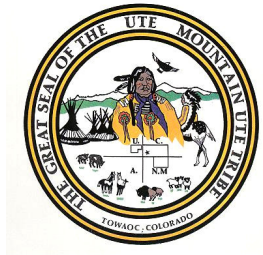


Ute Mountain Ute Tribe

Nonpoint Source Management Program Plan for the Ute Mountain Ute Reservation of Colorado, New Mexico and Utah



2005 Revision

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Overview

The Ute Mountain Ute Tribe is pursuing activities that will result in clean water for the Tribe. To help fulfill that goal, the Ute Mountain Ute Tribe retained Daniel B. Stephens & Associates, Inc. (DBS&A) to prepare a *Nonpoint Source Pollution Management Program Plan*. This plan is a revision of the plan prepared by Daniel B. Stephens & Associates. The purpose of this management plan is to outline the Tribe's program for addressing the nonpoint sources of pollution that were identified in the Ute Mountain Ute *Nonpoint Source Assessment* (DBS&A, 2001).

The primary nonpoint source pollutants on the Ute Mountain Ute Reservation are sediments, selenium, nitrate-nitrogen, salinity, and sulfates (DBS&A, 2001). This pollution is caused by a variety of sources, including runoff from areas that have naturally high salinity (primarily the Mancos Shale and, in the southeastern corner of the Reservation, the Nacimiento Formation), irrigation return flow, and erosion and sedimentation that may be accelerated by forest fires, grazing, construction activities, or oil and gas development. A nonpoint source pollution control program is necessary to reduce the impact of these activities on Ute Mountain Ute waters.

The Ute Mountain Ute *Nonpoint Source Assessment* report (DBS&A, 2001) identifies the Tribe's nonpoint source water quality problems and can be used in determining project priority. This *Ute Mountain Ute Nonpoint Source Pollution Management Program Plan* (as amended, 2005 by Ute Mountain Ute Tribe) identifies the Tribe's existing programs and authorities for addressing nonpoint source pollution problems. This plan summarizes the management program, including specific programs to implement best management practices, and outlines applicable statutes and sources of technical and financial assistance for addressing aspects of nonpoint source pollution.

1. Introduction

The goal of the Ute Mountain Ute nonpoint source pollution management program is to protect and restore water quality, watershed conditions, wetlands, and aquatic and riparian habitat on the Ute Mountain Ute Reservation.

The Ute Mountain Ute nonpoint source pollution management program addresses both prevention, to control current and future impacts, and restoration projects, to restore previously degraded water quality. Prevention will rely on:

- Education of land users on land and water management practices designed to minimize nonpoint source impacts
- Technical assistance to land users on implementing elements of the nonpoint source management plan

Restoration projects will focus on those projects that can be the most beneficial and cost-effective in improving water quality.

Because Ute Mountain Ute waters extend to areas outside the reservation lands, cooperative agreements to facilitate plan implementation and provide technical assistance will be pursued, where appropriate, with federal, state, and local agencies and interest groups. Upstream efforts will be undertaken using a watershed approach to minimize nonpoint sources.

Clean Water Act (CWA) Section 319 states that nonpoint source management plans should include six principal categories of information (U.S. EPA, 1997):

1. *Best management practices (BMPs)*. The management program plan should specify BMPs that will be used to reduce pollution from each category or subcategory of nonpoint source pollution, taking into account the impact of the proposed practice on water quality.

2. *Nonpoint source programs.* The plan should include regulatory and nonregulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring/evaluation to assist in the implementation of BMPs. The lead and cooperating agencies for carrying out these programs and their specific responsibilities should be clearly identified.
3. *Schedule.* The plan should include a schedule containing annual milestones for the 4-year plan that can be used to gauge the effectiveness of various programs. The schedule shall provide for utilization of BMPs at the earliest practicable date.
4. *Tribal ordinance adequacy.* The plan should include certification that existing laws and ordinances provide adequate authority to implement the proposed management program. If additional legal authority is needed, a schedule for seeking such authority shall be expedited to allow implementation within the 4-year management program plan.
5. *Funding sources.* The plan should identify funding sources that are available to carry the tribe's program in each of the 4 fiscal years, in addition to assistance provided under Section 319.
6. *Federal consistency.* The management program should identify federal financial assistance programs and federal development projects that will be reviewed by the tribe for their consistency with the proposed nonpoint source pollution management plan.

The remainder of this plan addresses the above issues.

2. Management Program Summary

The Ute Mountain Ute nonpoint source pollution management program includes both a general program to define objectives and oversee management activities and a detailed plan for addressing specific categories of nonpoint source pollution and implementing BMPs for nonpoint source control. The authority of the Tribe to administer these programs is discussed in Section 2.1, and the general management program, the education program, and program funding needs are presented in Sections 2.2, 2.3, and 2.4 respectively. Management plans and BMPs for individual nonpoint source categories are discussed in Section 3.

2.1 Nonpoint Source Pollution Management Program Administration

The Ute Mountain Ute Tribe operates under a constitution and bylaws. The governing body of the Ute Mountain Ute Tribe is the seven member Tribal Council (UMU, 1999a). The Council and the Chairman of the Council are elected by popular vote for 3-year terms. Ordinances and policies pertaining to natural resource protection are adopted by the Tribal Council and are implemented by the appropriate Tribal department.

Under the Clean Water Act, the Ute Mountain Ute Tribe has sought authority for administering and enforcing water quality standards. Water quality monitoring and standards are implemented by the Environmental Programs Department, which will therefore administer the nonpoint source program. Administration will include coordinating the overall general management program and the specific management programs, and obtaining the necessary funding for such programs.

Environmental Programs Department personnel will be assisted by a nonpoint source committee, which will consist of water and land users and managers. This committee will meet at least annually to review project proposals and make recommendations to the Environmental Programs Department for funding and approval; final approval will come from the Tribal Council. The *Nonpoint Source Assessment* report will be used by the nonpoint source committee to identify and prioritize mitigation projects.

2.2 General Management Program

The overall goal of the management program is to improve water quality on Ute Mountain Ute lands. By establishing water quality standards, the Ute Mountain Ute Tribe has recognized a goal of ensuring that all water sources meet water quality standards for their designated uses. The nonpoint source pollution management program, in conjunction with other Ute Mountain Ute programs, will contribute to this objective.

The nonpoint source committee will prioritize nonpoint source projects and review nonpoint source activities. The nonpoint source committee will include representatives from the Tribal Council, the Environmental Programs Department, the Farm and Ranch Enterprise, Weeminuche Construction Authority, the Natural Resources Department, the Ute Energy and Tax Administration, the Ute Mountain Ute Planning Department, Natural Resources Conservation Service (NRCS) and Bureau of Indian Affairs (BIA) advisors, and other departments and future enterprises, as necessary. Meetings will be open to anyone who is involved in nonpoint source activities or is interested in completing a nonpoint source control project.

