Application for a

Cooperative Watershed Management Program Grant

for Expansion of the Animas Watershed Partnership, CO

Submitted By:
San Juan Resource Conservation and Development
Pam Deem, Executive Director
954 E. 2nd Ave, Suite 104
Durango, CO 81301
(970) 382-9371

On Behalf Of:
Animas Watershed Partnership
Ann Oliver, Project Manager
2340 CR 203
Durango, CO 81301
annsoliver@gmail.com
970-903-9361

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Bureau of Reclamation
Financial Assistance Services
Attn: Michelle Maher
Denver Federal Center
6th Avenue and Kipling Street
Denver CO 80225

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Executive Summary

This application for funding from Reclamation's WaterSMART Cooperative Watershed Management Program is submitted June 11, 2013 by San Juan Resource Conservation and Development (San Juan RC&D), a 501c3 non-profit located in Durango, La Plata County, Colorado. San Juan RC&D is the fiscal sponsor for the Animas Watershed Partnership (AWP), and submits this application on behalf of AWP.

The AWP proposes to expand its membership and efforts by completing activities that contribute to the group's development of a mission statement, watershed project management concepts, and a restoration plan, all in support of efforts to improve water quality and ecological resilience in the Animas River Watershed. The proposed activities include development of strategic, capacity and outreach plans, increased staff capacity, outreach to new partners and affected stakeholders, and compilation and mapping of existing baseline data for priority tributaries.

This application proposes a two year project, estimated to be complete by January 1, 2016.

Background Data

The AWP formed in 2002 out of concern for high nutrient levels in the Animas River in CO and NM. The AWP is working together across state and tribal boundaries to protect and improve the quality of water resources in the Animas River. Partners include private landowners, environmental groups, municipalities, counties and states, as well as the Southern Ute Indian Tribe and the Ute Mountain Ute Indian Tribe. The efforts of the AWP are guided by a highly engaged Steering Committee composed of nine members filling the following seats: 2 governmental, and 2 citizen seats each from CO and NM, and 1 tribal seat. The Steering Committee meets monthly.

In 2012, AWP completed the *Animas Watershed Based Plan* with funding support from the New Mexico Environment Department 319 program, CO Nonpoint Source program, Colorado Water Conservation Board, Trout Unlimited and others.

The Animas Watershed Based Plan (2011) includes background information for natural and anthropogenic features of the watershed. Pages 17 through 24 provide information on the geography, geology, land cover, climate, hydrology, as well as on water rights, demography, economy, agriculture, water diversions, drinking water sources, discharge permits and threatened, endangered and sensitive species. Pages 28 through 37 (see Appendix A).

Water quality is an issue within the Watershed, and has been the primary focus of the AWP, particularly in the lower more populated reaches. A compounding factor for the water quality

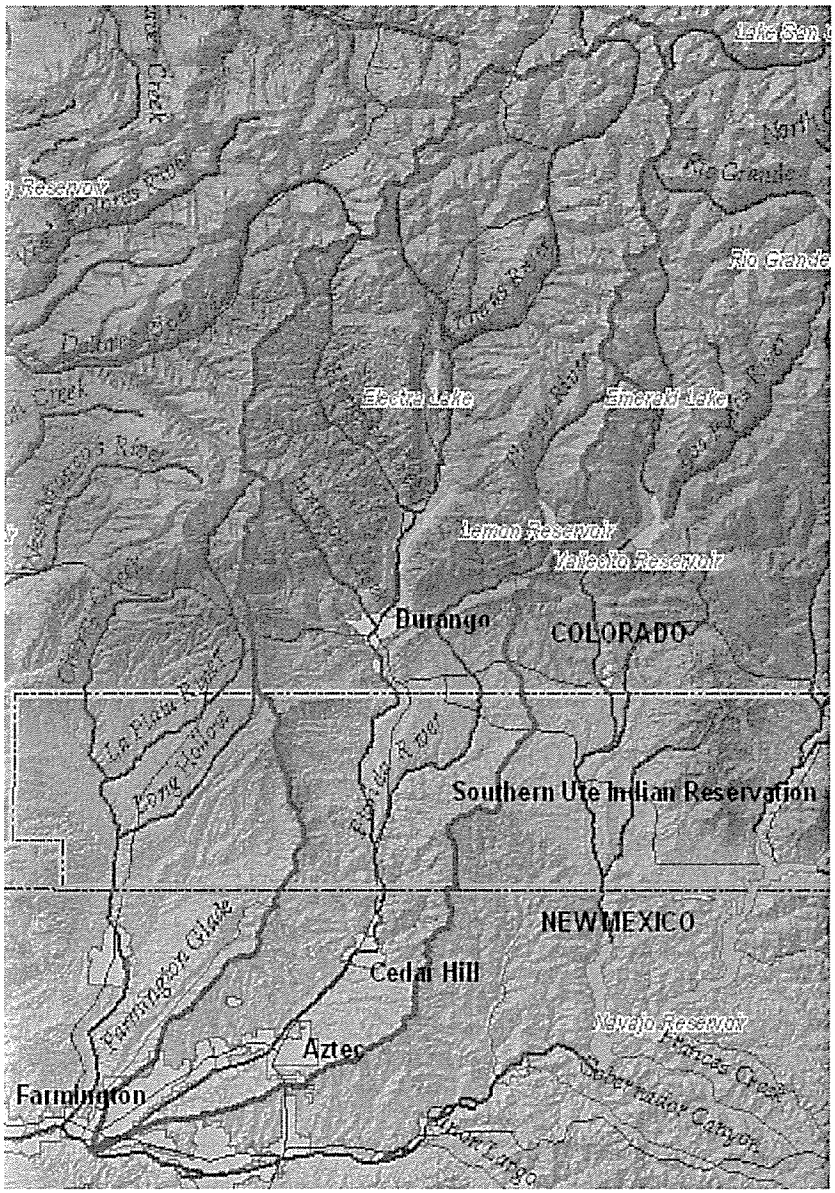
issues facing the Animas River is the complexity of addressing water quality concerns across boundaries and jurisdictions. As it flows from its headwaters to its confluence with the San Juan River in New Mexico, the river passes through 3 counties, 3 different state and tribal jurisdictions, 3 different EPA jurisdictions, three municipalities, as well as BLM, Forest Service and significant reaches of private land.

