

EXHIBIT A
SAN JUAN WATER COMMISSION
AMENDATORY FUNDING AGREEMENT AND REPAYMENT CONTRACT

EXHIBIT B
COLORADO WATER RESOURCES & POWER DEVELOPMENT AUTHORITY
FUNDING AGREEMENT AND REPAYMENT CONTRACT

ENVIRONMENTAL COMMITMENTS

4.6.4.3 Impact Analysis

The following sections discuss potential impacts to ITAs and Environmental Justice of Refined Alternatives 4 and 6 and the No Action Alternative. In addition, mitigation measures are proposed to reduce or eliminate potential significant impacts.

4.6.4.3.1 Refined Alternative 4

Indian Trust Assets

Refined Alternative 4 Impact 1 - Potentially Significant: Refined Alternative 4 does not meet the terms and conditions of the Settlement Agreement for the Colorado Ute Tribes.

Refined Alternative 4 would provide storage for a portion of the Colorado Ute Tribes' assured water rights. However, the 39,960 afy of allowed depletion for the Colorado Ute Tribes is 13,240 afy less than that identified in the Settlement Agreement. All water provided under Refined Alternative 4 must be used for M&I purposes, while the Settlement Agreement specified that 3,400 afy of depletion be used for irrigation purposes by the Southern Ute Indian Tribe, and 26,300 afy be used for irrigation purposes by the Ute Mountain Ute Tribe. Because of the reduced amount of depletion, the lack of irrigation water and facilities, the precise terms of the original Settlement Agreement would not be met under Refined Alternative 4.

However, Refined Alternative 4 would provide the Colorado Ute Indian Tribes a means to purchase approximately 13,000 afy through the use of a \$40 million water acquisition fund. This amount could be used to acquire private water rights on a willing buyer/willing seller basis. These funds could also be redirected for on-farm development, water delivery infrastructure, or other economic development uses. Most important, the Colorado Ute Tribes have endorsed Refined Alternative 4 as being sufficient substitute for the original elements of the 1986 Settlement Agreement.

Mitigation for Refined Alternative 4 Impact 1: Seek modification of Settlement Agreement.

Refined Alternative 4 would meet the Settlement Agreement if Congress passes any legislation, with the support of the Colorado Ute Tribes, that specifies that the terms and conditions of Refined Alternative 4 satisfy the Colorado Ute Tribes' water rights. Both Colorado Ute Tribes have passed resolutions supporting the selection of Refined Alternative 4 for settlement of all their remaining water rights claims.

Refined Alternative 4 Impact 2 - Significant: Under present conditions, Refined Alternative 4 reduces the water supply available for the Jicarilla Apache Tribe water rights in the San Juan River.

Relative to no action, Refined Alternative 4 reduces the present supply available to the Jicarilla Apache Tribe to allow utilization of its water rights consistent with the ESA. Section 7(a)(2) of the ESA states that each federal agency shall, in consultation with the Secretary, insure that any action authorized, funded, or carried out by that agency shall not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. For federal actions in the San Juan basin, such as ALP, the Service has issued reasonable and prudent alternatives which have allowed the action to go forward. In the recent past, these RPA's have required Reclamation to participate in research to determine the flows needed to recover endangered fish species and then to operate Navajo Dam to mimic a natural hydrograph. Thus, according to current modeling, full implementation of the

flow recommendations, NIIP, and ALP could limit further tribal water development in the San Juan Basin. Additionally, there is a potential for an increased risk of an ESA Section 9 violation (Section 9 prohibits the “take” of any listed species) by any non-federal developer of San Juan River Basin water. Because Section 9 of the ESA prohibits a range of activities that include habitat modification, any non-federally related tribal water development activities will incur the potential for an increased risk of “take” of a listed species.

Mitigation for Refined Alternative 4 Impact 2: The following measures would provide some mitigation for the projected impacts.

While Reclamation agrees that future Jicarilla Apache Tribe water development may be adversely affected because of Section 7 concerns, Reclamation also believes that it is still possible that some Jicarilla Apache Tribe water development could occur even if associated with a federal action. The Service, working with Reclamation and other relevant federal agencies, could develop other potential measures, including water management strategies (e.g. appropriate shortage sharing based on actual water use), that can be undertaken as RPA’s that would allow development of future water projects. Whether such RPA’s exist is something that will only be determined through the section 7 consultation process. Thus, it is premature to conclude that development of NIIP and ALP will preclude further federally-related water development in the San Juan basin. The Section 7 consultation process, including participation of the tribe seeking to use water, will need to evaluate all potential RPAs.

It should also be noted that the Administration Proposal, as represented by Refined Alternative 4, was developed, in part, to eliminate the impact of the original ALP Project on the Jicarilla Apache Tribe. The original project envisioned the depletion of 149,000 afy from the San Juan River Basin. Although the full project has not been cleared to proceed under ESA, the finality of the Administration Proposal intended to ensure that both the Jicarilla Apache Tribe and Navajo Nation will not be competing with additional ALP Project depletions in the future. In sum, this proposed action, in and of itself, is a partial mitigation measure for other water development in the San Juan Basin, intended to protect the trust assets of the Jicarilla Apache Tribe (as well as the Navajo Nation).

However, Reclamation recognizes that only a minimal amount of water is available under today’s circumstances and the Preferred Alternative will have some effect on the trust resources of the Jicarilla Apache Tribe, particularly if no RPAs are eventually developed to offset or allow future additional depletions. Reclamation has therefore developed other mitigation measures, including:

- Continue active participation in the San Juan River Basin Recovery Implementation Program to promote the dual goals of recovery of endangered species and proceed with water development in the basin. The SJRRIP is key to facilitating additional water development by the Jicarilla Apache Tribe. Reclamation’s participation includes:
 - Provide substantial technical support in the development and refinement of a comprehensive hydrology model to allow realistic, supportable projections of future water uses within the basin;
 - Continue to optimize the operating rules for Navajo Dam to provide more efficient fulfillment of the flow recommendations necessary for endangered species recovery;
 - Implement an adaptive management program associated with the operation of Navajo Reservoir to evaluate biologic responses to a more natural hydrograph.