Information regarding nonpoint source pollution problems has been gathered in earlier efforts and is reported in the Ute Mountain Ute *Nonpoint Source Assessment* report (as amended, 2005 by Ute Mountain Ute Tribe). The assessment will evolve and be revised as additional data are collected and additional nonpoint sources of pollution are identified. If a revision is made in the future to the assessment, it will comply with EPA guidance and staff recommendations. A key component of the overall management program strategy is to continue monitoring efforts to better characterize nonpoint source pollution and to evaluate the success of pilot programs.

The general management program milestones for administration, assessment, and monitoring are summarized in Table 1.

Table 1. General Program Milestones

Activity ^a	Frequency/ End Year
Submit NPS assessment report to EPA	2005
Submit management plan to EPA	2005
Submit application for Treatment as a State for CWA Section 319	2005
Propose NPS Management plan to Tribal Council	2005
Appoint NPS committee and convene first meeting	Assembled in 2003/04 Again in 2005
Update management plan as needed and review with NPS committee and Tribal Council	Annually
Submit annual status reports to EPA	Annually
Convene NPS committee to review projects and the overall program and set priorities for next fiscal year	Annually
Incorporate priorities into work plan for NPS program and submit to funding agencies (Tribal, EPA, State, USDA, IHS, BIA)	2005 and beyond

^a Completion of nonpoint source activities will be contingent on program funding

NPS = Nonpoint source

EPA = U.S. Environmental Protection Agency, Region VIII

USDA = U.S. Department of Agriculture

IHS = Indian Health Service

BIA = Bureau of Indian Affairs

2.3 Education

Because so much of the nonpoint source pollution management program relies upon voluntary cooperation by farmers, ranchers, and other community members, an active information and education program is critical. The more people know about and understand the causes, effects, and solutions to nonpoint source pollution, the less likely they are to be part of the problem and the more likely they are to become part of the solution. Therefore, an education program designed to promote voluntary corrective action by Tribal members will be implemented to prevent or reduce future problems by increasing general public awareness. The education program will include a variety of items targeted specifically for Tribal members. Pamphlets and brochures will be developed and distributed to land users.

A nonpoint source education committee may be one way to promote nonpoint source control activities. The committee could be composed of livestock grazers, farmers, community

members, and Tribal staff. The focus of the committee would be to promote understanding of activities that can improve water quality, without affecting (and possibly enhancing) the economic viability of ranching and other Tribal enterprises. Activities coordinated through such a committee would include promoting riparian and wetlands area protection, disseminating management information, identifying demonstration areas, developing management presentations, and conducting field trips for individuals, organizations, and agencies. Milestones for possible education programs are described in Table 2.

Table 2. Education Milestones

Activity	Year			
	1	2	3	4
<i>General</i>				
Establish an NPS education committee	■			
Purchase educational videos and materials	■	■		
Coordinate education program with schools		■	■	■
<i>Agriculture</i>				
In cooperation with interested agencies, develop and distribute newsletter articles		■	■	■
Make presentations at fairs, agricultural expositions, and agricultural organization meetings	■	■	■	■
Provide educational opportunities for irrigators	■	■	■	■
Update displays with monitoring information as needed			■	■
<i>Silviculture</i>				
Disseminate information about silvicultural BMPs		■	■	
<i>Construction, Erosion, and Sedimentation</i>				
Educate construction supervisors about BMPs, including sediment fences, riprap, and other erosion control measures	■	■		
<i>Resource Extraction</i>				
Present information on pollution control measures for oil and gas, coal, and gravel.	■	■	■	■
<i>Land Disposal</i>				
Present information on pollution control measures at landfill and wastewater sites			■	■
Disseminate fact sheets on septic/wastewater systems and landfills to community members		■	■	■
Develop education programs describing effects of uncontrolled septic systems	■	■		

NPS = Nonpoint source

BMPs = Best management practices

2.4 Funding Needs

Annual anticipated funding needs for the general management programs are as follows:

- Administrative staff (part-time)
- Monitoring program
 - Equipment/laboratory support
- Education
 - Pamphlets
 - Videos
 - Education booth materials
 - Curriculum material development and printing
 - Education monitoring
- Travel per diem for training/networking

The estimated level of funding for these activities, including a part-time staff member to coordinate and implement the general education programs and assist with monitoring efforts and BMP implementation, is approximately \$50,000. The Ute Mountain Ute Tribe may request financial assistance for general program funding through EPA's 319(h) program.

In addition to these general funding requirements, funding will be sought for specific implementation projects, which typically cost from \$20,000 to \$100,000 to implement. It is anticipated that implementation of BMPs will be phased in as funds become available from Tribal resources as well as from the funding sources discussed in Section 4.2.

2.5 Implementation

The nonpoint source committee shall assess available monitoring data, current management practices, and recommended BMPs for all nonpoint source activities described in this

management program plan. The committee shall recommend changes where necessary to meet the goals of this plan, and shall advise the Tribal Council on how to implement BMPs to minimize nonpoint source pollution. To this end, the nonpoint source committee has begun to develop a resource development strategy that integrates BMPs into economic development plans for future activities on all Tribal lands and provides for the protection of clean water goals through implementation of the Tribally-approved BMPs.

The Ute Mountain Ute *Nonpoint Source Assessment* report lists categories of nonpoint source pollution that have been confirmed or are potential sources, as shown on Table 3. The specific management programs for these categories will focus on prioritizing pollution problems, identifying appropriate BMPs, and implementing BMP demonstration projects.

The following considerations will be used in making final management decisions regarding priorities and BMPs:

- Severity of pollution problem and extent of impairment of beneficial uses
- Potential for effectively addressing the pollution problem, given technical and financial constraints (i.e., optimizing economic benefits)
- Public participation and landowner cooperativeness

For reference, EPA guidance indicates that the relationship between NPS pollution control and water quality standards should be based upon (1) design of BMPs to meet water quality standards and (2) demonstration of BMP effectiveness. If BMPs cannot adequately protect and maintain water quality standards, the Tribe must either revise the BMPs to ensure protection and maintenance of water quality standards or reevaluate the land-use activity.

Tribal land users, departments, or enterprises may sponsor projects for BMP demonstrations. The nonpoint source committee will review and evaluate these proposed projects and advise the Tribal Council regarding their adoption.

Priorities for implementation are based on the Ute Mountain Ute Tribe's Nonpoint Source Assessment. Future priorities may be identified and addressed as they come to light and are confirmed by monitoring data. Specifically, the priorities that have been identified in the assessment are:

<u>Water Body</u>	<u>Issue</u>	<u>Level of Impairment/Priority</u>
Navajo Wash	Selenium, Salinity, Nutrient enrichment	SEVERE / HIGH
Cottonwood Wash, UT	Radionuclide contamination	SEVERE / HIGH
All < 8000'	Tamarisk/Russian Olive Infestation	SEVERE / HIGH
Mancos River, San Juan		
River, Navajo Wash	Bacteria levels	Moderate
Mancos River, McElmo		
Creek, Navajo Wash	Sedimentation/ Erosion	Moderate
McElmo Creek	Nutrient Enrichment	Moderate
Mancos River	Metals—Ag, Cu	Moderate
~50% ephemeral		
streams	Sedimentation/ Erosion	Moderate

3. Management Programs for Individual Nonpoint Source Issues

Solid waste disposal, underground storage tanks (USTs), and oil and gas activities are addressed by existing state and federal regulatory programs that stipulate the formulation and application of BMPs, and efforts will continue to evaluate and improve the effectiveness of these programs. Sections 3.1 through 3.6 discuss BMPs and milestones for nonpoint source pollution issues that were identified as being confirmed or potential sources in the nonpoint source assessment but are not covered by existing programs. Section 4 lists programs and sources of financial and technical assistance available to help implement BMPs.

Locations of BMP implementation for specific issues, as they are developed and funded, will be within the watershed associated with that specific issue. For example, BMP's that address septic system influence in the Navajo Wash watershed will be undertaken in that watershed, relative to influences to that water body.

The lead entity for all nonpoint source mitigation projects will be the Ute Mountain Tribe, and specifically, the Environmental Programs Department. Cooperating entities will vary depending upon funding sources. These are likely to include the EPA, NRCS, States, Army Corps. Of Engineers (ACOE) and others.

**Table 3. Categories of Nonpoint Sources and
Their Applicability to Ute Mountain Ute
Page 1 of 2**

EPA Nonpoint Source Category	Impairment to Ute Mountain Ute Reservation Waters		Possible Impairment to Off-Reservation Ranch Water
	Confirmed	Possible ^a	
<i>Agriculture</i>			
Crop-related sources: Non-irrigated crop production			
Irrigated crop production		■	
Specialty crop production		■	
Grazing-related sources	■		■
Intensive animal feeding operations			
<i>Silviculture</i>			
Harvesting, restoration, residue management		■	■
Forest management		■	■
Logging road construction/maintenance		■	■
<i>Construction</i>			
Highway/road/bridge construction	■		■
Land development	■		
<i>Urban Runoff/Storm Sewers</i>			
Nonindustrial permitted			
Industrial permitted			
Other urban runoff	■		
Illicit connections/illegal hookups/dry weather flows		■	
Highway/road/bridge runoff	■		
Erosion and sedimentation	■		
<i>Resource Extraction</i>			
Surface mining		■ ^b	
Subsurface mining		■ ^b	
Placer mining			
Dredge mining			
Mill tailings			
Mine tailings			
Petroleum activities	■		
Acid mine drainage			
Abandoned mining		■	
Inactive mining		■	

Source: U.S. EPA, 1997, Table 1-3.

^a Source inferred because the facility or activity is present on or near the Ute Mountain Ute Reservation

^b Use under consideration by Tribal Council

**Table 3. Categories of Nonpoint Sources and
Their Applicability to Ute Mountain Ute**
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EPA Nonpoint Source Category	Impairment to Ute Mountain Ute Reservation Waters		Possible Impairment to Off-Reservation Ranch Water
	Confirmed	Possible ^a	
<i>Land Disposal</i>			
Sludge			
Wastewater		■	
Landfills		■	
Inappropriate waste disposal/wildcat dumping		■	
Industrial land treatment		■	
On-site wastewater systems (septic tanks, etc.)		■	
Hazardous waste		■	
<i>Hydromodification</i>			
Channelization		■	
Dredging			
Dam construction		■	
Upstream impoundment		■	
Flow regulation/modification		■	
<i>Habitat modification (other than hydromodification)</i>			
Removal of riparian vegetation	■		
Bank or shoreline modification/destabilization	■		
Drainage/filling of wetlands		■	
<i>Other</i>			
Atmospheric deposition		■	
Waste storage/storage tank leaks (aboveground)		■	
Highway maintenance and runoff		■	
Spills (accidental)		■	
Contaminated sediments		■	
Debris and bottom deposits		■	
Internal nutrient cycling (primarily lakes)		■	
Sediment resuspension	■		
Natural	■		

Source: U.S. EPA, 1997b, Table 1-3.

^a Source inferred because the facility or activity is present on or near the Ute Mountain Ute Reservation

3.1 Agriculture

The agriculture category includes both crop-related and grazing-related sources. The primary crop activity on the Ute Mountain Ute Reservation is at the Farm and Ranch Enterprise. The enterprise is designed to irrigate 7,634 of farmland (UMU, 1999b) and has a state-of-the-art water management plan that identifies water management activities, or BMPs, for the enterprise. These include irrigation planning, reporting, and monitoring to maximize irrigation efficiency, information, and education services for water users, improved tillage practices, and other activities as detailed in the water management plan. Existing and ongoing BMP's include: telemetry-controlled, variable speed and variable pressure center-pivot irrigators; crop rotations; no-till crops; GPS-controlled chemical applicators; GIS-based crop yield and application data management; and compliance with the Tribe's *Ground Water Protection Plan*.

The Farm and Ranch Enterprise also operates a 1,200-head cattle operation and plans to expand its range capacity (UMU, 1999b). In addition, the Tribal cattlemen, approximately 50 to 55 ranch operators, use Ute Mountain Ute range lands. Potential problems related to this activity include degradation of water quality, including organic enrichment, low dissolved oxygen, elevated nitrate and coliform concentrations, and erosion and sedimentation. As discussed in Section 2, the education committee will work with livestock grazers to implement BMPs while maintaining the financial viability of their operations. To ensure that BMP implementation does not impose a financial hardship on individual cattle owners or the Tribe's Natural Resources Department, potential funding sources for range projects, including the EPA Wetlands Protection Program, the NRCS, the Farm Service Agency, and the BIA (Section 4.2) will be pursued.

Priority BMPs that will be established on the Ute Mountain Ute land include:

- Continuing monitoring and water management activities at the Farm and Ranch Enterprise

- Practicing proper pesticide/herbicide management and storage, per *Ground Water Protection Plan*
- Educating ranchers about the negative impacts of uncontrolled grazing
- Constructing fencing along sensitive wetlands and selected stream reaches to restrict livestock access, and constructing stock tanks outside fenced areas to provide livestock with access to water
- Continuing to develop EQUIP projects for NRCS funding and to seek funding from other sources for fence/stock tank construction projects.
- Managing grazing allotments in a manner that precludes overgrazing and associated erosion and protects sensitive areas
- Implementing range carrying capacities and livestock rotation practices that prevent range deterioration
- Conducting reseeding/revegetation projects to mitigate erosion where range deterioration has occurred

Cooperating agencies, including the BIA and NRCS, can assist in developing additional BMPs needed to solve a specific problem.

