strong opinion about the change. Visitor satisfaction would markedly decline or increase. The impact is severely adverse or exceptionally beneficial, and/or would affect the majority of visitors.

Short-term recreation impacts are immediate and do not occur over multiple visitor seasons. Long-term impacts persist beyond one year or visitor season.

Because this topic does not evaluate the potential impacts on natural or cultural resources contained within the NRA, impairment is not evaluated.

Impacts of Alternative 1 – No Action

Analysis

Camping and picnicking. Within the NRA, management of camping and picnicking activities would continue. Adverse impacts would include continued unmet recreation potential for certain types of camping activities. Continuation of existing management would result in no additional motorized restrictions or seasonal access to sensitive habitat areas, adversely impacting the recreational and visitor experience of some visitors and benefiting others.

Direct and indirect long-term minor to moderate adverse impacts in non-NRA portions of the proposed lands are possible

from the unrestricted motorized access by some visitors and resultant change to sensitive habitat areas.

Hiking/backpacking/sightseeing/backcountry experience/and other recreational activities. Land-based recreational activities including hiking, backpacking, other backcountry experiences, horseback riding, and cross-country skiing would continue within the NRA. In cooperation with private landowners, there is a potential to expand these activities into the COA surrounding the NRA, and perhaps continuing onto other public lands, thus providing a more comprehensive and wider range of recreational experiences. However, under Alternative 1, it is likely that certain types of development or other land uses would occur on these private lands at some time in the future that would eliminate opportunities for the expansion of these NRA land-based recreational activities. The potential loss of these opportunities would constitute a long-term minor to moderate adverse impact on recreation. This is most likely to occur in Land Unit A (CO 92 COA), where there is a moderate development potential, north and south of CO 92 and Morrow Point Reservoir, and at Black Mesa, Soap Mesa, and Soap Creek. It may also occur on Fitzpatrick Mesa, which has a low development potential.

Under Alternative 1, direct and indirect long-term minor to moderate adverse impacts would continue on COA lands outside the current NRA, due to illegal access into the NRA by visitors crossing private land, and to illegal trespassing onto private lands by recreational users of the NRA. Illegal trespass onto private lands within the COA occurs in Land Unit A, along CO 92, including Corral and Cottonwood creeks. In Land Unit D, trespass of hang-gliders landing on private property occurs in the Willow Creek area. In Land Unit E, trespass across private land occurs in the Windy Point and Hunters Point areas for access to ice climbing along the Morrow Point canyon walls. In addition, continued occasional illegal landing of hang-gliders on NRA lands would continue

under this alternative, resulting in long-term minor to moderate adverse impacts to vegetative resources, due to off-road vehicle use associated with the hang-gliding. Under Alternative 1, it is likely that legal public access to some desired activities would continue to be unavailable, adversely impacting the recreational visitor experience and enjoyment of some, and benefiting others.

Historic early season grazing would continue in the Long Gulch – Bear Trap Gulch area. Cattle would continue to cross the Crystal Trail, on their trek to the 30,000-acre USFS grazing allotment in this area. As cattle use in this area is only for a few days on a bi-annual basis, negligible to minor long-term adverse impacts on the visitor's recreational experience is expected.

In general, especially related to sightseeing, which is an integral part of all recreational activities in the area, certain types of development and land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations, on private property within the COA surrounding the NRA, could have a long-term, major adverse impact on the scenic resources of the area. This could, in turn, have a long-term, major adverse impact on visitor experience and appreciation of the NRA, and on the overall enjoyment of the area. This is especially true for all those who drive along the roads and highways that wind through the NRA along the canyons of Morrow Point Reservoir, and the shores of Blue Mesa Reservoir; and for all those who ride the waters of Blue Mesa Reservoir. County land use regulations may mitigate the impacts somewhat. However, land use regulations in and of itself would not be as effective as other tools of resource conservation being recommended by this study under Alternative 2.

Fishing and Hunting. Fishing and hunting opportunities within the NRA would continue to occur on lands that are not in conflict with other recreational use or facilities. Under Alternative 1, direct long-term minor to moderate adverse impacts would continue in private portions of the proposed lands

as a result of trespass by visitors looking for increased fishing access or hunting areas. This includes Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), and E (Sapinero/Blue Mesa COA).

Water-Based Recreation. Within the NRA, opportunities for water-based recreation including swimming, water skiing, sailing, windsurfing and watercraft use would continue. Continuation of existing management would result in no direct impacts to those visitors who participate in water-based recreation within the NRA.

Cumulative Impacts

Regionally, some recreation opportunities would experience minor to moderate short- to long-term adverse impacts from the continuation or increase in land use development, such as residential development, that would potentially result in the loss of access to new trail segments and scenic overlooks, and access to potential backcountry camping or hunting/fishing areas. When combined with the impacts of Alternative 1, these land development activities would result in moderate long-term cumulative adverse impacts.

Conclusion

Unmet potential for certain types of land-based recreation on lands in the proposed lands surrounding the NRA would result in long-term negligible to moderate adverse impacts to the NRA visitor's recreational experience and enjoyment. Long-term minor to moderate adverse impacts on the natural resources on non-NRA lands would be possible from the unrestricted motorized access by some visitors, and resultant change to sensitive habitat areas. Land Units A (CO 92 COA) and C (Gunnison River COA) would be susceptible to long-term minor to moderate adverse impacts as a result of trespass by visitors, including illegal landing of hang-gliders on NRA lands. Historic grazing would continue in Long Gulch – Bear Trap Gulch, and crossing of the Crystal Trail by cattle would result in long-term negligible to minor

adverse impacts on the visitor experience due to grazing use.

The potential for future development and other types of land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations on private lands surrounding the NRA, especially within the COA, could have a long-term major adverse impact on the scenic resources in the area. The scenic resource is considered to be a key resource for enjoyment of the NRA. Therefore, there could also be a long-term major adverse impact on the visitor enjoyment, experience, and appreciation of an otherwise nationally significant and spectacular geological and natural landscape setting.

Impacts of Alternative 2 – Proposed Action

Analysis

Under Alternative 2, a COA would be established that would encompass private lands within the proposed lands. The NRA would be congressionally authorized to partner with landowners within the COA for the purpose of resource conservation and enhancing recreational opportunity. This would increase potential for diverse appropriate resource-based recreation opportunities; especially additional land-based activities such as day use and extended use activities. Alternative 2 would also provide connection to opportunities offered on surrounding lands through participation by COA landowners in partnerships, including the potential for additional appropriate resource based commercial recreation support services. However, this would all be subject to the willingness of the private landowners to cooperate in such ventures. In addition, the Proposed Action would include a net addition of 10,040 acres to the NRA from federal and state agency transfers, for consideration of expanded land-based recreational opportunities.

Camping and picnicking. Within the NRA, management of camping and picnicking activities would continue. In Land Unit B (Blue Mesa Reservoir Agency), USFS, and BLM lands from the existing NRA (north of Sapinero Basin) to the southern edge of the West Elk Wilderness Area would be

transferred to NPS, including the Soap Creek Campground that is currently managed by the USFS. BLM has indicated a desire and expectation that the large parcel of their land in the Dillon Pinnacles area that would come under NPS management would continue to have only non-motorized access to protect wildlife, scenery, and other natural values. At this time, the National Park Service has no reason to believe otherwise. However, final determination would be made via a new general management plan or implementation plan for the area; and BLM would be invited to participate in the planning process. The management of this area by one agency rather than by three would provide long-term moderate benefits to visitors, operational benefits to the agencies, because the area would be managed under the guidelines of only one agency, and that agency would be the sole presence or contact for visitors.

- Direct and indirect long-term adverse impacts are possible due to the change in front-country campground management. Existing camping opportunities in undesignated sites would be lost because NPS would change the management of the area to designated camping only. Although management of Soap Creek campground would be transferred, NPS would permit all existing uses within the campground, including camping and use of the existing horse corrals. This would result in a long-term negligible to minor adverse impact on campground users accustomed to current undesignated camping opportunities. However, there would also be long-term minor beneficial impacts as a result of greater NPS presence, including increased law enforcement and campground maintenance.
- Transfer of lands from the USFS to NPS could also result in possible increased restrictions on motorized use, and seasonal access limitations to sensitive habitat areas in those lands. This could result in long-term minor to moderate adverse impacts on visitor experience

in formerly non-NRA public lands, depending on visitor expectations.

Hiking/backpacking/sightseeing/backcountry experience/and other recreational activities. Recreational activities including hiking, backpacking, sightseeing, other backcountry experiences, horseback riding, mountain biking, cross-country skiing, and other related activities would continue within the NRA, similar to Alternative 1. Potential acquired interests in private lands within the COA surrounding the NRA would provide opportunities to expand suitable land-based recreational opportunities and legal public access for hiking, backpacking, mountain biking, horseback riding, trails to scenic overlooks, ice climbing, and other activities.

Within Land Unit A (CO 92 COA), direct and indirect long-term minor to moderate beneficial impacts would be possible from new trail and overlook development down the Corral Creek drainage to Morrow Point Reservoir, and on Soap Mesa; expansion of a trail segment to the Blue Mesa Dam overlook; and potential development of backcountry hiking trails and backcountry camping. Management of the Dillon Pinnacles ACEC would also benefit NPS and visitors because of its important recreation opportunities on the mesa above the pinnacles, and because it is a key component of the viewshed. Because of existing NPS recreation opportunities and presence in the area, impacts to NRA visitors would most likely be beneficial with the inclusion of the Dillon Pinnacles ACEC.

In Land Units C (Gunnison River COA), D (Iola Basin COA), and E (Sapinero/Blue Mesa COA) long-term minor to moderate beneficial impacts would be possible from the potential of a new trail corridor along the south side of the Gunnison River, and new trails and scenic overlooks of Blue Mesa Reservoir and dam from Sapinero Mesa. There would also be the potential for a new hiking and cross-country ski trail to new overlook points for the Curecanti Needle, Blue Creek Canyon and Chipeta Falls, as well as access for climbers for rock and ice climbing, from the south rim of

Morrow Point canyon, within easy access of US 50. Direct and indirect short-term minor to moderate adverse impacts are also possible due to trail construction activity that could affect scenic resources and visitor experience.

In Land Unit D (Iola Basin COA), direct and indirect long-term beneficial impacts would be possible if NPS acquired an interest in approximately 40 acres in the southern portion of this area, where hang gliding currently occurs. This would provide the opportunity for hang gliders that take off from Big Mesa to land on federal property, ensuring that access to landing areas is legal. This action would require that the NRA issue a special federal regulation, or transfer the land to BLM. At present, it is not legal to land on NRA managed land according to the federal code of regulations.

In Land Unit F (Gateview), the existing campground would be transferred from NPS management to BLM management. BLM has indicated that if they were to manage the campground, they may discontinue the chlorinated drinking water system, given its daily maintenance requirement, and have visitors haul in their own water from elsewhere, as is done at other BLM campgrounds in the area. This would result in a long term negligible to minor adverse impact for visitors to the site, especially those who might be expecting potable water to be available. In any case, advanced notification would be available regarding the availability of water, or lack thereof.

In Land Unit H (West-End), historic early season grazing would continue in the Long Gulch – Bear Trap Gulch area. However, more of the land that is grazed in this allotment would remain under USFS administration. The corridor managed by NPS for the Crystal Trail would be considerably narrower than in Alternative 1, and agreements would allow for the continued use of cattle migration that use the USFS allotment. Impacts on the NRA visitor's recreational experience would be the same as described under Alternative 1, negligible to minor long-term adverse.

Land uses such as development or other activities would likely be reduced on non-NRA land within the proposed lands if landowners willingly apply resource conservation tools and join in partnerships, resulting in potential expansion and enhancement of recreational opportunities for visitors and local users. This would result in direct and indirect long-term minor to moderate beneficial impacts to visitor enjoyment.

In general, with respect to the scenic resource and its resultant effect on visitor enjoyment, there is expected to be a long-term major beneficial impact on visitor enjoyment and appreciation of the NRA, and on the overall enjoyment of the area by all who drive through the NRA, and ride the waters of Blue Mesa Reservoir, through implementation of Alternative 2. This would result from the creation of a COA, and the authorization and ability of NPS to work in more meaningful partnerships with private landowners within the COA, through the use of tools for resource conservation, to reduce or eliminate adverse impacts on scenery and other recreational resources.

Fishing and Hunting. As in Alternative 1, fishing and hunting opportunities within the NRA would continue to occur on lands that are not in conflict with other recreational use or facilities. However, under Alternative 2, for Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), and E (Sapinero/Blue Mesa COA), possible acquired interests in adjacent private lands would provide opportunities to expand public access for fishing and hunting into more isolated and backcountry areas. This would result in long-term minor to moderate beneficial impacts to both visitors and local residents, due to the increased access and opportunity for these activities, and reduction of potential trespass impacts on private land.

Water-Based Recreation. Water-based recreational activities including swimming, water skiing, sailing, windsurfing and watercraft use would continue within the

NRA, similar to Alternative 1. There would be no direct impacts to visitors participating in such activities within the NRA.

Cumulative Impacts

Public land management activities and proposed planning outside of the COR, in combination with beneficial impacts of actions proposed in Alternative 2, would result in long-term minor to moderate beneficial cumulative impacts on land-based recreational opportunities. This would be due to the implementation of tools for resource conservation, and anticipated COA private landowner participation in conservation measures, which would result in types of land use and development or non-development that would be more compatible with NRA goals for expanded and enjoyable recreation.

Conclusion

Long-term negligible to moderate beneficial impacts to recreational opportunities and visitor enjoyment are expected to result from landowners' willing participation in partnerships with NPS, and the use of tools for resource conservation. Intensity of impacts would be dependent on location, level of landowner participation, and types of tools implemented. Benefits would be greatest in those areas within the COA with the greatest potential for enhancement of trail connections, trail access to new scenic overlooks and backpacking camping areas, cross-county skiing, access to climbing areas, connectivity for mountain biking, and access to legal hang-gliding landing areas. These areas include Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), and E (Sapinero/Blue Mesa COA). In any event, the extent of new recreational opportunities within the NRA would be ultimately determined by a new general management plan or implementation plan. As part of that planning process, the need and desire for such opportunities would be assessed through input from neighbors, NRA visitors, and the general public.

As in Alternative 1, there is a potential in Alternative 2 for long-term major adverse impacts on scenic resources, and the resultant long-term major adverse impact on visitor enjoyment and appreciation of the NRA and its surroundings due to incompatible development and land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations, within the COA. This is because the actions proposed in this alternative would be on a volunteer

INTERPRETATION AND EDUCATIONAL OPPORTUNITIES

Guiding Policies and Regulations

Current laws and policies require that certain desired conditions be achieved for interpretation and educational opportunities at Curecanti National Recreation Area. Refer to the following box for details.

DESIRED CONDITIONS FOR INTERPRETATION AND EDUCATIONAL OPPORTUNITIES	SOURCE
Visitors have opportunities to enjoy the NRA in ways that leave resources unimpaired for future generations.	<ul style="list-style-type: none"> - NPS Organic Act of 1916 - NPS <i>Management Policies 2006</i>
Every park will develop an interpretive and educational program that is grounded in (1) park resources, (2) themes related to the park's legislative history and significance, and (3) park and Servicewide mission goals.	<ul style="list-style-type: none"> - NPS <i>Management Policies 2006</i>
Provide for public use, understanding, and enjoyment.	<ul style="list-style-type: none"> - NRA Purpose

or willing basis on the part of the private sector. However, if the actions proposed in Alternative 2 are implemented, and the tools and concepts of partnership, cooperation, and conservation are truly enacted, then there would be long-term major beneficial impacts on the scenic resources. This would result in a long-term major beneficial impact on visitor enjoyment, experience, and appreciation of the NRA and its surroundings.

Methodology

This section analyzes the impacts of alternatives on interpretation and educational opportunities, including existing and/or potential scenic overlooks and visitor/interpretive facilities within the proposed lands. All available information on potential interpretive and educational opportunities was compiled. Where possible, NRA programs, websites, and map locations were consulted. Analyzed activities, including access for potential overlook sites and night sky viewing could occur on many land units within the proposed lands, irrespective of ownership or managing agency. The analyses of impacts include lands within the NRA and the proposed lands. Cumulative impacts include effects from the alternatives to lands outside of the proposed lands, as well as effects from unrelated actions to lands within the proposed lands. Impact intensities are as follows:

Negligible: Visitors would likely be unaware of any effects associated with implementation of

the alternative. There would be no noticeable change in interpretive/educational programs or material, or in any defined indicators of visitor satisfaction or behavior.

Minor: Changes in interpretive/educational experience would be slight but detectable, but would not appreciably limit or enhance critical characteristics of visitor understanding and appreciation of the NRA's resources and recreational opportunities. Visitor satisfaction would remain stable.

Moderate: Few critical characteristics of visitor understanding and appreciation would change and/or the number of participants engaging in an interpretive/educational activity would be altered. The visitor would be aware of the effects associated with implementation of the alternative and would likely be able to express an opinion about changes. Visitor satisfaction would begin to either decline or increase as a direct result of the effect.

Major: Multiple critical characteristics of visitor understanding and appreciation would change and/or the number of participants engaging in an interpretive/educational activity would be greatly reduced or increased. The visitor would be aware of the effects associated with implementation of the alternative and would likely express a strong opinion about the change. Visitor satisfaction would markedly decline or increase. The impact is severely adverse or exceptionally beneficial, and/or would affect the majority of visitors.

Short-term interpretive/educational impacts are immediate and do not occur over multiple visitor seasons. Long-term impacts persist beyond one year or visitor season.

Because this topic does not evaluate the potential impacts on natural or cultural resources contained within the NRA, impairment is not evaluated.

Impacts of Alternative 1 – No Action

Analysis

Within the NRA, interpretive services and educational programs would continue as currently managed. Land Units C (Gunnison River COA) and E (Sapinero/Blue Mesa COA) have moderate to very high development potential. These lands would be most susceptible to alteration of the landscape should these areas be developed, resulting in long-term negligible to minor adverse impacts related to continued unmet potential for interpretation of historic uses and some unique natural landscapes. These land units would provide potential opportunities to interpret new resource areas; however, this would not prevent the NRA from continuing interpretation of similar viewsheds and resource areas currently within the NRA.

Cumulative Impacts

Regionally, potential interpretive and educational opportunities would experience negligible to minor short- to long-term adverse impacts from the continuation or increase in land use development, such as residential development, that would potentially result in the loss of access to new trail segments and scenic overlooks to resource areas not covered within NRA lands. When combined with the impacts of Alternative 1, these land development activities would result in negligible to minor long-term cumulative adverse impacts.

Conclusion

Within the NRA, interpretive services and educational programs would continue as currently managed. Adjacent non-NRA land units (Land Units C [Gunnison River COA] and E [Sapinero/Blue Mesa COA]) would have long-term negligible to minor adverse impacts due to their moderate to high land development potential. The NRA would not be prevented from interpretation of similar viewsheds and resource areas currently within the NRA.

Impacts of Alternative 2 – Proposed Action

Analysis

Under Alternative 2, NPS would be congressionally authorized to partner with landowners within the COA for the purpose of interpretive and educational enhancement. This would increase potential for diverse appropriate resource based interpretive opportunities; especially additional land based activities such as new visitor facilities and interpretive overlooks. Alternative 2 would also provide connection to opportunities offered on surrounding lands in the proposed lands through participation by COA landowners in partnerships, including the potential for joint-agency visitor and interpretive facilities.

Impacts to interpretive resources are detailed below. Impact intensities would vary with level of participation by landowners in resource conservation activities and the types of tools implemented (technical assistance and agreements vs. conservation easements and acquisition). In addition, the potential for development based on ease of access, existing development in the area, and viewshed also factors into prediction of impact intensity. Resources within land units with highest potential for development would gain the most benefits from landowner use of resource conservation tools.

Within the NRA, interpretive services and educational programs would continue as currently managed. In Land Units A (CO 92 COA) and E (Sapinero/Blue Mesa COA), there would be the opportunity to offer interpretation of adjacent land areas and geologic formations from vantage points that are currently not accessible to visitors. This would include a potential close-up westward view of the Curecanti Needle from the south rim of Morrow Point canyon, with relatively easy trail access from U.S 50. This would be a long-term minor to moderate beneficial impact, offering increased interpretive opportunities to visitors and local users.

Land Units B (Blue Mesa Reservoir Agency) and C (Gunnison River COA) would provide

potential for interpretive opportunities associated with a long distance trail connection to Riverway and Gunnison, along with connections to other trail segments at Cooper Ranch and Neversink. These areas along the river also provide unique interpretive and educational opportunities for Americans with Disabilities Act (ADA) access, school programs, and Night Sky viewing, resulting in long-term moderate beneficial impacts. In addition, Land Unit B, which includes Forest Service and BLM lands from the existing NRA (north of Sapinero Basin) to the southern edge of the West Elk Wilderness Area, would be transferred to NPS. The management of this area by NPS would probably provide long-term negligible to minor benefits for interpretation and educational services to visitors, by drawing upon that agency's more established and comprehensive interpretive program in the Curecanti area.

In Land Unit E, the Blue Mesa area (Hunters Point) would provide the potential opportunity for a new visitor center facility with direct access for visitors from US 50. This would increase opportunities for development of a joint-agency managed facility, centrally located for linking agency lands, as well as the ability to draw more water and land-based visitors from the highway. This would result in a long-term moderate to major benefit to visitor understanding and appreciation of the resources and recreational potential in the overall Curecanti area, and to the ability of the various government agencies in the area to relay their messages to the public.

Cumulative Impacts

Cumulative impacts for interpretation and education would be similar to Alternative 1, except land development and federal land management activities and proposed planning outside of the proposed lands, in combination with decreased impacts of Alternative 2 would result in minor to moderate beneficial cumulative impacts. These benefits would be due to COA landowner and joint-agency participation in enhanced interpretive and educational opportunities, and would depend on the types of resource conservation tools implemented.

Conclusion

Beneficial impacts to interpretive and educational opportunities would result from landowners' use of resource conservation tools and partnerships as part of the COA. Benefits would be greatest in those areas with the potential for trail access to new scenic overlooks

SCENIC RESOURCES

Guiding Policies and Regulations

Current laws and policies require that certain desired conditions be achieved for scenic resources at Curecanti National Recreation Area. Refer to the following box for details.

DESIRED CONDITIONS FOR SCENIC RESOURCES	SOURCE
NPS will monitor land use proposals and changes to adjacent lands, and their potential impacts on NRA resources and values, engaging constructively with the broader community to encourage compatible adjacent land uses and appropriate mitigation.	- NPS <i>Management Policies 2006</i>
Conserve the scenery, natural, and cultural resources.	- NPS Organic Act of 1916 - NRA Purpose

including Land Units A (CO 92 COA) and E (Sapinero/Blue Mesa COA). This would also incorporate new or improved access to unique geologic formations such as the Curecanti Needle, resulting in long-term minor to moderate beneficial impacts. Land Units B (Blue Mesa Reservoir Agency) and C (Gunnison River COA) could provide interpretive opportunities associated with a potential long distance trail connection to Riverway and Gunnison, and opportunities for ADA access, school programs, and night sky viewing, resulting in long-term moderate beneficial impacts on understanding and appreciation.

Land Unit E (Sapinero/Blue Mesa COA) would provide opportunity for a potential joint-agency managed visitor center facility with direct access for visitors from US 50, resulting in a long-term moderate to major benefit for visitor understanding and appreciation of the area's resources.

Methodology

A computer-generated viewshed analysis (Digital Elevation Model) was created that illustrates what can be seen from US 50, CO 92, CO 149, and from the centerline of Blue Mesa Reservoir and its arms. The computer-generated analysis identified everything that can be seen in three layers defined as follows:

- Foreground (0 – 1/2 mile from the observer), where details such as plant types can be discerned, development is most apparent, and all changes are immediately perceived.
- Middle ground (1/2 – 3 miles), where different stands of trees (coniferous and deciduous) can be identified, development is noticed, and changes to forms are noticed.
- Background (3 miles and beyond), where ridgelines and horizon lines define the limit; and the visual impact of development is not as critical, except where the landscape is altered to such a magnitude as to disrupt the scene (for example, multi-home developments, and clear cutting of vegetation).

For the RPS, primarily the viewsheds up to 3 miles played a key role in the resource analysis.

Areas with exceptional scenic vistas and potential new overlook points were identified through site assessments performed by NPS staff and a Photo Assessment Workshop carried out by local resident volunteers. The Photo Assessment Workshop was conducted by 11 volunteer citizen photographers, who took nearly 300 photographs of scenic and other resources that were defined within seven categories of importance related to scenic views, conservation of critical resources, and other issues. Some of the key views that they identified are described in the Affected Environment. Potential impacts to these views identified by area residents were considered more adverse than other area views.

The following impact thresholds were established in order to measure the relative changes in scenic resources (overall, localized, short-term and long-term, cumulatively, beneficial and adverse) as a result of the alternative actions:

Negligible: An action that would introduce (adverse) or prevent (benefit) only the perception of some additional movement by cars or by people walking, on bicycles, or on horseback. The change to the viewshed would be so small or localized that it would have no measurable or perceptible consequence to the visitor's enjoyment of the view.

Minor: An action that would introduce or prevent perceptible human-made additions within the viewshed. These actions would include structures that affect a relatively small portion of the viewshed, either the foreground, middle ground, or background, and have barely perceptible visual consequences to the visitor's enjoyment of the view.

Moderate: An action that would either introduce or prevent perceptible human-made additions within the viewshed. These actions would include facilities, parking, and other human-made structures that would affect a moderate portion of the viewshed. This might include the foreground and middle ground, or the foreground and background. These actions

would not completely alter the viewshed, but would be a perceptible visual addition to the existing conditions.

Major: An action that would introduce or prevent multiple and drastic human-made additions that affect the entire or major part of the viewshed as seen by the visitor. These actions would include building architecture and site planning that does not "fit in" to the natural scene; and major facilities, such as high-density housing, high-rise buildings, utility towers, mining operations, and large parking areas, that would alter to a great extent the foreground, middle ground, and/or background of the existing viewshed.

Impacts are short-term when temporary in nature such as temporary construction or other human-made facilities that would be removed within a year of placement. Long-term impacts occur when permanent human-made additions or intrusions occur within the viewshed. Permanent change involves an intrusion that lasts for one or more years.

Impacts of Alternative 1 – No Action

Analysis

Scenic resources within the NRA and on other adjacent federal and state lands would continue to be protected through implementation of federal and state land management plans. Important scenic features, such as the Dillon Pinnacles, Curecanti Needle, areas adjacent to Blue Mesa Reservoir, Morrow Point Reservoir, and Crystal Reservoir, and other features have been identified and would remain protected, resulting in long-term, major, beneficial impacts to scenic resources on public lands. Private lands within the COA surrounding the NRA that remain in their current undeveloped condition would also continue to contribute to the existing high quality natural landscape surrounding the NRA.

However, there is an increasing probability that private lands within the COA would experience development and other land uses that are incompatible with the goals and objectives of the NRA. This could

result in long-term, major, adverse impacts to the scenic resource, depending upon factors such as decisions by landowners, county land use regulations, and population growth. The degree of impact would depend upon the type of development or land use; whether development remains localized within a few areas, or becomes increasingly widespread over time; and whether it occurs in the foreground, middle ground, and/or background of the viewer.

Land Units A (CO 92 COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA) containing features such as Sapinero Mesa, Blue Mesa, the canyon walls that rim Morrow Point and Crystal Reservoirs, the Curecanti Needle, Soap Mesa, and Willow Creek, would be more likely to be impacted by development in the near future. This is due to their accessibility from US 50, CO 92, and CO 149, and local roads such as Soap Creek Road; and to the existence of other development in the vicinity. Many of these areas have been identified by local residents as natural areas that represent important scenic resources in Montrose and Gunnison Counties. In many cases, the areas are representative of the spectacular geological setting that contributes to the NRA's national significance.

Sapinero Mesa, where lands have been subdivided, are for sale, and a cell tower has been proposed; and areas along US 50 such as Cimarron, Windy Point, and Hunters Point, that provide opportunities for easy access, are the most logical candidates for development in the foreseeable future. Sapinero Mesa and the US 50 corridor are seen from a variety of locations within the NRA. The development of these areas would adversely impact natural scenic resources from numerous locations within the NRA, such as the surface of Blue Mesa Reservoir, Sapinero and Dillon Pinnacles Overlooks, Soap Creek Road, Lake Fork Campground and Marina, and Elk Creek Campground. The CO 92 corridor, Fitzpatrick Mesa, and Soap Mesa are expected to experience increased development that would impact scenic resources from NRA locations such

as a variety of overlooks along CO 92, the US 50 corridor, Ponderosa Campground, McIntyre Gulch, and the surface of Blue Mesa Reservoir.

Private lands on the eastern end of the NRA where US 50 runs along the Gunnison River through riparian areas and a small canyon before opening up onto Iola Basin on Blue Mesa Reservoir, if developed, could also result in minor to major adverse impacts to scenic resources for NRA visitors, local residents, and others driving through the area. These lands are part of Land Units C (Gunnison River COA) and D (Iola Basin COA). Visitors recreating in this area at locations such as Coopers Ranch, Neversink, and Beaver Creek, and first entering the NRA on the east, would be potentially impacted by views of new development or incompatible land uses.

The southern portion of Spring Gulch, in Land Unit G (West-End COA), would be another concern if development occurred. Although the likelihood is low in the near future, because of its proximity to drives and overlooks within the National Park, development would likely result in a minor adverse impact.

In general, development and other types of land use, such as high-density housing, high-rise buildings, utility towers, and mining operations, on private property within the COA surrounding the NRA, could have a long-term, major, adverse impact on the scenic resources of the area. This is especially true in the lands surrounding Blue Mesa Reservoir, and the eastern stretches of Morrow Point Reservoir. County zoning regulations may mitigate the impacts somewhat. However, zoning in and of itself would not be as effective as other tools of resource conservation being recommended by this study.

Cumulative Impacts

Other past, present, and reasonably foreseeable conservation and planning activities occurring throughout the proposed lands and with Gunnison and Montrose Counties could result in a variety of impacts to local and regional scenic resources.

The Gunnison County Comprehensive Plan is expected to evaluate a wide range of factors in developing a strategy to deal with growth in the Curecanti area. Efforts from the Comprehensive Plan could result in long-term beneficial impacts on scenic resources adjacent to the NRA by considering such resources in the development and implementation of recommendations, including the possibility of establishing a Special Geographic Area to recognize the unique scenic attributes of the NRA.

Long-term management plans by agencies such as the U.S. Forest Service and BLM would continue to protect important scenic vistas, such as the West Elk Mountains and the San Juan Mountains, which are visible in the background from within the NRA. This would result in beneficial impacts. Local, state, and national conservation groups and land trusts could continue to work with landowners in the vicinity, to protect conservation values via purchase or donations of conservation easements or land. This would further conserve important resources, such as scenic vistas, and result in long-term benefits.

CDOT/FHWA highway modernization plans could influence development along the US 50 corridor, further affecting the highway corridor and its aesthetics. Such development could result in long-term, localized minor to moderate adverse impacts on the scenic resource.

The long-term major adverse impacts to scenic resources that could result from Alternative 1 from potential development and land use in the COA surrounding the NRA, when combined with the potential adverse and beneficial impacts of other regional planning and conservation efforts, could result in cumulative long-term minor to major adverse impacts. However, these cumulative impacts represent more of a regional perspective. Inevitably, there would be areas encouraged for development that could substantially adversely affect local scenic resources on a cumulative basis.

Conclusion

Scenic resources within the NRA and on other adjacent federal and state lands would continue to be conserved through federal and state land management activities. Important scenic features such as the Dillon Pinnacles and Curecanti Needle would be protected, resulting in long-term major beneficial impacts on scenic resources. Private lands within the COA that remain in their current undeveloped condition would also continue to contribute to the existing high quality natural landscape in the area.

However, private lands in the COA surrounding the NRA proposed for Alternative 2 would continue to be increasingly subject to future development and other land uses in Alternative 1 that might be incompatible with NRA goals and objectives. This could result in long-term major adverse impacts to the scenic resource, depending upon factors such as decisions by landowners, county land use regulations, and population growth. The degree of impact would depend upon type of development and land use; whether development remains localized within a few areas, or becomes increasingly widespread over time; and whether it would occur in the foreground, middle ground, and/or background of the viewer.

Future development and other types of land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations on private lands in the COA could result in a long-term major adverse impact on the spectacular geological and natural landscape setting, which can be seen from the NRA, and which has been determined to be a key resource for visitor enjoyment of the NRA.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other

relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

Impacts of Alternative 2 – Proposed Action

Analysis

As in Alternative 1, scenic resources within the NRA and on other adjacent federal and state lands would continue to be protected through implementation of federal and state land management plans. Thus impacts to scenic resources on public lands would be the same in Alternatives 1 and 2.

On private lands within the COA, the availability of resource conservation tools to private landowners, and increased congressionally authorized efforts on the part of the National Park Service to conserve viewsheds and scenic features in partnership with neighbors, would help maintain existing scenic resources. Should landowners implement tools such as conservation easements or fee simple acquisition, long-term minor to major beneficial impacts could occur, depending upon the degree of development or conservation. However, the availability of such tools would increase the likelihood that some or all of the scenic resources within the COA would be conserved.

Some of the more important scenic areas and those more vulnerable to development are located in Land Units A (CO 92 COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). These areas have been identified in Alternative 1, and include areas such as Sapinero Mesa, Soap Mesa, Blue Mesa, and Cimarron.

As noted in Alternative 1, there is a high probability that Sapinero Mesa could be developed within the next 5 years, as it is currently being marketed. It is in the heart of one of the most scenic and visible areas of the NRA --- Sapinero Basin on Blue Mesa Reservoir. It can be seen from US 50, from the NRA lands on the northern side of Blue Mesa Reservoir, from the surface of the

reservoir, from Soap Creek Road, from a number of overlooks within the NRA, and from potential overlooks within the COA. Should a conservation easement or acquisition for conservation purposes be applied to this area, a long-term moderate to major beneficial impact would be achieved. Conservation of areas such as the Sapinero parcel is important to maintaining a high degree of visitor enjoyment.

Another area that would benefit from conservation is Land Unit C (Gunnison River COA) on the eastern edge of the NRA. This area borders the Gunnison River and US 50 and contributes to the initial NRA entry experience for visitors and residents alike. The cottonwoods, meandering river, and local agrarian scene, if conserved, would continue to provide a long-term moderate to major beneficial impact to the scenic resource for NRA visitors, local residents, and all others who drive along US 50. Another important riparian area is along Willow Creek in Land Unit D (Iola Basin COA). If conserved, it could benefit the scenic resources along the CO 149 corridor leading into the NRA from the south.

During the course of the RPS, a variety of potential overlooks were identified within the COA that would provide spectacular views of the NRA, and other area resources and scenic features. These potential overlooks would be located in the following land units:

- Land Unit A, along CO 92, where visitors could view Crystal and Morrow Point Reservoirs
- Land Unit A, on top of Soap Mesa, where visitors could view Blue Mesa Reservoir and its environs, and the Uncompahgre Plateau to the south
- Land Unit E, on top of Sapinero Mesa, that would provide views of Blue Mesa Reservoir and its environs, Soap Mesa, the West Elk Mountains, the Sawatch Range, and the Continental Divide
- Land Unit E, near Windy Point, where visitors could view the Curecanti Needle from a location in relatively

close proximity to US 50, the primary transportation corridor.

If landowners were willing, and some form of easement or fee simple acquisition could be established, the opportunity to provide spectacular overlooks offering new perspectives would result in long-term moderate to major beneficial impacts to visitor enjoyment and appreciation of the NRA and its surroundings. If the areas are not conserved and/or acquired, the opportunity would be lost.

In general, there is expected to be a long-term major beneficial impact on scenic resources through implementation of Alternative 2. This would result from the creation of a COA and the authorization and ability of the National Park Service to work in more meaningful partnerships with private landowners within the COA; increased cooperation between NPS and its neighbors; and the implementation of the tools for resource conservation.

Cumulative Impacts

Cumulative impacts related to the actions in Alternative 2 would be more beneficial than Alternative 1. Many local and regional planning and conservation activities would continue to result in long-term, minor to major beneficial impacts to local and regional scenic resources. Without cooperation of private landowners in the COA, the overall cumulative impact of Alternative 2 could be adverse, as in Alternative 1. However, with the cooperation of private landowners, these regional scenic impacts, when combined with the potentially beneficial impacts associated with the resource conservation tools suggested in Alternative 2, could result in long-term, major, beneficial, cumulative impacts. The overall impact of these combined efforts of federal, state, and local agencies, as well as private landowners that conserve the scenic resources on their land, would be beneficial and widespread.

Conclusion

Some of the more important scenic areas, and those more prone to be adversely impacted

by potential development, are located on private property in Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA), and G (West-End COA). Conservation of these areas would be beneficial to both local and NRA-wide viewsheds and individual scenic features, for visitors and residents alike. The availability of resource conservation tools to private landowners, and congressionally authorized increased efforts on the part of the National Park Service to work in partnership with private landowners to conserve viewsheds and scenic resources within the COA, would help maintain existing scenic resources. The degree to which viewsheds and individual scenic features on private lands within the COA would be conserved is highly dependent upon the willingness and cooperation of landowners. Should landowners implement resource conservation tools such as conservation easements or fee simple acquisition, long-term major beneficial impacts to the scenic resources would occur.

As in Alternative 1, there is a potential in Alternative 2 for adverse impacts on scenic resources, due to certain types of development and land use, such as high-density housing, high-rise buildings, large parking areas, utility towers, and mining operations within the COA surrounding the NRA. This would occur if private landowners choose not to take advantage of the tools for resource conservation that are available, and if they choose to develop, or otherwise use their lands for purposes that are incompatible with NRA goals and objectives. This is because the actions proposed in Alternative 2 would be on a volunteer or willing basis on the part of the private sector. However, if the actions proposed in Alternative 2 are implemented, and the tools and concepts of partnership, cooperation, and conservation are truly enacted on behalf of both NPS and private landowners, then the spectacular natural open scenery in the area could be conserved, and perhaps enhanced. This would result in long-term major beneficial impacts on the scenic resource, the preservation of which is essential to the enjoyment of the NRA by visitors and residents alike.

Because there would be no major, adverse impacts to a resource or value contained within the NRA, whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation for Curecanti NRA; (2) key to the natural or cultural integrity of the NRA, or to opportunities for enjoyment of the NRA; or (3) identified as a goal in the NRA's general management plan or other relevant NPS planning documents, as a result of activities undertaken by NPS, visitors, or concessioners, contractors, or others operating within the NRA, there would be no impairment of the NRA's resources or values.

REGIONAL ECONOMIC AND SOCIAL CHARACTERISTICS

ECONOMICS

Guiding Policies and Regulations

Current laws and policies require that certain desired conditions be achieved related to economics at Curecanti National Recreation Area. Refer to the following box for details.

Methodology

The potential impact to economic and social characteristics of the towns and counties of Gunnison and Montrose were considered in this analysis. Concerns covered by this section include effects on local economic conditions such as employment, county revenues, and quality of life. Because of the range of potential actions in the RPS, most of which are dependent on individual landowner desires, a qualitative approach was undertaken. Impacts were determined via discussions with county officials during agency workshops and through research on the potential effects of preservation of open space, and resource conservation mechanisms, such as conservation easements, on the local economy of rural mountain communities.