- Operate the Durango Pumping Plant to limit pumping during dry years, allowing more water to be available in Navajo Reservoir to meet project demands (see Section 3.2).
- Facilitate discussions between the Jicarilla Apache Tribe and other parties with interests in the San Juan River Basin. Interested parties will include, but not be limited to, the Colorado Ute Tribes, Navajo Nation, the Service, and private parties with existing contracts from Navajo Reservoir. Discussions will aim to develop options for obtaining the 25,500 afy depletion from Navajo River or Reservoir, which is authorized under the Jicarilla Apache Tribe Water Rights Settlement Act. Such discussions among Reclamation, the Jicarilla Apache Tribe, and Public Service Company of New Mexico (PNM) are currently underway to lease 16,200 afy of their water rights to PNM. If successful, this would place a portion of the Jicarilla Apache Tribe's depletion allocation in the baseline.
- Reclamation will work with the Navajo Nation and the Jicarilla Apache Tribe to combine resources in evaluating options for proceeding with the Navajo-Gallup Project, the Navajo River Water Development Plan, and restoration if the Hogback Project to try and minimize the likelihood that any single Tribe bears a disproportionate burden for the conservation of listed species under the ESA.
- Reclamation, through its Native American Affairs and technical assistance programs, will work with the Jicarilla Apache Tribe to facilitate its ability to independently utilize the San Juan River basin hydrologic model to ensure more effective participation in the SJRBRIP and other appropriate uses.
- Reclamation will initiate an independent review of the hydrologic model to ensure its accuracy and value as a tool in future water planning activities.
- Reclamation will consult with the Jicarilla Apache Tribe on the implementation of the above mitigation measures and will commence such consultation early in the implementation process.

Refined Alternative 4 Impact 3 - Significant: Refined Alternative 4 limits the water supply available for the development of the proposed Navajo-Gallup Project designed to deliver drinking water to portions of the Navajo Nation with limited or no supply.

Relative to no action, Refined Alternative 4 reduces the present supply available to the Navajo Nation to allow utilization of its water rights consistent with the ESA. Section 7(a)(2) of the ESA states that each federal agency shall, in consultation with the Secretary, insure that any action authorized, funded, or carried out by that agency shall not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. For federal actions in the San Juan Basin, such as ALP, the Service has issued reasonable and prudent alternatives which have allowed the action to go forward. In the recent past, these RPA's have required Reclamation to participate in research to determine the flows needed to recover endangered fish species and then to operate Navajo Dam to mimic a natural hydrograph. Thus, full implementation of the flow recommendations, NIIP, and ALP could potentially limit further tribal water development in the San Juan basin. Additionally, there is a potential for an increased risk of an ESA Section 9 violation (Section 9 prohibits the "take" of any listed species) by any non-federal developer of San Juan River Basin water. Because Section 9 of the ESA prohibits a range of activities that include habitat modification, any non-federally related tribal water development activities will incur the potential for an increased risk of "take" of a listed species.

The 2,340 afy depletion provided under the ALP Project would only satisfy a portion of the water needs of the Navajo Nation. The new NNMP would help meet current water demands in the Shiprock area.

Mitigation for Refined Alternative 4 Impact 3: The following measures would provide some mitigation for the projected impacts.

While Reclamation agrees that future Navajo Nation water development may be adversely affected because of Section 7 concerns, Reclamation also believes that it is still possible that some Navajo Nation water development could occur even if associated with a federal action. The Service, working with Reclamation and other relevant federal agencies, could develop other potential measures, including water management strategies, that can be undertaken as RPA's that would allow development of future water projects. Whether such RPA's exist is something that will only be determined through the Section 7 consultation process. Thus, it is premature to conclude that development of NIIP and ALP will preclude further federally-related water development in the San Juan basin. The Section 7 consultation process, including participation of the tribe seeking to use water, will need to evaluate all potential RPAs.

It should be reiterated that the Administration Proposal, as represented by Refined Alternative 4, was developed, in part, to eliminate the impact of the original ALP Project on the Navajo Nation. The original project envisioned the depletion of 149,000 afy from the San Juan River Basin. Although the full project has not been cleared to proceed under ESA, the finality of the Administration Proposal intended to ensure that both the Navajo Nation and Jicarilla Apache Tribe will not be competing with additional ALP Project depletions in the future. In sum, this proposed action, in and of itself, is mitigation to the trust assets of the Navajo Nation (as well as the Jicarilla Apache Tribe). Other mitigation includes:

- Continue active participation in the San Juan River Basin Recovery Implementation Program to promote the dual goals of recovery of endangered species and proceed with water development in the basin. The SJRBRIP is key to facilitating additional water development by the Navajo Nation. Reclamation's participation includes:
 - Provide substantial technical support in the development and refinement of a comprehensive hydrology model to allow realistic, supportable projections of future water uses within the basin;
 - Continue to optimize the operating rules for Navajo Dam to provide more efficient fulfillment of the flow recommendations necessary for endangered species recovery;
 - Implement an adaptive management program associated with the operation of Navajo Reservoir to evaluate biologic responses to normative hydrograph.
- Operate the Durango Pumping Plant to limit pumping during dry years, allowing more water to be available in Navajo Reservoir to meet project demands (see Section 3.2).
- Facilitate discussions between the Navajo Nation and other parties with interests in the San Juan River Basin. Interested parties will include, but not be limited to, the Colorado Ute Tribes, Jicarilla Apache Tribe, the Service, and private parties with existing contracts from Navajo Reservoir. Discussions will aim to develop options for obtaining adequate water for the Navajo-Gallup Project.

- Reclamation will work with the Navajo Nation and the Jicarilla Apache Tribe to combine resources in evaluating options for proceeding with the Navajo-Gallup Project, the Navajo River Water Development Plan, and restoration of the Hogback Project to try and minimize the likelihood that any single tribe bears a disproportionate burden for the conservation of listed species under the ESA.
- Reclamation will initiate an independent review of the hydrologic model to ensure its accuracy and value as a tool in future water planning activities.
- Reclamation will consult with the Navajo Nation on the implementation of the above mitigation measures and will commence consultation early in the implementation process.

The following mitigation measures may affect the ability of the Navajo-Gallup Project to go forward, but are beyond the control of Reclamation as a part of the ALP Project:

- An alternate project design that would take water from the San Juan River below its confluence with the Animas River may increase the potential yield for the project while protecting flows for endangered fish. In this case, releases from Navajo Dam would be supplemental to river flows, leveraging the limited storage volume available and making use of times when there are flows in excess of fish needs in the river.
- The Navajo-Gallup Project could be modified to reduce demands.
- The Navajo Nation could elect to utilize a portion of the NIIP allocation to meet these needs.

Refined Alternative 4 Impact 4 - Significant: Refined Alternative 4 reduces the water supply available for restoration of the Hogback Project in the San Juan River.

Relative to no action, Refined Alternative 4 reduces the present supply available to the Navajo Nation to allow utilization of its water rights consistent with the ESA. Section 7(a)(2) of the ESA states that each federal agency shall, in consultation with the Secretary, insure that any action authorized, funded, or carried out by that agency shall not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. For federal actions in the San Juan Basin, such as ALP Project, the Service has issued reasonable and prudent alternatives which have allowed the action to go forward. In the recent past, these RPA's have required Reclamation to participate in research to determine the flows needed to recover endangered fish species and then to operate Navajo Dam to mimic a natural hydrograph. Thus, full implementation of the flow recommendations, NIIP, and the ALP Project could potentially limit further tribal water development in the San Juan basin. Additionally, there is a potential for an increased risk of an ESA Section 9 violation (Section 9 prohibits the "take" of any listed species) by any non-federal developer of San Juan River Basin water. Because Section 9 of the ESA prohibits a range of activities that include habitat modification, any non-federally related tribal water development activities will incur the potential for an increased risk of "take" of a listed species.