Cost-share programs are available to help pay the cost of applying BMPs, which in most cases require matching funds or in-kind services. The NRCS provides assistance to tribes through the U.S. Department of Agriculture's Environmental Quality Incentives Program (EQIP), and the EPA Section 319 program provides incentives to help farmers and ranchers implement BMPs. Details of these funding programs are provided in Sections 4.2.1 and 4.2.2.1. Agricultural milestones are presented in Table 4.

Table 4. Agriculture Milestones

Activity	Year			
	1	2	3	4
As necessary, review monitoring data and update/refine management practices for the Farm and Ranch Enterprise to maximize efficiency and minimize runoff and erosion	■	■	■	■
Implement Groundwater Protection Plan for pesticide management and compliance	■	■	■	■
Educate farmers outside the Farm and Ranch Enterprise regarding erosion control and pesticide/herbicide storage and application	■	■	■	■
Obtain funding for a pilot project such as buffer strip installation		■		■
Conduct survey of range conditions			■	■
Educate livestock grazers regarding range carrying capabilities, rotations, and erosion control structures (rancher workshop)	■	■	■	■
Implement grazing BMPs in accordance with the BMP implementation plan developed by NRCS under EQIP		■	■	■

BMPs = Best management practices

NRCS = Natural Resources Conservation Service

EQIP = Environmental Quality Incentives Program

3.2 Silviculture

Periodic timber sales are conducted on Ute Mountain Ute ranches located near Gunnison and Hesperus, Colorado. The Colorado State Division of Forestry assists with these activities.

Best management practices that pertain to timber harvesting include:

- Following Tribe-approved forestry management plans, as developed by the Colorado State Division of Foresters
- Planning the timber harvest to minimize impact to sensitive areas or streamside locations
- Timing the harvest to avoid the highest precipitation periods and/or fish spawning cycles
- Minimizing sediment from logging roads by locating roads away from waterbodies and designing roads to follow natural contours
- Managing the timber harvest to mitigate vehicular damage and erosion, by minimizing dragging or other activities that will accelerate erosion

- Retaining mature trees adjacent to the creeks and arroyos
- Controlling dust on the logging roads
- Reforesting logged areas
- Selectively cutting mature trees to minimize runoff

These BMPs can be implemented as appropriate as each individual timber sale is planned.

Another important aspect of forest health is fire management. The Ute Mountain Ute Tribe has adopted a fire management plan (EMI, 2000), which includes prevention, fuels management, and hazard reduction strategies. Implementing the fire management plan will allow the Tribe to prevent and/or mitigate nonpoint source pollution from fire damaged areas.

Milestones for silvicultural activities are provided on Table 5.

Table 5. Silviculture Milestones

Activity	Year			
	1	2	3	4
Conduct survey of forest conditions		■		
Develop forest management plans for ranches, where none exist, to identify areas for future sales and establish procedure for developing BMPs for individual sales	■	■		
Meet with State Forestry Division to discuss BMPs	■	■	■	■
Educate timber harvesters regarding BMPs	■	■	■	■
Implement BMPs during timber sales	■	■	■	■
Review existing forest management plans with State Forestry Division to identify annual work plans		■	■	■

BMPs = Best management practices

3.3 Erosion and Sedimentation

Construction projects, particularly those that involve stream crossings or bridges or those close to waterbodies, are potential sources of increased sediment. Construction projects are often contracted by the Weeminuche Construction Authority, a commercial construction enterprise

owned and operated by the Ute Mountain Ute Tribe. The Colorado Highway Department may also participate in construction projects.

Another cause of increased erosion and sedimentation is off-road vehicle use and the resultant vegetation destruction. Erosion can occur in wetlands, on stream banks, and in stream channels. Increased erosion results in degraded water quality by elevating turbidity and sediment loads. These in turn impact natural riparian vegetation, leading to loss of habitat and alteration of stream channel flow and water budgets.

BMPs that will be used to minimize erosion and sedimentation include:

- Installing stream channel stabilization structures at selected locations
- Installing temporary sediment fences or using other design measures to reduce sediment during construction activities
- Installing catchment basins or other appropriate erosion control mechanisms
- Reseeding eroding areas with native vegetation
- Developing alternative transportation routes to replace off-road vehicular traffic in sensitive areas
- Developing a monitoring program to evaluate erosion and sedimentation rates and the effects of nonpoint source control measures

These BMPs will be phased in as funding becomes available for specific projects. Milestones for addressing pollution from erosion and sedimentation are outlined in Table 6.

3.4 Urban Runoff/Storm Sewers

In general, urban runoff and storm waters do not present a key nonpoint source problem on the Ute Mountain Ute Reservation except in the Towaoc area, where urban runoff is a confirmed source. In addition to the sedimentation and erosion milestones discussed in Section 3.3, additional monitoring of urban runoff and the resulting sedimentation and erosion should be

conducted in the Towaoc area, and BMPs should be implemented. Towaoc urban runoff milestones are shown in Table 7.

As part of the effort to address this issue, the Tribe is developing a Storm Water Management Plan for the town of Towaoc. This document will describe sources of sedimentation from urban run-off in Towaoc; it will describe current storm water structures and management practices; it will identify failures and shortfalls in current storm water management; it will identify problem area based on geology and land use; it will recommend specific BMP's for mitigating erosion and sedimentation from storm water run-off; and it will identify stream restoration projects for the main receiving water—Navajo Wash. Adoption by the Tribal Council will be sought, and the plan will be a guidance document for future development in Towaoc by incorporating BMP's into project RFP's and requiring them in bids and proposals.