The area of analysis is within the counties of Gunnison and Montrose. Slightly more emphasis is placed on Gunnison County because most of the NRA and surrounding proposed lands occurs within Gunnison County.

Impact thresholds that measure the change in social and economic conditions within the counties as a result of each alternative are as follows.

DESIRED CONDITIONS FOR ECONOMICS	SOURCE
Curecanti National Recreation Area is managed as part of a greater ecological, social, economic, and cultural system.	- NPS <i>Management Policies 2006</i>
The National Park Service works cooperatively with others to anticipate, avoid, and resolve potential conflicts; to conserve NRA resources; and address mutual interests in the quality of life for community residents. Regional cooperation involves federal, state, and local agencies, affiliated tribes, neighboring landowners, and all other concerned parties.	- NPS <i>Management Policies 2006</i>
Curecanti National Recreation Area increases its managerial resources through initiatives and support from other agencies, organizations, and individuals.	- NRA Mission Goal

Negligible: Effects to socioeconomic conditions would be below or at the level of detection. No noticeable change in any defined socioeconomic indicators would occur.

Minor: Effects to socioeconomic conditions would be slight but somewhat noticeable or detectable by county/city government or residents.

Moderate: Effects to socioeconomic conditions would be readily apparent by county/city government and residents and result in changes to socioeconomic conditions on a local scale.

Major: Effects to socioeconomic conditions would be readily apparent by county/city governments and residents, resulting in demonstrable changes to socioeconomic conditions in the region.

Short-term effects would be less than one year in duration – for example, occurring during one tourist season. Long-term effects would be more than one year in duration.

Because this topic evaluates the potential impact to social and economic conditions within the counties and does not involve resources within the NRA, impairment is not evaluated.

Impacts of Alternative 1 – No Action

Analysis

In Alternative 1, it is assumed for purposes of analysis that existing private lands remain in their current condition or are developed. Because funding and authorization would not be available through NPS for implementation of resource conservation tools, conservation on private property in the COA surrounding the NRA (as described for Alternative 2) is expected to be minimal.

Economic Conditions. Existing economic conditions and trends would most likely continue assuming private lands remained in their current state. Employment in existing industrial sectors such as Wholesale/Retail and Services would continue to be major contributors to regional economic health. The portion of total personal income attributable

to non-labor income would remain at 30 to 40%, or potentially increase based on past trends. Negligible beneficial impacts would result because employees, businesses, and county governments are already achieving these economic conditions.

In contrast, if lands were developed by private landowners in areas such as Sapinero and Blue Mesa, some new stimulus could be provided within sectors such as Wholesale/Retail, Services, and Construction through expenditures and employment associated with construction-related activity and new residents. Over the next 5 to 10 years, this stimulus would be limited, resulting in short-term minor to long-term negligible beneficial impacts within the local Gunnison economy.

Such development could also provide additional opportunities for those individuals with non-labor income such as retirees to purchase a home or business resulting in some additional beneficial impacts.

NRA Contribution to Regional Economy.

The NRA would continue to beneficially impact the local economy through visitor expenditures, as well as through expenditures related to NRA operations and employees living within the community. Visitation could be adversely impacted if private lands identified within the proposed lands were developed and began to affect the values that visitors relied upon for a positive visitor experience, such as high-quality scenic vistas. Depending upon the degree of development that occurred in the near future, the long-term adverse impact could be negligible to minor over the life of this plan, but could be substantially greater if development trends continued into the future.

Payments In Lieu of Taxes (PILT) and Other Impacts to Regional Revenues. NPS would acquire no private lands through fee simple acquisition in the proposed lands, resulting in no impact to PILT payments. PILT payments would be dependent upon congressional funding of the program, but would most likely remain at current levels or increase slightly each year depending upon the Consumer Price Index and other factors.

County revenues could increase if existing private lands that are currently subdivided and for sale were purchased and developed in the near future. Such purchases would result in additional property taxes to the county and would be dependent upon the assessed value of the land. Residential or commercial development of lands within areas such as Land Unit E, containing Sapinero Mesa, US 50, Hunters Point and Windy Point, would most likely result in long-term negligible to minor beneficial impacts to county revenues, depending upon the amount of development. Offsetting some of the beneficial gains in property taxes could be increased costs related to county infrastructure, such as water, utilities, road maintenance, and schools.

Quality of Life. Quality of life would be maintained if private lands within the proposed lands remained within their current condition. However, if lands were subdivided and some development ensued in the near future, values related to natural vistas and open space that Gunnison County residents identified as important could begin to erode resulting in long-term, negligible to minor adverse impacts on residents. These could substantially increase if development trends continue into the future.

Cumulative Impacts

Other past, present, and reasonably foreseeable planning and resource conservation activities occurring throughout the proposed lands and with Gunnison and Montrose Counties could result in a variety of economic impacts. The Gunnison County Comprehensive Plan could result in long-term minor to moderate beneficial impacts on the regional economy by limiting development to areas that would not impact regional environmental and scenic resources.

Local, state, and national conservation groups and land trusts could continue to acquire conservation easements or private lands within Gunnison and Montrose Counties, further conserving important resource values such as wildlife habitat, and preserving quality of life attributes, but also adversely impacting county revenues. Similarly, future acquisitions

of private lands by other agencies such as USFS and BLM could decrease regional revenue from property taxes. These activities could result in long-term negligible to minor adverse impacts on county revenues and long-term minor beneficial impacts on quality of life.

CDOT/FHWA highway modernization plans could further encourage development along the US 50 corridor, encouraging local economic development. These plans could result in long-term negligible to minor beneficial economic impacts.

The long-term impacts, both beneficial and adverse, that would result from Alternative 1 when combined with the economic impacts of other planning and conservation efforts such as the Gunnison County Comprehensive Plan and other land preservation activities would result in negligible to minor beneficial cumulative impacts in the long-term. Many of the potential cumulative adverse impacts to the regional tax base would most likely be offset by the beneficial cumulative impacts associated with increased visitation and visitor spending and enhanced quality of life for area residents.

Conclusion

Economic conditions within the county would remain unchanged assuming private lands within the proposed lands remained in existing conditions and all other factors such as NRA visitation, visitor expenditures, and payments-in-lieu-of-taxes (PILT) remained at current levels.

If private lands were developed, expenditures and employment associated with construction-related activity and new residents could result in short-term minor to long-term negligible beneficial impacts within the local economy. Increased development would also result in long-term negligible to minor beneficial impacts to county revenues through increased property taxes, although associated infrastructure costs could offset some of this benefit.

Conversely, development that eroded scenic or other key resource values could create long-term negligible to minor adverse impacts to

visitation in the NRA and to the quality of life currently enjoyed by area residents. Overall, the long-term beneficial impacts associated with localized development could be offset or exceeded by the adverse impacts that could result from increased development in sensitive resource areas.

Impacts of Alternative 2 – Proposed Action

Analysis

Economic Conditions. The predominant two industries in both Gunnison and Montrose Counties are wholesale/retail, and services, with approximately 50% to 55% of employees in both counties working in these sectors. Growth in these industries over the past several decades, particularly in Gunnison County, has been largely associated with increasing recreation and tourism (Wilderness Society 1999). The Government and Construction sectors are also important with a combined total of approximately 20% of employees. Thus, services to visitors are an important part of the economy, as are jobs associated with federal land management agencies.

Retirees and households with investment income (non-income labor) account for approximately 30% to 40% of total personal income within the Gunnison and Montrose Counties and have contributed to substantial income growth (greater than 25%) in both counties since 1970. In contrast, extractive industries such as Agricultural Services, Forestry, Fishing and Other only accounted for approximately 0.4% and 1.1% of new total personal income over the same period. Self-employed individuals also grew by 292% and 150% between 1970 and 1997 in Gunnison and Montrose Counties, respectively, and represented approximately 25% of total jobs in 1997 (Wilderness Society 1999). For retirees, households with investment income, and the self-employed, the choice of a community is based on quality of life indicators such as scenic resources and recreational amenities. There are some areas in the private sector along the US 50 corridor through the NRA that are outside the COA, such as near the Lake Fork bridge, where

sensitive development that could provide an economic stimulus would also be compatible with the NRA's goals and objectives of resource conservation.

As indicated in the “Scenic Resources” section of the Affected Environment chapter, the National Park Service determined via a visitor survey conducted at the NRA in the summer of 1998, that visitors consider scenic resources to be very important to their sense of enjoyment of the NRA. Research also indicates that communities near natural areas receive positive economic effects as a result of their proximity to the environmental attributes that areas, such as the Curecanti area, contain. A study of 113 rural counties in the western United States discovered that the presence of natural areas was positively correlated with growth in population, income, and employment. From 1969 to 1996, positive and significant correlation was discovered among employment, per capita income, and population growth rates and the percentage of land designated as wilderness. When the land designation was expanded to include designated wilderness, national parks and monuments, and wilderness study areas, the correlation between amenities and measures of growth was even stronger (Loomis and Richardson 2002).

Based on the previous evidence, the preservation of natural, cultural, recreational, and scenic resources through implementation of conservation tools would most likely contribute to maintaining or increasing regional economic health from sustaining or encouraging further growth in Retail and Service industries and in non-labor income in both counties. Improving regional economic conditions would result in long-term minor to moderate beneficial impacts to the local economy, depending upon the degree of resource conservation.

NRA Contribution to Regional Economy. NRA-induced factors that affect the local economy include visitor numbers, visitor spending, and employee and operational expenditures. The potential for conservation of key resource values in areas surrounding

the NRA could maintain existing levels or encourage additional visitation by providing new recreational opportunities and maintaining the relatively untouched and undeveloped appearance of the Curecanti area in comparison to other national and state parks and recreation areas. Increased visitation would result in additional spending within the local economy that would range between \$36.74 per day for a local day user, to \$172.48 per day for visiting parties staying in a motel outside the NRA. This would increase sales and tax revenues, as well as jobs, within the counties. Additional visitor spending would result in long-term negligible to minor beneficial impacts on the regional economy.

Under Alternative 2, hunting and fishing would continue within the NRA, and the number of acres supporting public hunting could potentially expand. Beneficial impacts associated with conservation of fish and wildlife habitat are substantial. CDOW estimates that non-resident hunters and anglers contribute 30% of all hunting and fishing activity days in Colorado. In 2002, all hunters and anglers spent \$23 million in Gunnison County, and created another \$17.6 million in secondary spending. Total economic contribution in Gunnison County supported about 540 jobs. In Montrose County, the figures were \$13.4 million and \$10.2 million, respectively, with 310 jobs supported (Colorado Division of Wildlife 2004). The addition of an employee to the NPS staff to implement and sustain the Proposed Action's recommendations would provide an additional salary of approximately \$80,000 per year, resulting in some increased local spending. A second additional full time equivalent employee (FTE) would eventually be needed for resource and visitor management and protection, interpretation, construction and maintenance, and administration associated with newly acquired interests in land. This translates to a salary of approximately \$80,000 per year, resulting in additional local spending. This would provide stimulus within the local economy, resulting in long-term negligible to minor beneficial impacts.

Payments In Lieu of Taxes and Other Impacts to Regional Revenues. The degree

of impact upon county revenues from the implementation of the resource conservation program of Alternative 2 would depend upon the number of acres that were conserved by each type of tool. The two tools with the greatest potential for adverse impacts on revenues are fee simple acquisition and conservation easements. They are the focus of discussion within this section. A more definitive assessment of the impacts on county revenues will be made at the time a land protection plan is prepared.

Fee Simple Acquisition – There would be a loss of revenue related to property taxes on lands purchased by NPS within the authorized COA. This loss of revenue would be partially mitigated by an increased “Payments in Lieu of Taxes (PILT)” from the federal government to the counties involved. When the government acquires a fee interest in land, two payments are made to the county that received the tax payments while the land was in private ownership to compensate for the loss:

- One (1) % of the fair market value of the property acquired, but not greater than the previous year's real estate tax payment. This payment continues for the first five years; and,
- An entitlement payment that was based on \$1.99 per acre of eligible land in 2002. This payment is made indefinitely from the time the title is transferred to the government. The figure can change from year to year, as it is adjusted for inflationary changes in the Consumer Price Index (NPS 2002c).

Research on the effects of federal land acquisition and PILT payments on the regional economy indicates a variety of outcomes. Some researchers indicate that the impact of federal land ownership on the local tax base is a complicated issue that requires the evaluation of multiple factors. No universal conclusions may be drawn because of these factors (Bodine and Koontz 2003). Other researchers indicate that, because of the way PILT payments are calculated, a county's PILT payment would not necessarily increase if federal land ownership within a county

also increases. Counties with low population densities and large acreages of federally owned land may not realize increases in PILT, particularly if they are already at the payment ceiling (Espy and Owusu-Edusei 2002).

Because PILT payments may not fully compensate for the lost property tax revenue, long-term, negligible to moderate adverse impacts to the regional economy could occur. However, property tax revenue losses could be offset over time by an increase in tourism associated with expansion of the NRA (Espy and Owusu-Edusei 2002; Seidl and Weiler 2001) and decreased infrastructure costs (TPL 1999). Open space typically generates more local tax revenue than the cost of public services it requires. Residential development requires services, such as water, sewer, schools, and other types of infrastructure that is not required with preserved public lands.

Those landowners receiving payments for their properties would provide some stimulus within the local economy through additional purchases resulting in some additional short-term beneficial impacts.

Conservation Easements – Most conservation easements conserve open space and protect land from development and from activities that may damage important resource attributes such as wildlife habitat, riparian areas, and scenic values. The degree to which a conservation easement affects property taxes is variable and depends upon the classification of the land and the restrictions that are imposed through the conservation easement. If a property is valued as agricultural land, it would continue to be valued as agricultural upon creation of a conservation easement. For a conservation easement on vacant land, the assessor's office closely examines the restrictions placed on the property before determining the value. Generally, a conservation easement that allows limited development on a small parcel may not noticeably reduce the taxable value of the land. However, a conservation easement that prohibits any development on a parcel that would otherwise be highly developable may substantially reduce the assessed value (TPL 1999).

Conservation easements within the proposed lands would most likely have a long-term negligible to minor adverse impact on regional revenues, because much of the private property, particularly on the north side in Land Units A (CO 92 COA) and G (West-End COA), is agricultural or vacant. Conservation easements would potentially have less of an effect on these types of properties. More developable areas, such as Sapinero Mesa, could add conservation easements to preserve important resource or scenic areas, while permitting development that is compatible with NRA goals and objectives in areas that are unobtrusive, allowing the county to continue to receive some tax revenues.

Quality of Life. The preservation of important resource values through resource conservation tools would continue to support the quality of life important to many of the residents within the two counties, particularly Gunnison, resulting in long-term negligible to moderate benefits depending upon the areas and acres conserved. Ecosystem service values - those things provided by nature that man would otherwise need to provide for himself- such as air and water filtration, climate regulation, maintenance of biodiversity, scenic beauty, and other benefits would also continue to be maintained and increased, resulting in further long-term benefits (Wilderness Society 2002).

In contrast, some residents could be concerned that increasing conservation activities could attract too many people and change the rural character of the counties. Increasing local population could result in some long-term minor adverse impacts that could slowly change the character of the two counties. However, comprehensive planning activities being undertaken by Gunnison County might minimize or control some of these potential effects.

Cumulative Impacts

Cumulative impacts would generally be the same as Alternative 1, except the actions of Alternative 2 in combination with other planning and land conservation activities would result in minor to moderate beneficial cumulative impacts in the long-term. The

combination of resource conservation efforts in Alternative 2 with other area conservation efforts, such as work done by land trusts and conservation agencies, would result in greater cumulative conservation of key resource values, and associated economic benefits.

Conclusion

The implementation of resource conservation tools would most likely maintain or improve regional economic health by encouraging growth in the retail and service industries, in non-labor total personal income, and in visitor spending resulting in long-term minor to moderate beneficial impacts. If land is acquired, or conserved via conservation easements, long-term negligible to moderate adverse impacts to county revenues could occur, depending upon the conservation method and the land

classification of the property. Any losses in tax revenue could be offset by the spending of long-term residents, and by the decreased need for provision of infrastructure associated with preserved open space.

PRIVATE LAND USE WITHIN THE NATIONAL RECREATION AREA

Guiding Policies and Regulations

Current laws and policies encourage NPS to work cooperatively with owners of oil, gas, and/or other mineral rights within the NRA in order to help achieve desired conditions related to private land use within the NRA boundary. Refer to the following box for details.

DESIRED CONDITIONS FOR PRIVATE LAND USE WITHIN THE NRA	SOURCE
Requests from owners to extract oil, gas, and/or mineral rights are reviewed and permitted according to requirements specified in warranty or other legal deeds, such as the requirement that such activity not interfere with the construction, operation and maintenance of Reclamation works.	<ul style="list-style-type: none"> - Reclamation law, as supplemented and amended - Legal documents, such as warranty deeds and mineral leases, authorizing the right to extract oil, gas, and/or minerals.
Requests from owners to extract oil, gas, and/or mineral rights are reviewed, and permitted or denied, according to law and NPS policy. If denied, and if the owner is willing, NPS will seek to acquire the mineral interest. If permitted, NPS will require such measures as will mitigate impacts to NRA resources.	<ul style="list-style-type: none"> - <i>NPS Management Policies 2006</i> - 36 CFR Part 9, Subpart B (for nonfederal oil and gas) - 36 CFR Part 5 and 36 CFR 1.6 (for other nonfederal mineral interests)
Good relations are maintained with owners of oil, gas, and/or other mineral rights within the NRA. The NRA is managed proactively to resolve external issues and concerns and to ensure that NRA values are not compromised.	<ul style="list-style-type: none"> - <i>NPS Management Policies 2006</i>
The National Park Service works cooperatively with others to anticipate, avoid, and resolve potential conflicts; to conserve NRA resources; and address mutual interests in the quality of life for community residents.	<ul style="list-style-type: none"> - <i>NPS Management Policies 2006</i>

Methodology

This section analyzes the impacts of the alternatives on owners of oil, gas, and/or other mineral rights within the NRA. All of the surface lands and waters within the NRA are owned by the federal government. However, throughout the NRA, there exist retained oil, gas, and/or other sub-surface mineral rights on land that has been acquired by the government. This situation, where one party owns the surface of the land and another party owns the subsurface minerals is known as a “split estate.” All available information on land that has mineral rights held by a party other than the federal government within the NRA was collected.

Actions described in both Alternatives 1 and 2 relate primarily to lands, both private and public, outside the existing NRA, rather than to lands within the NRA. Therefore, neither alternative would have very much impact on owners of mineral rights within the NRA. However, any such impact would be measured by the following thresholds.

Negligible: The impact is barely detectable and would affect few private owners of mineral rights.

Minor: The impact is slight, but detectable, and would affect a minority of private owners of mineral rights.

Moderate: The impact is readily apparent and would affect many private owners of mineral rights.

Major: The impact is severely adverse or exceptionally beneficial and would affect the majority of private owners of mineral rights.

Short-term effects would be less than one year in duration. Long-term effects would be more than one year in duration.

Because this topic evaluates the potential impact to owners of mineral rights, and does not assess impacts on resources within the NRA, impairment is not evaluated.

Impacts of Alternative 1 – No Action

Analysis

Of the roughly 60 mineral interests reserved within the boundaries of the NRA, only one is in operation. The Dickerson Pit is a privately owned mineral materials site that has existed since 1927. The current operator of the site, Gunnison Gravel and Earthmoving, mines and removes decomposed granite and related materials from an area west of US 50, the primary access road through the NRA, east of Blue Mesa Reservoir along the Gunnison River. A Plan of Operations, with an accompanying environmental assessment, was complete by the NRA resulting in the issuance of a special use permit allowing an expansion of the site to a maximum 33.16 acres, subject to the exclusion of a portion of the area that contains significant cultural resources.

In the event that owners of any of the other interests reserved areas choose to conduct mineral development within the NRA, they would do so in conformance with applicable laws and guidelines.

Under Alternative 1, there would be no change to existing land use policy and guidelines regarding reserved mineral rights. NPS would continue to work cooperatively with owners of such rights through a permitting process to allow the owner to exercise those rights while minimizing adverse impacts on NRA resources or visitor enjoyment. Therefore, there would be no impact on people or groups holding mineral rights within the NRA.

Cumulative Impacts

Over the present and reasonably foreseeable future there are no known projects that would affect the opportunity for owners of mineral rights on acquired land within the NRA. Long-term NRA activities, combined with regional activities, would result in long-term negligible minor impacts to owners of mineral rights.

Conclusion

Because private owners of oil, gas, and/or other mineral rights on government-acquired lands would be able to continue to exercise

their rights as provided for under law and policy, there would be no adverse impacts to the control they have over their mineral rights.

Impacts of Alternative 2 – Proposed Action

Analysis

In Alternative 2, the analysis of the situation regarding owners of mineral rights within the NRA is the same as for Alternative 1. As with Alternative 1, there would be no change to existing land use policy and guidelines regarding reserved mineral rights under Alternative 2. NPS would continue to work cooperatively with owners of such rights through a permitting process to allow the owner to exercise those rights while minimizing adverse impacts on NRA resources or visitor enjoyment. However, under Alternative 2, there would be more programmatic funding and authorization to pursue greater incentives for resource conservation that might provide a greater opportunity for financial benefit to the owner of the mineral rights, while more closely meeting NPS resource conservation goals and objectives. Thus, Alternative 2 could provide a minor long term beneficial impact for the owner of the mineral rights.

Cumulative Impacts

Cumulative impacts to owners of mineral rights within the NRA would be similar to those described in Alternative 1. However, due to greater potential for the availability of resource conservation incentives in working with NPS under Alternative 2, cumulative impacts have the potential to be more beneficial to the owner of those rights than under Alternative 1.

Conclusion

As with Alternative 1, because owners of oil, gas, and/or other mineral rights on acquired lands would be able to continue to exercise their rights as provided for under law and policy, there would be no adverse impacts to the control they have over their mineral rights. However, with the potential for NPS to provide more resource conservation incentives under Alternative 2, it would be more beneficial to the owner of mineral rights than Alternative 1.

NEIGHBORING PRIVATE LANDS AND LANDOWNERS WITHIN THE PROPOSED LANDS

Guiding Policies and Regulations

Current laws and policies encourage NPS to work cooperatively with neighbors and local governments in order to help achieve desired conditions and identify mutual interests. Refer to the following box for details.

of action despite which RPS alternative is implemented. Thus, this analysis focuses on some of the perceived or subjective effects that landowners identified during the landowner workshops and that were identified by the National Park Service during agency and public workshops. It also addresses potential changes to land use patterns and property values, should landowners make decisions to develop or conserve properties. Another aspect evaluated was the potential resolution of issues related to private encroachment onto

DESIRED CONDITIONS FOR NEIGHBORING PRIVATE LANDS AND LANDOWNERS WITHIN THE PROPOSED LANDS	SOURCE
Good relations are maintained with adjacent landowners, surrounding communities, and private and public groups that affect, and are affected by, Curecanti National Recreation Area. The NRA is managed proactively to resolve external issues and concerns and to ensure that NRA values are not compromised.	- NPS <i>Management Policies 2006</i>
The National Park Service works cooperatively with others to anticipate, avoid, and resolve potential conflicts; to conserve NRA resources; and, address mutual interests in the quality of life for community residents. Regional cooperation involves federal, state, and local agencies, affiliated tribes, neighboring landowners, and all other concerned parties.	- NPS <i>Management Policies 2006</i>
Curecanti National Recreation Area increases its managerial resources through initiatives and support from other agencies, organizations, and individuals.	- NRA Mission Goal

Methodology

Concerns identified by private landowners within the proposed lands were considered in this analysis. Potential effects on private landowners in both alternatives would be the direct result of individual landowner decisions to accomplish one of the following scenarios: (1) maintain their property in its existing condition; (2) conserve resource attributes through a method available from a private conservation organization or an agency, such as the National Park Service; or (3) develop all, or portions of, their property subject to county land use regulations. Essentially, landowners have the freedom to choose their own course

government land, most commonly caused by inadvertent actions or an incorrect survey.

Impact thresholds that measure the intensity of impacts on owners of private land within the COA from actions in the two alternatives are as follows:

Negligible: The impact is barely detectable and would affect few private landowners and/or other non-governmental neighbors.

Minor: The impact is slight, but detectable, and would affect a minority of private landowners and/or other non-governmental neighbors.

Moderate: The impact is readily apparent and would affect many private landowners or other non-governmental neighbors.

Major: The impact is severely adverse or exceptionally beneficial and would affect the majority of private landowners and/or other non-governmental neighbors.

Short-term effects would be less than one year in duration. Long-term effects would be more than one year in duration.

Because this topic evaluates the potential impact to landowners and does not involve resources within the NRA, impairment is not evaluated.

Impacts of Alternative 1 – No Action

Analysis

In this alternative, the private lands within the proposed lands would not be identified as a COA, and the ability of NPS to work with landowners to conserve important resource attributes would consist only of limited technical assistance. Private lands within the proposed lands would most likely remain in their current condition, unless a landowner chose to develop the property or pursue a conservation easement with a private organization. Because landowners would continue to have the freedom to manage their properties, within the limits of Gunnison and Montrose County land use regulations, there would be no impact to private property owners from the NRA.

The ability of the National Park Service to assist landowners in preserving important resources would be limited, as the NRA would have no available funding to purchase conservation easements or pursue fee simple acquisition, and would have limited funds to partner on projects with adjacent landowners. NPS would have to make requests to Congress to acquire easements or lands, and to make additions to the NRA on a case-by-case basis. This process would result in long-term moderate to major adverse impacts to landowners who were interested in pursuing

some form of land conservation with the National Park Service.

Some changes in land use and property values within the proposed lands would most likely occur over the next 5 to 10 years as some lands are sold, subdivided, and developed. Areas most likely to face increasing pressure from residential and/or commercial development include areas along US 50, such as Sapinero Mesa, Hunters Point, Windy Point, and Cimarron (Land Units E and G) because of easy accessibility, existing development in the area, and potential landowner interest in selling their property. Although property values may increase, there is no assurance of that, as other factors can affect property values (consider the oil shale bust of the 1980's, for example). As noted in the Affected Environment, the assessed value of properties in mountain communities such as Gunnison County has increased annually. These changes in land use and property values could be either adverse or beneficial to landowners depending upon the preferences of each landowner and the location of the property.

Under Alternative 1, there would be no change to existing grazing allotments. Therefore, there would be no impact on people who hold grazing permits.

Under Alternative 1, NPS would rely on the authorities and the assistance of Reclamation to correct boundary issues, such as those where encroachment exists or where problems have been caused by previous inaccurate or incorrect surveys. Also, in conjunction with Reclamation, NPS would seek to acquire, preferably in fee simple interest, and include within the NRA, that portion of the Iola Basin high pool in Blue Mesa Reservoir that now lies outside the NRA.”

Cumulative Impacts

Other past, present, and reasonably foreseeable non-NPS planning and resource conservation activities occurring throughout the proposed lands, and with Gunnison and Montrose Counties, could result in a variety of impacts to area landowners. The Gunnison County Comprehensive Plan could result in impacts

to landowners by limiting development to areas that could either adversely or beneficially impact private land values in the proposed lands. In general, planning activities in both Gunnison and Montrose Counties would result in long-term adverse to beneficial cumulative impacts on landowners, depending upon the effects of planning efforts on location of development and resulting land values, as well as the preferences of landowners for open space vs. development.

Local, state, and national conservation groups and land trusts could continue to negotiate for acquisition of conservation easements and private lands within Gunnison and Montrose Counties, providing additional opportunities for landowners to negotiate the most suitable agreement, while maintaining their private property rights. These opportunities would result in long-term minor to major beneficial impacts to landowners.

With respect to NPS activities, the relatively limited resource conservation opportunities afforded by Alternative 1, when combined with the impacts of other land preservation activities, would result in long-term negligible to minor beneficial cumulative impacts on landowners.

Conclusion

Because landowners would continue to have the freedom to manage their properties within the limits of county land use regulations, there would be no adverse impacts to the control they have over their property due to NPS actions. However, the NRA's ability to assist landowners to conserve important resources would be limited, since funding would be unavailable to purchase conservation easements or to pursue fee simple acquisition without congressional approval and appropriation. This would result in moderate to major adverse impacts to landowners who are interested in working in partnership with NPS towards enhanced resource conservation. Changes in land use and property values would most likely occur, but would range from adverse to beneficial, depending on landowner preferences.

Impacts of Alternative 2 – Proposed Action

Analysis

This alternative identifies a COA consisting of private lands adjacent to the proposed NRA boundary, in which NPS would be authorized to negotiate resource conservation mechanisms with landowners. It is anticipated that some funding would be appropriated to implement these mechanisms after legislation authorizes establishment of the NRA under Alternative 2. Landowners with private property within the COA would be under no obligation to partner or negotiate with NPS, nor would NPS have any authority to utilize condemnation or other measures not in partnership and cooperation with landowners. Because landowners would continue to have full private property rights, there would be no impacts from Alternative 2 on property rights of landowners.

Some landowners would benefit from the availability of resource conservation tools and NPS funding to conserve resource characteristics on their property. With congressional authorization, and subject to competing demands from other NPS units, there would be more opportunity for funds to be made available for acquisition of fee title or conservation easements from willing landowners in the COA. Depending upon the type of agreement, easement or purchase negotiated between a landowner and the National Park Service, a variety of benefits could accrue to landowners. When landowners place conservation easements on their properties, they voluntarily limit their ability, as well as that of subsequent owners, to develop all, or portions of, their properties. They thereby permanently preserve open space, agricultural, scenic, or other resource values. A landowner may become eligible for certain tax benefits by donating these relinquished rights and by meeting specific conditions outlined in the Internal Revenue Code (IRC). These benefits include reductions in federal and state income taxes and estate and inheritance taxes. Landowners could also negotiate fee simple acquisition with NPS, whereby NPS would purchase a landowner's property for the appraised

value. The availability of these conservation opportunities, tax benefits, and purchase options could result in long-term minor to major benefits to interested landowners, depending upon the tool employed, negotiated specifics, and the number of landowners that choose to participate.

Other landowners believe that the creation of the COA could impede their private property rights simply due to its existence and the stated interest of NPS in the resources on their lands. Some landowners perceive that the COA would be a target area for acquisition and that a future administration could authorize condemnation despite landowner sentiment.

Land use patterns and property values would most likely remain similar to Alternative 1, although there would be a greater likelihood that conservation values on private properties would be preserved via resource conservation mechanisms, and less development would occur. Private property values would most likely continue to increase. Similar to Alternative 1, the impact on landowners would range from adverse to beneficial depending upon landowner preferences and the location of their property relative to conserved areas and development.

Grazing on private lands within the COA would be unaffected by Alternative 2. Grazing permits for allotments that include federal land within the NRA would continue to be renewed at the request of the permit holder.

Under Alternative 2, NPS would utilize its own authority to make minor adjustments to the proposed boundary, or may request clarification of such authority through legislation. This would enable NPS to work with landowners to correct boundary and encroachment issues now known to exist, or that may be identified in the future, due to factors such as previous inaccurate or incorrect surveys. Also, in conjunction with Reclamation, NPS would seek to acquire, preferably in fee simple interest, and include within the NRA, that portion of the Iola Basin high pool in Blue Mesa Reservoir that now lies outside the NRA.

Cumulative Impacts

Other past, present and reasonably foreseeable non-NPS planning and resource conservation activities occurring throughout the proposed lands and with Gunnison and Montrose Counties could result in a variety of impacts to area landowners. The Gunnison County Comprehensive Plan could result in impacts to landowners by limiting development to areas that could either adversely or beneficially impact private land values in the proposed lands. In general, planning activities in both Gunnison and Montrose Counties would result in long-term adverse to beneficial cumulative impacts on landowners, depending upon the effects of planning efforts on location of development and resulting land values, as well as the preferences of landowners for open space vs. development.

Local, state, and national conservation groups and land trusts could continue to negotiate for acquisition of conservation easements and private lands within Gunnison and Montrose Counties, providing additional opportunities for landowners to negotiate the most suitable agreement, while maintaining their private property rights. These opportunities would result in long-term minor to major beneficial impacts to landowners.

With respect to NPS activities, resource conservation opportunities afforded by Alternative 2, when combined with the impacts of other land preservation activities, would result in long-term moderate to major beneficial cumulative impacts on landowners.

Conclusion

Landowners would be under no obligation to negotiate with NPS, nor would NPS have any condemnation or other authority to take private lands within the COA without full consent of and compensation to the landowner. Because landowners would continue to have full private property rights within the limits of county land use regulations, there would be no adverse impacts to the control they have over their property as a result of NPS actions.

However, the availability of a full range of resource conservation opportunities and tax benefits could result in long-term minor to major benefits to interested landowners. Changes in land use and property values would most likely occur, but would range from adverse to beneficial depending upon landowner preferences.

NATIONAL PARK SERVICE, RECLAMATION, AND OTHER NEIGHBORING AGENCY MANAGEMENT AND OPERATIONS

Guiding Policies and Regulations

Current laws and policies encourage NPS to work cooperatively with neighboring agencies in order to help achieve desired conditions related to management and operation issues. Refer to the following box for details.

Methodology

NPS, Reclamation, and Other Neighboring Agency Management and Operations, for the purpose of this analysis, refers to all administrative management and operations considerations, and the adequacy of staffing levels and operational budgets, in order to adequately manage the agency's lands and accomplish its mandated goals within the proposed lands. Workshops were held with representatives from each of the federal, state, and county agencies with land management responsibilities within the overall proposed lands. More specifically, each land unit was discussed in detail, including existing operations and potential operational and management impacts, if the Proposed Action alternative were implemented.

The area of analysis was two-fold: regional, encompassing the overall proposed lands; and site-specific by individual land unit. For impacts on NPS management and operations, both agency transfer lands and the potential addition of private lands to the NRA were considered. For impacts on neighboring federal and state agency management and operations, only the

DESIRED CONDITIONS FOR NPS, RECLAMATION, AND OTHER NEIGHBORING AGENCY MANAGEMENT AND OPERATIONS	SOURCE
In the spirit of partnership, the National Park Service seeks opportunities for cooperative management agreements with federal, state, and local agencies that would allow for more effective and efficient management of Curecanti National Recreation Area.	<ul style="list-style-type: none"> - <i>NPS Management Policies 2006</i> - National Parks Omnibus Management Act of 1998, Section 802
Possible conflicts between alternatives and land use plans, policies, or controls for the area concerned (including those of federal, state, and local governments, and Indian tribes) and the extent to which the NRA would reconcile the conflict are identified in environmental documents.	<ul style="list-style-type: none"> - National Environmental Policy Act
NPS works cooperatively with others to anticipate, avoid, and resolve potential conflicts; to conserve NRA resources; and address mutual interests in the quality of life for community residents. Regional cooperation involves federal, state, and local agencies, affiliated tribes, neighboring landowners, and all other concerned parties.	<ul style="list-style-type: none"> - <i>NPS Management Policies 2006</i>
Manage the area as a part of the greater riverine ecosystem, coordinating with other land management agencies.	<ul style="list-style-type: none"> - NRA Mission

federal and state land transfers were assessed. Private lands acquired for the NRA would not have management and operational impacts on the neighboring agencies.

Impact thresholds that measure the relative change in agency operations as a result of each alternative are as follows.

Negligible: NRA, or other agency operations, would not be affected, or the action would not have a noticeable or appreciable effect on operations.

Minor: Effects would be noticeable, but would be of a magnitude that would not result in an appreciable or measurable change to NRA or other agency operations.

Moderate: Effects would be readily apparent and would result in a substantial change in NRA, or other, agency operations that would be noticeable to staff and the public.

Major: Effects would be readily apparent and would result in a substantial change in NRA, or other, agency operations that would be noticeable to staff and the public, and would be markedly different from existing operations.

Short-term effects would only occur during one operating year. Long-term effects would persist beyond the initial transfer of lands between agencies or beyond one operating year.

Because this topic does not evaluate the potential impacts on natural or cultural resources contained within the NRA, impairment is not evaluated.

Impacts of Alternative 1 – No Action

Analysis

NPS, and other agency operations, would remain the same as described in the Affected Environment. No federal land transfers would occur. The management responsibilities and maintenance operations of each individual agency would be executed with existing staff and budget. However, ongoing management and staff labor costs would be

incurred by NPS to address public requests for information related to the toolbox for resource conservation. Potential development of private lands in the vicinity of the NRA, such as in Land Units A (CO 92 COA), E (Sapinero/Blue Mesa COA), and G (West-End COA), where private lands are adjacent to US 50, could also result in additional staff time if commercial development congregated visitors in areas throughout the NRA or along the roadway. This would probably result in resource issues that would have to be resolved, and additional maintenance costs. Additional staff needs could result in long-term, minor adverse impacts to the NRA operating budget.

The Bureau of Reclamation and Western Area Power Administration would continue their responsibilities within and adjacent to the national recreation area, including construction, operations, maintenance, replacement, and additions, consistent with Reclamation law, and other applicable laws and regulations. Reclamation, Western, and the National Park Service would consult with each other as necessary and appropriate. Thus, there would be no adverse impacts to Reclamation and Western responsibilities under Alternative 1.

Existing permits, such as grazing, would continue in their current state. Grazing within the NRA would continue to be administered in cooperation with the current administering agency (BLM or USFS).

Areas where the boundary between the NRA and other agency lands is difficult to identify would continue to cause some ongoing confusion for agencies and the public, resulting in a long-term, negligible adverse impact. One example of such an area is in Land Unit B, where the boundary is irregular, bending around BLM and CDOW lands in a number of locations. Another example is at Dry Creek, where NPS facilities occur on CDOW land under an agreement.

The existing condition requires Reclamation to develop, negotiate, implement, and maintain local agreements with at least two land management agencies (NPS and BLM) for its lands within and adjacent to the NRA.

This activity and the associated personnel and costs for coordinating management on these lands create a minor long-term expense for all three agencies.

Cumulative Impacts

Cumulative impacts to agency operations would not result from implementation of Alternative 1.

Conclusion

The ongoing requests for information related to resource conservation on adjacent private lands and potential resource and visitor use impacts associated with potential development of private lands adjacent to the NRA would result in long-term minor adverse impacts to NRA operations.

Impacts of Alternative 2 – Proposed Action

Analysis

National Park Service. It is expected that implementation of Alternative 2 would occur over a number of years into the future. It would require the following additional efforts of NRA staff:

- Perform as NRA liaison with private landowners, adjacent land management agencies, county planners and officials, and other neighbors and stakeholders
- Write and implement a land protection plan
- Work with private landowners to implement the tools of resource conservation, including negotiations leading to acquiring interests in land
- Coordinate land appraisals and environmental assessments
- Implement boundary surveys, marking and posting, and fencing
- Write grant proposals
- Monitor conservation easements
- Provide and/or coordinate technical assistance to neighboring private

landowners in the areas of natural, historical, and archeological resource conservation and enhancement, especially preserving and improving natural habitat, and conserving water quality; planning, siting, and design considerations for development; and protecting life and property from wildfire

- Coordinate the Joint Agency Management Effort
- Coordinate the development and execution of an implementation plan for new lands.

In addition, as more interests in land are acquired over time, there would be an increasing requirement for NRA staff in the following areas of operations.