Historically, the upper reaches of the Animas River were heavily mined for silver and gold. In the upper Animas River, acidic runoff containing high levels of heavy metals comes from both natural and anthropogenic sources. Ore deposits (both underground and exposed) contain sulfides of iron, copper, antimony, arsenic and zinc. At Bakers bridge, approximately 27 miles downstream of Silverton and 11 miles upstream of Durango, levels of copper, lead and zinc exceed EPA standards for chronic exposure to aquatic organisms. However, as the Animas River nears Durango, metal concentrations become diluted and for mainstem reaches assessed by the Colorado Water Quality Control Division downstream of Bakers Bridge, the only exceedance is for manganese (an aesthetic issue for the Water Supply Use) in the segment from Bakers Bridge to Junction Creek. The two lowest segments of the Animas River (Junction Creek to Southern Ute Indian Tribe (SUIT) Boundary and SUIT Boundary to the Colorado/New Mexico border) in Colorado are not included on Colorado's 303(d) list, nor have completed Total Maximum Daily Loads (TMDLs). However, the latter segment has not been assessed by Colorado.

The Southern Ute Indian tribe does not yet have authority from the EPA to conduct its own water quality standards and program, but is in the process of applying for that authority.

In New Mexico, the segment of the Animas River from the Colorado/New Mexico border to Estes Arroyo is listed on the 303(d) list for E. coli, total phosphorus and temperature. The next segment downstream, from Estes Arroyo to the San Juan River is listed for nutrients, E. coli and temperature. These segments are not in attainment of the following designated uses: cold-water aquatic life and primary contact in the upstream reach, and marginal cold-water aquatic life, warm-water aquatic life, and primary contact in the downstream reach. The State of New Mexico has established Total Maximum Daily Loads (TMDL) for fecal coliform, total nitrogen and total phosphorus in the downstream reach. Draft TMDLs for E. coli and temperature in the downstream segment, and for E. coli and total phosphorus in the upstream segment, are currently undergoing public comment.

Figure 1. Map of the Animas River Watershed.



Project Description

Description of Applicant

The Animas Watershed Partnership will lead this project, with support from the San Juan Resource Conservation and Development (SJ RC&D) as their fiscal sponsor. The relationship between AWP and SJ RC&D is defined in a Memorandum of Understanding between the two entities (Appendix D). The SJ RC&D formed in 1972 as a 501c3 non-profit partnered and supported by the USDA-NRCS. The SJ RC&D serves as fiscal sponsor for many groups and organizations, managing numerous project grants.

The AWP Steering Committee is made up of eight key watershed partners from CO and NM, and one from the Southern Ute Indian Tribe. Four members from each state are drawn from local government, and private partners.

In 2011, Ann Oliver took on the role of AWP Coordinator. As AWP coordinator, Ann Oliver will manage all aspects of this project. Ms. Oliver has an MS in Wildlife Biology and over 18 years of experience working in watershed management on the west slope of Colorado, designing and implementing riparian research and management projects, working collaboratively with private property owners, public agency experts, contractors, teachers, students and communities.

Eligibility of Applicant

As fiscal sponsor for the Animas Watershed Partnership, the San Juan RC&D meets the eligibility requirements for Reclamation's WaterSMART Cooperative Watershed Management Program Grant for FY 2013. San Juan RC&D formed in 1972 as a 501c3 non-profit in Colorado.

AWP and fiscal sponsor SJRC&D is comprised of over 100 partners, including tribal, state and local governments, municipalities, environmental and private partners that are interested in and affected by the quality and quantity of water in the Animas River Watershed. Since 2002, AWP and its partners have taken action to assess and improve water quality in the river, including conducting 5 synoptic samples across state, tribal and agency jurisdictions, completing the Animas River Watershed Based Plan to address non-point source pollution within the watershed, and implementing BMPs on private lands along the Florida River, a top nutrient loading tributary.

AWP promotes the sustainable use of water in the Animas through its commitment to working collaboratively with a basis in science and data, for grassroots and non-regulatory solutions to water quality issues. AWP s collaborative partners include water users and dischargers, as well as agencies, environmental organizations and private landowners. AWP promotes information and collaboration around sustainable use through its quarterly full partnership meetings, through its steering committee dialogues, and through its educational partnership with Southwest Conservation Corps and other outreach efforts.

The formal applicant, San Juan RC&D is the fiscal sponsor for and a participant in the Animas Watershed Partnership. The AWP is a self-sustaining , cooperative watershed-wide group that is comprised of affected stakeholders of the Animas Watershed. AWP seeks and incorporates input, guidance and participation from a diverse set of stakeholders that represent interests in livestock grazing, land development, recreation and tourism, irrigated agriculture, the environment, public water suppliers and industrial water users, hydroelectric production, private property owners, Federal Agencies including the United States Forest Service, the Bureau of Land Management, the Bureau of Reclamation, State agencies including the Colorado Division of Public Health and Environment, Colorado Division of Reclamation Mining and Safety, New Mexico Environment Department, local agencies including the San Juan Water Commission, San Juan Soil and Water

Conservation District and the Southwestern Water Conservation District, Cities of Farmington, Aztec and Durango, as well as the Southern Ute and Ute Mountain Ute Indian Tribes.

Goals

With this application, AWP seeks funding to perform Task B – Expansion of an Existing Watershed Group. The Mission of the AWP is ***To protect and improve the quality of water resources to benefit the Animas River, now and in the future.***

The AWP's draft goals are to:

A. Collect, compile and make accessible data that can support and inform efforts to manage water quality in the Animas River across jurisdictional boundaries.
B. To protect and improve water quality within the Animas River watershed.
C. Increase awareness, interest and action on the part of local communities for issues affecting the health of the Animas River.
D. Increase AWP and partners' capacity and momentum to implement water quality improvement projects for priority areas within the Animas River Watershed.

Approach

The AWP proposes to expand its membership and efforts by completing activities that contribute to the four mandatory CWMP activities listed below. The proposed activities are bulleted and explained in detail under the mandatory activity to which they contribute.

1) Expansion of the watershed group

The AWP has existed since 2002 as a grassroots, non-regulatory group that makes decisions based on concensus. The group has a mission statement, recently revised, which is ***To protect and improve the quality of water resources to benefit the Animas River, now and in the future.*** AWP's fiscal sponsor is the San Juan RC&D, and this relationship is defined in a Memorandum of Understanding between the two entities (Appendix D).

To expand the group, the AWP seeks funding to

- Increase the paid hours of the coordinator, obtain an OSM/Vista Volunteer, and provide office equipment and supply support.

  The AWP Coordinator currently works on a part-time basis as an independent contractor, as grant and partner funding allow. She contributes significant pro-bono work. Increasing the funds available to pay for the Coordinator's time and obtaining a full-time OSM/Vista volunteer would significantly increase and enhance the level of outreach and project implementation that AWP is able to accomplish in a year. The increased capacity would allow the group to be more proactive in pursuing sustainable funding, to engage more regularly and effectively with its membership, and to maintain and accelerate its momentum in building support and implementing projects.

The Coordinator will continue to plan regular quarterly AWP meetings and monthly Steering Committee meetings, rotating between New Mexico, Ignacio and Colorado. She will continue to act as Project Manager on ongoing projects. In addition, the proposed funding will allow her to dedicate more time to maintaining and building partner relationships, guiding strategic and capacity plan development, securing funding, conducting outreach and project concept development meetings, participating in watershed conferences and providing management and mentoring to an OSM/Vista Volunteer. Having the services of an OSM/Vista Volunteer will allow for full-time commitment to the development of membership, outreach materials (brochure, table display, social media, surveys, etc.) and events, participation in partners events, and assistance in identifying and pursuing grant opportunities.

- Complete an Outreach Plan to establish broad-based membership.
  In their 2013 Steering Committee retreat, the group established a Planning Committee to develop Strategic, Capacity and Outreach plans. While initial outlines have been developed, progress in completing these plans has been slow due to the volunteer time required. The purpose of the outreach plan will be to identify and prioritize outreach activities that will be time and cost effective at reaching a diversity of key audiences, as well as to develop an outreach budget.

- Establish a relationship with the Southern Rockies Landscape Conservation Cooperative, and identify information needs and watershed management project concepts that are complementary to the goals of the Southern Rockies LCC.

- Partner with local conservation districts to conduct outreach workshops with landowners to identify problems and needs relating to nutrient management.

  Through partner workshops held in 2012, AWP identified five focal non-point inflows to the Animas River in each state (CO and NM) based on synoptic nutrient load samples collected at all inflows downstream of Baker's Bridge in Colorado. With pro-bono assistance from the Mountain Studies Institute, AWP has boundary maps of the areas tributary to these inflows. In order to expand its outreach and relationships with private property owners and agricultural producers, AWP proposes to partner with the local Conservation Districts (La Plata Conservation District in CO and San Juan Soil and Water Conservation District in NM) to conduct outreach workshops to landowners in these priority tributary areas, with a focus on sharing AWP data and mapping, learning about landowners problems and needs, and sharing approaches to non-point source nutrient management.

- Increase AWP's ability to learn from other watershed groups and to share its own lessons.

  Proposed funding will allow the AWP coordinator and OSM/Vista to attend annual watershed conferences in both CO and NM. These are the Colorado Watershed Assembly's Sustaining Colorado Watersheds Conference. This opportunity will allow them to connect to practitioners and resources outside of the Animas Watershed, to share challenges and lessons and to bring back, share and apply ideas for outreach and watershed management within the Animas Watershed.

- Develop the final report to the WaterSMART Cooperative Watershed Management Program Grant for FY 2013.

2) Development of a mission statement

- Hire a non-profit management consultant/facilitator to assist with facilitated annual AWP meeting to develop the group's vision and by-laws and to update the strategic plan and capacity plan.
  The In January 2013, the AWP contracted a management consultant/facilitator to guide them through a renewal of their mission statement, clarification of operating principles and a capacity analysis. Out of this two day "retreat" came a slightly revised mission statement, a refreshed commitment to that mission and the recognition that the group needed to expand its capacity. A Planning Committee was formed and has and outlined the desired format and content of a strategic plan and a capacity plan. By January 2014 AWP expects to have the first iterations of both documents. These drafts will need to be reviewed and updated by the Steering Committee and vetted with the full partnership. AWP proposes to again contract a management consultant/facilitator to guide and accelerate this process, as well as to guide the development of a group vision & by-laws.

3) Development of watershed management project concepts

- Meet with municipalities, ditch companies and permitted dischargers to discuss information, problems and needs related to stormwater management and Animas River water quality, and to develop project concepts.

  To provide the basis for the development of the Animas Watershed Based Plan (2011), AWP contracted to collect synoptic nutrient load samples at all inflows to the mainstem located downstream of Baker's Bridge in Colorado. Based on this data, the plan identified enhanced stormwater management, as well as working with agricultural producers to implement sprinkler irrigation and develop buffer strips among the list of

BMP priorities. In addition to these non-point sources of nutrient loading, the data showed that permitted point discharges in Colorado and New Mexico were contributing the greatest loads of nutrients to the river.

In 2012, AWP prioritized five focal inflows to the Animas River in each state (CO and NM) based on data presented in the Animas Watershed Based Plan. With pro bono assistance from the Mountain Studies Institute, the areas tributary to these inflows have been mapped. Approximately five of the ten focal areas include significant urbanized areas. The remaining five inflows are associated with drainages with significant agricultural land use, as well as oil and gas production.

In order to address these findings, AWP proposes to pay their Coordinator to meet with staff of the three major municipalities in the watershed (Durango, Aztec, and Farmington), with irrigation districts and ditch companies, and with permitted dischargers to share data and maps, discuss needs and explore project concepts.

4) Development of a watershed restoration plan.

- Compile and map existing baseline water quality and landuse data for priority tributaries to the Animas mainstem. Meet with stakeholders to share existing data, hear concerns and develop goals for each priority tributary.

  In December 2011 the Animas Watershed Partnership completed the first Animas River Watershed Based Plan with support from numerous local partners, Colorado and New Mexico water quality programs and two EPA regions. This plan assessed water quality in the mainstem, primarily below Baker's Bridge in Colorado, through the Southern Ute Tribal lands, to the confluence of the Animas River with the San Juan River at Farmington, New Mexico. Upstream of Baker's Bridge the primary water quality issues are related to historic hardrock mining and background geology and are being addressed by one of our partners, the Animas River Stakeholder's Group. Downstream of Baker's Bridge the primary water quality issues are related to existing landuses (and/or background geology).

  This comprehensive sampling effort and assessment allowed the AWP and partners to assess and prioritize the relative contributions from inflows to the mainstem of nutrients (total phosphorus and total nitrogen), as well as to consider the channel condition of reaches in Colorado (Animas River Watershed Based Plan 2011). The plan recommends Best Management Practices for addressing the river health issues identified, and provides milestones, cost estimates and timelines. The plan can be

accessed on the AWP website at http://animaswatershedpartnership.org/wp-content/uploads/2012/10/Final-Animas-Watershed-Management-Plan-12-22-11.pdf (due to its length, 109 pages, it is not included as an appendix to this application).

AWP is already applying the Animas River Watershed Based Plan (2012) as an overall restoration plan for water quality in the Animas River Watershed. Based on this plan, and as a next step toward refining the restoration needs of the watershed, the group has identified 10 priority tributaries to the Animas River, five in Colorado and five in New Mexico for focused assessment, stakeholder engagement, and action. Therefore, AWP seeks funding to secure an OSM/Vista Volunteer who can assist the Coordinator and partners to compile and map existing water quality and landuse data on priority tributaries of the Animas River, and to meet with stakeholders to review this data, discuss concerns and develop restoration goals for each tributary.

Proposed Timeline

The proposed activities will be completed over a two-year funding period, from January 2014 to December 2015. The following is a list of the specific proposed activities with estimated timing indicated in parentheses.

- Establish a relationship with the Southern Rockies Landscape Conservation Cooperative, and identify information needs and watershed management project concepts that are complementary to the goals of the Southern Rockies LCC. (August 2013)

- Increase the paid hours of the coordinator, obtain an OSM/Vista Volunteer, and provide Volunteer with office supplies and equipment support. (Jan 2014 –Dec 2015)

- Hire a non-profit management consultant/facilitator to assist with facilitated annual AWP meetings to develop the group's vision and by-laws and to update the strategic plan and capacity plan. (Jan 2014 and Jan 2015)

- Complete an Outreach Plan to establish broad-based membership. (Jan 2014 - Jun 2014)

- Compile and map existing baseline water quality and landuse data for priority tributaries to the Animas mainstem. Meet with stakeholders to share existing data, hear concerns and develop goals for each priority tributary. (Jan 2014 – Jun 2015)

- Partner with local conservation districts to conduct outreach workshops with landowners to identify problems and needs relating to nutrient management. (Jun 2014 –Dec 2014)

- Increase AWP's ability to learn from other watershed groups and to share its own lessons. (Sept –Nov in 2014 and 2015).

- Meet with municipalities, ditch companies and permitted dischargers to discuss information, problems and needs related to stormwater management and Animas River water quality, and to develop project concepts. (Jan 2015-Jun 2015)

- Develop the final report to the WaterSMART Cooperative Watershed Management Program Grant for FY 2013. (Jul 2015-Dec 2015)

Phase I CWMP Evaluation Criteria

Evaluation Criteria A: Watershed Group Diversity and Geographic Scope (30 points)

Subcriterion No. A1. Watershed Group Diversity

The AWP is a grassroots, collaborative watershed group with membership representing a diverse set of affected interests across 3 state and tribal entities, including hydroelectric production, livestock grazing, timber production, land development, recreation, tourism irrigated agricultural production, the environment, public water supply, industrial water use, private property, federal lands, state agencies, local counties, municipalities and special districts. Current membership is over 100 individuals and entities. Current members on the 9 member steering committee which guides the AWP's work include the City of Farmington, City of Durango, San Juan Water Commission, Southwestern Water Conservation District, San Juan Watershed Group, Trout Unlimited 5 Rivers Chapter, Southern Ute Indian Tribe and two unafilliated citizens. Additional partners include the Mountain Studies Institute, Animas River Stakeholders Group, San Juan Citizens Alliance, Southwest Conservation Corps, Colorado RiverWatch, San Juan Soil and Water Conservation District, La Plata Conservation District, the City of Aztec, Durango/La Plata Airport, Colorado Non Point Source Program, