

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.

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	<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>

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	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>

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	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>

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	<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>

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		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>

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	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

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	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.	<p>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.</p> <p>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.</p>
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

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	<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>

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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>