- To monitor and conserve the natural and cultural resources on those lands
- To administer grazing permits that exist on lands transferred to the NRA
- To provide for additional recreational and interpretive opportunities, and the safety of visitors
- To construct and maintain the necessary and appropriate facilities for resource conservation and visitor use, such as fencing and trails
- To provide administrative support for technical assistance to neighbors.

If funding is not provided for additional staff to perform the above duties, Alternative 2 would have a long-term, major, adverse impact on NPS operations. However, if additional staff is available to perform these duties, there is expected to be a long-term moderate beneficial impact to NPS operations, due to enhanced cooperation from landowners and other neighbors in the realm of resource conservation. It is for these reasons that this study recommends an increase in the NRA's base funding to hire additional employees to accomplish these tasks. Ultimately, two additional full-time equivalent employees (FTE) would be needed to fully implement the proposed action. This is discussed in more

detail in the section on “Estimated Costs, Staffing Requirements, and Implementation Strategy” for Alternative 2 in the Alternatives, Including the Proposed Action chapter.

A potential of 10,040 net acres of land from other federal and state land management agencies would be transferred by Congress to NPS in Land Units B (Blue Mesa Reservoir Agency), F (Gateview Agency), and H (West-End Agency) for inclusion in the NRA upon approval of the Proposed Action. Into the near and distant future, up to 24,300 additional acres in private land within the COA could be potentially acquired or managed via conservation easements or other conservation tools if private landowners were willing to sell their lands or execute such agreements. The most likely scenario is that a relatively small percentage of these lands would be so managed. Current thinking is that approximately one tenth (2,400 acres) would eventually be acquired in fee simple, and included within the NRA; and approximately one third (8,100 acres) would eventually come under conservation easements. One reason is that to the greatest extent possible, NPS would pursue tools of a partnership nature with willing landowners, conservation organizations, land trusts, and other agencies, that would result in the least amount of cost to the government, while still satisfying resource conservation goals and objectives, as well as landowner goals and objectives. The potential impacts on the National Park Service of federal and state land transfers and the inclusion of private lands within the COA are discussed in two separate sections below.

1. Federal and State Land Transfers - Land transfers between other agencies and NPS would simplify existing boundaries between agencies and improve NPS operations in site-specific areas, resulting in long-term negligible to minor beneficial impacts. Additions of federally owned lands or facilities could result in long-term adverse negligible to minor impacts to site-specific NPS operations and staffing, unless additional staff was authorized. The potential transfer of the Gateview facilities (recommended for BLM administration) would, in part, offset

this workload. Still, it is expected that some staff would be needed to perform additional maintenance services, visitor and resource protection, and resource management duties due to the addition of lands.

- Land Unit B: Blue Mesa Reservoir Agency
 - USFS and BLM lands from the existing NRA (north of Sapinero Basin) to the southern edge of the West Elk Wilderness Area would be transferred to the National Park Service, including the Soap Creek Campground that is currently managed by the USFS. The management of the area by one agency rather than by three would provide long-term, moderate benefits to visitors, because the area would be managed under the guidelines of only one agency, and that agency would be the sole presence or contact for visitors. Furthermore, management by one agency rather than by three would provide for overall operational efficiencies.
 - Because of the NPS existing presence along the Soap Creek Arm and Soap Creek Road, the National Park Service would be able to easily manage this area, including the road, the Soap Creek campground, and area resources, with only long-term, negligible to minor impacts to NRA operations. Existing concession operations and permits in the area (campground maintenance and outfitters) would need to be transferred to the National Park Service or terminated. If terminated, it would result in some adverse impacts to existing concessionaires.
 - Haystack Cave, an archeological site now managed by BLM, but adjacent to NPS facilities and headquarters at Elk Creek, would receive a heightened level of protection and scientific activity,

- because NPS rangers and resources staff work in the vicinity more frequently than BLM personnel.
- Some USFS land now being managed within the NRA would be excluded from the NRA. These consist of two parcels (shown as Tract 8 and Tract 9 on the Alternative 2 map) that sit west of the Soap Creek Road. By letting USFS administer these parcels, the road in this vicinity would become the proposed boundary between NPS and USFS, which would provide some efficiency for both agencies in administering the land.
 - BLM lands in the eastern portion of this land unit would remain in their current, undeveloped condition and would continue to be managed for critical winter range and other wildlife habitat values.
 - Under Alternative 2, the National Park Service would receive authorization to facilitate land exchanges with CDOW that would improve operations and management efficiencies for both organizations. All such transfers would be subject to CDOW approval. These lands would continue to be managed for critical winter range and other wildlife habitat values. CDOW would benefit by consolidating lands in the Centennial State Wildlife Area and/or Sapinero State Wildlife Area. NPS would benefit by including what are now CDOW isolated parcels within the proposed NRA boundary. This includes land in Dry Creek, East Elk Creek, and Beaver Creek. Currently, NPS facilities exist under agreement on the Dry Creek CDOW parcel, and East Elk Creek facilities are accessed via a road that crosses CDOW land. Simplification of the northern NRA boundary in this land unit for easy recognition by agency personnel and the public would also contribute to this beneficial impact.
- Land Unit F: Gateview Agency
 - Because the Gateview Campground and historic resources in the area are a distance from other facilities within the NRA, the transfer of these facilities to BLM would result in a long-term beneficial impact to NRA operations. Minor beneficial effects related to maintenance costs would occur in this area because the water system would no longer be maintained and tested, nor the restroom facilities cleaned by NPS staff on a regular basis. These functions would be transferred to BLM. The National Park Service would continue to pump the pit toilets at the campground and maintain the road to the area under an agreement with BLM.
 - Land Unit H: West-End Agency
 - Although the transfer of lands from BLM and USFS to NPS that is proposed throughout this land unit would result in some operational and administrative efficiencies for the National Park Service, the net result would be long-term minor adverse impacts on NPS operations, if the recommended additional staff were not provided to accommodate the additional management responsibilities that would ensue. There would be more land to patrol, and more wildlife and grazing to manage. Furthermore, although the BLM lands to be transferred are contiguous with the existing NRA, some are isolated parcels with difficult access.
 - Some of the transferred lands, upon Reclamation revocation, could be available for future NPS land exchanges that would help conserve

the viewshed in the vicinity of Morrow Point or Crystal Reservoirs.

- All Agency Land Units (B, F and H)

- Grazing

- USFS lands proposed for transfer to the National Park Service along CO 92 include acreage in the vicinity of the Long Gulch – Bear Trap Gulch area. Due to the large 30,000 acre grazing allotment in this location, the proposed COA was adjusted from an earlier proposal to ensure that the vast majority of the grazing allotment remains outside the NRA. NPS also reduced the width of the Crystal Trail corridor to minimize this impact. USFS would continue to manage the grazing allotment, and NPS and USFS would enter into a new agreement to reflect the new situation. Thus, negligible impacts would occur to USFS grazing allotment permittees, as the USFS would continue to manage this large, early season grazing allotment on those lands lying outside the NRA.
 - BLM grazing allotments would be administered via agreement with the involved agencies. The likely scenario for most grazing is that allotments would consist of land outside and within the NRA. Grazing would be allowed to continue where authorized under existing permits, unless the permittee requests a voluntary termination. Arrangements for managing grazing would be worked out on a case-by-case basis, and documented in an agreement with the involved agencies. In cases where an allotment still contains a significant amount of BLM land, it is expected

that the BLM would continue managing that allotment; and in cases where little or no BLM land is in the allotment, NPS would likely manage the allotment, or through agreement, contract with the BLM to manage the allotment. Refer to Table 15, which appears later in this section, for a listing of identified allotments, and potential management scenarios. This activity would result in negligible to minor, long-term adverse impacts to NPS from additional management responsibilities, if the recommended additional staff were not provided. As noted earlier, there would be no impact to grazing permittees.

- Mining Activity

- There are no known, active mineral claims or leases on the lands proposed for transfer to NPS.
 - Transferred federal and acquired state lands added to the NRA would be administered under the laws, regulations, and policies for units of the national park system. However, for clarity, it is recommended that when Congress introduces legislation to establish the NRA, that language be included to, except for valid existing rights, withdraw all such lands from all forms of entry, appropriation, or disposal under the public land laws; location, entry, and patent under the mining laws; and from disposition under all laws relating to mineral and geothermal leasing, and all amendments thereto.
 - In the event a parcel contains a “split estate,” whereas the surface would be transferred

to NPS, but the mineral estate would remain in private ownership, NPS will manage such mineral estates according to NPS *Management Policies 2006*: “The Park Service may approve operations associated with nonfederal oil and gas interests under the standards and procedures in 36 CFR Part 9, Subpart B. If an operator’s plan fails to meet the approved standards of these regulations, the Park Service generally has authority to deny the operation and may initiate acquisition. Operations associated with nonfederal mineral interests, other than oil and gas, are subject to the requirements of 36 CFR Part 5, “Commercial and Private Operations,” and 36 CFR 1.6. The Service must determine that operations associated with these mineral interests would not adversely impact “public health and safety, environmental or scenic values, natural or cultural resources, scientific research, implementation or management responsibilities, proper allocation and use of facilities, or the avoidance of conflict among visitor use activities ...” If the impacts from the operation on the resource cannot be sufficiently mitigated to meet this standard, the Park Service may seek to acquire the mineral interest.”

2. *Private Lands within the COA* – Private lands within the COA occur in Land Units A (CO 92 COA), C (Gunnison River COA), D (Iola Basin COA), E (Sapinero/Blue Mesa COA) and G (West-End COA). If a land-owner were willing, and funding is available from Congress, resources on any private parcel within these units could be conserved with various tools, such as general agreements, conservation easements, and fee simple acquisition.

Impacts on NPS management and operations from the implementation of the available conservation tools would depend upon considerations such as the interest that the National Park Service acquired in a piece of property, whether NPS would assume some degree of management responsibility, and the location of the property relative to existing access. Many of these types of issues would be evaluated in a suitability and feasibility analysis, as required by the NPS boundary adjustment criteria, prior to the completion of any agreement between a landowner and NPS (see the discussion of boundary adjustment criteria in the Alternatives chapter, in the section on Development of Alternatives). Conservation easements and land acquisition would result in added responsibilities to NRA staff of resource monitoring, resource management, and/or visitor protection. Depending on the extent and location of the land involved, this would result in long-term minor to major adverse impacts on NPS field operations, if additional funding were not provided. However, if additional staff is available to perform these duties, there is expected to be a long-term moderate beneficial impact to NPS operations. This is why Alternative 2 recommends hiring additional staff.

Under Alternative 2, if land within the COA is acquired, NPS could adjust the proposed NRA boundary to include the acquisition without additional congressional action, resulting in reduced staff work, and short-term minor to moderate beneficial impacts to NPS operations. New NRA legislation, a revised agreement between Reclamation and NPS, and streamlining, or potential elimination, of other agreements among various agencies, would provide a long-term, minor, beneficial impact to agency operations, by reducing associated personnel and costs for managing the lands and agreements.

There would be a long-term minor to moderate beneficial impact on NPS ability to meet its mission, due to appropriately worded legislation for the NRA, improved wording in a new MOA with Reclamation, and increased consultation and cooperation between NPS

and other agencies, including Reclamation. This improvement in consultation and cooperation among the agencies is already happening, through the Joint Agency Management Effort, which is integral to the RPS.

Bureau of Reclamation. As with Alternative 1, the Bureau of Reclamation and Western Area Power Administration would continue their responsibilities within and adjacent to the national recreation area, including construction, operations, maintenance, replacement, and additions, consistent with Reclamation law, and other applicable laws and regulations. Formal establishment of the NRA would not amend or supplement existing Reclamation law applicable to the Aspinall Unit or the Uncompahgre Project. Reclamation, Western, and the National Park Service would consult with each other as necessary and appropriate. Thus, there would be no adverse impacts to Reclamation and Western responsibilities under Alternative 2.

Reclamation would continue to hold underlying administrative jurisdiction on 41,860 acres within the proposed NRA boundary. The National Park Service would cooperate with Reclamation as a continuing partner of the Aspinall Unit, overseeing recreation, resource management, recreation facility construction and maintenance, interpretation, education, and resource and visitor protection. At the same time, Reclamation would continue to operate the dams, power plants, reservoir flow operations, and have access to the same, unimpeded by NPS operations. As a result, there would be no impact to Reclamation operations from NPS activities, or from conservation activities within the adjacent COA.

Although the National Park Service manages recreation and certain other resources on Reclamation lands and land interests within the NRA in accordance with the 1965 Memorandum of Agreement with Reclamation, new interests acquired by NPS in private lands would not fall under this agreement, with one exception. If private lands near Willow Creek (Land Unit D) were acquired, the land area within and adjacent to the high pool of

Blue Mesa Reservoir would be managed for Reclamation and NPS purposes.

It is anticipated that additional work would be required to redraft the 1965 Memorandum of Agreement to restate and update information pertinent to legislation that might be passed to formally establish the NRA. Also, Reclamation may conduct future reviews of land it administers to determine which parcels, if any, it would recommend for revocation of withdrawal. Upon agreement with the National Park Service, NPS would assume full administrative authority over any lands (within the Alternative 2 proposed boundary) so revoked. This workload is expected to result in a negligible to minor adverse impact to Reclamation, as this work would likely occur in any case.

Bureau of Land Management. A total of 5,840 acres of BLM land would be transferred to the National Park Service in Land Units B (Blue Mesa Reservoir Agency), F (Gateview Agency), and H (West-End Agency), resulting in long-term negligible to minor beneficial impacts to BLM operations in site-specific areas because of fewer maintenance and other operational obligations.

- **Land Unit B (Blue Mesa Reservoir Agency).** The impact of transferring the Dillon Pinnacles ACEC and portions of the West Antelope ACEC to NPS would be negligible to minor beneficial because NPS would manage the area with similar emphasis on recreation and wildlife habitat, and the BLM currently has limited presence in the area. BLM would also receive minor operational benefits from rescinding some of its responsibility for managing local cultural resources, as well as for some of the BLM lands north of the Dickerson gravel pit. A defined NRA boundary and presence could prevent some existing trespass issues.
- **Land Unit D (Iola Basin COA).** The potential acquisition of private properties in the vicinity of Willow Creek could result in additional long-term, negligible to minor adverse

operational impacts to BLM, if the land were transferred to allow BLM to manage local hang gliding activities. NPS could sustain similar impacts if the lands were acquired and remained in NPS management.

- **Land Unit F (Gateview Agency).** Actions at Gateview will depend upon determination by Reclamation as to whether to revoke, or not, the withdrawal on 120 acres of land in the Gateview area. Should the revocation be approved, this study would recommend that Tract 10 be excluded from the NRA and transferred to BLM for administration and management. In the interim, NPS could seek to enter into an agreement with BLM to allow BLM to manage that portion of the NRA. Since BLM already has a presence in the area, this would result in only a long-term, negligible adverse impact to BLM operations. Maintenance of existing facilities within the campground, such as the pit toilets, would be added to the existing BLM maintenance schedule. However, under BLM management, the potable water system would probably be discontinued, given its daily maintenance requirement; and visitors would be asked to haul in their own water from elsewhere, just as they do in BLM's other campgrounds in the area. NPS would most likely continue to pump toilets and maintain the road to the campground. However, should those commitments be relinquished, operational impacts to the BLM could increase.
- **Land Unit H (West-End Agency).** Actions pertaining to Tract 1 will depend upon determination by Reclamation as to whether to revoke, or not, the withdrawal on 680 acres of land west of Cimarron. Should the revocation be approved, this study would recommend that Tract 1 be excluded from the NRA and transferred to BLM for administration and management. In the interim, NPS could seek to enter into an agreement with BLM to allow BLM to manage that portion of the NRA.

Negligible beneficial impacts to BLM would occur with transfer of lands on the western end of the proposed lands because existing management costs are minimal. Much of the area is inaccessible and in rugged terrain.

- **Grazing.** Several of the parcels of land proposed for transfer from BLM to the NRA contain grazing allotments. In some cases, the allotments already occur on existing parcels within the NRA. In most cases, the result of the transfer of land from BLM to the NRA would result in a particular allotment containing land both within and outside the NRA. Grazing would be allowed to continue where authorized under existing permits, unless the permittee requests a voluntary termination. Arrangements for managing grazing would be worked out on a case-by-case basis, and documented in an agreement with the involved agencies. In cases where an allotment still contains a significant amount of BLM land, it is expected that BLM would continue managing that allotment; and in cases where little or no BLM land is in the allotment, NPS would likely manage the allotment, or through agreement, contract with BLM to manage the allotment. Refer to Table 15, which follows, for a listing of identified allotments, and potential management scenarios. This activity would result in negligible to minor, long-term adverse impacts to NPS operations from additional management responsibilities, if the recommended additional staff were not provided. As noted earlier, there would be no impact to grazing permittees.

Colorado Department of Transportation / Federal Highway Administration. The National Park Service would continue to cooperate and coordinate with CDOT/FHWA regarding maintenance and construction activities and traveler enhancements that occur on and along US 50, CO 92, and CO 149. NPS would likely seek to enter into an agreement with CDOT/FHWA in order to

TABLE 15: BUREAU OF LAND MANAGEMENT GRAZING ALLOTMENTS WITHIN THE CURRENT AND PROPOSED NATIONAL RECREATION AREA

Allotment Name	General Location	Allotment Composition and Management under Alternative 1 (No Action) ¹				Allotment Composition and Management under Alternative 2 (the Proposed Action) ²			
		BLM	NPS	Private	Managed by	BLM	NPS	Private	Managed by
Beaver Creek	N of Gunnison River Canyon	98% ³	2%	0%	BLM	97% ³	3%	0%	BLM
Big Willow	W of Gateview	40%	2%	58%	BLM	40%	2%	58%	BLM
Blue Creek	W of Blue Creek	6%	13%	81%	BLM	2%	17%	81%	NPS
Dead Horse	N of Crystal Dam	17%	12%	71%	BLM	14%	15%	71%	BLM
Fitzpatrick Mesa	S of Morrow Pt. Reservoir	36%	0%	64%	BLM	0%	36%	64%	NPS
Highway	S of Morrow Pt. Reservoir	78%	0%	22%	BLM	0%	78%	22%	NPS
Iola	Iola and Kezar Basins	82%	5%	13%	BLM	82%	5%	13%	BLM
North Cimarron	N of Morrow Pt. Reservoir	0%	6%	94%	BLM	0%	6%	94%	NPS
Pine Mesa	S of Blue Mesa Dam	0%	90%	10%	BLM	0%	90%	10%	NPS
Rawhide / Coffee Pot	W of Crystal Reservoir	28%	20%	52%	BLM	27%	21%	52%	BLM
Round Corral Crk	S of Morrow Pt. Reservoir	36%	9%	55%	BLM	0%	45%	55%	NPS
Round Corral Sprg	S of Morrow Pt. Reservoir	9%	18%	73%	BLM	0%	27%	73%	NPS
Sapinero Mesa	S of Sapinero Basin	42%	26%	32%	BLM	42%	26%	32%	BLM
Spring Gulch	NE of Crystal Dam	5%	42%	53%	BLM	2%	45%	53%	NPS
Steuben Creek	N of Lake City Bridge	90%	1%	9%	BLM	90%	1%	9%	BLM
Stevens Creek	N of Iola Basin	97% ³	3%	0%	BLM	95% ³	4%	0%	BLM
Ten Mile Springs	E of Gateview	88%	2%	10%	BLM	87%	3%	10%	BLM
Windy Point	E of Blue Creek	0%	31%	69%	BLM	0%	32%	68%	NPS
¹ Under Alternative 1, all allotments continue to be managed by BLM under interagency agreement. ² The proposed management under Alternative 2 is a likely scenario, subject to a new interagency agreement. ³ Allotment includes state (CDOW) lands.									

identify operation and waste and fill storage issues that could be mutually agreed upon to minimize the impact of highway maintenance and construction operations on Curecanti resources and the visitor experience.

In the vicinity of the East Cimarron day-use area, NPS would seek to remedy a boundary issue where some of the NPS facilities lie outside the NRA boundary within the CDOT right-of-way. The National Park Service would either enter into an agreement with CDOT to recognize the issue and address how future maintenance of the facilities outside the NRA would occur, or would work with CDOT to accomplish a mutually agreed upon adjustment of the proposed boundary, so that it includes all NPS facilities at East Cimarron.

Potential conservation projects, such as conservation easements, would provide benefits to travelers on the West Elk Loop Scenic and Historic Byway, especially along CO 92 above Morrow Point and Crystal Reservoirs. Resource conservation objectives identified in the byway's corridor management plan would more likely be achieved with the establishment of the COA.

Colorado Division of Wildlife. The northern boundary of the NRA in Land Unit B (Blue Mesa Reservoir Agency) would be simplified in the vicinity of Dry Gulch Campground and East Elk Group Campsite by the inclusion of 140 acres of CDOW property, resulting in negligible to minor beneficial impacts to CDOW because of increased administrative efficiency. After authorization, NPS would work with CDOW and BLM to identify lands that could be exchanged for the land to be included in the NRA. Such an exchange would need to meet the requirements of the Pittman-Robertson Act of 1937, and other laws and policies of the federal and state agencies involved. The National Park Service would not modify the manner in which the land to be included is presently managed. The land received in exchange would help CDOW consolidate ownership within the State Wildlife Areas adjacent to the NRA, where now some federal public lands are interspersed within the CDOW land. This would result in administrative efficiencies for NPS, BLM, and CDOW, and a

clearer understanding by the public of where the proposed NRA boundary is located.

U.S. Forest Service. A net of 2,885 acres of Forest Service land would be transferred to NPS in Land Units B and H, resulting in long-term minor to moderate beneficial impacts to Forest Service operations in site-specific areas because of fewer maintenance and other operational obligations.

- **Land Unit B: Blue Mesa Reservoir.** As noted earlier in the NPS section, the transfer to the National Park Service of Forest Service land and the Soap Creek Campground in the vicinity of Soap Creek and West Elk Creek Arms would result in long-term, moderate beneficial impacts to both the Forest Service and NPS from consolidation of operations. Forest Service would no longer maintain the campground or Soap Creek Road, beneficially impacting their operational budget. NPS would assume responsibility for road maintenance, in cooperation with USFS and Gunnison County. The road would become the proposed boundary between NPS and USFS land in this vicinity, clarifying responsibilities for staff, and understanding of the location of Forest Service lands and NRA lands for the public.
- **Land Unit H: West-End.** Lands long managed by NPS under an agreement with USFS would be transferred to NPS in the vicinity the Long Gulch / Bear Trap area, and would include the strip of land containing the Crystal Trail. Additional lands, primarily consisting of drainages and cliffs into the canyon, would also be included, as mutually agreed upon by NPS, USFS, and members of the grazing pool for that grazing allotment. As in the past, NPS would manage the trails and recreational opportunities. NPS and USFS would still need an agreement pertaining to grazing within the NRA, but the situation would remain very similar to the current situation. Thus, negligible impacts would occur to grazing allotment permittees, as the

Forest Service would continue to manage this large early season grazing allotment on those lands lying outside the NRA, and the cattle would still have access to cross the trail corridor as they have done in the past. This action would result in long-term negligible to minor beneficial operational and administrative efficiencies for the National Park Service.

As both national park system and national forest system units have boundaries that are generally legislatively established, it would be necessary, through legislation, to modify the boundary of the Gunnison National Forest, for those areas affected, should Alternative 2 actions pertaining to land transfers be implemented.

Western Area Power Administration.

Western would continue to have uninterrupted access to transmission lines, access roads, and related facilities for the purposes of reconstruction, repair, maintenance, and operation activities. Resource conservation activities proposed within Alternative 2 would not impede the replacement of poles, structures, or conductors, preclude vegetation management, or prevent road maintenance and improvements. Western's easements across lands within the COA would be unaffected. Therefore, there would be no impacts to Western's operations by implementation of this alternative.

Cumulative Impacts

Other federal planning and management activities within or adjacent to the NRA have involved agency land transfers and other operational commitments in the past and could require additional transfers and operational commitments in the future. Some of these actions include the recent designation and expansion of the Black Canyon of the Gunnison National Park, the expansion of the Gunnison Gorge National Conservation Area, additions of wilderness in Black Canyon and Gunnison Gorge, potential expansion of the West Elk Wilderness Area into the administrative areas of three different agencies, and ongoing acquisition of conservation

easements by private trusts and public agencies. Such transfers or acquisitions can result in minor adverse impacts to agency operations budgets in the short and long-term. When combined with the negligible to minor adverse impacts associated with actions proposed in Alternative 2 of the Curecanti RPS, long-term minor to moderate adverse impacts could occur to federal agency budgets, such as that of the National Park Service, if additional operational funds are not provided to meet management needs created by acquisitions and transfers.

Conclusion

If funding is not provided to hire the necessary staff that would be needed to perform the additional office and field duties that would be required to implement Alternative 2, there would be a long-term major adverse impact on NPS operations. If additional staff is available to perform these duties, there is expected to be a long-term moderate beneficial impact to NPS operations, due to enhanced cooperation from landowners and other neighbors in the realm of resource conservation. It is for these reasons that this study recommends an increase in the NRA's base funding to hire a sufficient number of full-time-equivalent (FTE) employees to accomplish these tasks, and to make Alternative 2 become a reality.

Land transfers between the National Park Service and other agencies would simplify existing boundaries between agencies and improve NPS operations in site-specific areas, resulting in long-term negligible to minor beneficial impacts to NPS.

Other agencies, such as USFS, BLM, and CDOW would experience negligible to moderate beneficial impacts to operations, depending upon the location and change in agency responsibility associated with the land transfer. In some locations, long-term negligible adverse impacts could occur to existing maintenance schedules, where an agency would assume new responsibilities. Reclamation and Western responsibilities would continue to be a priority within the NRA; therefore, there would be no impacts to their operations.

All agencies should realize a long-term minor to moderate beneficial impact to operations due to appropriate wording in new NRA legislation; improved wording in a new MOA between Reclamation and NPS; and increased consultation and cooperation among all agencies through the Joint Agency Management Effort, which is integral to the RPS.

UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts are impacts that cannot be avoided and cannot be mitigated, and therefore would remain throughout the duration of the action. The following list describes potential adverse impacts related to the alternatives being considered.

Private lands within the COA would continue to be subject to future development and other land uses that might be incompatible with NRA goals and objectives. As described under Alternative 1, the following resources could experience adverse cumulative impacts: wildlife, natural lightscape, natural soundscape, cultural, and scenic. Alternative 1 could also compromise recreational, economic, interpretation, and educational opportunities.

Both Alternative 1 and 2 could result in disturbance and degradation to geological and paleontological resources. These impacts would, in the long term, decrease under Alternative 2 with landowner participation in resource conservation activities.

Displacement of native vegetation communities by noxious weeds would be minimized under Alternative 2 with additional emphasis on the Joint Agency Management Effort (JAME) and landowner conservation partnerships.

LOSS IN LONG-TERM AVAILABILITY OR PRODUCTIVITY TO ACHIEVE SHORT-TERM GAIN

As noted above, some resources would be degraded, to some extent, through implementation of Alternatives 1 and 2. All

resources identified above would experience potential long-term loss under Alternative 1. Where landowners participate in the implementation of resource conservation tools and partnerships under Alternative 2, intensity of adverse impacts would be lessened, and beneficial impacts would be increased.

IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

Irreversible commitments of resources are those that cannot be reversed, except perhaps in the extreme long term. This would include, for example, the consumption or destruction of nonrenewable resources such as minerals or the extinction of a species.

Irretrievable commitments of resources are those that are lost for a period of time, as a resource is devoted to a use that simultaneously precludes other uses. For example, if facilities are developed in a forest, the timber productivity of the developed land is lost for as long as the facilities remain.

By extension, some soils, vegetation, wildlife habitat, scenic resources, and cultural resources would be permanently damaged within the NRA by development of the private lands within the COA. This would be an irreversible commitment of such resources because it is unlikely that development would later be abandoned and reclaimed.

Construction activities that might eventually result from approval of the Proposed Action, such as the construction of new trails, would require fossil fuels, labor, and construction materials such as wood, aggregate, and bituminous materials. These materials are not in short supply, and their use would not have an adverse effect on the continued availability of these resources. Resultant construction would also require an irreversible commitment, or expenditure, of funds.

Chapter 5: Consultation and Coordination



CONSULTATION AND COORDINATION

INTRODUCTION

It was recognized early in the project that a successful outcome would depend on intense public involvement. The goal of the public involvement strategy was to obtain project-related information and resource data, agency input, and local support for conservation of the natural, cultural, recreational, and scenic resources within and surrounding Curecanti National Recreation Area (NRA). Therefore, several meetings and discussions were held throughout the study process with federal, state, and county agencies and elected officials; American Indian tribes; the general public, park users, private landowners; and other stakeholders. This was accomplished through briefings, meetings, workshops, and open houses; three newsletters; and continual communication via telephone, e-mail, regular mail, fax, and the Internet.

The public has had several opportunities to provide ideas and get questions answered regarding the study. During four phases of the project the study team made special efforts to reach out to the public and to agency officials to exchange information and seek comment, including (1) the initial gathering of information on interests and concerns to address in the study (scoping); (2) the primary gathering and analysis of resource data and information; (3) the development of alternatives; and (4) the assessment of impacts of proposed management actions on the environment.

Due to the relationship between NPS and Reclamation in managing their respective interests and facilities within the recreation area, Reclamation is a cooperating agency with NPS on the environmental impact statement (EIS) for the Resource Protection Study (RPS). Therefore, a Reclamation employee has been a full member of the study team throughout the project. He has attended many of the

meetings, open houses, and workshops; has been kept fully informed of the project's status and findings; and has made significant contributions throughout the process.

Shortly before the RPS began, Gunnison County initiated an effort, called the Curecanti Area Conservation Study, or CACS (initially called the Curecanti Area Conservation Plan), to make recommendations which would help conserve the natural, cultural, recreational and scenic resources surrounding the NRA that are important to county residents and area visitors. County staff consulted with the NPS Rivers, Trails and Conservation Assistance program staff in order to identify what resources might be important and what tools the county might have available to achieve conservation goals. During the first few years of the RPS process, the CACS and RPS were conducted in parallel, sharing information. Eventually, the CACS effort was absorbed by the county's new effort in producing a comprehensive plan, also known as a master plan. Although the county has completed two components of the comprehensive plan (one for the Crested Butte to Gunnison corridor, and one for the area around Marble), it has not yet begun the planning process for the U.S. 50 corridor. In the interim, long-range planning staff have expressed a continued interest in the RPS, and the possibility of incorporating components of the RPS recommendations into that portion of the comprehensive plan that would include the Curecanti area.

The key milestones of consultation and coordination during the project are listed below. In addition to the cited milestones, there have been continual informal meetings and other instances of communication, consultation, and coordination with others to acquire resource data and further information leading to the production of the Draft RPS/EIS, and to answer questions regarding the RPS. Details of the listed milestone briefings, meetings, and open houses, and their findings, are contained in trip reports, which are available at the NRA.

The following abbreviations are relevant in the ensuing discussion:

- BLM = Bureau of Land Management
- CACS = Gunnison County's Curecanti Area Conservation Study
- CDOW = Colorado Division of Wildlife
- CREDA = Colorado River Energy Distributors Association
- EIS = Environmental Impact Statement
- GIS = Geographic Information System
- JAME = Joint Agency Management Effort
- LUR = Gunnison County's Land Use Resolution
- NPS = National Park Service
- NRA = Curecanti National Recreation Area
- PBR = Preliminary Boundary Recommendation for NRA
- Reclamation = Bureau of Reclamation
- RPS = Curecanti NRA Resource Protection Study
- RTCA = Rivers, Trails and Conservation Assistance Program (NPS)
- USFS = U.S. Forest Service
- USFWS = U.S. Fish and Wildlife Service
- UVWUA = Uncompahgre Valley Water Users Association
- Western = Western Area Power Administration.

NOTICE OF INTENT

A Notice of Intent to prepare an EIS for the RPS at Curecanti NRA, Montrose and Gunnison Counties, Colorado, was published in the Federal Register on May 3, 2000, Volume 65, Number 86.

CONSULTATION WITH AGENCIES AND ELECTED OFFICIALS

The Bureau of Reclamation has participated in the development of this document, and of the various alternatives. In addition, the following agencies have been briefed on numerous occasions throughout the study, have provided input into the development of the Proposed Action, and support the concepts and proposed land transfers recommended in the Proposed Action, subject to additional review and comment that the Draft RPS/EIS will receive after being released to the public.

- Bureau of Land Management area managers and the state director
- Colorado Division of Wildlife local and regional managers
- Grand Mesa, Uncompahgre and Gunnison National Forests
- Western Area Power Administration staff from Denver and Salt Lake City
- Staff of the following elected U.S. congressional officials:
 - Senator Wayne Allard
 - Former Senator Ben Nighthorse Campbell
 - Former Representative Scott McInnis
 - Representative John Salazar
 - Senator Ken Salazar

Gunnison and Montrose County officials and planning staff have expressed interest in the project. Gunnison County planners are considering incorporating study data and recommendations into the component of the county's comprehensive master plan that will deal with the portion of the county that includes the Curecanti area. To date, the county officials that have been briefed on the Proposed Action generally support the concepts and proposed land transfers being recommended.

Additional consultation and briefings will occur as recommendations to Congress are prepared.

Following is a list of meetings that were held with agencies and elected officials:

- March 29, 2000: Project scoping meeting with BLM, CDOW, City of Gunnison, Gunnison County, Montrose County, and USFS.
- Week of May 1, 2000: Project scoping meetings with BLM, Gunnison County officials, and Montrose County officials.
- October 31, 2000: Meeting with Reclamation and UVWUA in Montrose to discuss their interests.
- December 4, 2000: Meeting with Gunnison County planner at the Montrose Public Lands Center to discuss issues common to the RPS and CACS.
- December 5, 2000: Meeting with Montrose County Commissioner-Elect in Montrose to discuss issues of mutual concern between Montrose County and NPS.
- December 6, 2000: Meeting with Gunnison County Commissioner at Elk Creek (NRA headquarters) to discuss issues of mutual concern between Gunnison County and NPS.
- May 3, 2001: Meeting with Reclamation in Grand Junction to brief staff on the status of the RPS and discuss issues of mutual concern.
- June and July, 2001: Meetings with adjacent land management agencies and others, including BLM, CDOW, CREDA, Gunnison County, USFS, and Western, to present the progress of the RPS; obtain feedback, understanding, and buy-in from the agencies before discussing the project any further with private landowners and other stakeholders; and to plan for on-going coordination with the agencies.
- September 18, 2001: Meeting with Colorado state officials in Denver to present the status of the RPS, obtain their comments, and explore the possibility of the state's involvement in the JAME.
- October 17, 2001: Meeting with staff of U.S. Representative Scott McInnis in Washington, D.C. to present the status of the RPS, receive input, and evaluate the reaction to initial proposals. (NOTE: Additional meetings had been scheduled on Thursday afternoon, October 18, with the staffs of Senator Wayne Allard and Senator Ben Nighthorse Campbell. However, these meetings were cancelled due to office closures as a result of the anthrax situation in the capitol area.)
- December 12, 2001: Meeting with Gunnison County officials in Gunnison to discuss issues of mutual concern to both the RPS and the CACS.
- January 10-11, 2002: Meetings with State Representatives and Senator Ben Nighthorse Campbell's staff in the Denver area, to present the status of the RPS in advance of the next round of meetings with the general public and affected landowners, and to obtain their feedback; and with CDOW, the Trust for Public Land, and USFWS in the Denver area to obtain information relating to landowner incentives for resource and species protection.
- March 20, 2002: Meeting with Gunnison County officials at Elk Creek to discuss the RPS-related topics of a preliminary new boundary recommendation for the NRA, the JAME concept, the LUR, and the CACS; and to determine the county's level of support for the RPS.
- April 30, 2002: Meeting with Gunnison County Planners at Elk Creek to strategize partnership efforts between NPS and Gunnison County regarding the RPS and the county's upcoming master plan.
- May 1, 2002: Meeting with Montrose County Planner in Montrose to discuss

Montrose County's interests and involvement in the RPS, including its relationship to the county's new Master Plan, which was adopted in 2001.

- June 13, 2002: Meeting with BLM, CDOW, Gunnison County, Reclamation, Southern Ute Indian Tribe, Uncompahgre Plateau Project, USFS, and Western at Elk Creek to share preliminary findings of the RPS, and explore inter-agency means of protecting natural, cultural, recreational, and scenic resources surrounding the NRA. This was the initial meeting of what has become the Joint Agency Management Effort (JAME), which meets periodically to try and resolve area-wide resource management problems on an issue-by-issue basis.
- September 5, 2002: Meeting with Gunnison County planners to discuss ways in which NPS and the county can work more closely together on issues involving the RPS and the county's master plan.
- February 12, 2003: Meeting with Gunnison County planner in Gunnison to prepare for upcoming landowner meetings for the RPS, in which the county planner was involved.
- Week of March 17, 2003: Meetings with state elected officials in Denver, Senator Ben Nighthorse Campbell's staff in Fort Collins, and State government officials in Denver, to brief them on the status of the RPS and its alternatives, and to receive comments and concerns, in advance of upcoming meetings with landowners.
- Week of March 24, 2003: Meetings with congressional staff in Montrose, and Montrose County planner in Montrose, to brief them on the status of the RPS and its alternatives, and to receive comments and concerns, in advance of upcoming meetings with landowners.
- May 21, 2003: Meeting with Senator Wayne Allard's staff in Englewood, to brief them on the status of the RPS and its alternatives, and to receive comments and concerns, in advance of upcoming meetings with landowners.
- Morning of June 26, 2003: Meeting with Assistant Secretary of the Interior for Fish, Wildlife and Parks in Washington, D.C., to present and receive comments on the preliminary alternatives of the RPS.
- Afternoon of June 26, 2003: Meeting with representatives from the offices of Senator Ben Nighthorse Campbell, Senator Wayne Allard, and Representative Scott McInnis in Washington, D.C., to present and receive comments on the RPS preliminary alternatives.
- September 24, 2003: Meeting with Montrose County officials in Montrose to review the RPS preliminary alternatives and receive comments.
- November 25, 2003: Meeting in Crawford and field trip to grazing site with USFS, several members of the Black Mesa Grazing Pool, and a representative from U.S. Representative Scott McInnis' office to explain the goals and objectives of the RPS, and to receive input regarding potential affects on the recommendation pertaining to a long-established grazing permit issued by the USFS. As a result of the meeting, an agreement was reached to redraw the proposed boundary line in the vicinity of Long Gulch/Bear Trap area along Colorado State Highway 92 to reduce the potential impact to grazing permittees.
- December 11, 2003: Meeting with BLM, CDOW, Gunnison County, USFS, and Western at Elk Creek to assess impacts of proposed actions in the RPS, especially as they affect other agencies and the local socio-economic environment. NOTE: The Reclamation representative attended Impacts Workshop sessions with the NRA staff earlier in the week.

- Week of December 15, 2003: Meetings with federal and state officials, and private property owners, in the Curecanti area, including on-site visits to the park, to explore partnership opportunities with the private sector to conserve resources surrounding the NRA and adjacent to Black Canyon of the Gunnison National Park.
- March 1, 2004: Meeting with Colorado Department of Natural Resources in Denver to provide an update on the RPS, present the proposed action, and receive comments.
- May 26, 2005: Meeting at Elk Creek with agencies who reviewed the April 28, 2005 multi-agency review version of the Draft RPS/EIS, including BLM, CDOW, and Natural Resources Conservation Service of the U.S. Department of Agriculture, for review and comment on the document.
- June 3, 2005: Meeting with USFS at their office in Delta to discuss their comments on the April 28, 2005 multi-agency review version of the Draft RPS/EIS.
- August 3, 2005: Meeting in Crawford, and on-site visit with USFS, to redraw the proposed NRA boundary line in the vicinity of Long Gulch/Bear Trap area along CO 92.
- August 31, 2005: Meeting with Reclamation at their office in Grand Junction to address their comments on the April 28, 2005 multi-agency review version of the Draft RPS/EIS.
- September 1, 2005: Guided congressional staffers from Grand Junction on a field trip to Black Canyon of the Gunnison National Park and Curecanti National Recreation Area. Participants included Richard Baca (office of U.S. Representative John Salazar), Trudy Kareus (office of U.S. Senator Ken Salazar), and Derek Wagner (office of U.S. Senator Wayne Allard). Provided briefing on the status of the Draft Resource Protection Study and answered questions.
- November 7, 2005: Meeting with congressional staffers at their office in Grand Junction, including Richard Baca (office of U.S. Representative John Salazar), and Trudy Kareus (office of U.S. Senator Ken Salazar), to brief them in more detail on the RPS.
- November 21, 2005: Meeting with new Gunnison County Long Range Planner at his office to brief him on the status of the Draft Resource Protection Study, and to obtain his comments.
- November 22, 2005: Meeting with CDOW at their office in Gunnison to address their comments on the April 28, 2005 multi-agency review version of the Draft RPS/EIS.
- July 24, 2006: Meeting with Gunnison County Long Range Planner, Gunnison County Commissioner, and Southeast Regional Director from the office of U.S. Representative John Salazar, at the county office building in Gunnison, to brief them on the status of the study, and to obtain their comments in preparation for finalizing the Draft RPS/EIS.
- July 25, 2006 (Morning): Meeting with Montrose County Land Use Director, and Montrose County Manager, at the county office building in Montrose, to brief them on the status of the study, and to obtain their comments in preparation for finalizing the Draft RPS/EIS.
- July 25, 2006 (Afternoon): Meeting with BLM officials, including Gunnison Field Office Manager and Montrose Field Office Manager, at Elk Creek, to brief them on the status of the study, and to obtain their comments in preparation for finalizing the Draft RPS/EIS.
- August 10, 2006: Meeting with Montrose BLM staff, including Gunnison Field Office Manager, Associate Field Office

Manager, and Realty Specialist, to discuss follow-up questions and issues from the July 25 meeting.

- September 22, 2006: Telephone call between NPS Intermountain Regional Director Mike Snyder, and Reclamation Upper Colorado Regional Director Rick Gold; and follow-up call from Reclamation to NPS on September 25, 2006; wherein agreement was reached with regards to the following wording in the Draft RPS/EIS:
 - For both alternatives in the Draft RPS/EIS, the Bureau of Reclamation and Western Area Power Administration would continue their administrative jurisdiction and responsibilities within and adjacent to the national recreation area, including construction, operations, maintenance, replacement, and additions, consistent with Reclamation law, and other applicable laws and regulations. Formal establishment of the area as an NRA under Alternative 2 would not amend or supplement existing Reclamation law applicable to the Aspinall Unit or the Uncompahgre Project. Reclamation, Western, and the National Park Service would consult with each other as necessary and appropriate. Thus, there would be no adverse impacts to Reclamation and Western responsibilities under either alternative.

MEETINGS WITH THE GENERAL PUBLIC, PARK VISITORS, PRIVATE LANDOWNERS, AND OTHER STAKEHOLDERS

- Week of May 1, 2000: Project scoping meetings with private landowners.

- May 24, 2000: Public open house in Gunnison for joint project scoping for RPS and CACS.
- September 26, 2000: Kick-off meeting in Montrose for Citizen Photographic Assessment.
- December 5, 2000: Public open house in Montrose to present the results of the Citizen Photographic Assessment to the Montrose community.
- December 6, 2000: Public open house in Gunnison to present the results of the Citizen Photographic Assessment to the Gunnison community.
- March 5-7, 2002: Two focus group workshops in Gunnison and Montrose, and three public open houses in Gunnison, Hotchkiss, and Montrose, to solicit more ideas from the public on the unmet potential of land-based and reservoir tributary-based recreation and resource education in areas within and surrounding the NRA. Recommendations for necessary and appropriate facilities, and concerns about protection of natural, cultural, and scenic resources were also solicited.
- March 27, 2003: Meeting with Club 20 President in Grand Junction to inform him of the goals and objectives and progress of the RPS, and invite his participation if he so desired.
- May 28-29, and June 2-5, 2003: Meetings with private landowners in Crawford, Montrose, and Gunnison to discuss the RPS. Following is a summary of the meetings:
 - It was decided early on to offer opportunities for potentially affected landowners to meet with members of the study team prior to finalizing the alternatives. The landowners who would be most affected are those within the Conservation Opportunity Area (COA). This represented a total of 91 different landowners, whether individuals, groups, partnerships,

- etc. Rather than try to meet with all 91 landowners individually, and rather than meet with everyone all at once, it was decided to divide the landowners into 6 groups, and conduct a separate meeting for each group, trying to keep each group size between 10 and 20 people. The groups were determined by six geographical areas surrounding the NRA. Thus, each meeting consisted of “neighbors.”
- Prior to the meetings, invitations under Gunnison County’s letterhead were sent to the landowners. Each was invited to one of six meetings. Information folders were given to all attendees. Following the meetings, folders were sent to all landowners who did not attend the meetings, and to some relatives of those who did attend, at their request.
 - A total of 91 landowners were invited to attend the meetings. A total of 16 landowners (18%) attended the meetings, along with some friends and/or relatives. The meetings were held for the following purposes:
 - Present background, goals, and objectives of the Curecanti RPS; and related Gunnison County resource conservation and long-range planning efforts.
 - Show areas of opportunity for resource conservation (COA) surrounding the NRA.
 - Identify potential landowner incentives for resource conservation.
 - Identify landowners' related long-term goals and objectives.
 - Explore landowner willingness to work in partnership with NPS and other entities to conserve the natural, cultural, recreational, and scenic resources in the Curecanti area.
 - FINDINGS: In general, the landowners were interested in the COA concept. Most were at the meetings primarily to learn more about the RPS, but were reluctant to make any commitments regarding partnering with NPS or other entities. They tended to display a “wait-and-see attitude”. Some expressed concern about condemnation of private property, and were relieved to learn that it would not be a recommendation of the study. Some landowners supported the goals and objectives of the study, and were very much interested in working in partnership with NPS to explore tools of resource conservation that would benefit both the NRA and the landowner. They were anxious for NPS to take action as quickly as possible. There appeared to be no opposition to the ideas presented by the study team, or to the direction the study was taking.
 - October and November, 2003, and February, 2004: At the request of a landowner, four additional meetings were held with various members of an extended family that jointly own property adjacent to the NRA. The landowners were unable to attend the earlier neighborhood meetings held in May and June of 2003.
 - November 25, 2003: Meeting in Crawford and field trip to grazing site with USFS, several members of the Black Mesa Grazing Pool, and a representative from U.S. Representative Scott McInnis’ office to explain the goals and objectives of the RPS, and to receive input regarding potential affects on the recommendation pertaining to a long-established grazing permit issued by the USFS. As a result of the meeting, an agreement was reached to redraw the

proposed boundary line in the vicinity of Long Gulch/Bear Trap area along CO 92 to reduce the potential impact to grazing permittees.

- December 3, 2003: Meeting in Denver with representatives of the Black Canyon Ranch Properties Limited Liability Corporation (LLC), which owns property north of the NRA near East Portal, to discuss goals and objectives of the RPS in relation to goals and objectives the LLC has with its property.
- Week of December 15th, 2003: Meetings in the Curecanti area with private property owners, and federal and state officials, including on-site visits to the park, to explore partnership opportunities with the private sector to conserve resources surrounding the NRA and adjacent to Black Canyon of the Gunnison National Park.
- November 18, 2005: Meeting with landowners on CO 92 to provide status update of RPS process, and to discuss concepts of potential land exchanges.

MEETINGS WITH AMERICAN INDIAN TRIBES

In a study performed by Dave Ruppert of the NPS Intermountain Support Office, Denver, published in August, 2002, entitled: “American Indian Affiliation: Curecanti National Recreation Area,” it was determined that the American Indian tribes historically associated with the Curecanti area are the Northern Ute Tribe in Ft. Duchesne, Utah; the Southern Ute Tribe in Ignacio, Colorado; and the Ute Mountain Ute Tribe in Towaoc, Colorado.

Contact was initiated between NPS and the three Ute tribes regarding the RPS on March 6, 2001 by a letter from the NRA superintendent to the three Ute tribes, inviting them to a meeting in Montrose, Colorado to discuss the RPS and other issues of mutual interest relating to Curecanti NRA and Black

Canyon of the Gunnison National Park. (The superintendent manages both parks.) A number of telephone calls and letters of correspondence ensued, resulting in one meeting, between a representative of the Northern Ute Tribe and NPS in Montrose on December 11, 2001. This was followed by a presentation by the study team to a joint meeting of the three Ute tribes in Grand Junction, Colorado on June 14, 2002. NPS continued to keep the tribes informed of the progress of the RPS by such means as project newsletters, and through invitations to attend additional project meetings.

- December 11, 2001: Meeting with the Northern Ute Tribe at the Ute Indian Museum in Montrose to describe the RPS project; identify information needs of both parties; and discuss opportunities for on-going consultation regarding the RPS, and other NPS-related issues.
- June 14, 2002: Meeting with the Tri-Ute Council at its quarterly meeting in Grand Junction to explain the goals and objectives and current status of the RPS; seek comments and concerns from the Council; and obtain recommendations on how to proceed with consultation. Members of the Council in attendance included representatives from all three Ute tribes.

NEWSLETTERS

Three newsletters were prepared over the course of the project. All three newsletters may be seen on the NRA’s website at www.nps.gov/cure, by clicking on “Management,” then on “more information” under “Curecanti Resource Protection Study.”

The first newsletter was published in the spring of 2001. It provided a general description of the NRA and area resources, and described the study purpose and process. It provided a summary of study issues and concerns, outlined the data collection and analysis process, and highlighted the results

of a citizen's photographic assessment. The newsletter also solicited ideas from the public about resource protection and the potential for recreational use within and surrounding the NRA.

The second newsletter was released in the winter of 2002 to announce a series of public open houses. It again solicited comments on the unmet potential of land-based and reservoir tributary-based recreation and resource education in areas both within and surrounding the NRA.

The third newsletter was released in the fall of 2003 to present two major approaches to resource conservation — a Conservation Opportunity Area (COA), and a Joint Agency Management Effort (JAME); management considerations; preliminary boundary alternatives; and tools for encouraging conservation measures. The newsletter also solicited comments on the preliminary recommendations contained therein.

MULTI-AGENCY REVIEW VERSION OF THE DRAFT RPS/EIS

On April 28, 2005, a review version of the entire Draft RPS/EIS was distributed to partnering agencies for review and comment, at the same time the document was placed on official internal NPS regional and Washington office policy review.

RECLAMATION REVIEW VERSION OF THE DRAFT RPS/EIS

Reclamation provided extensive comments on the Multi-Agency Review Version of the Draft RPS/EIS, and wanted to review a follow-up version that addressed their comments. Therefore, a revised version of the Draft RPS/EIS was sent to Reclamation on June 21, 2006, for their review and

comment. Through close coordination between NPS and Reclamation, their comments on that revised version have been addressed in this current version of the Draft RPS/EIS.

COMPLIANCE WITH FEDERAL AND STATE LAWS, REGULATIONS, EXECUTIVE ORDERS, AND NATIONAL PARK SERVICE POLICIES

SECTION 106 CONSULTATION

Section 106 of the National Historic Preservation Act of 1966 (16USC, et seq.) requires that for any action that affects cultural resources either listed in or eligible for listing in the National Register of Historic Places, the associated American Indian tribes, and the Advisory Council on Historic Preservation be given opportunities to comment. The associated tribes and the Advisory Council have had opportunities to participate in the planning process since initial scoping.

CONSULTATION FOR SPECIES OF CONCERN

The Endangered Species Act of 1973 (16USC 1531, et seq.) must ensure that any action taken by a federal agency does not jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modifications of critical habitat. Section 7 requires that federal agencies consult with the U.S. Fish and Wildlife Service (USFWS) to make that determination. Information regarding threatened, endangered, proposed, and candidate species occurring in the area was obtained from USFWS, and is included in the Affected Environment chapter.

PUBLIC REVIEW PROCESS

At the time the Draft RPS/EIS is released for public review, notices of availability will be published in the Federal Register and the local media, and a summary of the Draft RPS/EIS will be distributed to each contact on the NRA's mailing list (currently about 700, including individuals, organizations, and government and agency offices). The full document will be available for review on the Internet at <http://parkplanning.nps.gov>, and at local libraries. The Draft RPS/EIS is subject to a 90-day public comment period. During this time the public is encouraged to submit their written comments to NPS, as instructed near the end of the Abstract at the beginning of this document.

Following the close of the comment period, all public comments will be reviewed, and NPS will issue responses to substantive comments received. Necessary and appropriate changes will be made to the document, and the Final RPS/EIS will be released, which will include public comments on the Draft RPS/EIS, and NPS responses to those comments.

The public will then have 30 days in which to lodge objections to the Proposed Action. Following this period, NPS will write a Record of Decision, and send a report to Congress. Implementation of the Proposed Action will then depend on congressional action.

LIST OF RECIPIENTS FOR THE DRAFT RPS/EIS

All of the recipients were sent the Summary of the Draft Resource Protection Study/Environmental Impact Statement. In addition, printed copies of the full document, and/or electronic versions on CD, were sent to some recipients such as government agencies and officials. In addition, the full document can be accessed on the Internet at <http://parkplanning.nps.gov>, and at local libraries.

Federal Agencies and Elected Officials

- Advisory Council on Historic Preservation
- Bureau of Land Management
- Bureau of Reclamation
- National Park Service, Legislative Affairs
- National Park Service, Washington Office
- Uncompahgre Plateau Project (a multi-agency/private partnership)
- U.S. Army Corps of Engineers
- Natural Resources Conservation Service
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Geological Survey
- U.S. Representative John Salazar
- U.S. Senator Wayne Allard
- U.S. Senator Ken Salazar
- Western Area Power Administration

Affiliated American Indian Groups

- Southern Ute Tribe
- Uintah and Ouray Ute Indian Tribe (Northern Ute Tribe)
- Ute Mountain Ute Tribe

State of Colorado Agencies and Elected Officials

- Colorado Department of Natural Resources
- Colorado Department of Transportation
- Colorado Division of Wildlife
- Colorado State Forest Service
- Colorado State Historic Preservation Office
- Colorado State Parks
- Office of the Governor, Policy and Initiatives
- State Representative Kathleen Curry
- State Representative Raymond Rose
- Former State Senator Lewis Entz
- State Senator Jim Isgar

Local Governments

- City of Delta
- City of Gunnison
- City of Montrose
- Delta County Board of County Commissioners
- Gunnison County Board of County Commissioners
- Gunnison County Planning Department
- Montrose County Board of County Commissioners
- Montrose County Land Use Department
- Town of Crawford
- Town of Hotchkiss
- Town of Paonia

Private Entities and Organizations

- Alliance of Backcountry Parachutists
- Black Canyon Anglers
- Black Canyon Audubon Society
- Black Canyon Land Trust
- Black Canyon Ranch Properties, L.L.C.
- Chipeta Chapter, Colorado Archeological Society
- Club 20
- Colorado Cattlemen's Agricultural Land Trust
- Colorado Environmental Coalition
- Colorado Livestock Association
- Colorado Mountain Club
- Colorado Native Plant Society
- Colorado Natural Heritage Program
- Colorado Open Lands
- Colorado River Energy Distributors Association
- Colorado River Water Conservation District
- Colorado Trail Riders
- Crawford Chamber of Commerce
- Crested Butte Chamber of Commerce
- Delta Chamber of Commerce
- Delta County Tourism Cabinet
- Delta/Montrose Electric Association
- Delta/Montrose Public Lands Partnership

- Grand Valley Anglers
- Gunnison Angling Society
- Gunnison Arts Center
- Gunnison County Association of Realtors
- Gunnison County Chamber of Commerce
- Gunnison County Electric Association
- Gunnison County Stockgrowers Association
- Gunnison County Trails Commission
- Gunnison/Crested Butte Tourism Association
- Gunnison Gorge Anglers
- Gunnison Ranchland Conservation Legacy
- High Country Citizens' Alliance
- Hotchkiss Chamber of Commerce
- Montrose Association of Realtors
- Montrose Chamber of Commerce
- Montrose County Cattleman's Association
- Montrose Historical Society
- Montrose Rod and Gun Club
- Montrose Visitor and Convention Bureau
- National Park Foundation
- National Parks and Conservation Association
- Paonia Chamber of Commerce
- Recreation Resource Management Region 10
- Rocky Mountain Elk Foundation
- Rocky Mountain Real Estate
- San Juan Mountain Runners
- Sheep Mountain Alliance
- Sierra Club, Rocky Mountain Chapter
- Sonoran Institute
- Southern Rockies Force Network
- The Access Fund
- The Conservation Fund
- The Nature Conservancy
- The Wilderness Society
- Trout Unlimited
- Trust for Public Lands
- Uncompahgre Valley Association

- Uncompahgre Valley Trail Riders
- Uncompahgre Valley Water Users Association
- Upper Gunnison River Water Conservancy District
- US Hang Gliding Association
- West Elk Loop Scenic and Historic Byway
- Western Colorado Congress
- Western Colorado Interpretive Association
- Western Horizon Resorts
- Western State College
- Wilderness Opportunities

Other

- Other contacts on the park's mailing list, mostly individuals (approximately 500)
- Various local repositories

PREPARERS AND CONSULTANTS

PREPARERS OF THE DRAFT RESOURCE PROTECTION STUDY/ ENVIRONMENTAL IMPACT STATEMENT

The following people were primarily responsible for preparing the Draft RPS/EIS, and/or important background papers used in the Draft RPS/EIS.

Bureau of Reclamation

Alan Schroeder, Natural Resource Specialist, EIS Cooperating Agency Representative from the BOR Lands and Recreation Resources Group, Western Colorado Area Office, Grand Junction, Colorado. Responsible for overall coordination of Bureau of Reclamation input to the study, the EIS, and recommendations to Congress. BS in Forest Science, Forest Management Option. Over 30 years of experience in Federal land and resource management with the US Bureau of Reclamation, US Bureau of Land Management, US Fish and Wildlife Service and US Forest Service. Over 27 years of experience in resource management planning and NEPA documentation with the

Bureau of Reclamation and the Bureau of Land Management.

National Park Service – Curecanti NRA/ Black Canyon of the Gunnison NP

- Marianne August, Project Assistant and GIS Specialist. Responsible for GIS analysis and cartography for the project, and coordinating information-gathering from other agencies. Bachelors Degree in Geography. Four years with the National Park Service.
- Ralph Falsetto, former Cartographic Technician. Responsible for GIS analysis and cartography for the project, and coordinating information-gathering from other agencies. Currently a GIS Specialist for USFS at Fishlake National Forest in Richfield, Utah. Bachelors Degree in Geology. Two years with the National Park Service.
- Forest Frost, Archeologist. Served as RPS liaison during consultations with the State Historic Preservation Officer and Ute tribal representatives. Provided technical support on issues dealing with the NRA's cultural resources. B.A. Anthropology, B.A. Geography, M.A. Geography. Member -- Registry of Professional Archaeologists. Twenty years with the National Park Service.
- Pete Hart, former Interim Superintendent. Overall oversight of the Draft Resource Protection Study during an extended period between permanent superintendents in 2003. Returned from retirement for several details in the National Park Service after a 34-year NPS career as a ranger, and later superintendent at some fifteen NPS areas. BA and MA in Geography.
- Dave Roberts, Management Assistant, RPS Park Liaison. Responsible for coordinating the project at the park level. Contributed to all sections of the document. Experience in NRA operations, interpretation, visitor and resource protection,

resource management, fee collection, environmental compliance, and NRA planning. Former Chief Ranger, Black Canyon of the Gunnison National Monument, Tonto National Monument, Fort Union National Monument; Park Ranger, Montezuma Castle National Monument; Park Technician, Fort Point National Historic Site, Muir Woods National Monument. BA in Economics, with post graduate work in Environmental Geography. Thirty-one years with the National Park Service.

- Connie Rudd, Superintendent. Responsible for management of Black Canyon of the Gunnison National Park and Curecanti National Recreation Area, including future implementation of the Draft Resource Protection Study, and coordination of partners and neighbors. Experience includes assignments as Deputy Superintendent at Shenandoah National Park (7 years), Superintendent at Oklahoma City National Memorial and Chickasaw National Recreation Area (4 years); Rocky Mountain Regional Chief of Interpretation, Planner with Harper's Ferry Center and Denver Service Center, field interpreter and educator at Grand Canyon and Rocky Mountain National Parks (10 years), English teacher at Colorado Mountain College (Steamboat), guest instructor at Albright Training Center and Mather Training Center. Participated in certificate program at Harvard University's Kennedy School of Government, Conservation Leadership Institute, 2006-2007. BA in English, MS in Physical Geography. Twenty-six years with the National Park Service.
- Ken Stahlnecker, Chief, Resource Stewardship and Science. Responsible for coordinating and providing natural and cultural resources input to the study process at the NRA level. Provided review for all sections of the document. Experience in

resource management, environmental compliance, NRA operations, and NRA planning. Former Resource Manager, Denali National Park and Preserve, Crater Lake National Park, Curecanti National Recreation Area, and Antietam National Battlefield. BS in Forest Science. Twenty-three years with the National Park Service.

- Sheridan Steele, former Superintendent. Responsible for initially setting the overall direction, and providing guidance and advice during the first four years of the study. In park management for 27 years, starting with NPS as Management Assistant at Cuyahoga Valley NRA. Prior to that, worked as a park planner for Ohio State Parks and for a non-profit conservation organization in Ohio. Also worked at Fort Scott NHS in Kansas and Rocky Mountain NP in Colorado, and was on detail in the Washington Office of NPS for a year. Superintendent of Black Canyon of the Gunnison National Park and Curecanti NRA for 7 years, ending in 2003. Currently Superintendent at Acadia NP in Maine. Holds a BS in Business Administration and MS in Natural Resources Management. Twenty-nine years with the National Park Service.
- Bill Wellman, former Superintendent. Responsible for overall management of Curecanti National Recreation Area and Black Canyon of the Gunnison National Park, and for providing guidance and advice on the Draft Resource Protection Study. Experience includes assignments as superintendent at Organ Pipe Cactus National Monument, AZ; Great Sand Dunes National Monument, CO; Timpanogos Cave National Monument, UT; and Fort Union Trading Post National Historic Site, ND. Holds a BS degree in Park Management from NC State. Thirty-four years with the National Park Service.

National Park Service – Intermountain Support Office, Denver

- Jeff Heywood, Team Leader, Landscape Architect/Planner, Contracting Officer's Representative. Responsible for overall management of the project. Contributed to all sections of the document. Experience at Intermountain Regional Office and NPS Denver Service Center writing general management plans, development concept plans, and environmental impact statements. Experience at Curecanti NRA as facility manager; and chief of planning, construction, and concessions. BS(IE) & ME(IND) in industrial engineering; MLA in landscape architecture. Twenty-eight years with the National Park Service.
- Dave Ruppert, Cultural Anthropologist. Produced a report on American Indian Affiliation at Curecanti NRA, and advised and participated in meetings with affiliated tribes. Presently works in the Office of Indian Affairs and American Culture, and serves as program manager for the Applied Ethnography Program in the Intermountain Region of the National Park Service in Denver, Colorado. Served as a cultural anthropologist with the cultural resources office of the National Park Service in the Intermountain Region, and has held joint appointments as a research anthropologist with the Bureau of Land Management and the Office of the Federal Inspector in Alaska. Served on the faculties of the University of Alaska in Fairbanks, Alaska, and Regis University in Denver, Colorado. Presently holds the position of associate professor of anthropology at the University of Colorado at Denver. Holds a PhD in cultural anthropology from the University of Arizona. Twenty-eight years with the National Park Service, the Bureau of Land Management, and the Office of the Federal Inspector.

Contractors

- Nicole Korbe, Environmental Planner. Primary author of the sections of the document on natural resources, including descriptions and impact analysis of water quality, geology and paleontology, vegetation and wildlife, and special status species. Also participated in meetings and workshops as a member of the planning team. Experience in NEPA, natural resource impact assessment, wildlife habitat assessments, vegetation community analysis, wildlife and vegetation surveys, threatened and endangered species permitting and compliance, wetlands permitting and assessment, and other aspects of environmental planning and compliance. B.S. in Biology with a minor emphasis in Geology, with post graduate work in Ecology and Hydrology. Seven years experience in natural resource assessment.
- Karen Lusby, NEPA Specialist/ Environmental Planner. Responsible for initial compilation of text for the Draft RPS/EIS. Conducted workshop to develop impacts. Compiled chapters on Purpose and Need, and Alternatives, in cooperation with park and regional staff; and authored sections on Scenic Quality, Economic and Social Conditions, Neighboring Private Lands and Landowners, and National Park Service and Neighboring Agency Management and Operations. Experience in park planning (DO-2), environmental compliance (DO-12), resource management, and economics from 8 years with the National Park Service, Denver Service Center, and 12 years in environmental consulting. B.S. in Outdoor Recreation and Park Administration, and M.S. in Forest Economics.
- Michael Morelli, Landscape Architect. Authored initial sections on Recreation Opportunities, and Interpretation and Educational Opportunities.

Currently Transportation Planner with NPS Washington Office of Transportation Management Program. Bachelors Degree in Environmental Design/Architecture from San Diego State University, and Masters Degree in Landscape Architecture from Louisiana State University. Over nine years with the National Park Service.

CONSULTANTS

The following people provided input to the Draft RPS/EIS; and/or the study team met with them, either individually or in group settings, to obtain information, ideas, and feedback relating to the Draft RPS/EIS.

Bureau of Land Management

- Arden Anderson, Recreation and Wilderness Specialist, Gunnison Field Office
- Allan Belt, former Uncompahgre Field Office Manager (retired)
- Craig Blacketter, former Natural Resource Specialist, Gunnison Field Office
- Joe Capodice, former Wildlife Biologist, Gunnison Field Office (retired)
- Dave Kaufmann, Associate Uncompahgre Field Office Manager
- Kenny McDaniel, Gunnison Field Office Manager
- Teresa Pfifer, Realty Specialist, Uncompahgre Field Office
- Barb Sharrow, Uncompahgre Field Office Manager
- Barry Tollefson, former Gunnison Field Office Manager (retired)
- Randall Zanon, Chief Cadastral Surveyor for Colorado, Colorado State Office

Bureau of Reclamation

- Jane Blair, General Engineer, Power Office
- Donald K. Phillips, Manager, Curecanti Field Division

Club 20

- Reeves Brown, President

Colorado Department of Natural Resources

- Shane Henry, former Assistant Director for Energy, Land and Forestry
- Tim Pollard, former Deputy Director for Policy

Colorado Department of Transportation

- Ron Alexander, Professional Engineer, Highway Operations
- Daryl Carlson, Resident Engineer, Highway Operations

Colorado Division of Wildlife

- Rick Basagoitia, District Wildlife Manager, Game Management Unit 55
- James Guthrie, Financial Initiatives Program Manager
- Doug Homan, District Wildlife Manager, Game Management Unit 63
- Jeff Oulton, District Wildlife Manager, Game Management Unit 54
- Tom Spezze, Southwest Regional Manager
- Bob Towry, former Habitat Section Supervisor (Lands, Grants, Awards, and Realty)
- J Wenum, Gunnison Area Manager
- Jim Young, former Gunnison Area Manager (retired)

Colorado Governor's Office

- Theresa Sauer, former Policy Analyst
- John Swartout, former Senior Policy Analyst

Colorado River Energy Distributors Association

- Leslie James, Executive Director

Colorado State Representatives

- Kay Alexander, former Representative, District 58
- Carl Miller, former Representative, District 56
- Gregg Rippy, former Representative, District 61

Colorado State Senators

- Lewis Entz, former Senator, District 5
- Jim Isgar, Senator, District 6
- Jack Taylor, Senator, District 8

Department of the Interior

- Judge Craig Manson, former Assistant Secretary of the Interior for Fish, Wildlife and Parks

Gunnison County

- Perry Anderson, former County Commissioner
- Hap Channel, County Commissioner
- John Devore, former County Manager
- Fred Field, former County Commissioner
- Jeff Guy, GIS Coordinator
- Dave Michaelson, former County Long Range Planner
- Mike Pelletier, County Long Range Planner
- Shannon Sprott, Planning Technician
- Neal Starkebaum, Assistant Director of Planning
- Jim Starr, County Commissioner (Chairperson)
- Paula Swenson, County Commissioner

Montrose County

- Susan Bronson, former Senior Planner
- Rick Gibbons, former County Planner
- Betsy Hale, former County Commissioner
- Joe Kerby, County Manager
- Leo Large, former County Commissioner
- Dave Ubell, former County Commissioner
- Steve White, Land Use Director

National Park Service – Curecanti NRA/ Black Canyon of the Gunnison NP

- Linda Alick, Chief Ranger
- Sarah Beetch, former GIS Cartographic Technician
- Danguole Bockus, Ecologist
- Joanie Budzileni, former Blue Mesa District Interpretive Specialist
- Jerry Burgess, former Facility Manager
- Myron Chase, former Resource Management Specialist
- Bob Cornelius, former Black Canyon District Ranger
- Michael Dale, Hydrologist
- Anna Marie Fender, former Interim Superintendent
- Schelle Frye, former Administrative Officer and Concessions Officer
- Don Hill, former Chief of Interpretation
- BJ Johnson, Outdoor Recreation Planner
- Ned Kelleher, former Blue Mesa District Ranger
- Matt Malick, Aquatic Ecologist
- Bill Putre, former Safety Officer
- Steve Riley, former Facility Manager
- Kinsey Shilling, former Blue Mesa District Ranger

- Paul Zaenger, Black Canyon District Interpretive Specialist
- Phil Zichterman, Chief, Interpretation, Education, and Technology

National Park Service – Intermountain Regional Office, Denver

- Kristin Cypher, former Cultural Landscape Architect
- James Doyle, Public Affairs Specialist
- Theresa Ely, GIS Program Manager
- Ron Everhart, former Intermountain Region Colorado State Director
- Clayton Frazier, Professional Land Surveyor
- Wayne Gardner, former Chief of Planning and Environmental Quality
- Sayre Hutchison, Architect
- Tom Keohan, Historical Landscape Architect/Historical Architect
- Lori Kinser, Visual Arts, Publications Specialist
- Christine Landrum, Historian
- Vicki Magnis, former GIS Specialist
- Steve Martin, former Regional Director
- Hugh Osborne, Community Planner with Rivers, Trails and Conservation Assistance Program
- Nancy Shock, GIS Specialist
- Mike Snyder, Regional Director
- Chris Turk, Regional Environmental Quality Coordinator
- Karen Wade, former Regional Director

National Park Service – Intermountain Regional Office, Santa Fe

- Katherine Cooper, former Realty Specialist
- Wyoma Hansen, Realty Specialist
- Susan Jordan, Realty Specialist

- Barbara Sulhoff, former Chief, Land Resources Program Center
- Glenna Vigil, Chief, Land Resources Program Center

National Park Service – Other

- Tim Connors, Geologist, Washington Office - Denver
- John Howard, Superintendent, Antietam National Battlefield
- Gary Johnson, Chief of Planning, Blue Ridge Parkway
- Mark Wondzell, Hydrologist, Water Resources Division – Fort Collins

The Nature Conservancy

- David Gann, Southwest Colorado Program Manager
- Betsy Neely, Director of Conservation Planning

Northern Ute American Indian Tribe

NOTE: The study team met with the following individuals. However, with the exception of Betsy Chapoose and Clifford Duncan, they should not be considered to have been designated by their tribe to be official consultation representatives.

- Smiley Arrowchis, Tribal Member
- Betsy Chapoose, Cultural Rights and Protection Director
- Clifford Duncan, NAGPRA/TCP Consultant
- Luke Duncan, Tribal Member
- Roland McCook, former Chairman
- Dana West, Tribal Member

Southern Ute American Indian Tribe

NOTE: The study team met with the following individuals. However, they should not be considered to have been designated by their tribe to be official consultation representatives.

- Pearl Casias, former Vice-Chairperson

- Neil Cloud, NAGPRA Coordinator
- Clement Frost, Chairman
- James Olgin, former Council Member

The Trust for Public Land

- Woody Beardsley, Project Manager
- Nissa Maddox, Program Associate
- Douglas Robotham, Colorado State Director

Uncompahgre Valley Water Users Association

- Mark Catlin, General Manager
- Jim Hokit, former General Manager

U.S. Fish & Wildlife Service

- John Kleopfer, former Fish and Wildlife Biologist, Western Colorado Ecological Services Field Office, Grand Junction
- David McGillivray, Chief, Division of Federal Aid, Migratory Birds and State Programs, Denver

U.S. Forest Service

- Dave Bradford, Rangeland Specialist, Paonia Ranger District
- Levi Broyles, District Ranger, Paonia Ranger District
- Jim Dawson, District Ranger, Gunnison Ranger District
- Mark Hatcher, Range Watershed Specialist, Gunnison Ranger District
- Carmine Lockwood, Planning Staff Officer, Gunnison, Grand Mesa, and Uncompahgre National Forests (GMUG)
- Steve Marquardt, Renewable Resources Staff Officer
- Justin McConkey, Range Technician, Paonia Ranger District
- Charlie Richmond, Forest Supervisor, GMUG

- Nancy Schwieger, Lands Staff, Paonia Ranger District
- Susan Spear, former District Ranger, Paonia Ranger District
- Bob Storch, former Forest Supervisor, GMUG
- Corey Wong, Public Service Staff Officer, GMUG

U.S. Representative Scott McInnis's Office

- Leslie Baker, former Constituent Services Caseworker
- David Ludlam, former Staff Assistant
- Scott McInnis, former U.S. Representative
- Melissa Simpson, former Senior Legislative Assistant

U.S. Representative John Salazar's Office

- Richard Baca, Northwest Regional Director
- John Whitney, Southwest Regional Director

U.S. Senator Wayne Allard's Office

- Cory Gardner, General Counsel
- Andrew Merritt, State Director
- Richard Poole, Area Director
- Derek Wagner, Staff Assistant

U.S. Senator Ben Nighthorse Campbell's Office

- James Doyle, former Communications Director
- Frank Fannon, former Senior Legislative Assistant
- Keith Johnson, former District Director
- Ginnie Kotnick, former Chief of Staff
- George Rossman, former District Director

U.S. Senator Ken Salazar's Office

- Trudy Kareus, Northwest Regional Director

Ute Indian Museum

- CJ Brafford, Director

Ute Mountain Ute American Indian Tribe

NOTE: The study team met with the following individuals. However, they should not be considered to have been designated by their tribe to be official consultation representatives.

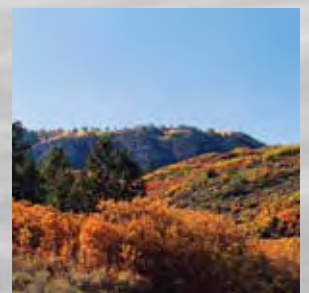
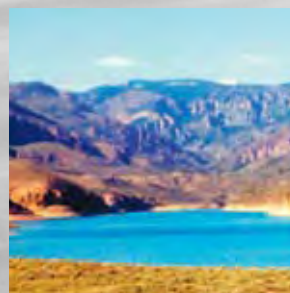
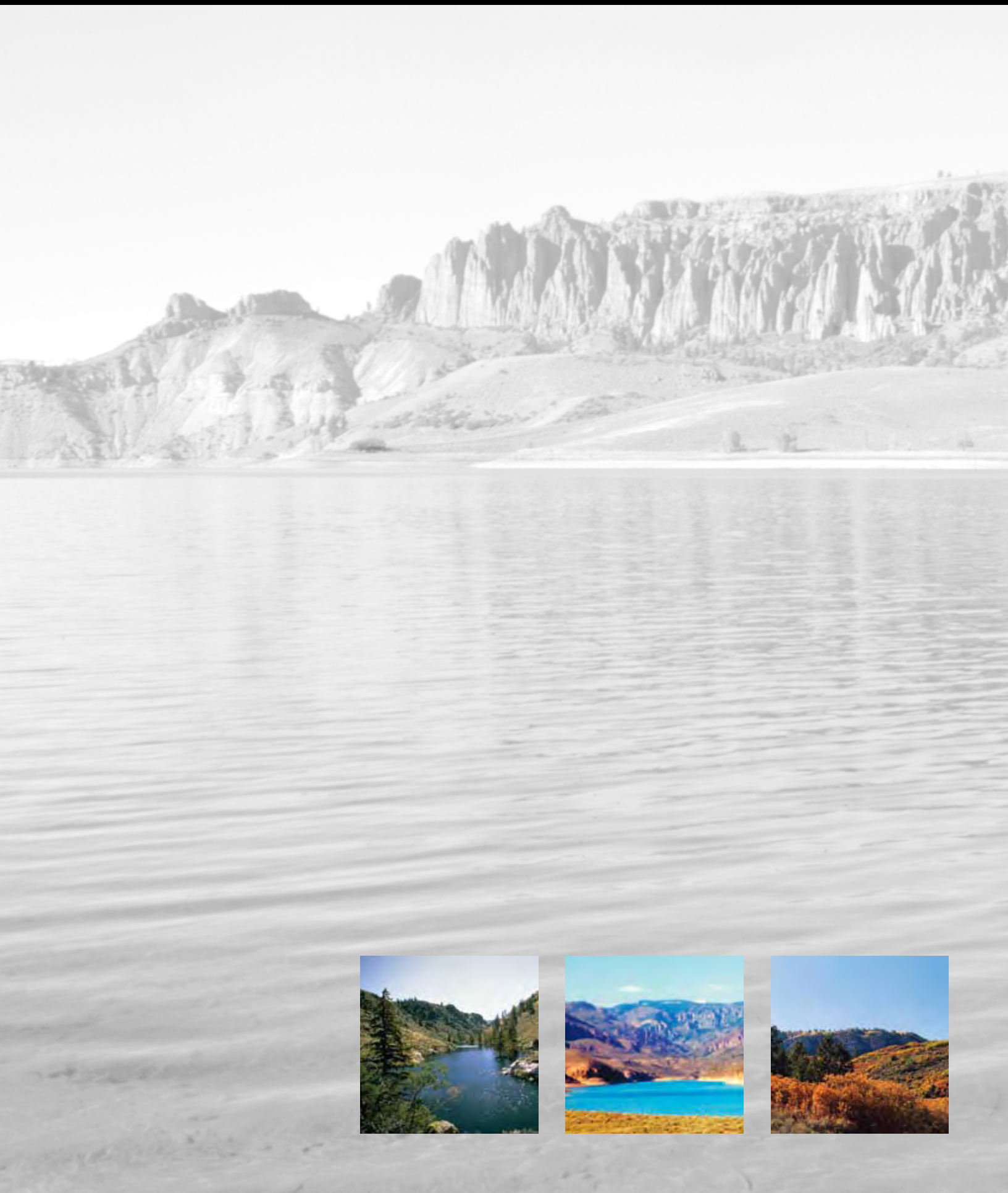
- Harold Cuthair, Tribal Member
- Manuel Heart, Tribal Councilman

Western Area Power Administration

- C. Shane Collins, Environmental Protection Specialist
- Susan Starceovich, Realty Specialist, Land Management
- Ron Turley, Field Maintenance Manager, Montrose

Other

Please refer to the lists of meetings with public agencies and officials, private groups and individuals, and American Indian tribes identified earlier in this Consultation and Coordination chapter.



Toolbox of Incentives for Resource Conservation

A Handbook of Ideas for Neighbors in the Curecanti Area



“Conservation is a state of harmony between land and man. . . A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity.”

Aldo Leopold
A Sand County Almanac, 1949

“Please take the time and effort to study the history of the Gunnison Country. This will give you an understanding and appreciation for the pioneers who tamed this land and, in many cases, spent a hundred years and four generations of a family completing what might be called our first “land use change.” It is our hope that through this understanding, you will approach your construction and development in a thoughtful and sensitive manner, to protect our unique community, our natural resources and our historic way of life.”

From The Code of the West
Gunnison County Planning Commission, July 1996

“Some of you may have heard me say before that the Four C's is a guide to how I want Interior to move forward. They stand for communication, consultation and cooperation, all in the service of conservation. At the heart of the Four C's is the belief that for conservation to be successful, we must involve the people who live on, work on, and love the land.”

The Honorable Gale Norton
Secretary of the Interior, March 17, 2002

Table of Contents

PURPOSE	1
TOOLS FOR RESOURCE CONSERVATION	2
Principles for Forging Long-Term, Sustainable Partnerships	2
A Variety of Landowner Incentives	3
General Considerations	3
Technical Assistance	4
General Agreements	4
Incentive Payments to Landowners	4
Acquisition of Conservation Easements, or Other Property Interests	5
Purchase and Retained Use and Occupancy	5
Fee Simple Acquisition from Willing Landowner	5
Conservation Easements	6
Advantages of Conserving Land	6
Conservation Easements Explained	7
Working with Land Trusts	7
Transfer of Development Rights (TDR)	8
Endangered Species Incentives	9
Landowner Incentive Program	9
Private Stewardship Grants Program	9
Colorado Species Conservation Partnership	9
Cultural Resource Incentives	9
Tax Credits for Owners of “Listed” Properties	9
State Historical Fund Assistance	10
Grazing and Open Space Incentives	10
Potentially Effective Local Policies/Incentives for Resource Conservation	12
Potential National Park Service Actions and Policies	13
SOURCES OF RESOURCE CONSERVATION ASSISTANCE AND FUNDING	15
FEDERAL	15
Catalog of Federal Domestic Assistance (CFDA)	15
Land and Water Conservation Fund	15
NPS (National Park Service) – Challenge Cost-Share Program (CCSP)	16
NPS – Conservation Study Institute (CSI)	16
NPS – National Natural Landmarks Program	16
NPS – National Register of Historic Places	17
NPS – Partnerships Beyond Public Lands	18
NPS – Rivers, Trails and Conservation Assistance Program (RTCA)	18
Steens Mountain Cooperative Management and Protection Area	18
TEA-21 The Transportation Equity Act for the 21st Century	18
USDA (U.S. Department of Agriculture) – Conservation Security Program (CSP)	19
USDA – Natural Resources Conservation Service (NRCS)	19
USFWS (U.S. Fish & Wildlife Service) – Grants-At-A-Glance	20
USFWS – Landowner Incentive Program (LIP)	20
USFWS – Private Stewardship Grants Program (PSGP)	20

Toolbox of Incentives

STATE OF COLORADO.....	21
Colorado Species Conservation Partnership	21
Colorado State Historical Fund.....	21
Great Outdoors Colorado Trust Fund (GOCO)	21
PRIVATE, NONPROFIT.....	22
American Farmland Trust.....	22
Black Canyon Land Trust	22
Colorado Association of Conservation Districts (CACD).....	22
Colorado Cattlemen’s Agricultural Land Trust (CCALT).....	23
Colorado Coalition of Land Trusts (CCLT).....	23
Gunnison Ranchland Conservation Legacy	24
Land Trust Alliance.....	24
National Association of Conservation Districts (NACD)	25
National Trust for Historic Preservation.....	26
The Nature Conservancy	26
Sonoran Institute	26
PUBLICATIONS.....	26
INDEX OF INCENTIVES AND RELATED TERMS AND TOPICS	27

Toolbox of Incentives



PURPOSE

This toolbox identifies various methods that can be employed to encourage Curecanti area neighbors—private landowners, local communities, and city, county, state, and federal agencies—to work in partnership to manage their lands for more effective resource conservation. It has been developed in association with the Resource Protection Study at Curecanti National Recreation Area to help conserve the natural, cultural, recreational, and scenic resources within and surrounding Curecanti.

Please be aware that some of the incentives in this toolbox, especially regarding technical assistance, are ideas that need additional consideration, and in some cases will require Congressional or legislative authorization and appropriations of funds. Also, we are not in a position to advise people on matters pertaining to legal issues, tax issues, estate planning, etc. For these matters readers should consider seeking professional advice.

For additional information, or to provide comments, please contact one of the following:

Superintendent
Curecanti National Recreation Area
102 Elk Creek
Gunnison, CO 81230
(970) 641-2337

Long Range Planner
Gunnison County
200 E. Virginia Ave.
Gunnison, CO 81230
(970) 641-7620

TOOLS FOR RESOURCE CONSERVATION



Principles for Forging Long-Term, Sustainable Partnerships ¹

In 1970 Congress declared that the units of the National Park System were a cumulative expression of our national heritage. During the past 30 years there have been several cycles of expansion of the system to encompass different types of resources and different strategies for protecting them so they will be unimpaired for the enjoyment of future generations. Increasingly, the recent designations rely on partnerships and shared investment in planning and management.

As the National Park Service (NPS) responds to demands for recognition, formal designation, and technical and financial assistance, discussions about the future of the agency often focus on three major questions:

- How will the NPS reach out to the changing and diverse population of the United States?
- How will the national parks address increasing public use pressures?
- How will the national parks be protected from threats that originate primarily beyond park boundaries?

Perhaps the "problem" of the burgeoning interest in establishing "nontraditional" areas is really the solution: that the agency must look beyond the traditional models and recognize the potential of partnerships to help the NPS fulfill its mission to protect our nation's natural and cultural heritage. Perhaps the distinction between "internal" and "external" programs is no longer valid because protecting the parks depends upon our ability to expand a stewardship ethic throughout the nation, to protect resources at the local level, and to see the units of the National Park System as hubs in a broader network of protected areas.

As the NPS moves increasingly from a paradigm of management to one of stewardship, there is an accompanying challenge to create a broader vision that encompasses the concept of partnerships, and to realign policies and procedures to support this shift in approach. The future is seen in which units of the National Park System and the partnership areas outside the System are all part of a nationwide network of parks and conservation areas that are relevant to a diverse population. This network includes resources protected through traditional public ownership, areas protected through the efforts of private organizations such as land trusts, and the resources conserved through collaborative strategies. This future includes a strong, innovative private sector working with a variety of audiences. Nonprofit organizations, institutions, academia, businesses, and public sector agencies all play important roles.

¹ From *Collaboration and Conservation - Lessons Learned in Areas Managed Through National Park Service Partnerships*, a report on a workshop held May 15-17, 2000 at Marsh-Billings-Rockefeller NHP.

Toolbox of Incentives

In order to create and sustain effective partnerships to conserve resources for the enjoyment of future generations on either side of a boundary that designates a park, river, trail, or heritage area, the following principles are important to follow:

- Build a common understanding and vision.
- Listen and be responsive to the needs of others.
- Build relationships and sustain trust.
- Work openly and inclusively in ways that build a partnership team.
- Be flexible and responsive to changing circumstances.
- Be willing to share control, and work together in ways that empower the partners.
- Have a realistic understanding of each partner's mission and perspective, and seek to resolve issues in ways satisfactory to all parties.
- Tell the stories of people and place, providing accurate, well-focused information.
- Clarify roles and expectations.
- Move toward clarity and respect.
- Accomplish one project together.
- Explore commonalities.
- Capitalize on differences.
- Accept and cherish diversity of values.
- Develop a shared vocabulary.
- Check the environment for opportunities.
- Begin looking out for each other.
- Establish regular communication.
- Maintain continuity, and transfer knowledge.
- Develop ways to continually share experiences and understanding.
- Check in periodically on the partnership.
- Celebrate successes.

A Variety of Landowner Incentives

General Considerations

Conservation efforts that strive to protect and/or maintain the natural, cultural, recreational, and scenic values of the land, in combination with location adjacent to public lands, can enhance the future economic value of the property and be a positive contribution to quality of life.

- “Study after study shows that communities that preserve their character and natural values consistently outperform the economies of those that don't.”²
- “More and more gateway communities are finding that adjoining parks, wildlife refuges, or wilderness areas can be powerful economic assets. Tourism is an obvious way to capitalize on nearby public lands. But parks, refuges, and wilderness areas also are valuable for the contribution they make to local quality of life. *Quality of life* is a catchall term used to describe the non-economic amenities a community has to offer, including clean air and water, safe streets, open space, cultural events, recreational opportunities, uncongested roads, good schools, and scenic views.”³

² Howe, Jim, Ed McMahon, & Luther Propst, *Balancing Nature and Commerce in Gateway Communities* (1997, Island Press), p. 7.

³ Ibid., p. 9.

Toolbox of Incentives

Technical Assistance

The National Park Service (NPS) is currently able to provide some environmental education and technical assistance to landowners, and expects to be able to provide a broader range of assistance in the future, such as:

- Offering advice regarding resource management and conservation measures, or directing individuals to appropriate sources of information.
- Offering advice on siting and design considerations for environmentally sensitive development.
- Offering jurisdictional advice, such as referring property owners to the appropriate government or organizational entity.
- Offering wetlands advice on the location of wetlands, the need for permits, and ways to enhance wetlands habitat.
- Providing information about appropriate resource conservation practices, including information on conservation easements and land trusts.
- Providing assistance to obtain funding for worthwhile projects through government grants, such as U.S. Department of Agriculture cost-share grants to install animal waste-treatment units, to promote cleaner surface water and groundwater.

General Agreements

General Agreements and Memorandums of Understanding set the stage for short-term and long-term commitments in cooperative assistance, usually benefiting all parties involved.

- Examples include cost sharing on projects that mutually benefit the parties, or understandings on how certain activities or operations can occur. One party might agree to certain restrictions in return for other benefits, including technical assistance, labor, and/or materials needed to accomplish a project that will be of benefit to the property owner and NPS. Projects could include those that protect wildlife and habitat, or those that reduce impacts to viewsheds.
- Agreements are especially useful if a conservation easement or fee simple acquisition is agreed upon, but funds are not yet available to implement. General Agreements and Memorandums of Understanding clarify policies or procedures, and can serve as the basis for cooperation among two or more parties. They are most likely to be useful for land owned by state or local governments, private non-profit organizations, and other federal agencies, and by individuals or corporations who are supportive of unit purposes. They may be terminated whenever any of the parties to the agreement wish, with proper notice.

Incentive Payments to Landowners

Through a variety of grant programs, including those of NPS, US Fish and Wildlife Service, Colorado Division of Wildlife, and others, payments are made to property owners and other entities who enter into contracts to conserve or enhance recreational, cultural, and natural resources.

Toolbox of Incentives

Acquisition of Conservation Easements, or Other Property Interests

In this program, NPS, or another agency or organization, including land trusts, acquires an interest in the property on a willing-landowner basis, for conservation purposes. The types of tools used include acquisition of conservation easements or deed restrictions, mineral rights, and/or rights-of-way. Activities that are not in conflict with the purposes of the easement or deed are generally allowed, while specific restrictions ensure that uses of the property remain compatible with the conservation purposes spelled out in the easement or deed.

- In appraising non-Federal land, development rights, or conservation easements for possible acquisition, the government shall disregard any adverse impacts on values resulting from inclusion within, or association with, the National Recreation Area; i.e., fair market value will be determined.
- The terms and conditions of the easement are generally agreed upon through negotiation. Examples of activities that could be allowed include:
 - Retention and/or restricted development of residential structures
 - Livestock grazing
 - Other farming and ranching practices
 - Specified tree cutting
 - Hunting
- Although the landowner continues to pay property tax, there may be significant income tax and estate tax benefits to the landowner.

Purchase and Retained Use and Occupancy

In this scenario, NPS buys the property from a willing landowner at fair market value, and the owner gets to stay (rent free) until death (life estate), or some other agreed-upon time period, such as 25 years. Life estates impact valuation, and appraisals are lowered using an actuary table on life expectancy.

- In appraising non-Federal land for possible acquisition, the government shall disregard any adverse impacts on values resulting from inclusion within, or association with, the National Recreation Area; i.e., fair market value will be determined.
- Types of leases include:
 - Life estate
 - 25-year lease
- Federal government may provide payment-in-lieu-of-taxes to the county.

Fee Simple Acquisition from Willing Landowner

In this instance, NPS acquires all rights or interests in the land on a willing-landowner basis. The property owner is reimbursed, unless the land is donated.

- In appraising non-Federal land for possible acquisition, the government shall disregard any adverse impacts on values resulting from inclusion within, or association with, the National Recreation Area; i.e., fair market value will be determined.
- Land is acquired through means such as the following:
 - Direct purchase using funding from the Land and Water Conservation Fund, established under Section 2 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-5), or funding from donated dollars.

Toolbox of Incentives

- Third party purchase through entities such as land trusts and conservation organizations.
- Land exchange—exchanging parcels of like value.
- Bargain sell—whereas the parcel is purchased for less than appraised value, and property owner receives a tax benefit for the difference (i.e., the donated portion).
- Donation of the entire parcel, in which case there would be tax advantages property owner.
- Federal government may provide payment-in-lieu-of-taxes to the county.

Conservation Easements

Advantages of Conserving Land

Conserving land may be the single most important lasting contribution a landowner can make to future generations, because, as we all know – land is a limited resource! In addition, depending upon each landowner's individual circumstances, there may be Federal and State income tax benefits, and property and/or estate tax benefits. These benefits can be maximized if the landowner donates a conservation easement, or a portion of the benefits may be available if the easement is sold at a discounted price.

NOTE: Information pertaining to tax and other benefits is provided for general purposes only, and does not constitute legal advice or opinion in any way. As these laws and regulations change over time, you are urged to consult your attorney regarding specific legal questions you may have.

Federal Income Tax Benefits

The value of a conservation easement may qualify as a charitable deduction against the landowner's federal income tax. This deduction may be used to offset up to 30% of the landowner's adjusted gross income per year for a total of six consecutive years.

Colorado State Tax Benefits

On or after January 1, 2003, the first \$100,000 of value of a donated conservation easement is treated as a credit against Colorado state income taxes. Then, 40% of the next \$400,000 of the value of the donation may be claimed; but in no event can the total credit exceed \$260,000 per donation. Any portion of the tax credit not used in the year of donation can be used in the 20 succeeding income tax years. The amount of donation exceeding \$260,000 may be used as a charitable deduction against state income tax. In May 2000, legislation was passed to allow the transfer of the above tax credit to a third party, or, in years of state revenue surplus, to claim a refund for the tax credit.

Estate Tax Benefits

When a conservation easement is placed on a property, most often the property value will be decreased and this will decrease the taxable value of the deceased's estate. In addition, if the easement qualifies under certain provisions of the Internal Revenue Code, then 40% of the property value remaining after the granting of an easement can be excluded from the value of the estate, up to a maximum exclusion of \$400,000 (increasing to \$500,000 in 2002).

Property Tax Benefits

If the property is being taxed at the agricultural rate at the time the easement is placed, the landowner may continue to receive the favorable agricultural tax treatment even if agricultural production is discontinued in the future.

Toolbox of Incentives

Conservation Easements Explained⁴

"Conservation easements allow landowners to realize financial benefits from their land without selling or subdividing their property. Their flexibility and effectiveness make them applicable to a variety of land uses.

"To understand how conservation easements work, it is first necessary to understand the nature of real estate. Legally, real estate can be thought of as a 'bundle' of property rights, which includes the right to farm or ranch, to construct buildings, to subdivide the land, to restrict access, to harvest timber, or to mine. In many instances, a right can be separated from the bundle and transferred to another party. Mineral rights to property, for example, are commonly bought and sold separately from surface rights.

"Conservation easements involve the purchase or donation of a property's development rights. An easement permanently extinguishes these rights so that a property can never be developed. The land remains on the tax rolls, in private ownership, and can be sold to others or passed on to heirs.

"Easements are tailored to each particular property and to the needs of each individual landowner. Agricultural preservation easements, for example, allow continued farming or ranching and do not include public access. Easements can be placed on an entire tract of land or on only part of a property. In many cases, conservation easements allow 'limited development' or commercial use of part of the land, so long as these activities do not affect the land's conservation value.

"Easement restrictions are typically permanent and 'run with the land,' binding the original landowner and all future landowners. Like all property rights, conservation easements are recorded with the county clerk so that future owners and lenders will know about restrictions when they obtain title reports.

"Easements can offer significant tax benefits to landowners. Landowners who donate easements or sell them below market value can receive income tax deductions for the value of their charitable donation. Landowners also can benefit from lower estate and property taxes since their property is stripped of its development rights."

Working with Land Trusts⁵

WHAT IS A LAND TRUST? A land trust is a non-profit organization organized as a charitable entity under the laws of the United States and Colorado. Land trusts work with landowners to voluntarily conserve open lands located in the area the land trust serves. Land trusts in Colorado are located in communities across the State, and are run primarily by volunteer boards, a few of whom have the assistance of some paid staff. Land trusts work with their neighbors to help voluntarily conserve Colorado lands without government regulation.

HOW DOES A LAND TRUST CONSERVE LAND? Land trusts use a variety of tools to accomplish voluntary land conservation, including the acquisition (by donation or by purchase) of conservation easements, deed restrictions, and fee title to land, development of management agreements, and strategic estate planning. Land trusts are experts at working with willing landowners to craft the result that works best for the landowner and their community on each individual transaction.

⁴ From *Balancing Nature and Commerce in Gateway Communities*

⁵ Source: Colorado Coalition of Land Trusts

Toolbox of Incentives

ARE LAND TRUSTS SUCCESSFUL? There are 38 land trusts located throughout Colorado - 33 local land trusts and 5 regional or national land trusts. As of the end of 1999, these groups were responsible for the conservation of over 630,000 acres of special lands in the State of Colorado. Nationally, there are over 1,200 land trusts that have protected almost 4.7 million acres (an area larger than the states of Connecticut and Rhode Island combined). Across the country, approximately 1 million people are members and financial supporters of land trusts, and more than 50,000 people are active volunteers.

WHAT KINDS OF LANDS DO LAND TRUSTS PROTECT? Each land trust adopts specific priorities for the types of land it works to conserve; however, almost every land trust in Colorado prioritizes the conservation of agricultural lands and open space. Other examples of the types of land that Colorado land trusts generally work to conserve are: wildlife habitat, wetlands and riparian areas, river corridors, community separators, and watersheds.

HOW DOES A LAND DONATION WORK? Donating land to a land trust can further conservation in Colorado in many ways. A landowner may be able to continue to live on the land, or to receive a life income, or to receive favorable income tax treatment from a land donation. A land donation might be used to provide a passive open space parcel for educational or public access purposes, or it might be used to generate income for a local land trust by allowing the trust to re-sell the land with restrictions and use the revenue to conserve additional lands. Flexibility is the key, and land trusts work with landowners to find the right solutions to the landowner's needs.

WHAT IF I CANNOT AFFORD TO DONATE MY LAND OR A CONSERVATION EASEMENT? Selling land or an easement to a land trust at less than its fair market value (a "bargain sale") can make the purchase affordable for a land trust and provide tax benefits and some cash to the landowner. There are some limited sources of funds available to land trusts for such purchases, such as Great Outdoors Colorado Trust Fund monies. In addition, some land trusts, in some circumstances, can assist landowners with the costs associated with conserving their land, such as appraisal fees, legal fees, survey costs and the like.

DO I HAVE TO WORK WITH A PARTICULAR LAND TRUST TO CONSERVE MY LAND? It is entirely up to the landowner to choose the entity he or she wishes to work with to conserve their land; however, local land trusts often are a good choice because of their knowledge of the local community, their closeness to the property and its owner, and the efficiency of having the conservation project monitored by a local entity. There are national or regional land trusts that work to conserve particular types of land (such as the American Farmland Trust or The Nature Conservancy), and a landowner might choose to work with such a land trust if the landowner's property matches the type of land the larger land trusts work to conserve. The Colorado Coalition of Land Trusts can assist landowners in contacting a land trust to discuss conservation.

Transfer of Development Rights (TDR) ⁶

"The TDR program creates a framework under which landowners can transfer development rights from protection zones, or 'sending areas,' to growth centers, or 'receiving areas.' Sending areas are lands that warrant protection, which can include anything from farmlands to wetlands. By contrast, receiving areas are towns and other urban areas where future growth is desired. Once the county designated its sending and receiving areas, the marketplace took over."

⁶ From *Balancing Nature and Commerce in Gateway Communities*

Toolbox of Incentives

Note: TDR programs are not yet established in either Gunnison or Montrose Counties. This information is provided in the event such programs do become viable in this area.

Endangered Species Incentives

Landowner Incentive Program

This is a program administered by the U.S. Fish & Wildlife Service (USFWS), to provide money to states for preserving species of special concern. The program is still under development. \$40,000,000 will be available nation wide. The money will be made available through the state divisions of wildlife. States have up to \$1,700,000 to distribute to landowners based on a competitive process. The purpose of the money is for the protection, restoration, and management of habitat that benefit species at-risk. It is anticipated that once the program is in place, landowners will apply directly to the Colorado Division of Wildlife (CDOW). For additional information, contact Ken Morgan, Private Lands Habitat Program Coordinator (CDOW) at (303) 291-7404.

Private Stewardship Grants Program

This is a program administered by U.S. Fish & Wildlife Service that provides \$10,000,000 in federal grants and other assistance on a competitive basis to individuals and groups engaged in voluntary conservation efforts on private lands that benefit at-risk species including Federally-listed endangered or threatened species as well as proposed or candidate species. Under this program, landowners and their partners will be able to submit proposals directly to USFWS for funding to support those efforts.

Colorado Species Conservation Partnership

This is a program run by the State of Colorado, involving the U.S. Department of the Interior, Colorado Division of Wildlife, the Great Outdoors Colorado Trust Fund, county governments, and non-governmental organizations throughout the state, that will pay landowners to help protect species that are listed, or have the potential to be listed, under the Endangered Species Act, via management agreements, conservation easements or leases. Landowners are paid through the partnership (according to the property's value) for the term of the agreement not to sell their land for development, or they are paid to help maintain or develop habitat on their property. For additional information, contact Ken Morgan, Private Lands Habitat Program Coordinator (CDOW) at (303) 291-7404.

Cultural Resource Incentives⁷

Tax Credits for Owners of "Listed" Properties⁸

"Owners of properties listed in the National Register may be eligible for a 20% investment tax credit for the certified rehabilitation of income-producing certified historic structures such as commercial, industrial, or rental residential buildings. This credit can be combined with a straight-line depreciation period of 27.5 years for residential property and 31.5 years for nonresidential property Federal tax deductions are also available for charitable contributions for conservation purposes of partial interests in historically important land areas or structures."

⁷ For additional information contact The National Trust for Historic Preservation at (303) 623-1504

⁸ Visit the website www.cr.nps.gov/nr/results.htm for additional information

Toolbox of Incentives

State Historical Fund Assistance

The State Historical Fund of the Colorado Historical Society Office of Archeology and Historic Preservation has grant monies available to public entities and non-profit organizations for historic properties that are either listed in the National Register, the State Register, and/or are local landmarks. Their website is www.coloradohistory-oahp.org/programareas/shf/projecttypes.htm.

Grazing and Open Space Incentives⁹

NOTE: The following information relates to livestock grazing issues and recommendations at Grand Teton National Park. The ideas presented here are those that still need additional consideration if to be applied to the Curecanti area.

With the 1996 death of the last surviving heir to certain livestock grazing permits in Grand Teton National park that were issued when the Park was established in 1950, whether or not to re-issue those Park grazing permits for some undetermined period of time became a nationally significant issue. Without summer grazing in the Park, there was a threat that ranches holding those grazing permits would no longer be economically viable operations, and would be subdivided into residential areas. Subdivision would irretrievably destroy the open spaces and pastoral character of lands near and adjacent to the Park.

To address this concern, Public Law 105-81, approved November 13, 1997, mandated the Secretary of the Interior to assess, and report to Congress, the significance to the purpose and character of the Park of "the ranching use and pastoral character of the land" on those ranches, and to recommend "a variety of economically feasible and viable tools and techniques to retain the pastoral qualities of the land."

PL 105-81 directed the Secretary of the Interior to "seek participation from the Governor of the State of Wyoming, the Teton County Commissioners, the Secretary of Agriculture, affected landowners and other interested members of the public." Recognizing the complexity of the issues and the variety of divergent viewpoints that needed to be considered, the National Park Service (NPS) chose a collaborative, facilitated study approach with a group of 14 people, called the Grand Teton National Park Open Space Work Group. Though the group did not necessarily represent the demographic proportions of the interests in the area, all area interests were included in the group. Work Group members held 16 meetings from February, 1999 to April, 2001.

The significance of open spaces and the pastoral character of ranch lands to the Park, to Jackson Hole, and to the visitor experience has been recognized since the earliest times. The Work Group reached consensus that protecting open spaces on those ranches holding livestock grazing permits in the park is still important - to the Park, to area residents, and to the national public. Most Work Group members also agreed that preserving ranching use on those lands is the most effective means of protecting the open space and pastoral character of the area, although preserving ranching by itself would not offer permanent protection.

⁹ A Model: Economically Feasible and Viable Tools and Techniques to Retain the Pastoral Qualities of the Land; from *Report of the Grand Teton National Park Open Space Work Group*, Pursuant to Public Law 105-81, Jackson, Wyoming, May 1, 2001, a Recommendation to Congress. (Related to the *Grazing Use and Open Space Study and Environmental Analysis* for Grand Teton National Park and Teton County, Wyoming, April 1, 2001.)

Toolbox of Incentives

Key findings of the Work Group include:

- Current tax laws inhibit the transfer of large land holdings between family members.
- The loss of summer grazing options in the Park threatens the viability of the affected working ranches.
- There is an economic value for the ranchers derived from grazing permitted in the Park, and there are significant, unrecovered costs to the NPS to manage and maintain the grazing permits.
- Preservation of open space near and adjacent to the Park is important for maintaining scenic, wildlife, and cultural values.
- Permanent protection of open space requires formal, legal arrangements with the landowners, such as conservation easements or outright purchases of the Study Area lands.

Therefore, per their charge set forth in PL 105-81, the Work Group recommended the following incentives to Congress:

1. Modify inheritance and estate tax law to avoid forcing ranching families to sell or subdivide their land to pay these taxes.
2. Legislatively fund and/or encourage the acquisition of easements using tools such as modification of income and estate tax laws and outright funding through cash and exchanges.
3. Direct the NPS to define, in consultation with permittees, base properties associated with each grazing permit and restriction of activities on those base properties which will protect open space, if grazing permits appurtenant to the ranchlands in the Study Area should continue.
4. If Congress determines that these grazing permits should continue, the NPS should review grazing lands management and permitting policies and modify if necessary with a goal of accomplishing the Park's mission.
5. If Congress determines that these grazing permits should not continue, Congress should fund programs that will maintain the ranching operations or otherwise protect the pastoral character of the open space on the base properties.
6. Authorize and fund use of these recommended tools by the Department of the Interior, either alone or in partnership with other public or private entities.

The same Grand Teton report also offered the following tools for preserving open space, which were considered to be less feasible:

- Change cow-calf operations to yearling operations.
- Adjust boundaries.
- Allow grazing on National Forest allotments.
- Allow grazing on private lands outside Teton County.
- Encourage grassbanking (providing grazing in other areas).
- Allow grazing or grassbanking on the National Elk Refuge.
- Acquire land in fee simple.

Toolbox of Incentives

Potentially Effective Local Policies/Incentives for Resource Conservation¹⁰

Just as federal land managers need to understand the economic and social interests of local communities, local officials need to understand the mission, purpose, goals and objectives of federal land managers. Potential local policies and incentives include:

Enact land-use policies, and use creative methods to insure that development is compatible with resource protection goals. (The economic impact of wildlife habitat, historic preservation, and an aesthetic environment is significant.)

- Adopt land-use plans that seek to preserve resources and community character.
- Set siting and design standards that preserve aesthetically attractive views; incorporating proper location, size, height, color, reflectivity, and landscaping with indigenous materials.
- Encourage fencing that is "wildlife-friendly."
- Provide a density bonus to developers who protect a portion of their land with conservation easements.
- Allow for the transfer of development rights, and provide a revolving loan fund to support land conservation.
- Restrict or prohibit development in sensitive areas.
- Encourage farms, ranches, parks, and open space outside the city's core, rather than sprawling, low-density residential development, to reduce the requirement for expensive services, such as schools, road maintenance, water and sewer, police and fire protection, and trash collection, which might not be offset by tax revenues.
- Limit commercial development.
- Institute an awards program that recognizes excellence in design and resource preservation.
- Provide economic incentives.
 - Provide tax abatements that promote the rehabilitation of historic buildings.
 - Provide tax credits to landowners that implement resource protection/enhancement methods, such as erosion control or stream-bank restoration.
 - Encourage local banks to provide low-interest loans for rehabilitating historic buildings.
 - Provide incentives that encourage developers to plan projects with the needs of the larger community in mind.
- Conduct public education campaigns, and encourage voluntary action by citizens regarding resource protection.
- Appeal to the philanthropic spirit of citizens who might donate land or easements; and pay for the landowners' legal expenses.
- Encourage local leaders to step forward and get involved in resource preservation efforts, especially in their relationships with landowners.
- Acquire sensitive lands, open space, and conservation easements via income from innovative programs, such as:
 - Fundraising campaigns
 - A "tourist impact tax" on hotel and motel rooms (e.g., 1%)
 - A one-time impact fee on each new development in the county
 - Occupancy fees on commercial and retail outlets
 - A voluntary sales tax (e.g., 0.5%)

¹⁰ Many of these ideas are found in "*Balancing Nature and Commerce in Gateway Communities*."

Toolbox of Incentives

- A transfer tax on local real estate transactions (Crested Butte imposes a 2.25% real estate transfer tax, and Vail imposes a transfer tax.)
- Donations from local developers for every home or lot they sell (e.g., \$100 to \$500)
- ISTEA funding (Intermodal Surface Transportation Efficiency Act). This is a program to fund projects protecting natural areas, parks, wildlife habitat and historic sites, especially related to transportation enhancement projects. This has been interpreted by some states to be protection of viewsheds and natural areas.
- Enhance visual aesthetics.
 - Insure that architecture is compatible with a landscape's or community's unique setting and character, in terms of siting and design, size, form, height, external materials, color, texture, and reflectivity.
 - Protect critical views.
 - Respect the integrity of mountains and ridge lines.
 - Restrict building heights.
 - Restrict billboards.
 - Incorporate appealing elements in developed areas that create pedestrian-friendly environments: tree-lined streets; well-landscaped walkways; attractive signs; historic facades; compatible lighting and landscape furniture.
- Actively involve a broad cross-section of residents in determining and planning for the future, and capitalize on the community's distinctive assets -- architecture, history, and natural surroundings. Use a variety of private-sector tools and market incentives to influence design, such as:
 - Develop a widely shared vision.
 - Create an inventory of local resources.
 - Build on local assets.
 - Minimize the need for regulations.
 - Meet the needs of both landowner and community.
 - Team up with public land managers.
 - Recognize the role of nongovernmental organizations.
 - Provide opportunities for leaders to step forward.
 - Pay attention to aesthetics.

Potential National Park Service Actions and Policies

The National Park Service can look out for local economic interests, strengthen the local economy, assist with resource preservation outside the NRA, and enhance quality of life by:

- Establishing and maintaining good relations with the local communities
- Partnering with the local city and county governments in resolving issues of mutual concern, and staying involved with community planning efforts, through park staff and agency support groups such as the Rivers, Trail and Conservation Assistance Program (RTCA)
- Raising the level of consciousness in the park staff about the importance of park resources, their preservation, and their relationship to the local economy and quality of life, to improve outreach and partnership possibilities
- Educating people about the importance and methods of resource conservation, through on-site interpretive/educational programs, and outreach activities

Toolbox of Incentives

- Promoting the NRA's attractiveness in the off-season, to encourage more visitation distributed throughout the year
- Encouraging visitors to frequent local businesses
- Purchasing supplies from local businesses
- Hiring local residents
- Providing financial and technical assistance
- Minimizing camping and staff housing within park boundaries, so that more of it occurs on private land outside the park
- Helping the Counties obtain federal funding to designate local roads as scenic byways
- Providing trail networks connecting local communities with the NRA
- Assessing user fees to restore damaged areas within and surrounding the NRA
- Enlisting the help of independent land trusts to negotiate conservation easements which to protect land, while accommodating local needs for economic development and property-tax revenue
- Supervising local volunteers to enhance resource protection and recreation opportunities within and surrounding the NRA on projects such as environmental data collection, water quality monitoring, wildfire management activities, erosion control measures, and construction and maintenance of fences, trails, and back-country camping areas
- Managing, with the involvement of the local communities, a nationally significant resource which attracts a million visitors per year that will spend money at local businesses; which contributes to increased property values of surrounding land; and which provides unique recreational opportunities that enhance the local quality of life.

SOURCES OF RESOURCE CONSERVATION ASSISTANCE AND FUNDING



FEDERAL

Catalog of Federal Domestic Assistance (CFDA)

www.cfda.gov

The online Catalog of Federal Domestic Assistance provides access to a database of all Federal programs, including grants, available to State and local governments (including the District of Columbia); federally-recognized Indian tribal governments; Territories (and possessions) of the United States; domestic public, quasi-public, and private profit and nonprofit organizations and institutions; specialized groups; and individuals. This site deals with all types of assistance, not just financial aid. Therefore, it uses "Assistance Program" as a generic term rather than speaking specifically of a grant, loan, or other sort of program.

For more direct access to Federal grants relating to many topics, including Environmental Quality and Natural Resources, go to "Grants.gov," at www.grants.gov.

Land and Water Conservation Fund

www.ahrinfo.org/lwcf_overview.html

Created by Congress in 1964, the Land and Water Conservation Fund (LWCF) provides money to federal, state and local governments to purchase land, water and wetlands for the benefit of all Americans. Such lands and waters are used to:

- Provide recreational opportunities
- Provide clean water
- Preserve wildlife habitat
- Enhance scenic vistas
- Protect archaeological and historical sites
- Maintain the pristine nature of wilderness areas.

Land is bought from landowners at fair-market value (unless the owner chooses to offer the land as a donation or at a bargain price). The Fund receives money mostly from fees paid by companies drilling offshore for oil and gas. Other funding sources include the sale of surplus federal real estate and taxes on motorboat fuel. LWCF is administered on a regional and national level by the National Park Service.

Toolbox of Incentives

NPS (National Park Service) – Challenge Cost-Share Program (CCSP)

Through its Challenge Cost-Share Program, the National Park Service provides a maximum 50% cost-share grant to expedite and complete mutually beneficial projects with outside sources. The purpose is to increase awareness and participation by both neighboring communities and the public at large in the preservation and improvement of NPS recreational, cultural and natural resources. Partners (outside sources) include individuals, groups, companies, corporations, state and local agencies, and other non-federal entities that will donate funds, equipment, supplies, or in-kind labor to complete a project. Projects are generally intended to be small, able to be completed in one year and consistent with park planning documents. Projects are nominated for funding each year by parks and support offices, along with eligible partners. CCSP funds may be used to support all NPS programs - both inside and outside of parklands, and on national trails. The Challenge Cost-Share Program encourages multiple partners, nontraditional partners, and private-sector partners.

- A "partner" is defined as a person, group or organization that shares a common interest with NPS in preserving natural or cultural resources or enhancing public enjoyment or public understanding of a resource and collaborates with NPS to achieve similar goals.
- The NPS share of any one CCSP project shall not exceed \$30,000.
- For additional information contact Mary Padilla, National Park Service, at (505) 988-6809.

NPS – Conservation Study Institute (CSI)

www.nps.gov/csi

The Conservation Study Institute was established in 1998 by the National Park Service (NPS) to enhance leadership in the field of conservation. In collaboration with the NPS and academic and nonprofit partners, the Institute provides a forum for the conservation community to discuss conservation history, contemporary issues and practice, and future directions for the field. The Institute's vision of conservation is inclusive and interdisciplinary. Its vision encompasses natural and cultural heritage in defining sense of place, and emphasizes the role of people in stewardship. Reflecting this vision, the Institute's approach is founded on collaborative leadership and community-based conservation involving cooperation and partnerships. The Institute is located at the Marsh-Billings-Rockefeller National Historical Park in Woodstock, Vermont, because this national park tells the story of conservation history and the evolving nature of land stewardship in America.

NPS – National Natural Landmarks Program

www.nature.nps.gov/nnl

Established in 1962, the goal of the National Natural Landmarks (NNLs) Program is to encourage the preservation of sites illustrating the geological and ecological character of the United States, to enhance the scientific and educational value of sites thus preserved, to strengthen public appreciation of natural history, and to foster a greater concern for the conservation of the nation's natural heritage. The NNLs Program recognizes and encourages the conservation of outstanding examples of our country's natural history. It is the only natural areas program of national scope that identifies and recognizes the best examples of biological and geological features in both public and private ownership. NNLs are designated by the Secretary of the Interior, with the owner's concurrence. The National Park Service administers the NNLs Program, and if requested, assists NNL owners and managers with the conservation of these important sites.

The NNLs Program offers participants the opportunity to share information, solve problems cooperatively, and conserve important natural areas. For nearly 40 years, the NNL Program has involved private, municipal, state, and federal landowners, all working together toward the conservation of natural resources. Land acquisition by the federal government is not a goal of this program; NNLs

Toolbox of Incentives

are nationally significant sites owned by a variety of land stewards, and participation in the program is voluntary. Strong partnerships are key to the program's success.

To date, there are 587 NNLs. They vary in size. For example, there is a 7-acre bog, and a 960,000-acre glacier. NNLs include public and private lands with a variety of uses, including ranching, agriculture, recreation, nature preserves, research areas, camps, conference centers, and commercial ventures. All of these uses can be compatible with NNL designation.