Mitigation for Refined Alternative 4 Impact 4: The following measures would provide some mitigation for the projected impacts.

Again it is reiterated that the Administration Proposal, as represented by Refined Alternative 4, was developed, in part, to eliminate the impact of the original ALP Project on the Navajo Nation. The original project envisioned the depletion of 149,000 afy from the San Juan River Basin. Although the

full project has not been cleared to proceed under ESA, the finality of the Administration Proposal intended to ensure that both the Navajo Nation and Jicarilla Apache Tribe will not be competing with additional ALP Project depletions in the future. In sum, this proposed action, in and of itself, is mitigation to the trust assets of the Navajo Nation (as well as the Jicarilla Apache Tribe). Other mitigation includes:

- Continue active participation in the San Juan River Basin Recovery Implementation Program to promote the dual goals of recovery of endangered species and proceed with water development in the basin. The SJRBRIP is key to facilitating additional water development by the Navajo Nation. Reclamation's participation includes:
 - Provide substantial technical support in the development and refinement of a comprehensive hydrology model to allow realistic, supportable projections of future water uses within the basin;
 - Continue to optimize the operating rules for Navajo Dam to provide more efficient fulfillment of the flow recommendations necessary for endangered species recovery;
 - Implement an adaptive management program associated with the operation of Navajo Reservoir to evaluate biologic responses to more natural hydrograph.
- Operate the Durango Pumping Plant to limit pumping during dry years, allowing more water to be available in Navajo Reservoir to meet project demands (see Section 3.2).
- Facilitate discussions between the Navajo Nation and other parties with interests in the San Juan River Basin. Interested parties will include, but not be limited to, the Colorado Ute Tribes, the Jicarilla Apache Tribe, the Service, and private parties with existing contracts from Navajo Reservoir. Discussions will aim to develop options for obtaining the 16,420 acy depletion from the San Juan River to meet the needs of the Hogback Project.
- Reclamation will work with the Navajo Nation and the Jicarilla Apache Tribe to combine resources in evaluating options for proceeding with the Hogback Project, the Navajo-Gallup Project, and the Navajo River Water Development Plan to try and minimize the likelihood that any single tribe bears a disproportionate burden for the conservation of listed species under the ESA.
- Reclamation will initiate an independent review of the hydrologic model to ensure its accuracy and value as a tool in future water planning activities.
- Reclamation will consult with the Navajo Nation on the implementation of the above mitigation measures and will commence consultation early in the implementation.

The following mitigation measures may affect the ability of the Hogback Project to be restored, but are beyond the control of Reclamation as a part of the ALP Project:

- Private rights could be acquired to meet these needs.
- The project could be modified to reduce demands.

- The Navajo Nation could elect to utilize a portion of the NIIP allocation to meet these needs.

Refined Alternative 4 Impact 5 - Potentially Positive: Land purchased with funds could potentially become trust lands.

If land is purchased with associated water rights using the water acquisition fund, such land has the potential to remain as fee land or to be taken into trust. That process may result in the Tribes needing to conduct an analysis of the impact, under NEPA, to local non-Indian communities, and providing means to mitigate such impacts as taxation and regulation of trust lands.

Mitigation for Refined Alternative 4 Impact 5: No mitigation is proposed.

Refined Alternative 4 Impact 6 - Potentially Significant: Sections of the conveyance structures proposed under the non-binding water use scenarios would cut across Colorado Ute Tribal lands, potentially impacting the use of such lands. Relocation of natural gas pipeline(s) may also impact Tribal lands.

Certain sections of the non-binding conveyance structures cut across Colorado Ute Indian reservation lands. Construction of these laterals may result in negative impacts to farmlands, homes, or various other structures in the right-of-way. Natural gas pipelines within Ridges Basin may need to be relocated across the Southern Ute Indian Reservation, potentially impacting such lands.

Mitigation for Refined Alternative 4 Impact 6: Routing of pipelines to avoid impacts and restoration of lands to their original conditions.

Obviously, no conveyance structure will be constructed, nor pipelines relocated, without consultation with and approval of the appropriate Indian tribe. Any homes or other structures on Indian lands would be avoided by routing of the conveyance pipelines. Any Tribal lands disturbed by construction of the conveyance structures would be restored to their original condition. Land would be regraded to the original contour. If croplands are impacted, farmers would receive financial compensation for any crop losses.

Refined Alternative 4 Impact 7 - Potentially Significant: Disturbance during construction of NNMP may affect crop production.

During construction, land would be disturbed along the NNMP corridor. Cropland would be affected. If construction activities occur during the crop production season, cropland in some locations could be taken out of production for a single season, and crops in production could be damaged.

Mitigation for Refined Alternative 4 Impact 7: Any lands disturbed by construction of the NNMP would be restored to their original condition.

Land would be regraded to the original contour. Cropland topsoil would be stockpiled during construction and replaced on croplands at the completion of construction. As much as possible, construction would occur during periods when crops are not cultivated. Farmers would receive financial compensation for any crop losses.

Refined Alternative 4 Impact 8 - Positive: Project water could allow the Colorado Ute Tribes to further develop their mineral resources.

One non-binding water use scenario considered by the Southern Ute Indian Tribe involves opening a coal mine and building a coal-fired power plant, while the Ute Mountain Ute Tribe is considering building a gas-fired power plant. This would allow the Colorado Ute Tribes to develop their coal and natural gas reserves on the reservation, resulting in an economic benefit to the Tribes by providing increased jobs and revenue.

Mitigation for Refined Alternative 4 Impact 8: No mitigation is proposed.

Refined Alternative 4 Impact 9 - Less than Significant: The construction of the NNMP may affect Navajo Nation ITA mineral resources.

Oil and gas wells, sand and gravel, and coal resources occur near the NNMP. Existing oil and gas wells and sand and gravel and coal mining operations would not be affected, but in the future the opportunity to extract these resources could be limited to the presence of the pipeline.

Mitigation for Refined Alternative 4 Impact 9: No mitigation is proposed.

Refined Alternative 4 Impact 10 - Less than Significant: Project development could negatively impact the Colorado Ute Tribes' hunting and fishing rights.

Any project development that would negatively impact hunting and fishing resources, or access to such resources, within the Brunot Agreement Area or otherwise provided through legal settlement or consent decree, would negatively affect the Ute Mountain Ute Tribes' hunting and fishing rights.

Mitigation for Refined Alternative 4 Impact 10: No mitigation is proposed.

Environmental Justice

Refined Alternative 4 Impact 11 - Significant: Refined Alternative 4 limits the water supply available for the development of the proposed Navajo-Gallup Project designed to deliver drinking water to portions of the Navajo Nation with limited or no supply.

See discussion under Refined Alternative 4 Impact 3.

Mitigation for Refined Alternative 4 Impact 11 - See discussion under Mitigation for Refined Alternative 4 Impact 3.