Table 6. Construction and Erosion and Sedimentation Milestones

Activity	Year			
	1	2	3	4
Review annual plans for road construction activities	■	■	■	■
Conduct survey of existing road crossings		■		
Develop a road construction BMP implementation plan with BIA road engineer and oil companies		■	■	
Implement BMPs in accordance with the BMP implementation plan			■	■
Complete assessment of sediment and salinity loading across reservation	■	■		
Work with the Roads Committee to develop a transportation plan that emphasizes alternate routes where erosion is occurring	■	■	■	■
Educate the public regarding the importance of wetland and riparian habitats, and explain alternate vehicle routes		■	■	■

BMP(s) = Best management practice(s) BIA = Bureau of Indian Affairs

Table 7. Towaoc Urban Runoff/Storm Sewer Milestones

Activity	Year			
	1	2	3	4
Collect samples during runoff events	■		■	
Survey drainages and storm sewer outfalls	■			
Design and implement BMPs based on survey and monitoring results	■	■	■	■
Implement Storm Water Management Plan		■	■	■

BMPs = Best management practices

3.5 Resource Extraction

Petroleum extraction activities are a potential nonpoint source on the Ute Mountain Ute Reservation, where a total of 54,195 acres is in production (UMU, 1999a). The Ute Mountain Ute Energy and Tax Administration and the Bureau of Land Management (BLM) oversee oil and gas production activities on the Ute Mountain Ute Reservation and implement regulations to control these activities. The primary potential sources related to oil and gas activities are spills and/or runoff of production water, oil field chemicals, product, and indirect sedimentation and erosion impacts from road construction. Existing environmental regulations indicate that all produced water must be disposed of by injection into the subsurface, by approved pits, or by other methods that have been approved by the authorizing officer (BLM, 1999, Section 3162.6 of Order 1). BMPs shall be required and included in all applications for proposed drilling, including reclamation of roads, revegetation, spill reporting, and prompt removal of inactive equipment. These BMPs shall include activities by all subcontractors as well as the permitted drilling contractors. Additional activities related to resource extraction are shown on Table 8.

Currently a spill reporting system is in place whereby the Tribe's Brownfields Program Director is notified by operators or by the BLM and/or Tribal inspectors that an "undesirable event" has occurred. The Brownfields Program Director then works with the operator, the BLM regulators, the Tribal Energy Department, and the Tribal Justice Department to coordinate a clean-up and mitigation procedure. Inspectors then conduct follow-up site visits to assure compliance.

Table 8. Resource Extraction Milestones

Activity	Year			
	1	2	3	4
Survey oil and gas activities – Brownfields Program/ Inspectors	■	■	■	■
Meet with BLM officials to discuss current BMPs and permit restrictions	■	■	■	■
Implement additional BMPs		■	■	■
Include water quality protection measures in APD stipulations	■	■	■	■
Review annual plans for resource extraction	■	■	■	■

BLM = Bureau of Land Management BMPs = Best management practices APD= Application for permit to Drill

3.6 Septic, Wastewater, and Solid Waste Runoff (Land Disposal)

The land disposal source category includes pollution related to runoff and infiltration from sewage treatment and septic systems and from solid waste disposal sites and dumps. Problems and potential strategies related to these subcategories are discussed below, and milestones are outlined in Table 9.

Some individual septic systems, which are not regulated by the Ute Mountain Ute Tribe, are old and not consistently maintained, a situation that can result in sewage being released to the environment. Individual septic systems need to be evaluated to determine their condition with respect to current septic standards and their location relative to water sources. Programs to encourage transition to engineered septic systems or controlled and monitored municipal systems should be implemented, and further monitoring needs to be undertaken to assess the impacts of uncontrolled wastewater systems. A project to extend the municipal wastewater system laterals to homes with individual septic systems is likely to be funded in the near future, but better planning, incorporating BMP's such as engineered systems, needs to occur in the future with regard to new homes.

Municipal consolidated wastewater treatment is through two evaporative lagoon multi-cell systems. These do leach into the groundwater where they are only clay-lined. Ground water monitoring wells have been installed to assess the quality of the leachate to determine its potential impact to Navajo Wash—the nearest perennial stream, and also to the shallow ground

water table itself. Lagoon water is also monitored, and a surface water discharge may be permitted in the near future to mitigate the ground water leaching of salts, selenium and nitrates from the Mancos shale and local soils.

Table 9. Land Disposal Milestones

Activity	Year			
	1	2	3	4
Develop household hazardous waste drop-off facility	■	■	■	■
Survey septic tanks to show locations in relation to waterbodies and compliance with septic maintenance schedules		■	■	
Develop an implementation plan that shows priorities, schedules, and funding for converting home sewage disposal to municipal and/or engineered septic systems		■	■	
Undertake study to evaluate feasibility of establishing a Tribal program to pump septic tanks		■	■	
Monitor sewage lagoons	■	■	■	■
Review existing land disposal regulations	■			
Review runoff/runoff control measures and groundwater monitoring for landfills and dumps on the Reservation	■	■	■	■

Resource Conservation and Recovery Act (RCRA) Subtitle D regulations for landfills require operators to implement runoff/runoff control measures, including leachate collection systems and groundwater monitoring. One transfer station and several closed, unpermitted landfills are located on Ute Mountain Ute land. The quantities and varieties of wastes disposed of in many of these unpermitted areas are unknown; however, the potential for surface and groundwater contamination by these landfills should be addressed. The Ute Mountain Tribal Council has passed a resolution authorizing the Environmental Programs Department to close and post signs describing closure of open dumps. These sites have been evaluated for potential pollution migration and asbestos has been removed from several of them. Water quality impacts from the dumps have not been fully assessed. Run-on/run-off at the transfer station and capped, old public landfill in Towaoc are under investigation. A comprehensive ground water monitoring system has been installed around the old landfill to assess the toxicity of leachate. Erosion of the earth cap has occurred at the site and on the surrounding hillsides, and this will need to be addressed in the near future.

A household hazardous waste program has been started, and a small pick-up occurred in 2005. Future waste pick-up events will need to be better advertised and better understood. Education of the public will be important in this endeavor.

Tribal staff will evaluate and review the effectiveness of existing programs to control nonpoint source pollution from land disposal activities and will work on addressing illegal dumping ordinances. Recommendations for improvements to existing programs will be included in the annual evaluations (Table 1).

Land disposal BMPs that could be implemented include:

- Septic system replacement or upgrade
- Municipal system upgrade (to replace failing septic systems)
- Municipal system expansion (to replace failing septic systems)
- Installation of constructed wetlands
- Septic tank pumping
- Relocation of septic systems relative to water wells
- Water well construction upgrades
- Landfill cap maintenance
- Erosion mitigation measures at landfill and transfer station
- Timely transfer of wastes from the transfer station
- Research surface water discharge permit from municipal wastewater stream

The EPA 319 program (Section 4.2.1) provides incentives to help property owners and municipalities implement land disposal BMPs. IHS and the Department of Housing and Urban Development (HUD) also provide financial assistance for BMP implementation.

4. Existing Authorities and Programs

Numerous federal laws and Ute Mountain Ute Tribal ordinances govern aspects of nonpoint source pollution, as outlined in Section 4.1. Under these laws and other statutes, financial and technical assistance is available from a variety of federal and state agencies, as outlined in Section 4.2.

4.1 Applicable Federal and Tribal Statutes

The Clean Water Act establishes the regulatory framework for addressing impacts to water quality from nonpoint source pollution. Section 4.1.1 briefly discusses the Act. Applicable Ute Mountain Ute authorities are outlined in Section 4.1.2. Other federal programs that address aspects of nonpoint source pollution are discussed in Section 4.2.