Some of the benefits to landowners who participate in the NNLs Program are:

- The landowner(s) is in a position to voluntarily preserve a resource which indirectly benefits all citizens. A plaque and certificate are provided by NPS which honors that commitment, and a public ceremony can be arranged.
- Based on section 170 (h) of the U.S. Internal Revenue Code, some owners of NNLs may be eligible to take a charitable contribution deduction on their Federal income tax for a "qualified conservation purpose" to a qualified "conservation organization."
- For those NNLs operated as commercial enterprises, natural landmark status might enhance the site's attractiveness to visitors.
- If any federal agency were to propose some action not desired by the NNL landowner (e.g., highway construction, river channelization), the requirements specified in the National Environmental Policy Act of 1969 would apply. This could be a potential benefit because impacts to NNLs would need to be scrutinized. This is a form of protection, though there is no guarantee that such a federal project will not damage the NNL.
- The National Park Service may arrange for technical assistance to better manage an NNL, if it is solicited by an NNL landowner. The Park Service lacks the authority to provide NNL landowners with funds to better manage their property. However, such funds may be available from other sources (e.g., the 1996 Farm Bill administered by the US Department of Agriculture's Forest Service and the National Resources Conservation Service).

NPS – National Register of Historic Places

www.cr.nps.gov/nr

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior. The Register includes all historic areas in the National Park System; and over 2,300 National Historic Landmarks, which have been designated by the Secretary of the Interior because of their importance to all Americans.

Owners of properties listed in the National Register may be eligible for a 20% investment tax credit for the certified rehabilitation of income-producing certified historic structures such as commercial, industrial, or rental residential buildings.

Toolbox of Incentives

NPS – Partnerships Beyond Public Lands

<http://nps.sonoran.org>

A Web resource that shares information and tools for creating partnerships between public land managers and neighboring communities, to take advantage of tremendous opportunities for addressing threats and challenges facing public land managers, while meeting the economic and social aspirations of neighboring communities.

NPS – Rivers, Trails and Conservation Assistance Program (RTCA)

www.nps.gov/rtca --- Click onto "Helpful Tools" and then "Community Tool Box" for tried and true methods that help communities work together to improve their special places.

The Rivers, Trails and Conservation Assistance Program, also known as Rivers & Trails or RTCA, is a division of the National Park Service that works with community groups and local and State governments to conserve rivers, preserve open space, and develop trails and greenways. Rivers & Trails provides assistance to non-profit organizations, community groups, tribes or tribal governments, and local or State government agencies. This assistance includes:

- Building partnerships to achieve community-set goals
- Assessing resources
- Developing concept plans
- Engaging public participation
- Identifying potential sources of funding.

Projects include:

- Trails and greenway planning
- Open space protection
- River conservation
- Watershed planning
- Rail-trail conversions
- Urban greening

Steens Mountain Cooperative Management and Protection Area¹¹

This area is a good model for using incentives, partnerships, and cooperative efforts for resource conservation. PL 106-399 designates the Steens Mountain Wilderness Area and the Steens Mountain Cooperative Management and Protection Area in Harney County, Oregon.

TEA-21 The Transportation Equity Act for the 21st Century

www.fhwa.dot.gov/tea21

The Transportation Equity Act for the 21st Century (TEA-21) was enacted June 9, 1998 as Public Law 105-178. The TEA 21 Restoration Act, enacted July 22, 1998, provided technical corrections to the original law. TEA-21 authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 6-year period 1998-2003. TEA-21 also makes provisions for the following environmental enhancements:

- National Scenic Byways: Funding for improvements to roads of scenic or historic value.
- Bicycle and Pedestrian Paths: Provisions to make bicycling and walking safer and more viable ways of travel.
- Recreational Trails: Funding to create and maintain recreational trails.

¹¹ Steens Mountain Cooperative Management and Protection Act of 2000, Public Law 106-399, October 30, 2000:

Toolbox of Incentives

USDA (U.S. Department of Agriculture) – Conservation Security Program (CSP)

www.nrcs.usda.gov/programs/csp

CSP¹² is a voluntary program that provides financial and technical assistance to promote the conservation and improvement of soil, water, air, energy, plant and animal life, and other conservation purposes on Tribal and private working lands. Working lands include cropland, grassland, prairie land, improved pasture, and range land, as well as forested land that is an incidental part of an agriculture operation.

CSP can assist landowners to implement and maintain conservation practices that will help farms and ranches be environmentally sustainable, while providing a variety of natural resources benefits to all Americans.

CSP works as follows:

1. Potential participants must sign up for CSP assistance. The sign-up will be offered annually in selected watersheds across the Nation. A different set of watersheds will be selected each year between FY-2005 and FY-2014. Selected watersheds are listed on the above Web-site, and in NRCS offices nationwide.
2. The applicant completes a self-assessment, including description of conservation activities on their operations, to help determine eligibility for CSP. The self-assessment is available at the above Web-site and in NRCS state offices on compact disk or as a printed workbook.
3. Eligible landowners in the selected watersheds complete the self-assessment and schedule an interview to submit an application at their local NRCS office.
4. Based on the application, description of current conservation activities, and the interview, NRCS determines CSP eligibility and in which program tier and enrollment category the applicant may participate.

Additional information is available at the above Web-site; at the following Web-site:

www.nrcs.usda.gov/programs/farmbill/2002; or by contacting a local USDA Service Center, listed in the telephone book under U.S. Department of Agriculture.

USDA – Natural Resources Conservation Service (NRCS)

www.nrcs.usda.gov

Mission: The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

Vision: Harmony between people and the land.

NRCS puts nearly 70 years of experience to work in assisting America's private landowners with conserving their soil, water, and other natural resources. Local, state and federal agencies and policymakers rely on their expertise. NRCS delivers technical assistance based on sound science, suited to a customer's specific needs. Cost shares and financial incentives are available in some cases. Most work is done with local partners. Partnerships with local conservation districts serve almost every

¹² The Conservation Security Program (CSP) is authorized by the Food Security Act of 1985, as amended by the Farm Security and Rural Investment Act of 2002 (2002 Farm Bill) (Pub. L. 107-171), and is administered by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS).

Toolbox of Incentives

county in the nation, and the Caribbean and Pacific Basin. Participation in NRCS programs is voluntary.

USFWS (U.S. Fish & Wildlife Service) – Grants-At-A-Glance

www.fws.gov/grants

The Fish and Wildlife Service administers a variety of natural resource assistance grants to governmental, public and private organizations, groups and individuals. This website provides links to information about and applications for available grants.

USFWS – Landowner Incentive Program (LIP)

This is a new program administered by U.S. Fish & Wildlife Service, to provide money to states for preserving species of special concern. Grants are assigned by state divisions of wildlife to landowners through a competitive process. Contact person is Ken Morgan, Private Lands Habitat Program Coordinator, Colorado Division of Wildlife, at (303) 291-7404

USFWS – Private Stewardship Grants Program (PSGP)

http://endangered.fws.gov/grants/private_stewardship/index.html

This is a program administered by U.S. Fish & Wildlife Service that provides \$10,000,000 in federal grants and other assistance on a competitive basis to individuals and groups engaged in voluntary conservation efforts on private lands that benefit at-risk species including Federally-listed endangered or threatened species as well as proposed or candidate species. Under this program, landowners and their partners will be able to submit proposals directly to USFWS for funding to support those efforts.

Toolbox of Incentives

STATE OF COLORADOColorado Species Conservation Partnership

This is a program run by the State of Colorado, involving the U.S. Department of the Interior, Colorado Division of Wildlife, the Great Outdoors Colorado trust fund, county governments, and non-governmental organizations throughout the state, that will pay landowners to help protect species that are listed, or have the potential to be listed, under the Endangered Species Act, via management agreements, conservation easements or leases.

- Landowners are paid through the partnership (according to the property's value) for the term of the agreement not to sell their land for development, or they are paid to help maintain or develop habitat on their property.
- CDOW also has many other private lands incentive programs available.
- Point of Contact: Ken Morgan, Private Lands Habitat Program Coordinator, CDOW: (303) 291-7404.

Colorado State Historical Fund

www.coloradohistory-oahp.org/programareas/shf/projecttypes.htm

Operated as a component of the Colorado Historical Society Office of Archeology and Historic Preservation, the fund provides grant monies to public entities and non-profit organizations for historic properties that are either listed in the National Register of Historic Places, the State Register, and/or are local landmarks.

Great Outdoors Colorado Trust Fund (GOCO)

www.goco.org

The GOCO Amendment to the state constitution dedicates a portion of state lottery proceeds to projects that preserve, protect, and enhance Colorado's wildlife, parks, rivers, trails, and open spaces. GOCO's Mission is to help the people of Colorado preserve, protect, enhance, appreciate and enjoy our parks, wildlife, trails, rivers and open space through strategic grants, partnership and leadership.

- In 1992, Coloradans took a major step toward preserving their state's outdoor heritage by voting to create the Great Outdoors Colorado (GOCO) Trust Fund, which now forms Article XXVII of the Colorado Constitution. The GOCO Amendment dedicates a portion of state lottery proceeds to projects that preserve, protect, and enhance Colorado's wildlife, parks, rivers, trails, and open spaces. Since it began awarding grants in 1994, GOCO has awarded almost \$290 million for 1,700 projects throughout the state.
- GOCO awards grants to projects that preserve and enhance Colorado's open space, parks, outdoor recreation, wildlife, rivers and trails. There are five competitive grant programs: Legacy, Open Space, Local Government Parks, Outdoor Recreation & Environmental Education Facilities, Trails, and Planning/Capacity Building. GOCO also awards grants through the Colorado Division of Wildlife and Colorado State Parks.
- Local governments, non-profit land conservation organizations, the Colorado Division of Wildlife and Colorado State Parks are eligible to receive GOCO grants.
- Individuals cannot receive GOCO funding. However, many ideas for projects come from citizens and neighborhood groups. For example, if you have an idea for a local park, you could share the idea with your local parks department or planning office to see if they would sponsor an application for a GOCO grant to help fund the project. If you have an idea for a land preservation project, you can contact your local land trust or open space department.

Toolbox of Incentives

PRIVATE, NONPROFITAmerican Farmland Trust

www.farmland.org

American Farmland Trust is a private, nonprofit organization founded in 1980 to protect our nation's farmland. AFT works to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment. AFT identifies "strategic" farmland—productive farmland threatened by sprawl—through mapping and other analysis, then works with communities to plan and effect farmland conservation. At the state and national level, AFT partners with other groups—from farm bureaus to environmentalists—to develop land conservation tools. Using public appearances, publications, media outreach and the Web, AFT builds awareness of the need to protect our nation's agricultural resources. Through land protection projects and consulting, AFT works with landowners to protect farmland and to develop sustainable farming practices.

Black Canyon Land Trust

(Website under construction.)

This locally based organization can provide information regarding conservation easements. Contact Adell Heneghan at (970) 252-1481.

Colorado Association of Conservation Districts (CACD)

www.cacd.us

The CACD, consisting of 77 separate Conservation Districts, provides guidance to landowners in the wise and proper management of natural resources. It also provides assistance in seeking funding to implement programs aimed at enhancing and protecting Colorado's natural resources. Each Conservation District provides leadership within its geographic area to promote the conservation of natural resources, which in turn helps ensure the health, safety, and general welfare of the citizens of the state through a responsible conservation ethic.

Three Conservation Districts are located within the Curecanti area, and include:

- Delta Conservation District
690 Industrial Blvd.
Delta, CO 81416
Tel: (970) 874-5726 or (970) 874-0407
Fax: (970) 874-7768
e-mail: deltacd@hotmail.com
- Gunnison Conservation District
216 N. Colorado
Gunnison, CO 81230
Tel: (970) 642-4461
Fax: (970) 642-4425
e-mail: beth.ozyp@co.usda.gov
- Shavano Conservation District --- Web-site: www.shavanoscd.org
102 Par Place, Suite 4
Montrose, CO 81401
Tel: (970) 249-8407, ext. 113
Fax: (970) 249-5718
e-mail: shavanocd@ocinet.net

Toolbox of Incentives

In cooperation with various organizations, universities, and government agencies, conservation districts have developed conservation guidelines and other educational material to help manage natural resources, including water, weeds, wildlife habitat, soils, pasture land, and range land. Two such publications by the Shavano Conservation District (available on the web-site) serve as examples of the type of material available:

- *A Manual for Western Colorado Landowners*
- *Best Management Practices in the Uncompahgre Valley*

CACD publishes a periodic newsletter entitled *Colorado Conservator*, also available on the web-site. Visit the web-site for additional information, or contact:

Colorado Association of Conservation Districts
 743 Horizon Court, Suite 322
 Grand Junction, CO 81506
 Phone: (970) 248-0070
 Fax: (970) 248-9229

Colorado Cattlemen's Agricultural Land Trust (CCALT)

www.ccalt.org

The mission of the Colorado Cattlemen's Agricultural Land Trust is to help Colorado's ranchers and farmers protect their agricultural lands and encourage continuing agricultural production for the benefit of themselves, their families and all of Colorado's citizens.

CCALT's primary emphasis is to increase awareness among agricultural landowners about the use of conservation easements as a means of protecting land and as a tool for facilitating the inter-generational transfer of productive lands. CCALT was created with the primary interest of the landowner in mind. It is a land trust OF landowners, BY landowners, and FOR landowners. CCALT is proving to be an important mechanism in preserving agricultural opportunities and protecting the open space that is valued by both Colorado residents and visitors. Contact (303) 431-6422.

Colorado Coalition of Land Trusts (CCLT)

www.cclt.org

Formed in 1990, the Colorado Coalition of Land Trusts (CCLT) is the statewide, membership organization of local, statewide, regional and national land trusts. Several municipal open space programs and state and federal agencies also support the organization. CCLT's mission is to increase the amount of land protected in perpetuity through the voluntary conservation of agricultural land, critical wildlife habitat, and other important open lands. Formed to strengthen the land trust movement in Colorado, CCLT operates as a clearinghouse for information and services, providing technical and organizational assistance to land trusts, educational conferences and workshops, expert referrals to assist with land transactions, and educational updates concerning legislation impacting land conservation. By encouraging an integrated approach to land conservation, CCLT also aims to facilitate collaborative partnerships with local land trusts, landowners, and government agencies, and municipal open space programs. To date, CCLT Members have helped to protect over 718,000 acres of valuable agricultural, wildlife, and natural resources across the state.

Toolbox of Incentives

Gunnison Ranchland Conservation Legacy

www.gunnisonlegacy.org

This organization's mission statement is to "To create a legacy for future generations by preserving ranching and conserving ranchlands in the Gunnison Country."

Goals:

- Be a resource to landowners, working with them to accomplish their land preservation goals and educating them about various conservation options.
- Remain at all times a grassroots organization, driven by the expressed conservation needs of the landowners themselves.
- Maintain good relationships with donors and grantors to our organization.
- Educate the general public about the importance of agricultural land preservation.
- Be creative and innovative in applying agricultural land preservation techniques.
- Improve opportunities for the continuity of ranching business from one generation to the next.

The Gunnison Ranchland Conservation Legacy (GRCL) is a 501(c)3 nonprofit organization that was established in 1996. This scenic Colorado mountain valley, home of Crested Butte Mountain Resort and the Black Canyon National Park, is experiencing tremendous growth. GRCL is working to ensure that productive agricultural lands can remain a part of our changing community. Acting on behalf of landowners in conjunction with established land trusts, the GRCL facilitates the placement of conservation easements on agricultural lands. Ranch families benefit by knowing their land is available for agriculture forever. Additionally, their land is significantly reduced in value for estate tax purposes. Wildlife species benefit through the permanent protection of large expanses of hay meadows, riparian areas, and other habitat. Local residents and visitors benefit from the assurance that these beautiful agricultural open spaces will never be developed.

As of August 2002, the GRCL has permanently protected 18 ranches (7,461 acres) in Gunnison County by facilitating the placement of conservation easements. In addition, there are 42 families representing over 30,000 acres on the GRCL's waiting list to complete conservation easements.

Land Trust Alliance

www.lta.org

Founded in 1982, the Land Trust Alliance is the national leader of the private land conservation movement, promoting voluntary land conservation across the country and providing resources, leadership and training to the nation's 1,200-plus nonprofit, grassroots land trusts, helping them to protect important open spaces. "The resources that LTA makes available to us are extraordinary," wrote one Montana land trust executive director. "Whether I need technical assistance on a particular issue or just someone's ear to bounce an idea off, I have always found the support and assistance I have needed, and it has been rendered professionally, quickly, impartially and effectively." The Land Trust Alliance provides an array of programs, including direct grants to land trusts, training programs, answers to more than 3,000 inquiries for technical assistance each year, and one-on-one mentoring to help land trusts build organizations that are equipped to protect open space. Among LTA's services to land trusts are: *Technical Assistance, Public Policy, Training, Funding, Regional Programs, Getting The Word Out, and Standards and Practices.*

Toolbox of Incentives

National Association of Conservation Districts (NACD)

www.nacdnet.org

NACD is the nonprofit organization that represents the nation's 3,000 conservation districts, and 17,000 men and women who serve on their governing boards. Conservation districts, local units of government established under state law to carry out natural resource management programs at the local level, work with more than 2.5 million cooperating landowners and operators to help them manage and protect land and water resources on nearly 98 percent of the private lands in the United States.

The idea for soil and water conservation districts was born in 1935. NACD was formed in 1946 by conservations districts and their state associations. Today there is a conservation district for almost every county in the United States. They serve all the conservation needs of the nation, providing education, and helping local citizens conserve land, water, forests, wildlife, and other natural resources.

The association was founded on the philosophy that conservation decisions should be made at the local level with technical and funding assistance from federal, state and local governments, and the private sector. As the national voice for all conservation districts, NACD supports voluntary, incentive-driven natural resource conservation programs that benefit all citizens.

The mission of NACD is: "***To enable conservation districts to pool their resources to accomplish collectively what would be difficult or impossible to accomplish individually.***" On behalf of districts, NACD develops national conservation policies, influences lawmakers, and builds partnerships with other agencies and organizations. NACD provides services to its districts to help them share ideas in order to better serve their local communities. "Conservation -- Development -- Self-Government".

NACD maintains relationships with organizations and government agencies; publishes information about districts; works with leaders in agriculture, conservation, environment, education, industry, religion and other fields; and provides services to its districts. NACD is financed primarily through the voluntary contributions of its member districts and state associations.

Among the goals of the NACD are to:

- Represent districts as their national voice on conservation issues;
- Provide useful information to conservation districts and their state associations;
- Build partnerships with federal and state agencies and other organizations in order to carry out district priorities and programs;
- Analyze programs and policy issues that have an impact on local districts; and
- Offer needed and cost-effective services to districts.

Among other things, conservation districts help:

- Implement farm conservation practices to keep soil in the fields and out of waterways;
- Conserve and restore wetlands, which purify water and provide habitat for birds, fish and numerous other animals;
- Protect groundwater resources;
- Plant trees and other land cover to hold soil in place, clean the air, provide cover for wildlife, and beautify neighborhoods;
- Developers and homeowners manage the land in an environmentally sensitive manner; and
- Communities and schools to teach the value of natural resources and encourage conservation efforts.

Toolbox of Incentives

National Trust for Historic Preservation

www.nationaltrust.org

The National Trust for Historic Preservation provides leadership, education and advocacy to save America's diverse historic places and revitalize our communities. The National Trust, founded in 1949, is a private nonprofit organization with more than a quarter million members. It supports preservation through a wide range of programs and activities, and provides technical and financial assistance to state and local organizations.

The Nature Conservancy

www.nature.org

The mission of the conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. Since 1951, TNC has been working with communities, businesses and people like you to protect more than 98 million acres of valuable lands and waters around the world.

- Over 86% of all funds are used directly for conservation.
- Total acres protected by the Conservancy in the United States: 14,553,000
- Acres protected by the Conservancy outside the United States: 83,506,000
- Current number of Conservancy preserves: about 1,400
- Conservancy members: approximately 1 million

We can't buy all these preserves, and we certainly can't protect them single-handedly. But by joining together with communities, businesses, governments, partner organizations and people like you, we can preserve our lands and waters for future generations to use and enjoy.

Sonoran Institute

www.sonoran.org

A nonprofit organization that works collaboratively with local people and interests to conserve and restore important natural landscapes in western North America, engaging partners such as landowners, public land managers, local leaders, community residents, and nongovernmental organizations, in an innovative approach to conservation called Community Stewardship.

PUBLICATIONS

Jim Howe, Ed McMahon, & Luther Propst, *Balancing Nature and Commerce in Gateway Communities*, 1997, Island Press, 166 Pages: This book provides lessons in how to preserve the character and integrity of communities and landscapes without sacrificing local economic well-being. The authors describe economic development strategies, land-use planning processes, and conservation tools that communities from all over the country have found effective.

Nancy S. Greif and Erin J. Johnson, Editors, *The Good Neighbor Guidebook for Colorado*, 2000, Johnson Printing, 274 Pages: The book begins with a series of articles on stewardship, then moves on to deal with such topics as water law, land use planning, the law of nuisance, real estate transfers, eminent domain and water rights. Public land law and tribal law are examined in some detail. The book concludes with an excellent discussion of the alternatives to subdivision: conservation easements, sustainable ranching, and tax and estate planning.

INDEX OF INCENTIVES AND RELATED TERMS AND TOPICS



Advantages to Landowners for Conserving Land	6
Advice for Landowners Regarding Resource Conservation.....	2
American Farmland Trust	8 and 22
Awards Program	12
Balancing Nature and Commerce in Gateway Communities.....	26
Black Canyon Land Trust.....	22
Catalog of Federal Domestic Assistance (CFDA)	15
Challenge Cost-Share Program (CCSP - NPS).....	16
City, County, and Community Policies and Incentives.....	12
Colorado Association of Conservation Districts (CACD)	22
Colorado Cattlemen's Agricultural Land Trust (CCALT)	23
Colorado Coalition of Land Trusts (CCLT)	23
Colorado Species Conservation Partnership.....	9 and 21
Colorado State Grants.....	9 and 21
Colorado State Historical Fund (Colorado Historical Society).....	21
Conservation District	22 and 25
Conservation Easements	6 and 7
Conservation Security Program (CSP - USDA)	19
Conservation Study Institute (CSI – NPS).....	16
Cooperative Agreements	4
Cultural Resource Incentives.....	9
Delta Conservation District	22
Department of Agriculture Grants.....	19
Direct Purchase	5
Donation	6
Endangered Species Incentives.....	9
Enhancing Visual Aesthetics	12
Federal Grants	15
Fee Simple Acquisition	5
Good Neighbor Guidebook for Colorado	26
Grazing and Open Space Incentives.....	10
Great Outdoors Colorado Trust Fund (GOCO).....	21
Gunnison Conservation District	22
Gunnison Ranchland Conservation Legacy.....	24
Incentive Payments to Landowners	4
Information Sources for Resource Conservation Funding and Partnerships.....	15
Land and Water Conservation Fund.....	15
Land Exchange.....	6
Land Trust Alliance	24
Land Trusts.....	7

Toolbox of Incentives

Landowner Incentive Program (LIP - USFWS).....	20
Landowner Incentives.....	3
Life Estate.....	5
Livestock Grazing Incentives.....	10
Low Interest Loans.....	12
Management Agreements.....	4
Memorandums of Understanding.....	4
Mineral Rights.....	5 and 7
National Association of Conservation Districts.....	25
National Natural Landmarks Program.....	16
National Park Service Actions and Policies.....	13
National Park Service Grants.....	16
National Register of Historic Places (NPS).....	9, 10, 17 and 21
National Trust for Historic Preservation.....	26
Natural Resources Conservation Service (NRCS - USDA).....	19
Nature Conservancy.....	8 and 26
Open Space Conservation.....	8
Partnership Principles.....	2 and 3
Partnerships Beyond Public Lands (NPS).....	2 and 3
Payment in Lieu of Taxes.....	5
Private Stewardship Grants Program (PSGP - USFWS).....	20
Public Education.....	12
Purchase and Retained Use and Occupancy.....	5
Quality of Life.....	3, 13 and 14
Rights of Way.....	5
Rivers, Trails and Conservation Assistance Program (RTCA - NPS).....	18
Shavano Conservation District.....	22
Sonoran Institute.....	26
Steens Mountain Cooperative Management and Protection Act of 2000.....	18
Tax Abatements for Owners of Historic Buildings.....	12
Tax Benefits to Landowners.....	6 and 12
Tax Credits for Landowners Who Implement Resource Protection Measures.....	12
Tax Credits for Owners of Properties Listed on the National Register.....	9
TEA-21: The Transportation Equity Act for the 21 st Century.....	18
Technical Assistance.....	4
Third Party Purchase.....	6
Transfer of Development Rights (TDR).....	8
Twenty-Five Year Lease.....	5
U.S. Fish & Wildlife Service Grants.....	9 and 20
Voluntary Action.....	12
Willing Landowners.....	5 and 7

April 4, 2005

Curecanti: Great Scenery, Outstanding Resources, and Good Neighbors



Working as a community to conserve the resources of the Curecanti area

This booklet offers ideas about how agencies and landowners can work together to maintain the outstanding qualities that we commonly value - the natural, cultural, recreational, and scenic resources that make the area within and surrounding Curecanti such a great place to live, work and play.

Working together...

Introduction

If you own property in the Curecanti Area, you probably chose this area for its scenic beauty, wildlife, sense of history, and recreational potential. Or, perhaps you grew up in this area, it is a part of your heritage, and you value it for many of the same reasons.

Nestled in Gunnison and Montrose Counties, the reservoirs and canyons of Curecanti National Recreation Area offer a premier wild setting that contains a variety of magnificent resources – natural, cultural, scenic, and recreational. Thousands of visitors – those who aren’t as fortunate as we are to call this place home – come here to enjoy these resources, and this tourism contributes greatly to our local economy.

The Curecanti area is recognized nationally and locally for its abundant wildlife, archeological and historic values, recreational potential and high scenic qualities. This has been acknowledged in numerous ways, including:

- Designating the National Park Service to manage Curecanti National Recreation Area (NRA), in cooperation with the Bureau of Reclamation;
- Establishing special management areas, such as the Bureau of Land Management's Areas of Critical Environmental Concern (ACEC), and Colorado Division of Wildlife's State Wildlife Areas; and
- Designating the West Elk Loop Scenic and Historic Byway by the State of Colorado, where segments of Highway 92 and Highway 50 play an important role.

The National Park Service has been a part of the Gunnison and Montrose communities for over 30 years now, as caretaker and steward of Curecanti NRA. The Park Service shares in the heritage of the Gunnison and Montrose communities, and shares in the attendant responsibilities associated with being a member of a community. With you we share in a common appreciation for the various qualities of the land and the need for a healthy economy. We are looking toward the future of our community.



Secretary of the Interior Gale Norton has set the standard in the Department of the Interior by implementing a land management strategy that incorporates her vision of the four “Cs” – using Communication, Consultation and Cooperation, all in the service of Conservation. We recognize that the magnificent resources and the beauty of the land transcend what the National Park Service traditionally thinks of as the NRA boundary. Together, as a community, we must explore opportunities to conserve and enhance these resources for ourselves, for our future generations that will come to regard this area as part of their heritage, and for the many visitors that come to enjoy this part of Colorado.

For additional ideas on how communities and agencies can work together, visit the “Community Stewardship Exchange” website referenced on the back cover.

...to conserve the resources of the Curecanti area

What Can a Landowner Do to Move Toward Our Common Goals?

Here are some initial ideas—

Sustaining our Scenic Resource

SITING AND DESIGN CONSIDERATIONS



A carefully located building site can provide lasting and significant value to properties that become developed. The landowner should consider a variety of factors, including prevailing winds, slope, suitable locations for wells and septic systems, vegetation removal, access, visual impact of the building, and the angle of the sun throughout the year.

The visual impact of houses and other structures on the natural scene can be minimized by using a number of techniques. The building might be located so that the surrounding terrain hides the building from nearby roads, trails and recreation sites. Trees and shrubbery can be used to shield the site. Buildings can be set back from the top of the slope or below the crest of a ridge to lessen visual impact. Buildings with low profiles and architectural designs that fit into the surrounding natural landscape result in less visual impact. Roads and driveways designed to minimize cut and fill will cause less visual impact while reducing erosion and drainage problems. The visual impact of power lines and other utilities can be reduced through careful siting or by placing them underground. Antennas can be made less conspicuous by limiting their height and keeping them in unobtrusive locations.

For additional design and construction ideas, visit the "Sustainable Design" and "CSU Cooperative Extension" websites; and for general information on living in rural areas, visit the "Code of the West" website, all referenced on the back cover.

BUILDING MATERIALS OF LOW VISUAL IMPACT

Proper selection of materials used for siding and roofing can help your home complement the natural areas around it. These materials include sidings with muted natural shades or "earth tones" on rough-textured material; and dark (gray, green or brown) roofs of non-reflective metal, imitation shake, or earth-tone composition shingles. Certain building materials may also be preferable because they help reduce fire hazard, as described later under "Ensuring Wildfire Safety."

EXTERIOR LIGHTING

The Curecanti area offers excellent nighttime "skylscapes"-- opportunities for residents and visitors to enjoy stargazing unparalleled in most other areas of the country. Use of shielded lighting, and low light fixtures that direct the light downward, can reduce glare and sky glow. Try to avoid the use of mercury vapor lights, which produce glare and detract from views of the night sky. Many local governments prohibit the use of mercury vapor luminaries in order to protect views of the night sky. Energy costs can be lowered by carefully considering where and how much light is needed. Also consider the use of lights activated by motion detectors, which further reduce energy costs while increasing security.



For ideas and resources to help keep our skies dark, visit the "International Dark Sky Association" website referenced on the back cover.

Working together...

Preserving and Improving Natural Habitat

Habitats are closely interrelated systems that include natural or native vegetation, rivers and streams, food and protection for a variety of animals. There are several ways that an owner can improve the habitat on his or her land, thus benefiting area wildlife.

One of the easiest methods of preserving and improving the habitat is the use of plants. When considering new construction, minimize the amount of area that will be cleared of vegetation. Keeping as much original vegetation as is reasonable will not only help maintain the natural habitat, but also helps in reducing excessive runoff of storm water, thereby decreasing erosion.

Once construction is finished, consider landscaping with native plants. Natives will generally have a better chance of survival with less care than introduced species, and should be less expensive to maintain. Native plants also provide shelter and food for native birds and other animals.

Avoid the use of exotic, invasive, or non-native plants, because they can spread, and may compete with and crowd out native species. If you suspect that exotic species exist on your property, and would like information on how to control or eradicate them, you may contact officials in Gunnison County or at the National Recreation Area for technical assistance.



Aquatic habitat can be protected and improved with vegetation, too. Trees can provide shade and shelter for fish that cannot tolerate high water temperature. Plantings along a stream bank help anchor the soil and reduce erosion.

Trees and shrubs can be used to lessen the visual impact of a new or existing structure without sacrificing the view from porches or balconies. A visual barrier created by plants need not be a solid wall. Rather, judiciously placed plants will help blend the building into the natural landscape and still offer scenic vistas, while providing nesting places for birds and other animals. Appropriate landscaping can also reduce wildfire hazard, as described later under Ensuring Wildfire Safety.

For additional information on how to conserve wildlife and natural habitat, visit the “Grants at a Glance” U.S. Fish and Wildlife Service website referenced on the back cover. For information regarding exotic, or non-native plants, visit the “Colorado Noxious Weeds” and “Exotic, Invasive, or Non-Native Species” websites referenced on the back cover.

Protecting Water Quality

Maintaining a pure water supply is critical for all of us. A properly placed and maintained well protects the water quality on the property where the well is located and also on the surrounding properties. Several wells are often drilled into the same water source, or aquifer, which make it imperative that the shared water stays clean.

A site where the land falls away from the wellhead in all directions is the best location. At such a site, the chance for impurities to drain into the well is minimized. A well on level ground is acceptable, but is not considered to be as safe as a well with positive drainage away from the wellhead. A site where surface water moves to or into the wellhead should be avoided in all cases.

...to conserve the resources of the Curecanti area



The well must also be separated from potential sources of contaminants. Parking areas, septic tanks and drain fields, manure storage, and animal feed storage areas are sources of possible contamination. The well should be located away from areas such as these, and whenever possible, uphill from them.

Protecting water quality also can be applied to surface water on the property. Like the water in an aquifer, the water in streams, lakes, wetlands, and ponds is a resource that is shared with your neighbors, not to mention wildlife. The quality of surface water also has a significant impact on the value of a property. Many of the techniques that help protect wellheads can also be applied to surface water. In this case, however, the placement of new structures or other improvements must be done with regards to potential impact on the stream or other waterway.

Natural or created wetlands can provide protection from flooding and help filter some contaminants out of water before it enters the subterranean aquifer. Allowing clean water to drain into wetlands can help protect or even improve the quality of the aquifer. Areas that are moist or wet throughout most of the year are also less likely to burn, thus providing protection from wildfire.

Techniques for maintaining quality water sources are available on the "Ground and Drinking Water" website referenced on the back cover.

Protecting Yourself and Property from Wildfire

Fire is a naturally occurring event in forested and other rural areas. However, there are a number of proven strategies to reduce the likelihood of damage to your home and other structures if your property is in an area potentially threatened by wildland fires. The added "insurance" of these methods can contribute to your peace of mind.

Ideas for selecting building sites and materials:

- Build away from the crest of a hill – Fire can move rapidly up a slope. The steeper the slope, the faster the fire can travel.
- Use composite, slate, tile, or Class-A treated materials on the roof instead of untreated cedar or shake shingles.
- Cover the chimney openings with ¼-inch wire mesh to prevent embers from escaping (or entering!).

Landscaping to Reduce Fire Hazard:



- Reduce the amount of fuel materials (dead leaves, branches, etc.) near the house.
- Maintain a clearing or "defensible space" of at least 30 feet around the house. The defensible space does not need to be only rock or concrete, but should be free of trees and other volatile materials. This area can also provide easier access for emergency vehicles.
- Create a landscape design that provides a transition into the natural setting. The design may include the defensible space, a zone of irrigated low-growing plants, shrubs, and widely spaced trees, and then into the natural environment surrounding the home site.

For additional details on ways to reduce the threat of fire to your property, visit the "Firewise" website referenced on the back cover.

Working together...

What Assistance is Available to Landowners?

Landowners who are interested in conserving the natural and scenic character of their land have several options for assistance, including working in partnership with counties and land-management agencies. Although a few are listed here, we recommend visiting the *"Curecanti Toolbox of Incentives for Resource Conservation"* website referenced on the back cover, or request a copy from the Superintendent at the address on the back cover. These incentive opportunities include:

TECHNICAL ASSISTANCE

The National Park Service is currently able to provide some technical assistance, and expects to be able to provide a wider range of assistance in the future, including:

- Advice regarding resource management for topics such as:
 - ... Conservation of natural and cultural resources, including archeological sites and historic structures;
 - ... Conservation of various plant and animal species, especially those that may be rare or threatened;
 - ... Reduction or elimination of exotic species that are not native to the area;
- Advice on siting and design considerations for environmentally sensitive development;
- Working with the county planning process early on to identify ways to permit development yet minimize impacts;
- Determination of the location of regulated wetlands and need for permits;
- Directing landowners to other organizations with expertise in certain fields, such as land trusts;
- Directing landowners to funding sources for worthwhile conservation projects;
- Education programs that inform park neighbors about the Curecanti environment and stimulate thinking toward sustainable development.



FUNDING FOR CONSERVATION PROJECTS

Landowners may be able to obtain funding to assist with conservation oriented projects, especially if there is a local "match" available to assist in the project. Development and submission of grant applications is more successful when done in partnership and cooperation with an agency, the county government, or a local or national organization. Examples of funding sources include:

- Great Outdoors Colorado Trust Fund (GOCO)—uses a portion of state lottery proceeds for projects that preserve, protect, and enhance Colorado's wildlife, parks, rivers, trails, and open spaces.
- National Park Service Challenge Cost Share Program—provides a maximum 50% cost share grant for projects that benefit natural, cultural, scenic or recreational resources.
- Landowner Incentives Program, Private Stewardship Grants Program and the Colorado Species Conservation Partnership—the U.S. Fish and Wildlife Service and the Colorado Division of Wildlife have grants available for landowners and organizations involved in voluntary conservation projects that benefit wildlife.

For a more thorough listing of grant opportunities, visit the "Federal Grants" and "Grants at a Glance" websites referenced on the back cover.

...to conserve the resources of the Curecanti area

ALTERNATIVES FOR LAND OWNERSHIP

As an alternative to owning their properties outright, many landowners find it to their advantage for a land trust or a land-management agency (such as the National Park Service) to acquire an interest in their property, on a willing-seller basis, for conservation purposes. Three common methods include:

- Conservation, nondevelopment, and/or scenic easements: Easements allow specified activities in designated areas, with certain deed restrictions, usually pertaining to development, to ensure that private uses will remain compatible with the conservation of resource values, and/or public use of the land. The landowner is reimbursed for the fair market value of the interest acquired. Although the landowner continues to pay property tax, it may be at a reduced amount, and there may be significant income tax and estate tax benefits.
- Purchase and retained use and occupancy: In this situation, the agency buys the property at fair market value, but the landowner can continue to live on the land for an agreed-upon time period, or for the remainder of his or her life. Although the property is taken off the tax rolls, the federal government may provide payment in lieu of taxes to the county. Two common forms of retained use are 25-years and life estates.
- Fee simple acquisition: In this situation, the agency acquires all rights or interests in the property. Four common methods of acquisition are:
 - Direct purchase at fair market value with appropriated funds.
 - Third party purchase through entities such as land trusts and conservation organizations.
 - Exchange for other government land of equal value.
 - Donation, in which case there would be tax advantages to the landowner.

An increasingly popular alternative is the conservation easement. It provides permanence to land protection, allows owners to retain title to their lands, and provides immediate monetary compensation, as well as long-term tax advantages. It is a property deed that specifies terms and conditions for managing the land, and specifies what, if any, future development can occur. Some landowners wish to leave a legacy to their family or future generations—and establishing a conservation easement is one process to achieve this. By selling a conservation easement to a land trust or government entity, the landowner receives monetary compensation based on appraised value.

Occasionally, a landowner will donate all or some of the easement, thus receiving state and federal tax benefits. Reduced estate taxes may be another benefit. In addition, a conservation easement will sometimes lower property taxes which the landowner must pay, due to reduced value of the property, based upon the terms of the easement. Terms and conditions of the conservation easement are tailored to individual situations. The entity holding the easement is responsible for future monitoring of the site to ensure the conditions of the easement are met.

For additional information on conservation easements, visit the websites of the following organizations, which are referenced on the back cover; or call the American Farmland Trust at (800) 370-4879, the Black Canyon Regional Land Trust at (970) 252-1481, the Colorado Cattlemen's Agricultural Land Trust at (303) 431-6422, Colorado Coalition of Land Trusts (refer to website for contact information), the Gunnison Ranchland Conservation Legacy at (970) 641-4386, or the Nature Conservancy at (970) 252-0034.

Working together...

...to conserve the resources of the Curecanti area

Looking for Additional Information?

A variety of information is available over the Internet on the World Wide Web (www). We recommend visiting some of these websites for additional information. If you do not have your own Internet access, visit a library that offers computers with web access and ask a librarian for assistance.

USEFUL WEBSITES:

American Farmland Trust — www.farmland.org
 Black Canyon Regional Land Trust (website under construction)
 Code of the West — www.co.gunnison.co.us
 Colorado Cattlemen's Agricultural Land Trust — www.ccalt.org
 Colorado Coalition of Land Trusts — www.cclt.org
 Colorado Noxious Weeds — www.ext.colostate.edu/ptlk/2103.html
 Community Stewardship Exchange — www.sonoran.org
 CSU Cooperative Extension (landscaping, gardening & other advise) — www.ext.colostate.edu
 Curecanti: Great Scenery, Outstanding Resources, and Good Neighbors (this booklet) — www.planning.nps.gov/document/good_neighbor.pdf
 Curecanti Toolbox of Incentives for Resource Conservation — www.planning.nps.gov/document/toolbox_incentives.pdf
 Exotic, Invasive, or Non-Native Species — www.invasivespecies.gov
 Federal Grants (links to a variety of funding sources) — www.grants.gov
 Firewise (making sensible choices in the wildland/urban interface) — www.firewise.org
 Grants at a Glance (U.S. Fish and Wildlife Service) — www.grants.fws.gov
 Ground and Drinking Water (EPA) — www.epa.gov/safewater
 Gunnison Ranchland Conservation Legacy — www.gunnisonlegacy.org
 International Dark-Sky Association — www.darksky.org
 Land Trust Alliance — www.lta.org
 The Nature Conservancy — www.nature.org
 Sustainable Design: (U.S. Green Building Council) — www.usgbc.org

NOTE: Please be aware that some of the incentives in the "Toolbox of Incentives for Resource Conservation," and the offers of "Technical Assistance" in this booklet are ideas that need additional consideration, and in some cases will require Congressional or legislative authorization and appropriations of funds. Also, we are not in a position to advise people on matters pertaining to legal issues, tax issues, estate planning, etc. For these matters readers should consider seeking professional advice.

We hope the ideas presented in this booklet will be of value to you,
 and invite your suggestions and comments for future revisions. Thank you.
 This booklet has been produced cooperatively by Gunnison County, Montrose County, and the
 National Park Service.



Long Range Planner
 Gunnison County
 200 E. Virginia Ave.
 Gunnison, CO 81230
 (970) 641-7645



Superintendent
 Curecanti National Recreation Area
 102 Elk Creek
 Gunnison, CO 81230
 (970) 641-2337



County Planner
 Montrose County
 317 S. Second St.
 Montrose, CO 81401
 (970) 252-4550

For information on local land use policies and development procedures within Gunnison County, visit www.co.gunnison.co.us or call the Gunnison County Planning Department at (970) 641-0360; and within Montrose County, visit www.co.montrose.co.us or call the Montrose County Planning Department at (970) 249-6688.

June 2, 2004

APPENDIX C: LEGISLATION, POLICIES, AND OTHER DOCUMENTS RELATED TO THE CURECANTI NATIONAL RECREATION AREA AND THE RESOURCE PROTECTION STUDY

The following laws, policies, and other documents that relate to the Curecanti National Recreation Area (NRA) and the Resource Protection Study (RPS) are incorporated by reference. For some citations, sections that are particularly relevant to the RPS and are reasonably short are quoted. Due to its importance to the NRA and RPS, the 1965 Memorandum of Agreement between Reclamation and the National Park Service (NPS) is provided in its entirety.

LEGISLATION

Federal Reclamation laws (Act of June 17, 1902, 32 Stat. 388, and Acts amendatory thereof or supplementary thereto)

Colorado River Storage Project Act of April 11, 1956 (PL 84-485)

Referred to as the CRSP, this Act authorized the creation of the area that has come to be known as Curecanti National Recreation Area. Section 8 of that Act reads as follows:

“Sec. 8. (Recreational and fish and wildlife facilities.) — In connection with the development of the Colorado River storage project and the participating projects, the Secretary is authorized and directed to investigate, plan, construct, operate, and maintain (1) public recreational facilities on lands withdrawn or acquired for the development of said project or of said participating projects, to conserve the scenery, the natural, historic, and archeologic objects, and the wildlife on said lands, and to provide for public use and enjoyment of the same and of the water areas created by these projects by such means as are consistent with the primary purposes of said projects; and (2) facilities to mitigate losses of, and improve conditions for, the propagation of fish and wildlife. The Secretary is authorized to acquire lands and to withdraw public lands from entry or other disposition under the public land laws necessary for the construction, operation, and maintenance of the facilities herein provided, and to dispose of them to Federal, State, and local governmental agencies by lease, transfer, exchange, or conveyance upon such terms and conditions as will best promote their development and operation in the public interest. All costs incurred pursuant to this section shall be nonreimbursable and nonreturnable. (70 Stat. 110; 43 U.S.C. 620g)”

Federal Water Project Recreation Act of July 9, 1965 (Public Law 89-72, 79 Stat. 213), as amended by the Reclamation Recreation Management Act of 1992 (Title XXVIII of the Reclamation Projects Authorization and Adjustment Act of October 30, 1992 (Public Law 102-575, 106 Stat. 4600))

“An act to provide uniform policies with respect to recreation and fish and wildlife benefits and costs of Federal multiple-purpose water resource projects, and for other purposes.”

Black Canyon of the Gunnison National Park and Gunnison Gorge National Conservation Area Act of 1999 (PL 106-76, October 21, 1999): Sec. 11 – Study of Lands Within and Adjacent to Curecanti National Recreation Area (Authorizing this Resource Protection Study.)

“(a) IN GENERAL. – Not later than 3 years after the date of the enactment of this Act, the Secretary, acting through the Director of the National Park Service, shall conduct a study concerning land protection and open space within and adjacent to the area administered as the Curecanti National Recreation Area.

“(b) PURPOSE OF STUDY. – The study required to be completed under subsection (a) shall –

- (1) assess the natural, cultural, recreational and scenic resource value and character of the land within and surrounding the Curecanti National Recreation Area (including open vistas, wildlife habitat, and other public benefits);
- (2) identify practicable alternatives that protect the resource value and character of the land within and surrounding the Curecanti National Recreation Area;
- (3) recommend a variety of economically feasible and viable tools to achieve the purposes described in paragraphs (1) and (2); and
- (4) estimate the costs of implementing the approaches recommended by the study.

“(c) SUBMISSION OF REPORT. – Not later than 3 years from the date of the enactment of this Act, the Secretary shall submit a report to Congress that –

- (1) contains the findings of the study required by subsection (a);
- (2) makes recommendations to Congress with respect to the findings of the study required by subsection (a); and
- (3) makes recommendations to Congress regarding action that may be taken with respect to the land described in the report.

16 USC 4601-9(c)(2) (Referenced in Section 3.5 of NPS Management Policies 2006)

The Secretary of the Interior may “acquire by donation, purchase with donated funds, transfer from any other Federal agency, or exchange, lands, waters, or interests therein adjacent to such area, except that in exercising his authority under this clause (ii) the Secretary may not alienate property administered as part of the national park system in order to acquire lands by exchange, the Secretary may not acquire property without the consent of the owner, and the Secretary may acquire property owned by a State or political subdivision thereof only by donation. Prior to making a determination under this subsection, the Secretary shall consult with the duly elected governing body of the county, city, town, or other jurisdiction or jurisdictions having primary taxing authority over the land or interest to be acquired as to the impacts of such proposed action, and he shall also take such steps as he may deem appropriate to advance local public awareness of the proposed action. Lands, waters, and interests therein acquired in accordance with this subsection shall be administered as part of the area to which they are added, subject to the laws and regulations applicable thereto.”

MANAGEMENT POLICIES

Department of Interior Manuals and Policies

Bureau of Reclamation Manuals and Policies

National Park Service Manuals and Policies

NPS Management Policies 2006

Chapter 1— The Foundation

Section 1.6— Cooperative Conservation Beyond Park Boundaries

“Cooperative conservation beyond park boundaries is necessary as the National Park Service strives to fulfill its mandate to preserve the natural and cultural resources of parks unimpaired for future generations. Ecological processes cross park boundaries, and park boundaries may not incorporate all of the natural resources, cultural sites, and scenic vistas that relate to park resources or the quality of the visitor experience. Therefore, activities proposed for adjacent lands may significantly affect park programs, resources, and values. Conversely, NPS activities may have impacts outside park boundaries. Recognizing that parks are integral parts of larger regional environments, and to support its primary concern of protecting park resources and values, the Service will work cooperatively with others to

- anticipate, avoid, and resolve potential conflicts;
- protect park resources and values;
- provide for visitor enjoyment; and
- address mutual interests in the quality of life of community residents, including matters such as compatible economic development and resource and environmental protection.

“Such local and regional cooperation may involve other federal agencies; tribal, state, and local governments; neighboring landowners; nongovernmental and private sector organizations; and all other concerned parties. The Service will do these things because cooperative conservation activities are a vital element in establishing relationships that will benefit the parks and in fostering decisions that are sustainable.

“The Service will use all available tools to protect park resources and values from unacceptable impacts. The Service will also seek to advance opportunities for conservation partnerships. Superintendents will monitor land use proposals, changes to adjacent lands, and external activities for their potential impacts on park resources and values. It is appropriate for superintendents to engage constructively with the broader community in the same way that any good neighbor would. Superintendents will encourage compatible adjacent land

uses and seek to avoid and mitigate potential adverse impacts on park resources and values by actively participating in the planning and regulatory processes of other federal agencies and tribal, state, and local governments having jurisdiction over property affecting, or affected by, the park. If a decision is made or is imminent that will result in unacceptable impacts on park resources, superintendents must take appropriate action, to the extent possible within the Service's authorities and available resources, to manage or constrain the use to minimize impacts. When engaged in these activities, superintendents should fully apply the principles of civic engagement to promote better understanding and communication by (1) documenting the park's concerns and sharing them with all who are interested, and (2) listening to the concerns of those who are affected by the park's actions."

Chapter 3— Land Protection

Section 3.5— Boundary Adjustments

"The boundary of a national park may be modified only as authorized by law. For many parks, such statutory authority is included in the enabling legislation or subsequent legislation that specifically authorizes a boundary revision. Where park-specific authority is not available, the Land and Water Conservation Fund Act of 1965, as amended, provides an additional but limited authority to adjust boundaries.

"The act provides for boundary adjustments that essentially fall into three distinct categories: (1) technical revisions; (2) minor revisions based upon statutorily defined criteria; and (3) revisions to include adjacent real property acquired by donation, purchased with donated funds, transferred from any other federal agency, or obtained by exchange. Adjacent real property is considered to be land located contiguous to but outside the boundary of a national park system unit.

"As part of the planning process, the Park Service will identify and evaluate boundary adjustments that may be necessary or desirable for carrying out the purposes of the park unit. Boundary adjustments may be recommended to:

- protect significant resources and values, or to enhance opportunities for public enjoyment related to park purposes;
- address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads; or
- otherwise protect park resources that are critical to fulfilling park purposes.

"If the acquisition will be made using appropriated funds, and it is not merely a technical boundary revision, the criteria set forth by Congress at 16 USC 4601-9(c)(2) must be met. All recommendations for boundary changes must meet the following two criteria:

- The added lands will be feasible to administer considering their size, configuration, and ownership; costs; the views of and impacts on local communities and surrounding jurisdictions; and other factors such as the presence of hazardous substances or exotic species.
- Other alternatives for management and resource protection are not adequate.

“These criteria apply conversely to recommendations for the deletion of lands from the authorized boundaries of a park unit. For example, before recommending the deletion of land from a park boundary, a finding would have to be made that the land did not include a significant resource, value, or opportunity for public enjoyment related to the purposes of the park. Full consideration should be given to current and future park needs before a recommendation is made to delete lands from the authorized boundaries of a park unit. Actions consisting solely of deletions of land from existing park boundaries would require an act of Congress.”

Chapter 4— Natural Resource Management

Section 4.1.4— Partnerships

“The Service will pursue opportunities to improve natural resource management within parks and across administrative boundaries by pursuing cooperative conservation with public agencies, appropriate representatives of American Indian tribes and other traditionally associated peoples, and private landowners in accordance with Executive Order 13352 (Facilitation of Cooperative Conservation). The Service recognizes that cooperation with other land and resource managers can accomplish ecosystem stability and other resource management objectives when the best efforts of a single manager might fail. Therefore, the Service will develop agreements with federal, tribal, state, and local governments and organizations; foreign governments and organizations; and private landowners, when appropriate, to coordinate plant, animal, water, and other natural resource management activities in ways that maintain and protect park resources and values. Such cooperation may include park restoration activities, research on park natural resources, and the management of species harvested in parks. Cooperation also may involve coordinating management activities in two or more separate areas, integrating management practices to reduce conflicts, coordinating research, sharing data and expertise, exchanging native biological resources for species management or ecosystem restoration purposes, establishing native wildlife corridors, and providing essential habitats adjacent to or across park boundaries.

“In addition, the Service will seek the cooperation of others in minimizing the impacts of influences originating outside parks by controlling noise and artificial lighting, maintaining water quality and quantity, eliminating toxic substances, preserving scenic views, improving air quality, preserving wetlands, protecting threatened or endangered species, eliminating exotic species, managing the use of pesticides, protecting shoreline processes, managing fires, managing boundary influences, and using other means of preserving and protecting natural resources.”

Chapter 8— Use of the Parks

Section 8.1—General

“Many different types of uses take place in the hundreds of park units that make up the national park system. Some of those uses are carried out by the National Park Service, but many more are carried out by park visitors, permittees, lessees, and licensees. The 1916 Organic Act, which created

the National Park Service, directs the Service to conserve park resources “unimpaired” for the enjoyment of future generations. The 1970 National Park System General Authorities Act, as amended in 1978, prohibits the Service from allowing any activities that would cause derogation of the values and purposes for which the parks have been established (except as directly and specifically provided by Congress). Taken together, these two laws establish for NPS managers (1) a strict mandate to protect park resources and values; (2) a responsibility to actively manage all park uses; and (3) when necessary, an obligation to regulate their amount, kind, time, and place in such a way that future generations can enjoy, learn, and be inspired by park resources and values and appreciate their national significance in as good or better condition than the generation that preceded them. (Throughout these Management Policies, the term “impairment” is construed to also encompass “derogation.”)”

Section 8.2—Visitor Use

“Enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks. The Service is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks, and the Service will maintain within the parks an atmosphere that is open, inviting, and accessible to every segment of American society.

“However, many forms of recreation enjoyed by the public do not require a national park setting and are more appropriate to other venues. The Service will therefore

- provide opportunities for forms of enjoyment that are uniquely suited and appropriate to the superlative natural and cultural resources found in the parks;
- defer to local, state, tribal, and other federal agencies; private industry; and nongovernmental organizations to meet the broader spectrum of recreational needs and demands.

“To provide for enjoyment of the parks, the National Park Service will encourage visitor activities that

- are appropriate to the purpose for which the park was established; and
- are inspirational, educational, or healthful, and otherwise appropriate to the park environment; and
- will foster an understanding of and appreciation for park resources and values, or will promote enjoyment through a direct association with, interaction with, or relation to park resources; and
- can be sustained without causing unacceptable impacts to park resources or values . . .”

8.2.2—Recreational Activities

“The National Park Service will manage recreational activities according to the criteria listed in sections 8.1 and 8.2 (and 6.4 in wilderness areas). Examples of the broad range of recreational activities that take place in parks include,

but are not limited to, boating, camping, bicycling, fishing, hiking, horseback riding and packing, outdoor sports, picnicking, scuba diving, cross-country skiing, caving, mountain and rock climbing, earth caching, and swimming. Many of these activities support the federal policy of promoting the health and personal fitness of the general public, as set forth in Executive Order 13266. However, not all of these activities will be appropriate or allowable in all parks; that determination must be made on the basis of park-specific planning.

“Service-wide regulations addressing aircraft use, off-road bicycling, hang gliding, off-road vehicle use, personal watercraft, and snowmobiling require that special, park-specific regulations be developed before these uses may be allowed in parks . . .

“The Service will monitor new or changing patterns of use or trends in recreational activities and assess their potential impacts on park resources. A new form of recreational activity will not be allowed within a park until a superintendent has made a determination that it will be appropriate and not cause unacceptable impacts. Restrictions placed on recreational uses that have been found to be appropriate will be limited to the minimum necessary to protect park resources and values and promote visitor safety and enjoyment.

“Sounds that visitors encounter affect their recreational and/or educational experience. Many park visitors have certain expectations regarding the sounds they will hear as part of their experience. The type of park unit (for example, national battlefield, national seashore, national recreation area, national park) and its specific features often help shape those expectations. In addition to expectations of muted to loud sounds associated with nature (such as wind rustling leaves, elk bugling, waves crashing on a beach), park visitors also expect sounds reflecting our cultural heritage (such as cannons firing, native drumming, music) and sounds associated with people visiting their parks (such as children laughing, park interpretive talks, motors in cars and motorboats).

“Park managers will (1) identify what levels and types of sounds contribute to or hinder visitor enjoyment, and (2) monitor, in and adjacent to parks, noise-generating human activities—including noise caused by mechanical or electronic devices—that adversely affect visitor opportunities to enjoy park soundscapes. Based on this information, the Service will take action to prevent or minimize those noises that adversely affect the visitor experience or that exceed levels that are acceptable to or appropriate for visitor uses of parks.”

MANAGEMENT PLANS

Curecanti National Recreation Area General Management Plan (GMP) (July 1980)

Provides long-term management direction for natural and cultural resources, visitor use and understanding, and facilities development for the NRA; including initial recreational facility development agreed-upon by Reclamation and NPS, and funded by Reclamation in accord with Section 8 of the CRSP Act.

General Management Plan – Black Canyon of the Gunnison National Monument (now a National Park) and Curecanti National Recreation Area (September 1997)

Provides long-term management direction for natural and cultural resources, visitor use and understanding, and potential facilities improvements. Supersedes the 1980 GMP for Curecanti NRA.

GENERAL AGREEMENTS AND DOCUMENTS PERTAINING THERETO

Letter from Conrad L. Wirth, NPS Director to Fred A. Seaton, Secretary of the Interior – Subject: Designation of Responsibility for Carrying Out the Provisions of Section 8, Public Law 485, Colorado River Storage Project (CRSP) and Participating Projects (Written February 17, 1958; Concurred by Alfred R. Gloze, Commissioner of Reclamation on March 12, 1958; Approved by Seaton on April 21, 1958)

This letter was a precursor to the 1965 Memorandum of Agreement between Reclamation and NPS (next citation), which describes agency responsibilities for the management of the area that has come to be known as the Curecanti National Recreation Area. In this letter, Reclamation and NPS jointly recommended that the Secretary designate NPS as the agency responsible for carrying out the Department's obligation under Section 8 of the CRSP Act, except as it relates to provision number (2) concerning fish and wildlife. The Secretary approved this.

Memorandum of Agreement Between the Bureau of Reclamation and the National Park Service Relating to the Development and Administration of Recreation on the Curecanti Unit of the Colorado River Storage Project (February 11, 1965) (entire text below)

THIS MEMORANDUM OF AGREEMENT, made and entered into this 11th day of February 1965, between the BUREAU OF RECLAMATION, hereinafter referred to as the Bureau, and the NATIONAL PARK SERVICE, hereinafter referred to as the Service as agencies of the United States of America:

WITNESSETH THAT:

WHEREAS the Bureau is proceeding with the construction of the Curecanti Unit as a part of the Colorado River Storage Project authorized by the Act of April 11, 1956 (70 Stat. 105); and

WHEREAS the Service has been designated as the agency responsible for carrying out the provision of Section 8 of the said Act of April 11, 1956; and

WHEREAS lands are being acquired and public lands have been withdrawn for the purposes of the project, as authorized by the aforesaid Act of April 11, 1956; and

WHEREAS a large number of persons are expected to use the lands and waters of such withdrawn area for the purposes of recreation; and

WHEREAS the Act of August 7, 1946 (60 Stat. 885) authorizes the use of appropriated funds by the Service for the administration, protection, improvement, and maintenance of areas under the jurisdiction of other agencies of the Government when such areas are devoted to recreational use pursuant to cooperative agreements; and

WHEREAS the Service is experienced in administering areas devoted to recreational use:

NOW, THEREFORE, the Bureau and the Service do hereby mutually agree as follows:

ARTICLE I GENERAL PROVISIONS

1. The Bureau shall retain complete authority over and responsibility for construction, operation and maintenance of the Blue Mesa, Morrow Point, and Crystal Dams and Reservoirs for primary project purposes together with all engineering works in connection therewith. Except for the areas required by the Bureau for construction, operation and maintenance of the dams, the Service shall administer all lands and waters within the project area, providing for recreation therein. The agreed areas of authority between the Bureau and the Service include all those lands acquired, withdrawn, or segregated by the Bureau for project purposes under the authority of the aforesaid Act of April 11, 1956. These lands are generally depicted on the enclosed drawing marked Exhibit "A" and numbered SA-CUR-7101. This Exhibit may be revised at any time to illustrate changes in the project area as a result of land acquisition, or additional withdrawals (*sic*).
2. The parties to this agreement acknowledge that, as authorized by Congress, each has an interest in the storage, release, and utilization of the water which is to be impounded by the Curecanti Unit, and that such unit was authorized, and is being constructed, for the primary purposes of irrigation, flood control, and the generation of hydro-electric power and the incidental (*sic*) purposes of recreation, and fish and wildlife conservation. This agreement shall not be construed to conflict with the primary purposes of the project or to alter the Bureau's control over storage and release of water. However, to the extent consistent with the authorized primary purposes of said project, the Bureau shall operate the dams and reservoirs in keeping with the Secretarial policy which provides for full consideration of public recreation and fish and wildlife conservation on reservoir projects undertaken by the Federal Government. The Service shall determine the optimum and minimum pool levels desirable for public recreational use and provide the Bureau with this information for consideration in carrying out the purposes of this paragraph.
3. Prior to making any new development or granting any concession, lease, license or permit which, because of its nature or location will affect the bureau's activities at the Curecanti Unit Dams, the Service shall obtain the concurrence of the Bureau. Before making any new development or granting any concession, lease, license, or permit at the Curecanti Unit Dams which will affect the recreational and tourist facilities on the remainder of the project area, the Bureau shall obtain the concurrence of the Service. If either party does not concur in such proposed development, concession, lease, license, or permit the proposal shall be held in abeyance until agreement is reached by the Bureau and the Service or the Secretary has resolved any differences of opinion.
4. The parties to this agreement acknowledge and understand that the fulfillment of the agreement is contingent upon the availability of funds for the purposes thereof.

ARTICLE II FUNCTIONS OF THE NATIONAL PARK SERVICE

Subject to the primary purposes of the project, area limitations, and other provisions contained in Article I hereof, the Service in its administration of the project area for recreation, shall be responsible for:

1. Preparing plans for and constructing recreational facilities, including roads and trails.

2. Advertising for, evaluating and approving or rejecting bids and negotiating contracts for the installation or construction of recreational facilities.
3. Negotiating and executing contracts, with private individuals, partnerships or corporations for supplying necessary visitor services related to recreational use of the project area, including, but not limited to, use of the waters for boating, canoeing, bathing, and sightseeing; and prescribing and enforcing reasonable rates and standards for the supplying of such services.
4. Establishing and enforcing policies regarding the recreational use of lands and waters in the project area. It is understood that grazing activities within that portion of the project area administered by the Service shall be controlled and supervised by the Service in consultation with the Bureau of Land Management.
5. Promulgating and enforcing such rules and regulations as are necessary or desirable for the conservation of any historic or archeological remains, and control of all archeological excavation and historical or archeological research or as may be needed for recreational use and enjoyment of the area and for the safety of visitors.
6. Establishing and maintaining protective, interpretive, and other facilities and services as may be necessary for the safe and full use and enjoyment of the area for recreational purposes. Public information activities and services shall be provided by the Service through coordination with other Interior agencies in order to facilitate public understanding of the interrelated programs of these agencies within the area.
7. Control of transportation in the area under its jurisdiction, whether by land, water, or air, to the extent consistent with Federal law, but such control shall not affect transportation the Bureau may require for the performance of its functions or transportation governed by Article III, paragraphs numbered 3 and 4.
8. Extending to the Bureau and other agencies involved technical assistance in the planning and development of exhibits and interpretive devices oriented toward visitor understanding and enjoyment of the project and related resources.
9. Negotiation of agreements or coordination of activities with State and Federal wildlife agencies as desirable for the conservation, protection and interpretation of wildlife consistent with applicable law.
10. Such other functions as are reasonably related to, or necessary for, its administration of the project area.

ARTICLE III FUNCTIONS OF THE BUREAU OF RECLAMATION

Subject to the area limitations and provisions contained in Article I hereof, the Bureau shall be responsible for:

1. Construction, operation and maintenance of the Blue Mesa, Morrow Point and Crystal Dams and Reservoirs and all engineering works incidental thereto or in connection therewith, together with all appurtenances thereof for the proper storage, release, protection and utilization of water under the Federal Reclamation Laws.
2. Consultation with the Service on matters involving the development or administration of recreational facilities or public information services to be provided in the areas required by the Bureau for construction, operation and maintenance of the three dams in the Curecanti Unit.

3. Establishment and enforcement of rules and regulations governing public access to the Curecanti Unit Dams and the engineering works appurtenant thereto, and the control of traffic on the roads providing immediate access to the dams and their appurtenant engineering works.
4. Establishment of and, in cooperation with the Service, enforcement of such limitations governing approach to the dams by water as may be necessary either for their efficient functioning or for safety of the public.
5. Coordination and preparation of reservoir management plans in cooperation with the Service and other concerned Federal, State, and local agencies, for management of the three dams and reservoirs in the project area.
6. Consultation with the Service so that recreational development and administration of the project area will be coordinated with construction and operation of the Curecanti Unit.

ARTICLE IV TERMINATION

This memorandum shall remain in force unless the parties thereto mutually agree to its termination or termination is directed by the Secretary of the Interior, or until enactment by the Congress of inconsistent or superseding legislation.

NATIONAL PARK SERVICE: Signed by George B. Hartzog on December 21, 1964

BUREAU OF RECLAMATION: Signed by Floyd E. Dominy on January 8, 1965

SECRETARY OF THE INTERIOR: Approved and Signed by Stewart L. Udall on February 11, 1965

Memorandum of Understanding Between the Forest Service, U.S. Department of Agriculture and the National Park Service, U.S. Department of the Interior (July 11, 1966), and supplemental letters of extension pertaining thereto

This document, as amended, relates to the management of lands and provides approval for construction and maintenance of facilities on USFS lands withdrawn by Reclamation and other lands supplementally agreed to. The document clarifies responsibilities for each agency on these lands that are included within the NRA.

Agreement regarding final funding for development of facilities at Curecanti National Recreation Area under Section 8 of the Colorado River Storage Project Act (August 30, 1979)

This agreement between NPS and Reclamation includes a list of Development Packages for Section 8 Funding, and a list of Recreation Facility Criteria agreed-upon by NPS and Reclamation in accordance with and drawn from Curecanti's 1980 GMP. The agreement also recognizes that "Legislation for final establishment of Curecanti National Recreation Area will be recommended to congress by the National Park Service in a timely fashion such that enactment coincides approximately with completion of this construction program." The recommendations in the Proposed Action of the RPS satisfy this intent, albeit later than originally intended.

The agreement was signed by Glen T. Bean, then NPS Rocky Mountain Regional Director, and N. W. Plummer, then Reclamation Upper Colorado Regional Director. The text on the first page of that agreement appears below. The details of the development

packages and facilities are not included here. It will be noted that the text refers to “Curecanti’s 1979 General Management Plan”. The final version of that GMP was published in July 1980, and is previously referenced in this Appendix.

“It is herewith agreed that the attached list of development packages shall constitute the minimum level of development necessary to satisfy Curecanti National Recreation Area’s public recreation needs at the initial level of use. This list is in accordance with and is drawn from Curecanti’s 1979 General Management Plan.

“Funding for completion of facility development to this level shall be the responsibility of the U.S.B.R. in accord with Section 8 of the CRSP Act. The U.S.B.R. will program this construction over approximately five years beginning in FY 1980.

“The NPS shall assume all responsibilities for operation, maintenance, construction of future facilities, and replacement of existing facilities upon the completion of this construction program. Legislation for final establishment of Curecanti National Recreation Area will be recommended to Congress by the National Park Service in a timely fashion such that enactment coincides approximately with completion of this construction program.”

Interagency Agreement between the Bureau of Reclamation and the Bureau of Land Management (Signed by Commissioner, Bureau of Reclamation and Director, Bureau of Land Management on March 25, 1983)

“This agreement sets forth the basic principles of the Bureau of Reclamation (Reclamation) and the Bureau of Land Management (BLM) for coordinating land use planning, land resource management, land conveyance and exchange, and cooperative services.” (from Section I.)

Master Interagency Agreement, No. 86-SIE-004, Between the Bureau of Reclamation [Reclamation], Department of the Interior and the Forest Service [Service], U. S. Department of Agriculture, Concerning Water Resource Related Projects of the Bureau of Reclamation Within or Adjacent to National Forest System Lands (Signed by Chief, Forest Service on 1/16/87, and Commissioner, Bureau of Reclamation on 4/6/87)

“The purpose of this Master Agreement is to establish procedures for planning, developing, operating, and maintaining water resource projects and related programs of Reclamation located on or affecting lands and resources administered by the Service, and for the Service’s planning and implementation of activities on National Forest System (NFS) lands within the total area of project influence.” (from Section II.)

Memorandum of Understanding between the Bureau of Reclamation and the National Park Service for Planning, Program Coordination, and Technical Assistance (Signed by Reclamation Commissioner and NPS Director in September 1988)

This agreement establishes the policy framework for formal and informal coordination and communications between officials at every level of Reclamation and NPS, to improve public services and the management of natural and cultural resources, and recreation and visitor use, through cooperative efforts. The provisions of this agreement extend to all planning and program activities of each bureau that may have impacts on the plans and programs of the other. The Resource Protection Study falls under this agreement, and has been conducted in accordance with the stipulations and intent thereof.

General Agreement Between National Park Service (Curecanti National Recreation Area), and US Bureau of Reclamation (Upper Colorado Region), Relating to the Resource Protection Study and Associated Environmental Impact Statement for the Curecanti National Recreation Area (Signed for Reclamation on 3/8/01 by Arlo H. Allen, acting for the then acting Upper Colorado Regional Director, Rick L. Gold; and signed for NPS on 4/6/01 by Sheridan Steele, then Superintendent, Curecanti NRA)

Describes NPS and Reclamation roles and responsibilities for this Resource Protection Study.

APPENDIX D: NEEDED AGREEMENTS, RESEARCH, AND ACTION PLANS

The following items are needed to fully and successfully implement Alternative 2 (The Proposed Action) of this Resource Protection Study (RPS). Many of them would be dependent upon congressional action regarding the Proposed Action.

New Memorandum of Agreement between the Bureau of Reclamation and the National Park Service

The existing Memorandum of Agreement (MOA) between the Bureau of Reclamation (Reclamation) and the National Park Service (NPS), “Relating to the Development and Administration of Recreation on the Curecanti Unit, Colorado River Storage Project,” was approved by the Secretary of the Department of the Interior (DOI) on February 11, 1965. That MOA describes the roles and responsibilities of the two agencies in managing the reservoirs, dams, natural and cultural resources, recreation, and associated facilities, within the area generally known as the Curecanti National Recreation Area (NRA). Although these roles and responsibilities would remain the same with the legislated establishment of the NRA, a new MOA would need to be written to respond to new legislation for the NRA, and to changes that have occurred since 1965, such as completion of development of the originally intended recreational and administrative facilities, and the maturing of the relationship between Reclamation and the National Park Service.

The new MOA would be coauthored by the Bureau of Reclamation and the National Park Service, and it would describe in detail the responsibilities of the two agencies regarding the administration and management of everything within the new NRA. The preparation of a new MOA would likely be encouraged, and/or mandated, by the legislation. It is expected to be similar to the existing 1965 MOA, wherein the following responsibilities would continue.

- The National Park Service would manage the natural, cultural, and recreational resources, and associated facilities.
- Reclamation would manage all facilities associated with Reclamation Projects.
- In areas where management responsibility overlaps, the two agencies would work together, when necessary, to resolve conflicting uses with full respect for the legislative mandate of the other agency. The ability to operate the Aspinall/Uncompahgre projects for their authorized purposes would be given priority.
- There would likely be some clarification as to management responsibilities for lands within the NRA that are not withdrawn for Reclamation project purposes (such as NPS acquired land and land transferred to the NRA from other agencies).

Land Protection Plan

This RPS has identified a Conservation Opportunity Area (COA) of privately-owned lands surrounding the NRA that contain natural, cultural, scenic, and potential recreational resources that warrant special conservation measures that would be compatible with NRA goals and objectives. The RPS has also described various tools of resource conservation that could be employed in partnership between the National Park Service and neighboring landowners. Those tools have varying degrees of commitments and costs associated with them. A land protection plan (LPP) is needed to specify in detail which tool, or set of tools, would be necessary and appropriate to apply to each parcel of land within the COA, to satisfy the mutual conservation goals and objectives of both the landowner and the National Park Service. The LPP would establish a priority of needs for conserving each parcel of land, and the estimated costs involved. An environmental assessment and a public involvement process would accompany the LPP.

Land Appraisals

For those parcels identified within the LPP for acquisition, either in fee simple or less-than-fee interest (for example, a conservation easement), and subject to the willingness of the landowner to sell such interest or interests, government ordered land appraisals would be needed to determine fair market value, and provide other information that would be used in negotiations with landowners. An environmental hazard assessment would additionally be required prior to any such acquisition.

Boundary Surveys, Posting, and Fencing

After agreed-upon interests have been acquired from participating landowners, or other agreements have been consummated, the National Park Service would need to conduct and document boundary surveys and mark new boundaries that have been created. The National Park Service would work with landowners along boundary segments in locations where fencing would be necessary because of individual circumstances, such as the need to control livestock.

Specific Implementation Plans for New Lands

The existing NPS GMP, under which the NRA is managed, was approved in 1997. Specific Implementation Plans, or a revised GMP, would have to be produced to address resource management; visitor use, recreation, and interpretation; and associated development that would be required for the new lands added to the NRA.

Agreement(s) Pertaining to Curatorial Collections Associated with Land Transfers

Just as the National Park Service conducts research on cultural resources within the NRA, partnering agencies have conducted research on the archeological and/or historical resources on some of their lands that would come under NPS administration as part of the new NRA. Many artifacts have been collected as a result of that research. The National Park Service and the other agencies would continue to conduct such research on their lands, which are connected by history, regardless of the location of modern boundaries. In order to maintain the integrity of these curatorial collections, and the sites where the artifacts were discovered, it would be necessary for the National Park Service to enter into agreements with the other agencies pertaining to the management of both the collections and the sites.

Additional Strategy and Long-Term Goals and Objectives for the Joint Agency Management Effort

The National Park Service would need to increase its efforts to identify and meet common goals and objectives among agencies and across jurisdictional boundaries for conservation of resources.

Input to Development of Gunnison County Comprehensive Plan

The National Park Service would need to participate in the development of that portion of the Gunnison County Comprehensive Plan that includes planning for the area surrounding the NRA. Also, the potential exists for working with the county to establish a special geographic area (SGA) for the Curecanti area. This would include identifying strategies and policies that allow development and/or encourage conservation practices that minimize impacts to area resources.

Increased Interaction with Montrose County

The National Park Service would increase its participation with the Montrose County planning staff and management to mutually identify resources worthy of conservation measures, and to identify and implement tools to achieve goals and objectives. A potential tool would be the

establishment by the county of a conservation zone, or overlay zone, that would include the NRA and COA. Such a zone could be used to guide development decisions in that area. However, establishment of such a zone would likely occur only during or after revision of the county master plan.

BIBLIOGRAPHY

PUBLISHED MATERIAL

Andrews and Righter

- 1992 Colorado Birds: A Reference to Their Distribution and Habitat. Denver Museum of Natural History.

Bio-Environs, Inc.

- 2001 Protection for the Gunnison River Great Blue Heron Colony, Curecanti National Recreation Area, Gunnison, Colorado. September 5, 2001.

Bodine, Jennifer and Tomas M. Koontz

- 2003 Impact of Federal Lands on Local Government Tax Bases. Policy Summary Series # JB2002. Environmental Communication, Analysis and Research for Policy Working Group. School of Natural Resources, The Ohio State University, Columbus, Ohio.

Bureau of Land Management (BLM), U.S. Department of the Interior

- 1991 USDOI, BLM, Montrose District, CO. Gunnison Resource Area Resource Management Plan and Environmental Impact Statement. Draft, March 1991.
- 1998 Uncompahgre Basin Area Resource Management Plan, Montrose District. Final, September 1998.
- 2001 Gunnison Sage-grouse Conservation Plan. Available on the Internet at <www.co.blm.gov/gra/sagegrouse.htm>.
- 2003 Payments in Lieu of Taxes, Total Payments and Total Acres by State/County, Summary by State and County, Fiscal Year 2003, from Washington DC office - viewed 12/30/03. Available on the Internet at <www.blm.gov/pilt>.
- 2004 Payments in Lieu of Taxes, PILT Question and Answer, from Washington DC office, last dated 11/19/04. Available on the Internet at <chriscannon.house.gov/wc/Features/PILT_QandA.pdf>.

Bureau of Reclamation (Reclamation), U. S. Department of the Interior,

- 1998 January 30, 1998, *Land Withdrawal Handbook*, United States Government Printing Office, Denver, CO.

Colorado Department of Local Affairs (CDOLA), Demography Section

- 2002 U.S. Bureau of the Census data, April 1990 April 2000; Prepared by the Colorado Demography Section, December 2002, Denver, CO; viewed 12/31/03 and 1/29/04. Available on the Internet at <www.dola.state.co.us/dlg/demog/pop_totals.html>.

Colorado Department of Transportation (CDOT)

- 2005 Colorado Department of Transportation. Right of Way Manual Chapter 11, State and Federal Lands Acquisition. December 2005.

Colorado Division of Housing (CDH)

- nd Housing Cost Projections. Available on the Internet at <www.region10.net>.

Colorado Division of Wildlife (CDOW)

- 2000 Colorado Division of Wildlife, Colorado Wildlife Commission. Colorado Listing of Endangered, Threatened and Wildlife Species of Special Concern. Available on the Internet at <wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern>.
- 2002a The Boreal Toad. Available on the Internet at <wildlife.state.co.us/Research/Aquatic/BorealToad>.
- 2002b Coldwater Reservoir Ecology. Available on the Internet at <wildlife.state.co.us/Research/Aquatic/ColdwaterResEcology>.
- 2003 Colorado Division of Wildlife, Colorado Wildlife Commission. Colorado Listing of Endangered, Threatened and Wildlife Species of Special Concern. Updated April 2003. Available on the Internet at <wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern>.
- 2004a Colorado Division of Wildlife web page, listing and information on state wildlife areas, available on the Internet at <wildlife.state.co.us/LandWater/StateWildlifeAreas>. Accessed on 1/23/04.
- 2004b The Economic Impacts of Hunting, Fishing and Wildlife Watching in Colorado; Prepared for Colorado Division of Wildlife by Todd Pickton, BBC Research & Consulting, and Linda Sikorowski, Colorado Division of Wildlife; October 31, 2004. Available on the Internet at <wildlife.state.co.us/NR/rdonlyres/7F348ECE-AF04-4162-A4D1-3C7975285004/o/Report.pdf>.

Colorado Department of Public Health and Environment (CDPHE)

- 2002 Water Quality Control Commission. Regulation Number 35 – Classifications and Numeric Standards for Gunnison and Lower Delores River Basins.

Colorado Labor Market Information

- 2004 Accessed January 5, 2004. Available on the Internet at <lmigateway.coworkforce.com/lmigateway/labormarket.asp>.

Colorado Native Plant Society (CNPS)

- 1997 Colorado Native Plant Society and the Rocky Mountain Nature Association. Rare Plants of Colorado. 2nd Edition.

Colorado Natural Heritage Program (CNHP)

- 1999 Colorado Natural Heritage Program Rare Plant Field Guide. Available on the Internet at <www.cnhp.colostate.edu/rareplants/intro.html>.
- 2000 Colorado Natural Heritage Program Rare Plant Field Guide Update. Available on the Internet at <www.cnhp.colostate.edu/documents/2002/rare_plant_guide_update.pdf>.
- 2002 Gunnison County Wetland Survey.

Colorado Plateau Cooperative Ecosystems Studies Unit (CPCESU)

- 2002 Colorado Plateau Cooperative Ecosystems Studies Unit. Available on the Internet at

<www.cens.nau.edu/Orgs/CPCESU>.

Colorado River Cutthroat Trout Task Force

- 2001 Conservation agreement and strategy for Colorado River cutthroat trout (*Oncorhynchus clarki pleuriticus*) in the States of Colorado, Utah, and Wyoming. Colorado Division of Wildlife, Fort Collins. 87p. accessed at: <wildlife.state.co.us/Research/Aquatic/CutthroatTrout>.

Emslie, Steven D.

- 2003 Department of Biological Sciences, University of North Carolina, Wilmington. <www.cpluhna.nau.edu/Research/gunnisonchange1.htm> accessed fall, 2003.

Espey, Molly and Kwame Owusu-Edusei

- 2002 "Federal Land Acquisition and Payments-in-lieu of Taxes: One Piece in the Puzzle of County Finance." Choices: The Magazine of Food, Farm and Resource Issues. Spring, 2002.

Fiorillo, Anthony R., Richard L. Harris, and Cathleen L. May

- 1996 Late Jurassic Dinosaur Remains from Curecanti National Recreation Area. *In*: Park Science. Volume 16, No 4. National Park Service, US Department of the Interior. Fall 1996.

Fitzgerald, James P., Carron A. Meaney, and David M. Armstrong.

- 1994 Mammals of Colorado. Denver Museum of Natural History.

Grand Mesa Uncompahgre and Gunnison National Forests (GMUG)

- 2005 Grand Mesa, Uncompahgre and Gunnison National Forest Management Indicator Species Assessment. Available on the Internet at <www.fs.fed.us/r2/gmug/policy>. Last amendment May 2005.

Gunnison County

- 2001a Gunnison County Board of County Commissioners and Dave Michaelson, Powerpoint slide show on Gunnison County Comprehensive Plan Process. Power point slide 10. March 2001.
- 2001b Gunnison County Land Use Resolution. Adopted by the Gunnison County, Board of Commissioners, January 8, 2001. Available on the Internet at <www.gunnisoncounty.org/dept/plan/index.php?Regulations_and_Guidelines:Land_Use_Resolution>.

Houk, Rose

- 1991 Southwest Parks and Monuments Association 1991. Curecanti National Recreation Area.

Hyde, Dr. A.S., and Kevin J. Cook

- 1980 A checklist to the Birds of Curecanti National Recreation Area. Southwest Parks and Monuments Assoc. Unpaginated. Jamestown, ND.

Kingery, Hugh E.

- 1998 Colorado Breeding Bird Atlas. Colorado Bird Atlas Partnership with Colorado Division of Wildlife.

Landis, T.W.

- 2000 Triangulate T-Rex! Modern Mapping Enters Jurassic Park. Accessed at: <www>.

geoplace.com/gw/2000/0008/0800tri.asp >. Note: Article no longer available on the Internet.

Loomis, John, PhD and Robert Richardson, MBA

- 2002 Economic Values of Protecting Roadless Areas in the United States. An analysis prepared for the Wilderness Society and Heritage Forests Campaign. Department of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO.

Michaelson, Dave

- nd Powerpoint presentation on “The Gunnison County/National Park Service Experience” and the “Gunnison County Comprehensive Plan: A Cooperative Multi-Agency Approach” by Dave Michaelson, Long Range Planning and GIS, Gunnison County, Colorado.

Montrose County Master Plan

- 2001 Prepared by Balloffet – Entranco. Adopted October 25, 2001.

Mueller and Marsh

- 2003 Bonytail and Razorback Sucker in the Colorado River Basin – Gordon Mueller (National Biological Service) and Paul Marsh (Arizona State University). <biology.usgs.gov/s+t/noframe/r166.htm>.

National Park Service (NPS), U. S. Department of the Interior

- nd Curecanti National Recreation Area – Official NPS Website: < www.nps.gov/cure/naturescience/index.htm > accessed 04/12/2005.
- nd-a “List of Classified Structures.” Park files.
- nd-b Historic Structures and Resources. Available on the Internet at <www.nps.gov/cure/historyculture/cimarron.htm> accessed 11/24/03.
- nd-c Old Spanish National Historic Trail Website. Available on the Internet at <www.nps.gov/olsp>.
- nd-d NPS Map: tes_63.rtl 10/23/00 - CNHP potential conservation areas/outstanding significance areas.
- 1994 “Curecanti National Recreation Area: Archeological Overview and Assessment (Revised).” Park files.
- 1995a *How to Apply the National Register Criteria for Evaluation*. Available on the Internet at <www.cr.nps.gov/nr/publications/bulletins/nrb15>.
- 1995b Secretary of the Interior’s Standards for the Treatment of Historic Properties. Available on the Internet at <www.cr.nps.gov/hps/tps/standards_guidelines.htm >.
- 1996 *The Secretary of the Interior’s Standards for the Treatment of Historic Properties and the Guidelines for the Treatment of Cultural Landscapes*. Washington, DC.
- 1997 General Management Plan for Black Canyon of the Gunnison National Monument and Curecanti National Recreation Area. Available at the Technical Information Center, Denver Service Center, file number D-63B. Denver, CO. Also available on the Internet at <www.nps.gov/cure/parkmgmt/index.htm>.

- 2000 Park Staff Workshop and Photo Assessment Open Houses, by Jeff Heywood. Trip Report. Intermountain Support Office, December 4-8, 2000.
- 2001a Director's Order #12: *Conservation Planning, Environmental Impact Analysis, and Decision-making*; and *DO-12 Handbook*. Washington, DC. Available on the Internet at <www.nps.gov/policy/DOrders/DOrder12.html> and <www.nps.gov/policy/DOrders/RM12.pdf>.
- 2001b "Strategic Plan for Curecanti National Recreation Area, October 1, 2001 – September 30, 2005."
- 2002a "American Indian Affiliation: Curecanti National Recreation Area," by David Ruppert. Technical paper. Intermountain Support Office, Denver, CO.
- 2002b Recreation Opportunities Workshop (ROW), by Jeff Heywood. Trip Report. Intermountain Support Office, March 5-7, 2002.
- 2002c Economic Analysis of Personal Watercraft Regulations in Curecanti National Recreation Area, Draft Report, September 2002. Prepared for NPS, Environmental Quality Division by LAW Engineering and Environmental Services, BBL Sciences, and RTI.
- 2002d Environmental Assessment for the Wind Cave National Park Boundary Expansion Study – Public Review Draft. Wind Cave National Park, Hot Springs, South Dakota.
- 2003a Personal Watercraft Use Environmental Assessment; Curecanti National Recreation Area. Available at the Technical Information Center, Denver Service Center, file number D-89 (April 2003). Denver, CO.
- 2003b Curecanti National Recreation Area Website. Dams and Reservoirs. Available on the Internet at <www.nps.gov/cure/historyculture/aspinall_unit.htm> Accessed November 7, 2003.
- 2005 The National Parks: Index 2005-2007; Government Printing Office, 2005; available on the Internet at <www.cr.nps.gov/history/online_books/nps/index2005_07.pdf>.
- 2006a National Park Service *Management Policies 2006*. Washington, DC, August 31, 2006. Available on the Internet at <www.nps.gov/policy/MP2006.pdf>.
- 2006b National Park Visitor Spending and Payroll Impacts, Fiscal Year 2005. Daniel J. Stynes, PhD, Michigan University; August 2006. Available on the Internet at <web4.canr.msu.edu/mgm2>.
- Natural Diversity Information Source (NDIS)
nd Colorado Division of Wildlife <www.ndis.nrel.colostate.edu>.
- Natural Resource Conservation Service (NRCS)
2004 Personal Communication with Tom Weber, NRCS on January 22, 2004 RE: Prime Farmlands.
- Northern Prairie Wildlife Research Center Home Page
nd Available on the Internet at <www.npwrc.usgs.gov/resource/othrdata/chekbird/r6/curecan.htm>. (Version 18JUL00).

Region 10, League for Economic Assistance and Planning

- 2005 Region 10 Review, Volume 12, Winter 2005. Also available on the Internet at <www.region10.net/pdf/review_2005.pdf>.

Seidl, Andy and Stephan Weiler

- 2001 Economic Impacts of the National Park designation of the Black Canyon of the Gunnison on Montrose County, Colorado. Department of Agricultural and Resource Economics, Colorado State University, and Center for Research on the Colorado Economy (CRCE), Fort Collins, Co. <dare.agsci.colostate.edu/csusagecon/extension/docs/impactanalysis/apr01-o8.pdf>.

State of Colorado, Legislative Council

- 2002 Paper on growth in assessed land values statewide. <www.state.co.us/gob_dir/leg_dir/Econ/2002>. Accessed on January 28, 2004. Note: Article no longer available on the Internet.

Trust for Public Land (TPL)

- 1999 "Short-term Effect of Land Conservation on Property Tax Bills." Trust for Public Land website under Massachusetts. From a TPL New England Region Report, 1999. Viewed on January 28, 2004 at <www.tpl.org/tier3_cdl.cfm?content_item_id=1136&folder_id=827>.

University of Colorado Museum (CU)

- nd Vascular plant species list for Montrose and Gunnison Counties, available on the Internet at: <cumuseum.colorado.edu/Research/Botany/Databases/county_species.html> accessed March 15, 2005.

U.S. Census Bureau

- nd Population Statistics. Available on the Internet at <www.census.gov>.

U.S. Fish and Wildlife Service (USFWS)

- 2002 National Wetlands Inventory.

U.S. Forest Service (USFS)

- 2004a *Cirsium perplexans* (Rydb.) Petrak (Rocky Mountain Thistle): A Technical Conservation Assessment.
- 2004b Grand Mesa, Uncompahgre, and Gunnison National Forests web page, Revision of Forest Plan. Accessed on January 22, 2004. <www.fs.fed.us/r2/gmug/policy/plan_rev>.

U.S. Geological Survey (USGS)

- 2003 2001-2002 Mammalian Inventory Final Report for Selected Northern Colorado Plateau Network Parks. Submitted to: Angela Evenden, National Park Service, Northern Colorado Plateau Network, Moab, UT. Prepared by: Shauna Haymond, Michael A. Bogan, and Ernest W. Valdez, U.S. Geological Survey, Fort Collins Science Center, Arid Lands Field Station, Department of Biology, University of New Mexico, Albuquerque, NM.
- 2005 Northern Prairie Wildlife Research Center. Status of Listed Species and Recovery Plan Development, Uncompahgre Fritillary Butterfly. Accessed online 03/14/2005 at: <www.npwrc.usgs.gov/resource/distr/others/recoprogram/states/species/boloacro.htm>.

Water and Power Resources Service, U. S. Department of the Interior,

1981 *Project Data*, United States Government Printing Office, Denver, CO.

Western Area Power Administration (Western)

2004 Correspondence provided by Susan Starcovich of Western's Lakewood Corporate Services Office.

Wilderness Society

1999 "Colorado County Economic Profiles." Profiles for Montrose and Gunnison Counties. Updated in August 2000. Wilderness Society, Washington D.C. Accessed on 1/29/04. <www.wilderness.org/Library/Documents/EconProfile_ColoradoCounties.cfm>.

2002 Colorado's National Forests and the Colorado Economy. Accessed February 5, 2004 <www.wilderness.org>. Note: the document is no longer available at the website.

PERSONAL COMMUNICATION

June 28, 2001 memo from USFWS Ecological Services, Grand Junction regarding threatened and endangered species in the vicinity of Curecanti National Recreation Area. Sent to Ken Stahlnecker, CURE Chief of Resource Stewardship and Science (USFWS 2001). The information was updated by USFWS on March 17, 2005.

March 21, 2002 letter from Sheridan Steele to Gunnison County Commissioners regarding County's Land Use Resolution.

2004 personal communication with Ken Stahlnecker, NDIS, Impact Analysis Matrix.

2004 personal communication from Norma Davis, Deputy Assessor of Gunnison County.

2004 personal communication from Dave Roberts, Management Assistant, Curecanti NRA and Black Canyon of the Gunnison NP regarding land uses in the RPS study area.

April 5, 2005 personal communication from Dangoule Bockus, Ecologist, Black Canyon of the Gunnison NP and Curecanti NRA, regarding vegetation.

GLOSSARY

Acquired Land (Reclamation): Lands purchased or otherwise obtained for Reclamation project purposes, as opposed to withdrawal of federal public domain lands; acquired lands were usually private lands necessary for project purposes (adapted from CRSPA and general Reclamation usage).

Affected Environment: Associated with the National Environmental Policy Act (NEPA), the “Affected Environment” includes those environments and/or resources (also called “impact topics”) that are expected to be impacted by a major federal action. Such impact topics are identified in the Purpose and Need chapter, and in the Affected Environment chapter of the Environmental Impact Statement. The affects, or impacts, are evaluated in the Environmental Consequences chapter. Environments and/or resources that are not likely to be affected by the Proposed Action or alternatives to the Proposed Action need not be evaluated in detail. In other words, they may be dismissed from further evaluation. The key impact topics that are dismissed are listed in the Purpose and Need chapter.

Area of Critical Environmental Concern (ACEC): This program is managed by the Bureau of Land Management (BLM). The ACEC program was conceived in the 1976 Federal Lands Policy and Management Act (FLPMA), which established the first conservation mandate for the BLM. The ACEC mandate directs the BLM to protect important riparian corridors, threatened and endangered species habitat, cultural and archeological resources and unique scenic landscapes that the agency believes need special management attention.

Conservation: The words “conservation”, “preservation”, and “protection” are used throughout this document. Although they have similar meanings, there are fine differences. In the context of this RPS, Conservation is defined as follows: Planned action or non-action to protect, preserve or renew natural and cultural resources in a manner that will ensure social and economic benefits to meet the needs and aspirations of this and future generations. It includes additional levels of resource management than either preservation or protection, and includes such actions that can sustain, restore, and/or enhance such resources and the environment. See also the definitions for “preservation” and “protection”.

Conservation Easement: A restriction deeded to a qualified third party, usually a land trust or government body, that permanently limits certain activities on real property, in order to protect conservation values such as biodiversity, wildlife habitat, open space, or scenic values. The restriction stays with the property through successive owners. The restriction reduces the “highest and best” economic use of the property so that the property’s value reflects only the allowed uses. If the landowner donates the easement as a gift, this reduction in value may be eligible as a charitable tax deduction. An easement also can be sold to non-profit or government agencies to provide revenue. Sometimes an easement is sold at less than its appraised value (bargain sale), resulting in a combination of income and a tax deduction.

Conservation Opportunity Area (COA): An area outside and adjacent to the proposed NRA boundary, comprised of 24,300 acres of private land, where the National Park Service would be authorized by Congress to use various tools to partner with park neighbors to conserve resources and values identified as important to the NRA. These tools would range from technical assistance, to conservation easements, to fee-simple acquisition, subject to the willingness of the landowners to participate.

Cooperating Agency: A federal agency other than the one preparing the NEPA document (lead agency) that has jurisdiction over the proposal by virtue of law or special expertise, and that has been deemed a cooperating agency by the lead agency.

Curecanti Area Conservation Study (CACS): An effort begun by Gunnison County just prior to the beginning of the Resource Protection Study (RPS), and conducted in parallel with the first few years of the RPS process, to make recommendations which would help conserve the natural, cultural, recreational and scenic resources surrounding Curecanti NRA that are important to county residents and area visitors.

Curecanti: Great Scenery, Outstanding Resources and Good Neighbors: A booklet of ideas about how government land-managing agencies and private landowners can work together to maintain the outstanding resource qualities that are commonly valued. Although the document was created specifically for the Resource Protection Study at Curecanti National Recreation Area in Colorado, the ideas may be applicable throughout the country.

Environmental Impact Statement (EIS): A detailed NEPA document that is prepared when a proposed action or alternatives have the potential for significant impact on the human environment.

Fee Simple Acquisition: Acquisition of all rights or interests in land through means such as direct purchase, third party purchase, land exchange, bargain sale, or donation. For the purposes of the RPS, acquisition would not occur unless the landowner is willing.

General Management Plan: A broad umbrella document that sets the long-term goals for a National Park Service unit, in terms of desired natural and cultural resource conditions to be achieved and maintained over time; necessary conditions for visitors to understand, enjoy, and appreciate the unit's significant resources; the kinds and levels of management activities, visitor use, and development that are appropriate for maintaining the desired conditions; and indicators and standards for maintaining the desired conditions. The long-term goals are based on the unit's foundation statement, which in turn is based on the unit's enabling legislation or presidential proclamation, and is a statement of the unit's purpose, significance, fundamental resources and values, primary interpretive themes, and relevant laws and executive orders that apply to NPS or to the individual unit.

Impairment: A major or severe adverse impact resulting from NPS activities in managing the NRA, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the area, on NRA resources or values that are necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the area; key to the natural or cultural integrity of the area, or to opportunities for enjoyment of the area; or identified for conservation by the area's general management plan or other relevant NPS planning documents. There would be no impairment of the NRA's resources or values from the implementation of either Alternative 1 or Alternative 2 of the RPS.

Implementation Plan: A plan that provides project-specific details needed to implement an action(s) in an area of a National Park Service unit, and explains how the action(s) helps achieve long-term goals identified in the unit's general management plan.

Joint Agency Management Effort (JAME): A continuing effort initiated by the Resource Protection Study whereby the National Park Service, American Indian tribes, and other federal, state, and local government agencies in the Curecanti area are working in partnership to address resource management and visitor use issues of mutual concern that extend beyond the NRA.

Land Acquisition Ranking System (LARS): A system through which park units propose lands for acquisition. Such lands generally need to be already authorized for acquisition consistent with NPS land policy, by congressional approval, or by existing legislation. Land parcels entered into the LARS system are then evaluated and ranked in priority, first at the regional level (in competition with other parks in that region), and then nationally (in competition with all parks nationwide).

Land Protection Plan: Land protection plans identify the conservation methods that will be sought or applied to protect resources and to provide for visitor use and park facility development. Each plan will identify acquisition priorities, what level of acquisition might be needed (fee simple, conservation easement, right-of-way for access, etc.), and whether alternatives to acquisition are available (for example, conservation agreements) that meet the needs of the NPS unit. The plan will also identify the legal authorities for the NPS unit (for example, statute providing for acquisition and any willing seller requirements).

Land Units: Defined for purposes of resource analysis during the development of alternatives, Land Units refer to sections of public and/or private land adjacent to and outside the existing National Recreation Area, in which the natural, cultural, and scenic resources, and potential recreational opportunities were considered by the study team to be most important to conserve for NRA purposes. Eight land units were identified (letters A through H), according to geographical location, similarity of resource values, reasonably foreseeable activities, and land ownership (public or private). The land units are shown on the Alternative 2 map, and constitute the “proposed lands,” as defined later in this Glossary.

National Environmental Policy Act (NEPA): The National Environmental Policy Act was passed by Congress in 1969 and took effect on January 1, 1970. It established this country’s environmental policies, and provided the tools to carry out these goals by mandating that every federal agency prepare an in-depth study of the impacts of “major federal actions having a significant effect on the environment” and alternatives to those actions, and requiring that each agency make that information an integral part of its decisions. NEPA also requires that agencies make a diligent effort to involve the interested and affected public before they make decisions affecting the environment.

National Recreation Area (NRA): National Recreation Area is a designation for a protected area in the United States that provides diverse recreation opportunities for a large number of people. Many of these areas are centered on large reservoirs and emphasize water-based recreation. Many NRAs are administered by the National Park Service; however, other agencies manage NRAs as well. Table 16 summarizes current NRAs, grouped by administering agencies.

National Recreation Area Boundary: This document from time to time refers to an existing NRA boundary that contains: (1) lands administered under the 1965 Memorandum of Agreement between Reclamation and NPS; (2) lands administered under supplemental agreements with other agencies; and (3) lands acquired by NPS for addition to the NRA as specifically authorized by Congress. The reader should be aware that Congress has yet to legislatively establish a boundary for the NRA. Therefore, the term “boundary” in this instance is to be interpreted as an informal descriptor, and not as an official line authorized by Congress.

Payments in Lieu of Taxes: Federal payments to local governments that help offset losses in property taxes due to nontaxable Federal lands within their boundaries.

Table 16: National Recreation Areas Throughout the United States

National Recreation Area, State	Administered By
White Mountains National Recreation Area, Alaska	Bureau of Land Management
Amistad National Recreation Area, Texas	National Park Service
Bighorn Canyon National Recreation Area, Montana	National Park Service
Boston Harbor Islands National Recreation Area, Massachusetts	National Park Service
Chattahoochee River National Recreation Area, Georgia	National Park Service
Chickasaw National Recreation Area, Oklahoma	National Park Service
Curecanti National Recreation Area, Colorado	National Park Service
Delaware Water Gap National Recreation Area, Pennsylvania	National Park Service
Gateway National Recreation Area, New York	National Park Service
Gauley River National Recreation Area, West Virginia	National Park Service
Glen Canyon National Recreation Area, Arizona	National Park Service
Golden Gate National Recreation Area, California	National Park Service
Lake Chelan National Recreation Area, Washington	National Park Service
Lake Mead National Recreation Area, Nevada	National Park Service
Lake Meredith National Recreation Area, Texas	National Park Service
Lake Roosevelt National Recreation Area, Washington	National Park Service
Ross Lake National Recreation Area, Washington	National Park Service
Santa Monica Mountains National Recreation Area, California	National Park Service
Whiskeytown National Recreation Area, California	National Park Service
Flaming Gorge National Recreation Area, Utah	USDA Forest Service
Hells Canyon National Recreation Area, Oregon	USDA Forest Service
Land Between The Lakes National Recreation Area, Kentucky	USDA Forest Service
Oregon Dunes National Recreation Area, Oregon	USDA Forest Service
Pine Ridge National Recreation Area, Nebraska	USDA Forest Service
Rattlesnake National Recreation Area, Montana	USDA Forest Service
Sawtooth National Recreation Area, Idaho	USDA Forest Service
Shasta- Trinity National Recreation Area, California	USDA Forest Service

Preservation: The words “conservation”, “preservation”, and “protection” are used throughout this document. Although they have similar meanings, there are fine differences. In the context of this RPS, Preservation is defined as follows: The protection of natural and cultural resources, through the implementation of appropriate legal and physical mechanisms, in such a way that, so far as is practicable, the intrinsic values are safeguarded from unnatural disturbance. It does not imply preserving an area or structure forever in its present state, because natural events and natural ecological processes are expected to continue. Preservation is part of, and not opposed to, conservation. Preservation suggests that natural resources will be left undisturbed, while conservation usually implies that some resource management action will be taken. See also the definitions for “conservation” and “protection”.

Proposed Lands: The term “proposed lands” refers to (1) Public lands adjacent to the NRA that were identified through the study process to warrant transfer to NPS for inclusion within the NRA for more overall efficient management for all agencies concerned, in keeping with each agency’s mission; and (2) Private lands that warranted increased conservation measures relating to NRA goals and objectives, to be included within a Conservation Opportunity Area (COA), outside the proposed NRA boundary. As defined for this study, the “proposed lands” do not include lands within the existing NRA that were identified as having the potential to be deleted from the NRA, via transfer to neighboring government agencies, or exchange for private lands within the COA. The proposed lands are a feature of Alternative 2 – the Proposed Action, and are a subset of the larger “study area” that was initially examined at the

beginning of the study. The proposed lands are divided into eight “land units,” A through H, to facilitate analysis.

Protection: The words “conservation”, “preservation”, and “protection” are used throughout this document. Although they have similar meanings, there are fine differences. In the context of this RPS, Protection is defined as follows: The use of legal and physical mechanisms to protect resources and the environment from further degradation. It does not include management actions that might serve to restore or sustain, but emphasizes lessening or preventing adverse impacts to resources from external influences and activities. It may be more narrow in its perspective than conservation or preservation, such as to protect a single species, geographic area, or structure. See also the definitions for “conservation” and “preservation”.

Purchase and Retained Use and Occupancy: Purchase of property from a willing landowner at fair market value; wherein the owner can reside on the property rent free until death (life estate), or some other agreed-upon time period, such as 25 years (25-year lease).

Reclamation Facilities: Those structures and features necessary to, and constructed, operated, maintained, and reconstructed for the furtherance of Reclamation project purposes. Such structures and features may include, but are not necessarily limited to: dams, reservoirs, diversion structures, roads, ditches, canals, tunnels, telephone lines, power plants, electrical transmission lines, substations, switchyards, communications sites, towers, rights-of-way, real property, buildings, storage yards, fences, and borrow areas.

Reclamation Lands: Real property administered by the Secretary of the Interior, acting through the Commissioner of Reclamation, including all acquired and withdrawn lands and water areas under jurisdiction of the Bureau of Reclamation (Section 2803 of P.L. 102-575). Reclamation retains administrative jurisdiction on its lands for project purposes.

Reclamation Project: Any water supply or water delivery project constructed or administered by the Bureau of Reclamation under the Federal reclamation laws (the Act of June 17, 1902 [32 Stat. 388, chapter 1093; 43 U.S.C. 371], and Acts supplementary thereto and amendatory thereof (from Section 2803 of P.L. 102-575)).

Special Status Species: Special status species include any species which is listed, or proposed for listing, as threatened or endangered by the U.S. Fish and Wildlife Service or National Marine Fisheries Service under the provisions of the Endangered Species Act; any species designated by the U.S. Fish and Wildlife Service as a “listed,” “candidate,” “sensitive” or “species of concern;” and any species which is listed by the State as state endangered, state threatened, or a species of special concern. In addition, within the context of this document, Special Status Species includes NRA Sensitive Species. This includes a variety of species found in the NRA, which the staff considers to be native species of concern.

Toolbox of Incentives for Resource Conservation: A handbook of ideas for neighbors in the Curecanti area, to encourage private landowners, local communities, and city, county, state, and federal agencies to work in partnership to manage their lands for more effective resource conservation. Although this document was created specifically for the Resource Protection Study at Curecanti National Recreation Area in Colorado, the ideas can be applied to other areas throughout the country.

Tract: For the purposes of this study, an area of land identified for potential deletion from the NRA. For example, 10 such tracts of land are shown on the Alternative 2 map.

Withdrawal: A withholding of an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws, to:

- Limit activity under those laws in order to maintain other public values in the area,
- Reserve the area for a particular public purpose or program, or
- Transfer jurisdiction of the area from one Federal agency to another.

(From Reclamation, 1998, Land Withdrawal Handbook).

Withdrawn Lands (Reclamation): Federal lands and land interests requested and set aside for Reclamation project purposes through a withdrawal process.

INDEX

A

Acronyms, xix

Advisory Council on Historic Preservation, 164, 167, 217-218

American Indian, iv, 10, 11, 15, 26, 32-33, 98-99, 101, 164, 167, 209, 216-218, 222, 225-227, 273, 291, 296

Aspinall Unit, iii, v, ix, 1, 5, 7, 9, 12-14, 27, 36, 59-61, 80, 84, 99, 123-124, 127-128, 137, 203, 214

B

Black Canyon of the Gunnison National Park and Gunnison National Conservation Area Act of 1999 (Public Law 106-76), iii, v, vi, 6-7, 136, 270

Black Canyon of the Gunnison National Park (BLCA), ix, xix, 14, 44, 61, 86, 95, 101-102, 104, 109, 114, 122, 136-137, 139, 207, 213, 216, 221

Blue Mesa Reservoir, 1, 10, 13, 18, 22, 84, 86-88, 90-91, 100, 102, 104-111, 113-114, 119, 125, 127, 141, 170, 172-173, 177-179, 181, 190, 193, 195, 203

Boundary, National Recreation Area (NRA), iii, vi-vii, x, 5-6, 8, 22, 25-26, 35-37, 39-40, 44-45, 49, 51, 53, 55-57, 59, 62-63, 65-66, 83-84, 120, 126, 131-133, 166-167, 189, 194-195, 197, 199, 200, 202-203, 206, 213, 216, 284, 295, 297-298

Bureau of Land Management (BLM), xix, 1, 8, 25-26, 28, 43-44, 49, 50, 54, 63, 90, 136-137, 203-204, 210, 218, 220, 223, 262, 278, 280, 287, 295

Bureau of Reclamation (Reclamation), iii-vi, viii, x, xx, 1, 5-9, 12-15, 17, 25-28, 35-36, 39-40, 43-45, 49-50, 52-54, 59-63, 84, 99-100, 102, 113-114, 117, 119, 121, 123-125, 127, 129, 136-137, 139, 157, 159, 161-162, 166, 193, 195-197, 200, 202-203, 205, 207-214, 217-218, 220, 223, 262, 269, 271, 275-276, 278-281, 283, 287, 295, 297, 299-300

C

City of Gunnison, 18, 105, 114-116, 211, 219

City of Montrose, 100, 114-116, 219

Colorado Division of Wildlife (CDOW), xix, 8, 14, 21, 26, 28, 39, 43-44, 46, 49, 52, 54, 89, 90-91, 94-95, 102-103, 106-107, 121-122, 127, 152, 187, 197, 199-200, 206-207, 210-213, 218, 223-224, 236, 241, 252-253, 262, 266, 288-289, 291

Colorado River Energy Distributors Association (CREDA), 211, 219, 224

Colorado River Storage Project (CRSP), i, iii, ix, 1, 5-6, 9, 11-15, 25, 31, 40, 43, 54, 60-61, 63, 68, 84, 99, 102, 119, 123, 137, 140, 168, 174, 269, 275-276, 279-280, 283, 295

Communication, Consultation, and Cooperation; All in the Service of Conservation (the four “Cs”), 25, 46

Conservation Easement, vi, vii, xi, 17, 26, 40, 45-46, 51-52, 55-58, 65-66, 68, 70, 75, 77-79, 120, 133, 136, 139, 142, 149, 150, 156, 159, 162, 166-167, 176, 180-183, 185, 187-189, 193-195, 198-199, 202, 206, 236-241, 243-244, 246, 253-256, 258, 267, 284, 295, 297

Conservation Opportunity Area (COA), ii, vi-vii, xi, 22, 25-26, 37-38, 45-46, 49-51, 53-57, 59, 62-65, 68, 70, 72-77, 79, 83-85, 106, 114, 119, 121, 131-136, 139, 142, 144, 147, 149-151, 155-156, 159-160, 162-163, 169, 174, 176-182, 184, 186-187, 192-195, 199, 201-203, 206-208, 214-215, 217, 283, 285, 295, 298

Crystal Reservoir, 37, 84, 86-87, 95, 102, 104, 109-110, 112, 124, 128, 132, 179, 201, 206

Cultural Resources, i-iii, v-vi, 5, 8, 9, 11, 17, 30, 46, 58, 75, 98, 100-101, 103, 119, 122, 140, 164-167, 169, 175, 190, 197-198, 202-203, 208, 217, 220-222, 248-249, 266, 271, 274-276, 280, 283-284, 295, 298

Curecanti Area Conservation Study (CACs), 209, 211, 214, 296

E

Economic Considerations, iii, xi, 6, 9, 11, 14-15, 25, 27-28, 31, 46, 64, 67, 78, 101, 114-116, 123, 138-140, 183-189, 208, 212, 235, 242-246, 250, 262, 270-271, 288, 290-293, 295

Environmental Justice, 31, 33

F

Fee Simple Acquisition (Land Acquisition), ii, vi-vii, xi, 26, 40, 45, 51-53, 55-57, 63, 65-66, 70, 77, 79, 107, 136, 142, 150, 159, 162, 181-182, 184, 187, 193-195, 199, 202, 236-237, 243, 267, 284, 295, 297
 Fisheries, vi-vii, 7, 10, 16, 29, 72-73, 87, 91, 148, 151

G

General Management Plan (GMP), x, 7, 9, 18, 28, 60, 62, 66, 103, 109, 111-112, 139-140, 171, 173, 275-276, 279-280, 284, 290, 296
 Geology, 16, 29, 36, 38, 72, 85, 87, 97, 104, 134, 143
 Grazing, 16, 58, 65-66, 75, 88, 92, 94, 120, 122, 125-126, 128, 136, 141, 146-148, 151, 170-172, 193, 195, 197-198, 200-201, 212, 215-216, 237, 242-243, 278
 Gunnison County, v, ix, 55-56, 61, 88, 94, 96, 105, 114-117, 120-121, 138-139, 183, 186-188, 193, 206, 209-213, 215, 219, 224, 229, 256, 264, 268, 284, 288-290, 293, 296
 Gunnison County Comprehensive Plan, 138, 158, 161, 180, 185, 194-195, 284, 289-290
 Gunnison County Land Use Resolution, 138, 157, 210
 Gunnison Gorge National Conservation Area, 2, 6, 90, 104, 136-137, 207, 270

I

Impairment, 46, 66, 86, 140, 142-144, 149, 152-153, 155-156, 159-160, 162-164, 166-169, 175, 181, 183-184, 190, 193, 197, 234, 271, 274, 296
 Implementation Plan, x, 18, 28, 57-58, 60, 62, 77, 103, 109, 111-112, 139, 171, 173, 198, 282, 294
 Incentives for Resource Conservation (See “Tools for Resource Conservation” below)

J

Joint Agency Management Effort (JAME), v, viii, 16, 26, 35, 43-44, 46, 54-55, 58, 71-72, 80, 89, 147-149, 151, 198, 203, 208, 211-212, 217, 223, 284, 296

L

Land Protection Plan, vii, 27, 50-51, 55, 57-58, 136, 155, 187, 198, 283-284, 297
 Land Trust, vii, 27, 40, 43-44, 51-52, 55-56, 58, 60, 136, 139, 180, 185, 189, 194-195, 199, 219, 234, 236-240, 246, 253-256, 266-268, 295
 Land Units (definitions and generic discussions), 37-38, 65-66, 83-85, 131-135, 297, 299
 Land Use, 31, 53, 78-79, 117, 119-120, 125, 138-139, 142, 170-171, 174, 177, 179-180, 182, 189
 Lightscape, (Night Sky), vi, viii, 12, 29, 74, 76, 97-98, 103, 157-160, 174, 176-177, 208, 263

M

Mineral (Landowner) Rights, ix, 43, 52, 61, 66, 114, 117, 189-191
 Montrose County, 56, 94, 114-117, 120-121, 138-139, 157, 182, 193, 210-213, 219, 224, 268, 284, 290, 292
 Montrose County Master Plan, 144, 285, 290
 Morrow Point Reservoir, 13, 17-18, 35, 37, 54, 84, 88, 96, 102, 104, 106, 108, 110-112, 120, 125-126, 129, 132, 144, 169, 170, 172, 178-179, 181

N

Natural Resources, iii-vii, 1, 7, 10-11, 17-18, 21, 25-26, 28, 39, 43, 45-46, 53, 59, 63-64, 84-98, 137, 140-163, 170, 223, 229, 236, 248, 251, 271, 273, 298
 Notice of Intent (NOI), xx, 15, 27, 210

P

Paleontology, 36, 143-144
 Photographic (Photo) Assessment, 16, 18, 21, 35, 113, 214, 217
 Property (Landowner) Rights, iv-v, ix, 7, 27, 33, 36, 52, 53, 61, 133, 194-196
 Property (Land) Values, 8, 27, 56, 121, 192-196
 Proposed Lands, 25, 37, 49-50, 56, 65, 84, 87, 89-92, 94-97, 100-101, 104-105, 109-110, 119-121, 124-125, 127-128, 131-133, 138, 141-142, 144-159, 161-162, 168-171, 173-176, 179, 183-185, 188, 192-196, 205, 297-299
 Purchase and Retained Use and Occupancy (Life Estate), vi, 55, 237, 267, 299

R

Railroad, xix, 1, 32, 36, 65, 88, 99-101, 109, 123, 126, 166
 Recreational Opportunities, iii, v-viii, 1, 5, 8, 10-11, 13, 17-18, 36, 87, 101, 103, 108, 124, 127, 129, 144, 168-175, 187, 206, 297
 Report to Congress, iii-iv, 6, 59, 218
 Rivers, Trails and Conservation Assistance Program (RTCA), xx, 209-210

S

Scenic Resources, iii-vii, 1, 7-11, 17-18, 26, 28, 39, 40, 45-46, 83, 106, 109-114, 119, 125, 129, 131, 140, 170-174, 177-183, 185-186, 208-209, 212, 214-215, 233, 261, 263, 269-270, 296-297
 Soundscape, vi, viii, 98, 160-163, 208, 275
 Special Status Species, 91-93, 97, 145, 152-156, 295, 299
 Study Area, ix, 15-16, 21, 28, 32-33, 35-56, 61, 83, 131-132, 298

T

Toolbox of Incentives for Resource Conservation (Toolbox), 16, 25, 43, 51, 53, 197, 229-260, 266, 268, 299
 Tools for Resource Conservation, ii-iv, vi-viii, xi, 6-7, 15, 22, 25-27, 35, 40, 43-46, 51-53, 55-56, 58-60, 62, 64-65, 67, 70, 79, 114, 121, 136-137, 142, 144, 149-151, 155-156, 159-160, 162-163, 170, 173-174, 176-177, 179, 181-182, 184, 186-189, 191, 194, 198-199, 202, 208-209, 211, 215, 217, 229, 234, 237, 239, 242-243, 245, 250, 254, 258, 270-271, 283-284, 295, 297, 299

U

U.S. Fish and Wildlife Service (USFWS), xx, 52, 91-92, 152-153, 210-211, 217-218, 226, 236, 241, 252, 264, 266, 268, 292, 299
 U.S. Forest Service (USFS), xx, 1, 8, 25-26, 28, 40, 43-44, 49-50, 54, 63, 66, 89, 102-103, 105, 114, 121-122, 127-128, 137, 139, 142, 158, 161, 170-172, 176, 180, 185, 197, 199, 200-201, 207, 210-213, 215, 218, 220, 226, 249, 279-280, 292
 Uncompahgre Project, v, ix, 6, 9, 12-14, 25, 27, 36, 43, 54, 59-61, 63, 84, 86, 123, 203, 214, 283
 Uncompahgre Valley Water Users Association (UVWUA), xx, 13, 123, 210-211, 220, 226
 Ute, 32, 98-99, 167, 212, 216, 218, 220, 225-227

W

Water Rights, iv, 7, 13, 53
 Western Area Power Administration (Western), v, ix, xx, 1, 5, 14, 26, 36, 43-45, 54, 121, 124, 128-129, 137, 197, 203, 207, 210-212, 214, 218, 227, 293
 Wetlands, 16, 18, 49, 52, 88-89, 145-146, 148, 150, 236, 240, 247, 257, 265-266, 273, 292
 Wilderness, 104-105, 114, 139, 158, 186, 188, 207

Visit us on the web!
<http://www.nps.gov/cure>

United States Department of the Interior
National Park Service