Refined Alternative 4 Impact 12 - Significant: Refined Alternative 4 reduces the water supply available for the Jicarilla Apache Tribe Water Rights in the San Juan River.

Mitigation for Refined Alternative 4 Impact 12 - See discussion under Mitigation for Refined Alternative 4 Impact 3.

Refined Alternative 4 Impact 13 - Potentially Significant: Effects on residences, school, and cemetery along the NNMP corridor.

The NNMP corridor would pass within 100 feet of a minimum of 20 residences or in-use areas. A school and a cemetery on the Navajo Nation are just outside the project area. Short-term noise and vibration impacts would occur during construction and affect nearby residences and the school.

Mitigation for Refined Alternative 4 Impact 13: Reduce impacts on residences, school, and cemetery.

The NNMP corridor would be routed to minimize, and to the maximum extent possible, prevent disturbance or relocation of residences. Prior to initiating any construction activities, project planners would meet individually with all property owners within 100 feet of the corridor. If any residences are required to be relocated, the residents and the Navajo Nation would be compensated according to the stipulations of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 USCA 4601-4655). Project planners would work to avoid any disturbance to the cemetery. As required under NAGPRA, consultation would take place with the Navajo Nation Historic Preservation Department and representatives from affected Navajo Nation chapters prior to disturbing any human remains or funerary objects. Additional mitigation measures would be used to minimize noise and vibration impacts. Construction activities would be scheduled during daytime hours (7:00 a.m. to 6:00 p.m.) when within 0.25 mile of a residence. Construction activities would be scheduled during non-school hours when feasible.

4.6.4.3.2 Refined Alternative 6

Potential impacts associated with Refined Alternative 6 as they relate to water resources are listed below. Impacts that could result to land and mineral resources and hunting and fishing rights would be similar to those described under Refined Alternative 4.

Indian Trust Assets

Refined Alternative 6 Impact 1 - Significant: Refined Alternative 6 does not fulfill the terms and conditions of the Settlement Act for the Colorado Ute Tribes.

While Refined Alternative 6 is meant to provide the same amount of water as the Settlement Agreement and as Refined Alternative 4, the Colorado Ute Tribes seem unwilling to accept the terms and conditions of Refined Alternative 6. In response to the Administration Proposal, the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe sent a joint letter to the Secretary of the Interior expressing their desire to have legislation enacted that would authorize the settlement of the outstanding tribal claims on the Animas and La Plata Rivers on the following terms, among other things:

- “1. *The construction of a reservoir at Ridges Basin . . . to deliver the average annual depletion of 57,100 acre feet allowed under the previous biological opinions. . .*”
- “2. *An allocation of those annual depletions among the affected parties that is similar to that envisioned under “ALP Lite” except that the share of depletions for the benefit of the non-Indian irrigators would instead be devoted to non-agricultural local or regional non-Indian community purposes.*”
- “3. *The decision whether to build the reservoir and its ultimate size would be resolved following the completion of the ongoing environmental analysis. That analysis would determine the size of the inactive pool. . .*”

Additionally, on August 24, 1999, the Southern Ute Indian Tribe adopted a resolution (Resolution No. 99-137) in support of the proposed legislation found in H.R. 3112, which states:

5.4 ENVIRONMENTAL COMMITMENTS

This section discusses the environmental commitments that have been made by Interior or Reclamation during the development of Refined Alternative 4 (Reclamation's Preferred Alternative). Reclamation would share responsibility for implementing measures that would avoid or reduce potential environmental impacts of the ALP Project. This responsibility would be shared with other federal agencies, the Colorado Ute Tribes, and other ALP Project beneficiaries, as well as third-party entities which could include Colorado and New Mexico state agencies, local governments, and private developers.

The commitments in this chapter summarize commitments made during the planning process and incorporated into ALP Project plan as discussed in Chapter 2 of this Final Supplemental Environmental Impact State (FSEIS), and mitigation measures proposed in Chapter 3 to reduce or avoid impacts that would otherwise occur as a result of the implementation of the Preferred Alternative. These commitments supersede commitments made by Reclamation in previous ALP Project National Environmental Policy Act (NEPA) documents.

As discussed below, the commitments described herein would be implemented by Interior, or Interior would require their implementation by construction contractors, management authorities, or third-party developers. Commitments for pre-construction activities would generally be completed by Reclamation or by contractors during the final design process and prior to construction activities. Wildlife, wetland, cultural resources and other mitigation would be completed by Reclamation as described in the following paragraphs. Some commitments, such as monitoring or additional studies, would continue beyond completion of construction of structural facilities.

The non-structural component of the Preferred Alternative (i.e., the \$40 million water acquisition fund) would be administered by Interior through the Bureau of Indian Affairs (BIA). It was assumed that the use of this fund would be for acquisition of irrigated agricultural lands and that these lands would remain in irrigated production. In the event that the Colorado Ute Tribes were to elect to fund alternative activities with the water acquisition fund or were to apply for water rights transfers, it would be the responsibility of the water acquisition fund's administering agency to determine appropriate environmental protection measures. It is possible that additional NEPA compliance may be required for such alternative uses.

The use of ALP Project water by either the Colorado Ute Tribes or other ALP Project beneficiaries would result in environmental impacts that would require the implementation of avoidance design specifications and mitigation measures. To the extent that Reclamation can require developers of ALP Project water end uses to implement environmental protection elements into design, Reclamation commits to requiring certain measures as discussed in the following sections. However, all compliance responsibilities and costs associated with end use development would be the responsibility of the third-party developers. As discussed previously, additional NEPA compliance would likely be required for the development of end use facilities to occur. At such time, the lead agency would be responsible for identifying additional environmental commitments specific to the proposed end uses.

5.4.1 General Commitments

Throughout the planning process for the project, efforts have been made to avoid impacts where practicable. If avoidance was not possible, then mitigation measures have been developed to reduce the

level of impact. The mitigation measures for each resource impact were discussed in Chapter 3. In addition to the specific mitigation measures identified in Chapter 3, other management practices will be employed during construction activities to minimize environmental effects and will be included in construction specifications. Many of these measures are required in order to comply with federal, state, or local laws and regulations, regardless of whether they are specifically identified in the report. Reclamation will comply with all relevant federal, state and local laws, ordinances, regulations, and standards during the implementation of the Preferred Alternative. Reclamation will prepare and implement an Environmental Commitment Plan for the project to document and track the completion of the environmental commitments.

5.4.2 Water Resources and Hydrology Commitments

Reclamation will develop an operations plan for the Ridges Basin Pumping Plant that will schedule pumping from the Animas River in a manner to limit impacts to non-Colorado Ute Tribal entities' ability to obtain water from the San Juan River as described under Mitigation for the Refined Alternative 4 Hydrology Impact 2 in Section 3.2.

Reclamation will work with all appropriate state and federal agencies to pursue a method to protect ALP Project water return flows in the La Plata River drainage as a water supply for endangered fish as described under Mitigation for Refined Alternative 4 Hydrology Impact 3 in Section 3.2.