4.1.1 Federal Clean Water Act

In 1972, Congress passed the Federal Water Pollution Control Act Amendments, known as the Clean Water Act (CWA) (33 USC 1251 et seq.), thereby providing a comprehensive national framework for water pollution control and water quality management in the United States. The goal of the CWA was to "restore and maintain" the integrity of our nation's waters and to provide water quality sufficient for "the protection and propagation of fish, shellfish and wildlife," and "provision of recreation in and on the water." The CWA was amended again in 1977, 1981, 1987, and 1995. Sections of the CWA that are applicable to nonpoint source pollution are described in Sections 4.1.1.1 through 4.1.1.4.

4.1.1.1 Section 106 (33. USC 1256)

Section 106 of the Clean Water Act addresses water quality and water pollution control programs. The Ute Mountain Ute Tribe has received several Section 106 grants. These grants have been used to establish water quality standards, to collect and analyze water quality data (including the data used to assess nonpoint source pollution), to plug a saline well, to fund an erosion control project, and to fund the contract for nonpoint source assessment and management plan development.

4.1.1.2 Section 303 (33 USC 1316)

Section 303 of the CWA requires that the EPA review and approve water quality standards to assure that the water quality standards are consistent with the requirements of the CWA. Water quality standards are provisions of local, state, or federal law that designate use(s) for the waters of the United States and water quality criteria necessary to maintain and protect such uses. These standards must protect public health or welfare, enhance the quality of water, and serve the purposes of the CWA. Accordingly, water quality standards influence and affect all water pollution control programs.

EPA guidance states that the relationship between nonpoint source pollution control and water quality standards should be based upon three basic principles:

- *BMPs must be designed to meet water quality standards.* It is recognized that proper establishment and implementation of tribal-approved BMPs will enable the achievement of water quality standards. For proposed nonpoint source activities, BMPs designed and implemented in accordance with a tribal approval process will normally constitute compliance with the CWA. Once BMPs have been approved by the tribe, they become the primary mechanism for meeting water quality standards. Proper implementation and maintenance of tribal-approved BMPs are presumed to meet a land user's or manager's obligation for compliance with applicable water quality standards.
- *BMP effectiveness must be demonstrated.* Once the BMPs have been implemented and sufficient time has elapsed to establish the controls and monitor their effectiveness, attainment or maintenance of water quality standards and other water quality goals should be verified. If evaluation indicates that approved and properly implemented BMPs are not achieving water quality standards, the tribe should take steps to revise the BMPs, evaluate the water quality standards for appropriateness, or both. Through the interactive process of monitoring and adjusting BMPs and/or water quality standards, it is anticipated and expected that BMPs will lead to achievement of water quality standards.

- *Ineffective BMPs must be revised or activities reevaluated.* If BMPs cannot adequately protect and maintain water quality standards, the tribes must either revise the BMPs to ensure protection and maintenance of water quality standards or reevaluate the activity. If water quality standards are not being met, then the tribe may require that the nonpoint source controls or the practice causing the nonpoint source pollution be modified.

EPA's regulations to implement Section 303 also require that tribes adopt an antidegradation policy (40 CFR 131.12). The Ute Mountain Ute Tribe has adopted an antidegradation policy within the Ute Mountain Ute Water Quality Standards (UMU, 2001/2002) and will use this policy in implementing the nonpoint source pollution management program. The Ute Mountain Ute antidegradation policy sets a three tiered approach to protecting existing water uses.

- *Tier 1.* Existing in-stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
- *Tier 2.* Water quality necessary to support the propagation of fish, shellfish, and wildlife and recreation in and on the water shall be maintained and protected unless the Tribe finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the Tribe's continuous planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.
- *Tier 3.* Where high-quality waters constitute an outstanding national or Tribal resource, that level of water quality shall be maintained and protected.

Nonpoint source pollution activities are not exempt from the antidegradation policy. As noted above, tribes are required to assure that all economically achievable and reasonable BMPs for nonpoint source control shall be implemented. If a particular activity will degrade water quality even after all these measures are applied, tribes must:

- Identify the proposed water quality degradation (where and to what degree water quality will be lowered)

- Determine that the degradation is necessary to accommodate important social or economic development

4.1.1.3 Section 314 (33 USC 1324)

Section 314 of the CWA requires Indian tribes to submit a report every two years on water quality in tribal lakes. These reports are to identify the eutrophic condition of tribal lakes, processes to control sources of pollution in such lakes, procedures (in conjunction with appropriate federal agencies) to restore the quality of such lakes, methods to mitigate effects of high acidity, a list of tribally owned lakes for which uses are impaired, and an assessment of the status and trends of water quality in lakes, including the nature and extent of pollution loading from point and nonpoint sources.

Section 314 authorizes funding to tribes that have submitted satisfactory lake water quality reports that document efforts to control pollution and restore and protect lakes.

4.1.1.4 Section 319 (33 USC 1329)

The 1987 Water Quality Act amended the CWA to add a new Section 319, entitled Management of Nonpoint Sources of Pollution. Section 319 requires each tribe to develop a comprehensive nonpoint source pollution assessment report and to submit a management program for control of nonpoint source pollution.

The assessment report should identify reservation waters that, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain applicable water quality standards or the goals or requirements of the CWA. The assessment report should also identify categories and subcategories of nonpoint sources, as well as particular nonpoint sources that contribute pollution to identified waters, and should include descriptions of tribal management processes and control programs. The Ute Mountain Ute Tribe has completed its nonpoint source assessment report and is submitting it to the EPA in conjunction with this management plan.

The nonpoint source pollution management programs are to include BMPs to reduce pollutant loadings from each category and subcategory of nonpoint source pollution identified in the

tribe's assessment report. Specific management programs to achieve implementation of BMPs, a schedule for program implementation, certification of necessary legal authorities, and sources of funding to support implementation must also be included. The assessment report and the management program must be submitted to the EPA, which then has 180 days to approve or disapprove the report and program.

4.1.2 Tribal Laws

Nonpoint source pollution control policies and programs are most effective if they are consistent with Tribal natural resource policies, ordinances, and standards. Relevant policies include the water quality standards, ground water protection, livestock and grazing policies, traditional agricultural practices, and policies currently being developed regarding hazardous and solid waste, and air quality.

In November of 2002, the Ute Mountain Tribal Council adopted ***Water Quality Standards for Surface Waters of the Ute Mountain Ute Reservation***. These standards meet federal requirements and were developed with assistance from EPA Region 8 water quality staff. The Tribe is currently awaiting approval of the standards by EPA because the application for "Treatment in the Same Manner as a State" (TAS) to implement the standards is under review. They are Tribal law, though, and the Tribe can enforce them on Tribal Members and entities with contractual obligations to comply with Tribal Laws. In late 2005, the standards will undergo a triennial review to update criteria with recently researched science and also to develop a specific anti-degradation implementation policy.

In 2004, the Ute Mountain Tribal Council adopted a ***Ground Water Protection Plan***. The plan describes all aquifers on the Reservation that are used by the Tribe or by wildlife. Each aquifer is assessed according to its risk from contamination from various pollution sources and also based on its use and risk to humans and wildlife. Each aquifer is assigned a level of protection priority based on those risks, and associated levels of protection strategies have been implemented.

Various other Tribal Council Resolutions address implementation of the Tribe's Brownfields Program; open dump closures; specific pollution prevention projects; restoration projects; grants to conduct work on the Reservation; monitoring and assessment; and partnerships and associations with local, state and federal agencies to conduct work on the Reservation. Approval of this plan will soon be undertaken by seeking a Tribal Council Resolution.

4.2 Financial and Technical Assistance

The federal laws discussed in Section 4.1, along with other federal and state agencies and laws, provide numerous funding opportunities for nonpoint source management programs. Applicable federal and state funding agencies are summarized in Table 10; more detailed information regarding these programs has been provided to the Ute Mountain Ute Environmental Programs Department by *Daniel B. Stephens and Associates, Inc.* as a supplement to this report. The funding programs most relevant to Ute Mountain Ute nonpoint source activities are discussed further in Sections 4.2.1 through 4.2.5. In addition to providing funding, most of these agencies also provide technical assistance for implementation of BMPs.

4.2.1 Environmental Protection Agency

The EPA provides financial assistance to tribes for activities related to nonpoint source pollution control under several sections of the CWA, in particular, Section 319. Section 319 and other EPA grants that are relevant to nonpoint source pollution control are discussed in Sections 4.2.1.1 through 4.2.1.7.

4.2.1.1 Nonpoint Source Implementation Grants

Under Section 319 of the CWA, financial assistance can be provided to tribes for the implementation of tribal nonpoint source pollution management programs. Section 319 asks that tribes prepare a comprehensive reservation-wide nonpoint source pollution assessment report and a management program prior to applying for Section 319 funding. A formal "Treatment in the Same Manner as a State" (TAS) process is also required to qualify for 319(h)

funding, this is less rigorous than the TAS process for water quality standards and certifications and is similar to the TAS process for Clean Water Section 106.

Upon approval of these documents, tribes are eligible for Section 319 grants from the EPA to assist in implementing the management program. The federal share of implementation grants shall not exceed 60 percent except in cases of hardship. Eligible implementation costs include costs of implementing regulatory or nonregulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects. Monitoring done to support design of watershed-level control programs or to evaluate a particular implementation project is also an eligible cost. Conversely, general assessment and planning activities, as well as administrative costs, are not considered implementation and are thus not eligible for Section 319 funding.

In addition to the management program implementation funding, grants may also be provided for protecting groundwater quality, again with a maximum 60 percent federal share. Each tribe receiving a Section 319 grant is required to submit an annual report to the EPA, and the Administrator of the EPA is required to report annually to Congress on the program.

4.2.1.2 Wetlands Program Development Grants

The EPA also funds the Wetlands Program Development Grants, which provide financial assistance to states, federally recognized Indian tribes, and local governments to support development of new or augmentation and enhancement of existing wetland programs. Applications must clearly demonstrate that the project will increase the state's, tribe's, or local government's ability to protect its wetland resources. Recipients must provide 25 percent of the total project cost.

4.2.1.3 Capitalization Grants for Clean Water State Revolving Fund

EPA awards grants to states to capitalize their Clean Water State Revolving Funds (CWSRFs), which the states use to make loans for high-priority water quality activities. In accordance with state plans developed under CWA Sections 319 and 320, these CWSRFs provide money to municipalities for wastewater treatment systems and to various entities implementing NPS management activities.

4.2.1.4 Clean Water Act Indian Set-Aside Grant Program

The Indian set-aside grants are awarded for the planning, design, and construction of wastewater treatment facilities for Indian tribes. The grant program is administered by EPA in cooperation with the IHS and uses the IHS's Sanitation Deficiency System (SDS) to identify high-priority wastewater projects for funding. The SDS ranks tribal sanitation deficiencies according to five deficiency levels, ranging from communities that need only routine wastewater system maintenance to communities that don't have adequate wastewater facilities. Tribes identify their needs to the SDS, and EPA and IHS determine which projects to fund based on the SDS ranking and available funding. Up to 100 percent of eligible project costs can be funded.

4.2.1.5 Environmental Education Grants Program

Environmental Education Grants provide financial support for projects that design, demonstrate, or disseminate environmental education practices, methods, or techniques. Funding is awarded for several types of projects: (1) improving environmental education teaching skills, (2) building state, local, or tribal government capacity to develop environmental education programs, and (3) educating the public about human health problems through community-based organizations or through print, broadcast, or other media. A non-federal government match of 25 percent is required.

4.2.1.6 Indian Environmental General Assistance Program

The impetus for the Indian Environmental General Assistance Program was to help tribes develop environmental protection programs tailored to individual tribal needs. Accordingly, the program provides financial assistance to tribal governments and intertribal consortia to build capacity to administer environmental regulatory programs and to develop multimedia programs to address environmental issues on Indian lands. These grants support the development of elements of a core environmental program, such as identifying baseline environmental needs, establishing administrative, legal, technical, and enforcement capabilities, developing appropriate tribal environmental programs, ordinances, and services, and establishing a communications capability to work with federal, state, local, and other tribal environmental officials. An initial General Assistance Program grant is for a minimum of \$75,000; no matching funds are required.

4.2.1.7 Watershed Assistance Grants

Watershed Assistant Grants (WAGs) are aimed at addressing water quality challenges, such as habitat loss and nonpoint source pollution from urban, rural, and rapidly growing areas, through partnerships and community-led solutions that bring together diverse interests to achieve watershed protection and restoration and to ensure diversity in watershed partnerships. The EPA-funded program, which is administered by River Network, a nonprofit environmental organization, establishes a cooperative agreement with one or more nonprofit organization(s) or other eligible entities to support the development and long-term effectiveness of watershed partnerships. Grants are awarded to groups that are diverse in terms of geography, watershed issues, the type of partnership, and approaches. Matching funding on the part of the grant recipient is encouraged but not required.

4.2.2 U.S. Department of Agriculture Natural Resource Conservation Service

The NRCS administers several programs that provide financial and technical assistance to projects that may reduce pollution from nonpoint sources. Tribes can sign a Memorandum of Agreement with the NRCS that outlines the types of technical assistance a tribe can expect to receive from the NRCS concerning nonpoint source pollution abatement activities on its lands.

4.2.2.1 Environmental Quality Incentives Program

The EQIP provides technical, educational, and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns, particularly livestock-related concerns, and to implement BMPs on their lands in an environmentally beneficial and cost-effective manner. The program assists farmers and ranchers in complying with federal, state, and tribal environmental laws and encourages environmental enhancement. The purposes of the program are achieved through the implementation of a conservation plan that includes structural, vegetative, and land management BMPs to improve water quality and streambank and riparian area protection on eligible land. NRCS provides up to 75 percent of funding for structural and vegetative BMPs. Incentive payments for land management practices can also be made at the discretion of the NRCS to encourage the implementation of BMPs that would not be implemented without government assistance.

4.2.2.2 Watershed Protection and Flood Prevention Program

Under the Watershed Protection and Flood Prevention Act (16 USC 1001 et seq.), the NRCS pays the full cost of measures for flood prevention and shares the cost of other measures. This program assists projects related to watershed protection, flood prevention, water supply, water quality, erosion and sediment control, wetland creation and restoration, fish and wildlife habitat enhancement, and public recreation. Projects can be multipurpose, but the drainage areas treated cannot be larger than 250,000 acres. Major water quality benefits include control of flooding, erosion, and siltation. Loans for the nonfederal portion of these projects, up to \$10 million per project, may be obtained from the Farmers Home Administration.

The Watershed Protection and Flood Prevention Act also authorizes technical assistance (under the Watershed Surveys and Planning Program) to state, local, and tribal governments for watershed surveys and planning. Resource concerns addressed by the program include water quality, water conservation, wetland and water storage capacity, agricultural drought, rural development, municipal and industrial water needs, upstream flood damages, and water needs for fish, wildlife, and forest-based industries. Special priority is given to (1) helping solve problems of upstream rural community flooding, (2) improving the quality of water from agricultural nonpoint sources, (3) preserving wetlands, and (4) implementing drought management in agricultural and rural communities. Types of surveys and plans include watershed plans, river basin surveys and studies, and floodplain management assistance.

4.2.2.3 Wetlands Reserve Program

The Wetlands Reserve Program is a voluntary program to restore wetlands. Participating landowners can establish conservation easements of either permanent or 30-year duration, or they can enter into restoration cost-share agreements where no easement is involved. Payments to landowners under each of these options are as follows:

- In exchange for establishing a permanent easement, the landowner receives payment up to the agricultural value of the land and 100 percent of the costs for restoring the wetlands.

- The 30-year easement payment is 75 percent of what would be provided for a permanent easement on the same site and 75 percent of the restoration costs.
- The voluntary cost-share agreements are for a minimum 10-year duration and provide for 75 percent of the cost of restoring the involved wetlands.

Easements and restoration cost-share agreements establish wetland protection and restoration as the primary land use for the duration of the easement or agreement. Landowners and the NRCS develop a plan for the restoration and maintenance of the wetland.

4.2.3 U.S. Department of Health and Human Services, Administration of Native Americans

This program provides funds to help tribes plan for, develop, and implement a tribal environmental program and to regulate and enforce environmental activities on Indian lands. Funds support efforts to (1) develop environmental regulations, ordinances, and laws, (2) develop the capacity to carry out a tribal environmental program, (3) promote training and education of employees, (4) develop capability to meet tribal and federal regulatory requirements, (5) develop capability to monitor compliance and enforcement of tribal environmental regulations, ordinances, and laws, and (6) ensure that tribal court system enforcement requirements are developed in concert with and support the tribe's environmental program. Grant recipients are required to provide 20 percent of the project costs.

4.2.4 Department of Interior, Bureau of Indian Affairs

The BIA provides technical and financial assistance to tribes in forestry and range management. A number of programs that directly or indirectly address water quality are funded through the BIA, as outlined in Sections 4.2.4.1 and 4.2.4.2.

4.2.4.1 Forestry on Indian Lands

This program seeks to maintain, protect, enhance, and develop Indian forest resources through the execution of forest management activities, including reforestation and commercial forest

stand improvement, timber sales management, forest inventories and plans, forest program management and administration, and forest protection activities. Previously funded projects include tree planting, weeding and fertilization, and development or revision of long-term sustained-yield forest management plans. The program provides direct payments for specific uses, as well as advisory and technical assistance, and requires no matching funds.

4.2.4.2 Water Resources on Indian Lands

This program assists Indian tribes with the management, planning, and development of their water and related land resources. Funds are used by tribes for specific water resource projects, as well as for collecting and analyzing baseline data and facilitating water rights litigation and negotiation activities. Previously funded projects have included quantitative and qualitative monitoring and analysis of groundwater and surface water, aquifer classification, stream gauging, ecosystem development and management, and planning for compliance with the Endangered Species Act. The program provides direct payments for specific uses, as well as advisory and technical assistance, and requires no matching funds.

4.2.5 U.S. Department of Interior, Fish and Wildlife Service

4.2.5.1 Partners for Fish and Wildlife Program

The Partners for Fish and Wildlife Program provides technical and financial assistance to private landowners willing to voluntarily restore or otherwise improve fish and wildlife habitats—including wetlands, native grasslands, and stream and riparian areas—on their lands. Under cooperative agreements, private landowners agree to maintain restoration projects, but otherwise retain full control of the land. Examples of restoration projects funded include restoring wetland hydrology, planting native trees and shrubs, planting native grasslands, installing fencing and off-stream livestock watering facilities, removing exotic plants and animals, and reconstructing in-stream aquatic habitat. Although it is not a program requirement, a 1 to 1 match is usually sought.

4.2.5.2 Wildlife Conservation and Appreciation Program

The Wildlife Conservation and Appreciation Program provides state and tribal fish and wildlife agencies grants to fund projects that benefit a broad array of fish and wildlife species and to

provide opportunities for the public to use and enjoy fish and wildlife through nonconsumptive activities. Projects include identification of significant problems that can adversely affect fish and wildlife and their habitats, actions to conserve species and their habitats, monitoring of species, and identification of significant habitats. Federal funding may not exceed one-third of the project cost.

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Abbreviations and Acronyms used in this Management Plan

APD Application for Permit to Drill

BIABureau of Indian Affairs

BLM Bureau of Land Management

BMP Best Management Practice

CWA Clean Water Act

EPA U.S. Environmental Protection Agency

EQIP Environmental Quality Incentives Program

IHSIndian Health Service

NPS Nonpoint Source

NRCS Natural Resource Conservation Service

RFP Request for Proposals

SDS Sanitation Deficiency System

SDWA Safe Drinking Water Act

UMU or UMUT Ute Mountain Ute [Tribe]

USBR or BOR U.S. Bureau of Reclamation

USDA U.S. Dept. of Agriculture

USGS U.S. Geologic Survey