Reclamation will design and develop Ridges Basin Reservoir with a minimum pool of 30,000 af.

5.4.3 Water Quality Commitments

Reclamation will develop and implement a program to reduce, minimize or eliminate temporary, short-term increases in suspended sediment loading or other water quality constituents, potentially caused by project construction, through the incorporation of permits, Best Management Practices (BMPs), and sediment control structures as described under Mitigation for Refined Alternative 4 Water Quality Impacts 1-3 in Section 3.3.

Reclamation will develop and implement a program designed to reduce, minimize or eliminate the temporary, short-term increases in suspended sediment loading that may potentially occur during construction of the non-binding end uses and water conveyance systems through requiring developers and construction contractors to incorporate BMPs and sediment control devices as described under Mitigation for Refined Alternative 4 Water Quality Impact 6 in Section 3.3.

Reclamation will develop, with the Southern Ute Indian Tribe and the States of Colorado and New Mexico, and implement a program to monitor water quality in the Animas River from the Durango Pumping Plant to the confluence with the San Juan River for five years after the Durango Pumping Plant begins operation. The program will be developed to monitor compliance with Tribal and state water quality standards and criteria. The plan should include: objectives, quality assurance and control plans, and noncompliance measures.

5.4.4 Vegetation Commitments

Reclamation will ensure that construction contractors limit ground disturbance to the smallest feasible areas, and will ensure that construction contractors implement BMPs, along with the planting or re-

seeding disturbed areas using native plant species to assist in the re-establishment of native vegetation as described under Mitigation for Refined Alternative 4 Vegetation Impact 5 in Section 3.4. Where feasible, directional borings will be used for river pipeline crossings.

Reclamation will compensate the loss of approximately 1,645 acres of upland vegetation resulting from the construction of the Ridges Basin Reservoir, the Durango Pumping Plant, and other features as described under Mitigation for Refined Alternative 4 Vegetation Impacts 1 and 2 in Section 3.4 as part of the wildlife mitigation plan. The compensation will be part of the total estimated 2,700-2,900 acres of wildlife habitat to be acquired and enhanced to compensate the loss of wildlife habitat in Ridges Basin. The mitigation land acquisition will be completed prior to initiation of ground-breaking construction activities at the reservoir and pumping plant sites. Reclamation will attempt to acquire large contiguous acreage and will attempt to acquire these lands first in the river basins that will be affected by the ALP Project, and then outside of those basins, with the final decision made in consultation with state and federal wildlife agencies.

Reclamation will compensate the loss of 134 acres of wetland/riparian habitat at a mitigation ratio sufficient to replace or exceed the habitat value of wetland/riparian habitat lost as described under Mitigation for Refined Alternative 4 Vegetation Impacts 3 and 4 in Section 3.4. Reclamation will replace lost wetland/riparian areas at a planned ratio of 1.5:1, thus creating approximately 200 acres of replacement wetlands. Mitigation will involve a program of land acquisition, wetland development, and long-term management. To the extent possible, this program will be integrated into the wildlife habitat mitigation program to expand benefits and provide large blocks of contiguous wildlife habitat. For purposes of this FSEIS, it is assumed 600 acres will be necessary for the wetland program. Because of limited water supplies for new wetland creation in the region, restoration of degraded wetlands will be an important component of any wetland plan. As with wildlife habitat mitigation, the La Plata River Basin will be given first priority for wetland development. Lands for wetland mitigation will be acquired prior to initiation of construction of Ridges Basin Dam and overall wetland mitigation physical features will be at least 95 percent completed prior to beginning reservoir filling.

Reclamation will also monitor the Animas River riparian corridor to help determine any effects of the pumping regime on these downstream resources. The monitoring will also include Basin Creek wetlands. Reclamation will also limit ground disturbing activities due to construction of the NNMP and other pipelines and will replace in a 2:1 ratio, riparian trees (cottonwoods) lost due to construction.

Reclamation will require that development of non-binding end uses avoids or minimizes construction impacts to wetland and riparian vegetation located within corridor alignments of the non-binding water conveyance pipelines. Reclamation will require that construction zones be kept to the minimum size needed to meet project objectives. If avoidance is not possible, a riparian/wetland mitigation and monitoring plan will be developed to compensate for the loss of vegetation cover as described under Mitigation for Refined Alternative 4 Vegetation Impact 8 in Section 3.4.

5.4.5 Wildlife Commitments

Reclamation will mitigate the direct and indirect loss of approximately 2,700-2,900 acres of wildlife habitat through the purchase, enhancement, and management of approximately 2,700-2,900 acres of suitable land as described under Mitigation for Refined Alternative 4 Wildlife Impact 1 in Section 3.5. The actual amount of land that will be acquired to obtain this level of mitigation will depend on the potential wildlife value of the lands acquired. All reasonable attempts will be made to acquire interests in lands on a willing seller basis, using fee simple purchases, conservation easements, purchase options,

or life estates, to name a few. However, this does not preclude the use of other authorities available to acquire such land interests. Priority will be given to lands in the La Plata River drainage, as well as in the vicinity of Ridges Basin, to provide replacement habitat for displaced deer, elk, and other wildlife that utilize Ridges Basin and adjacent areas that will be affected. Large, contiguous parcels will be given priority to create unfragmented habitat and to facilitate management. Lands will be managed for wildlife and other uses will not be allowed if it is determined that they will interfere with the wildlife habitat benefits. Acquisition, enhancement, and management plans will be coordinated with the U.S. Fish and Wildlife Service (Service), Colorado Division of Wildlife (CDOW), and possibly the Southern Ute Indian Tribe. Because of the preference to acquire interests in lands on a willing seller basis, it is recognized that the specific parcel location is difficult to establish at this time. If La Plata or Ridges Basin areas are unavailable, lands in other areas of the San Juan River Basin will be sought. Based on similar past programs, it will be feasible to acquire the lands; however, it should be noted that they may not be in the immediate project impact area. Wildlife mitigation land will be acquired prior to award of the contract for construction of Ridges Basin Dam, and development will occur concurrently with the construction of the dam.

Reclamation will develop construction specifications to include noise, traffic, and human use restrictions to minimize disturbance to wildlife near the construction zone of Ridges Basin as described under Mitigation for Refined Alternative 4 Wildlife Impact 2 in Section 3.5. The Carbon Mountain gas pipeline route, which could significantly impact golden eagle nesting, will not be considered. Reclamation will make efforts to avoid construction during the May-July period in the vicinity of elk calving areas to minimize impacts to elk.

Reclamation will ensure that recreational facilities and the new alignment for County Road (CR) 211 are sited or restricted in such a way to minimize the disruption of deer and elk habitat utilization and behavior as described under Mitigation for Refined Alternative 4 Wildlife Impact 3 in Section 3.5. Designs of road crossings, particularly in the vicinity of Wildcat Creek, will contain special provisions to minimize wetland/riparian resources as described in Section 3.4, Mitigation for Refined Alternative 4 Impacts 1 and 2. Habitat impacts discussed previously include indirect impacts. Indirect impacts will be managed through a plan that will support the minimization or elimination of those conflicts/impacts. Recreation facilities will not be permitted on the west or south sides of the reservoir to reduce impacts to big game migration corridors. Trails will be restricted to foot traffic. Wildlife-related activities will be encouraged. Future use of Reclamation lands for cabin sites or similar uses will not be allowed. Sufficient land will be acquired at the time reservoir right-of-way is acquired at the upper (western) end of the reservoir (at least one-quarter mile) and along the southern shore to maintain a wildlife migration corridor around the reservoir and to winter ranges to the south.

Reclamation will collaborate with raptor specialists from the Service and CDOW on road realignment and construction activities at Ridges Basin Dam to identify and implement measures minimizing effects on existing golden eagles and their nests on Carbon Mountain as described under Mitigation for Refined Alternative 4 Wildlife Impact 4. All reasonable means to preclude human activity on Carbon Mountain will be pursued. All power lines will be designed raptor-proof.

Reclamation will require that a 0.25-mile buffer around the existing golden eagle nests be identified and that all reasonable measures are pursued to preclude human activity on Carbon Mountain during the nesting period of golden eagles (December 1 through July 15), as described under Mitigation for Refined Alternative 4 Wildlife Impact 5 in Section 3.5.

Reclamation will ensure that development of non-binding end uses and conveyance systems avoid or minimize construction impacts to wetland and riparian vegetation wildlife habitat located within the potential corridor alignments of the non-binding water conveyance pipelines and that construction zones are the minimum necessary to meet project objectives as described under Mitigation for Refined Alternative 4 Wildlife Impact 7 in Section 3.5. If avoidance is not possible, Reclamation will require that a riparian/wetland habitat mitigation and a monitoring plan is developed to compensate for the loss of habitat value.

5.4.6 Aquatic Resources Commitments

The Service recommended that water pumped to Ridges Basin Reservoir from the Animas River be delivered into the reservoir at an elevation below the thermocline. This could lessen the likelihood of periodically having reservoir water temperatures becoming too warm to support trout and could increase oxygen levels in the reservoir. Reclamation does not believe there is sufficient information to adopt this measure at this time. Reclamation will, therefore, fund a more further detailed evaluation of Ridges Basin Reservoir's expected limnological conditions to better determine whether or not there is a significant concern to include this recommendation in the project plan. This commitment is described under Mitigation for Refined Alternative 4 Aquatic Resources Impact 2 in Section 3.6. The evaluation will be completed in coordination with the Service as part of the design data collection activities.

Reclamation will develop and implement a monitoring program at Ridges Basin Reservoir to determine the extent of bioaccumulation of trace elements in fish within the reservoir. The reservoir basin's vegetation will be largely cleared in order to reduce the magnitude of productivity and reduction potential. This, in turn, will limit mercury becoming methylated, the form in which it is available to bioaccumulate within the food chain. Trout will be the only fish stocked. Trout are not at the top of the fish food chain; therefore, they will not be expected to accumulate significant levels of bioaccumulated trace elements. The program will last two consecutive years and be initiated two years after the reservoir is filled. If significant bioaccumulation effects are identified, Reclamation will work with the appropriate local, state or federal agencies to either minimize the impact or otherwise offer protection to potentially impacted fish and wildlife species and to possibly post human fish consumption advisories at the reservoir. This commitment is also described under mitigation for Refined Alternative 4 Aquatic Resources Impact 3 in Section 3.6

To minimize downstream stranding of fish due to the operation of the pumping plant, changes in the pumping will be staged in the following manner: An increase in pumping not to exceed 50 cfs per hour (hr) stage decrease and a decrease in pumping not to exceed 100 cfs/hr (stage increase) when natural river flows are above 500 cfs. At lower flow, these ramping rates could substantially change river stage. Therefore, when river flows are at or below 500 cfs, increases in pumping will not exceed 25 cfs/hr and decreases in pumping will not exceed 50 cfs/hr. This commitment is also described under Mitigation for Refined Alternative 4 Aquatic Resources Impact 6 in Section 3.6. Seasonal bypass flows will be met (ranging from 125 - 225 cfs) as described under mitigation for Refined Alternative 4 Aquatic Resources Impact 1.

Monitoring studies of project-affected waters on the Animas River will be implemented both prior to and continuing for at least four years after project operations begin (project pumping). These studies will be designed to better define the native fishery, to include better understanding apparent problems with native sucker recruitment, and to monitor trout populations. If it is concluded that the operation of the project is having significant adverse impacts to the downstream aquatic ecosystem, Reclamation will make every reasonable effort to modify project operations to either reduce or eliminate these impacts.

The potential impact to native fishes in the Animas River, especially the effects of chronic habitat reduction, may not be directly mitigatable on the Animas River. Investigations should be initiated to determine whether or not fish barriers exist, whether small fish/young-of-the-year fish are significantly lost through entrainment in canals, and whether any significant loss to the trout fishery occurs. The monitoring program will be initiated in 2000 that will incorporate these additional elements into a monitoring study currently being conducted on the Animas River. A firm recommendation for mitigation due to the effects on native fishes will be made by no later than 2005, at least two years prior to project pumping from the Animas River. Once this mitigation recommendation is approved and agreed to by the Service, CDOW, New Mexico Department of Game and Fish (NMDGF), and perhaps the Southern Ute Indian Tribe, its implementation will immediately begin. This commitment is also described under mitigation for Refined Alternative 4 Aquatic Resources Impact 4 in Section 4.6.

Reclamation will review and adopt established guidelines for screening facilities to minimize fish entrainment and impingement at the Ridges Basin Pumping Plant. Reclamation will also ensure that design specifications include Best Available Technologies as described under Mitigation for Refined Alternative 4 Aquatic Resources Impact 5 in Section 3.6.

Reclamation will either screen or implement other physical structures to prevent live fish from being released from Ridges Basin Reservoir. The reservoir outlet system will be designed and fitted with devices to eliminate survival of fish escaping the reservoir. Reclamation will monitor escapement from the reservoir and Basin Creek as described under mitigation for Refined Alternative 4 Aquatic Resources Impact 7 in Section 3.6.

Reclamation will fund the acquisition and stocking of wild strains of trout annually in the Animas River within the boundaries of the Southern Ute Indian Reservation to compensate for fish loss due to the reduction in usable trout habitat. Individual stocks of trout will be marked in such a manner that age groups could be monitored over time. This monitoring plan will be developed in consultation with the Service, CDOW, NMDGF, and the Tribe. The relative success of this effort will be assessed after four years. If it is deemed a success—that is, if the trout biomass within the stocked reaches of the river is elevated to a point of supporting a recreational fishery—the stocking program will continue. For the acquisition of trout stock, Reclamation will consider the development of a new hatchery in cooperation with the Southern Ute Indian Tribe and others. This same hatchery could very well be utilized for providing for fish stocking for Ridges Basin Reservoir.

Reclamation will commit to providing trout to be stocked at Ridges Basin Reservoir to provide a recreational fishery. The source of fish could be from an existing Colorado River Storage Project (CRSP) hatchery facility or from the acquisition and/or construction of a new hatchery facility. This commitment is for the purposes of enhancing the fishery at Ridges Basin Reservoir.

As described in Section 5.4.11, Reclamation will acquire at least two new public access points on the Animas River for fishing and other recreational use.

5.4.7 Special Status Species Commitments

Reclamation will implement conservation measures found in the latest Biological Opinion on the project (see Attachment G for complete list). These measures address the Colorado pikeminnow and razorback sucker that are found in the San Juan River and the bald eagle that is found throughout the project area.

The conservation measures include Reclamation's commitment to operate Navajo Reservoir and the Durango Pumping Plant to mimic the natural hydrograph of the San Juan River to benefit the endangered fish and their habitat. Also, Ridges Basin outlet facilities will be designed to prevent escapement of nonnative fish, that might compete with native fish, into the Animas or other area waterways.

Reclamation will develop and implement a monitoring program for potential adverse bioaccumulation of trace elements in bald eagle food items in Ridges Basin Reservoir. If the program identifies a problem with trace elements, Reclamation will develop and implement an action plan to minimize impacts to bald eagles. Bypass flows compatible with the endangered fish recovery efforts will be incorporated into the project plan to promote natural recruitment of cottonwood trees. This should avoid impacts to future bald eagle habitat. Also, electrical transmission lines associated with the project will be designed to avoid injury to raptors, including bald eagles.

Project wildlife and wetland mitigation areas should provide high quality, protected habitats for species such as the southwestern willow flycatcher and bald eagle in the area.

5.4.8 Geology and Soils Commitments

Reclamation will reduce or eliminate the potential for earthquake damage to the Ridges Basin Dam site through specific design specifications. Dam specifications will require design performance to withstand a maximum credible earthquake for seismic sources in the vicinity of Ridges Basin Dam site as described under Mitigation for Refined Alternative 4 Geology Impact 1 in Section 3.8.

Reclamation will develop and implement a controlled program for filling Ridges Basin Reservoir to reduce the potential for induced seismic impacts as described under Mitigation for Refined Alternative 4 Geology Impact 2 in Section 3.8.

Reclamation will develop and implement a facilities operation program that includes monitoring the reservoir shoreline and slopes for landslide and slumping. Reclamation will also provide for public notification and control public access in areas where high landslide and slumping potential exists as described under Mitigation for Refined Alternative 4 Geology Impact 3 in Section 3.8.

Reclamation will develop an engineered process plan to limit, control, and manage dam site methane gas releases during construction. Reclamation will also monitor the area for methane gas releases during operations as described under Mitigation for Refined Alternative 4 Geology Impact 4 in Section 3.8.

Reclamation will investigate the potential of gas release due to man-made intrusions within Ridges Basin and the proposed dam site. Specifically, construction investigations will study the integrity of abandoned exploration wells and the Gates Coal Mine as described under Mitigation for Refined Alternative 4 Geology Impact 5 in Section 3.8.

Reclamation will mandate that construction contractors use and implement measures contained in erosion control guidelines and BMPs to control soil erosion from construction areas as described under Mitigation for Refined Alternative 4 Soils Impact 1 in Section 3.8.

Reclamation will develop and implement a program to control reservoir filling and drawdown at rates sufficient to reduce significant erosion and sedimentation potential as described under Mitigation for Refined Alternative 4 Soils Impact 2 in Section 3.8.

5.4.9 Cultural and Paleontologic Resources Commitments

Reclamation will ensure compliance with historic/archaeological treatment measures and disseminate results pursuant to the Programmatic Agreement executed to meet Section 106 requirements for Refined Alternative 4 Cultural Impacts 1-3 in Section 3.9. Attachment H contains a Draft Amended Programmatic Agreement for the ALP Project. Reclamation will also finalize a Historic Preservation Management Plan which puts the Programmatic Agreement into operation.

Reclamation will ensure compliance with mitigation measures developed in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA) and Executive Order 13007 as described under Mitigation for Refined Alternative 4 Cultural Impact 4 in Section 3.9. Appendix H contains a draft NAGPRA Plan for the ALP Project.

Reclamation will ensure that areas to be disturbed are field surveyed prior to construction disturbance and will ensure that construction monitoring is conducted where deemed appropriate as described under Mitigation for Refined Alternative 4 Paleontologic Impact 1 in Section 3.9.

Reclamation will ensure that periodic shoreline monitoring is conducted as part of the facilities operations plan as described under Mitigation for Refined Alternative 4 Paleontologic Impact 2 in Section 3.9.

5.4.10 Agriculture Commitments

Location, design, and construction timing of the NNMP would protect agricultural lands as described under Mitigation for Refined Alternative 4 Agriculture Impact 2 in Section 3.10.

5.4.11 Recreation Commitments

Reclamation will pursue pumping regimes that reduce adverse flow effects on boating opportunities within the Animas River when possible and will take steps to improve public access to the river as described under Mitigation for Refined Alternative 4 Recreation Impacts 1 and 2 in Section 3.11.

Reclamation will alter pumping regimes during periods of competitive events as described under Mitigation for Refined Alternative 4 Impact 3 in Section 3.11.

Reclamation, as part of both the fishery and recreation mitigation program, will acquire or provide funding (not to exceed \$500,000) for the acquisition of public access at a minimum of two points on the Animas River between the High Bridge and Basin Creek to reduce effects to anglers on the Animas River as described under Mitigation for Refined Alternative 4 Recreation Impact 4 in Section 3.11.

5.4.12 Socioeconomics Commitments

No environmental commitments are made for socioeconomic resources.

5.4.13 Land Use Commitments

No environmental commitments are made for land use resources.

5.4.14 Hazardous Materials Commitments

Reclamation will ensure that the Durango Pumping Plant is designed to minimize the disturbance of contaminated materials. Reclamation will also ensure that procedures will be developed for radiological monitoring of excavated soils and groundwater encountered and that remedial procedures are planned in advance to counteract the potential for human exposure and for the prevention of contaminated groundwater release from the construction site as described under Mitigation for Refined Alternative 4 Hazardous Materials Impact 1 in Section 3.14.

Reclamation will ensure that all federal and state requirements pertaining to the management and handling of hazardous materials, mixed wastes and radioactive waste are followed and will include those requirements within construction contract language inclusive of construction safety and environmental compliance as described under mitigation for Refined Alternative 4 Hazardous Materials Impact 2 in Section 3.14.

Reclamation will require that construction specifications for Ridges Basin Dam and Reservoir, the Ridges Basin Inlet Conduit, road relocation, and related work prohibit contractors from disturbing the disposal cell. Reclamation will take steps to ensure that the disposal cell has appropriate signage to make the public aware of its presence and any personal hazards that it could present, as described under Mitigation for Refined Alternative 4 Hazardous Materials Impact 3 in Section 3.14.

Reclamation will confer with DOE and their Long-Term Surveillance and Maintenance Program to understand the current operational scheme and parameters for the Bodo Canyon disposal cell. As well, Reclamation will reactivate sampling and monitoring of wells DH-228 and DH-229 for indicator parameters including but not limited to Molybdenum, Selenium, and Uranium, as described under Mitigation for Refined Alternative 4 Hazardous Materials Impact 5 in Section 3.14.

Reclamation will require that preconstruction surveys are conducted for non-binding water end use facilities and conveyance system development and that hazardous material standards relating to construction are adhered to as described under Mitigation for Refined Alternative 4 Hazardous Materials Impact 6 in Section 3.14.

5.4.15 Transportation Commitments

Reclamation will conduct a transportation survey prior to construction of Ridges Basin Dam and Reservoir and will implement methods to reduce traffic-related impacts as described under Mitigation for Refined Alternative 4 Transportation Impacts 1 and 2 in Section 3.15.

Reclamation will ensure to maintain CR 211 roadway, shoulder, drainage, and roadside to standards adequate to avoid noticeable degradation as described under Mitigation for Refined Alternative 4 Transportation Impact 3 in Section 3.15.

Reclamation will require third-party developers of recreation facilities at Ridges Basin Reservoir to conduct traffic engineering impacts analysis studies and to mitigate recreation facility impacts according

to state and county standards. Associated costs will be the responsibility of the developing entity as described under Mitigation for Refined Alternative 4 Transportation Impact 7 in Section 3.15.

5.4.16 Air Quality Commitments

Reclamation will require that construction contractors implement measures to control fugitive dust and exhaust emissions during construction as described under Mitigation for Refined Alternative 4 Air Quality Impact 1 in Section 3.16.

Reclamation, or other responsible federal agency, will require third-party developers to implement measures to control fugitive dust and other emissions during construction and operation of non-binding end uses.

5.4.17 Noise Commitments

Reclamation will require that the Durango Pumping Plant construction contractor restrict operation of heavy equipment during the nighttime hours as described under Mitigation for Refined Alternative 4 Noise Impact 1 in Section 3.17.

Reclamation will ensure that construction contractors provide blasting notification to residents, sound pre-blast alarms, and follow the construction safety plan as described under Mitigation for Refined Alternative 4 Noise Impact 2 in Section 3.17.

Construction and operation of the Durango Pumping Plant will be carried out to reduce noise impacts as described under Mitigation for Refined Alternative 4 Noise Impacts 3 and 4 in Section 3.17.4.1. Noise reduction will be provided in the form of sound insulation within the pumping plant and vegetation screening designed as part of site landscaping. Ridges Basin specifications will provide for noise control, particularly relating to golden eagle nesting.

Reclamation will ensure that construction contractors schedule construction activities to avoid or minimize loud activities in the vicinity of golden eagle nesting areas during the nesting season and that nesting areas are “off limits” to construction forces and visitors as described under Mitigation for Refined Alternative 4 Noise Impact 4 in Section 3.17.

Reclamation will require that third-party developers of recreation facilities at Ridges Basin Reservoir incorporate in a recreation development/management plan the requirement to prohibit particularly loud forms of watercraft and to include signing to advise people of eagle nesting sensitivity to human presence and noise as described under Mitigation for Refined Alternative 4 Noise Impact 5 in Section 3.17.

Reclamation will ensure that developers and contractors associated with construction and operation of the non-binding end uses incorporate methods to minimize noise disturbances as described under Mitigation for Refined Alternative 4 Noise Impact 6 in Section 3.17.

5.4.18 Public Health and Safety Commitments

Reclamation will ensure that public access to structural component construction areas will be controlled by signage and by fencing around construction areas as described under Mitigation for Refined Alternative 4 Public Health and Safety Impact 1 in Section 3.18.

Reclamation will ensure that contractors configure haul routes and access roads to prevent or discourage public vehicular entry, including placement of signs warning against entry as described under Mitigation for Refined Alternative 4 Public Health and Safety Impact 2 in Section 3.18.

Reclamation will ensure that all the potentially affected gas companies will be contacted prior to construction crossings of gas pipelines which will be precisely located and appropriately marked in the field and on the specifications as described under Mitigation for Refined Alternative 4 Public Health and Safety Impact 3 in Section 3.18.

Reclamation will ensure that public access to end use and delivery system construction areas is controlled by signage and by fencing around construction areas as described under Mitigation for Refined Alternative 4 Public Health and Safety Impact 4 in Section 3.18.

Reclamation will investigate the potential for gas release due to man-made intrusions, prior to construction, and will monitor excavations for the presence of coal bed methane gas, as described under Mitigation for Refined Alternative 4, Public Health and Safety Impact 5 in Section 3.18.

Reclamation will control public access to operation areas that could pose a threat to public safety as described under Mitigation for Refined Alternative 4 Public Health and Safety Impact 6.

Reclamation will ensure that recreation area planning, final design of facilities, and reservoir access points are developed to promote safety and use of accident management techniques as described under Mitigation for Refined Alternative 4 Public Health and Safety Impact 7 in Section 3.18.

5.4.19 Public Services and Utilities Commitments

Reclamation will ensure that construction contractors adequately secure and patrol their work sites and will coordinate with city or county law enforcement agencies as described under Mitigation for Refined Alternative 4 Public Services and Utilities Impact 1 in Section 3.19.

Reclamation will ensure that contractors will mark the locations of existing buried utilities and develop a notification system for coordination with affected utilities during construction as described under Mitigation for Refined Alternative 4 Public Services Utilities Impact 4 in Section 3.19.

5.4.20 Visual Resources Commitments

Reclamation will ensure that as part of construction design, the Durango Pumping Plant blends into the natural landform and that, following construction, the site is adequately revegetated as described under Mitigation for Refined Alternative 4 Visual Impact 1 in Section 3.20.

Reclamation will ensure that the design of structural facilities incorporates, to the extent practicable, non-intrusive design elements and that restoration of disturbed areas be conducted as described under Mitigation for Refined Alternative 4 Visual Impact 2 in Section 3.20.

5.4.21 Indian Trust Assets and Environmental Justice Commitments

Interior will support the modification of the Settlement Agreement, through legislated amendments to the Settlement Act, to recognize the new limits placed on the use and amount of water provided to the Colorado Ute Tribes and establishment of the water acquisition fund.

Interior will pursue the development of operation plans for Ridges Basin and Navajo Reservoirs that will optimize more efficient delivery of the flow recommendations for endangered fish in the San Juan River and limit certain project pumping to allow for making additional depletions and developable water available for other Indian tribes' present and future water needs.

Interior will facilitate discussions between the Jicarilla Apache Tribe and other parties with interest in the San Juan River Basin to develop options of obtaining 25,500 afy depletion as authorized under the Jicarilla Apache Tribe Water Rights Settlement Act.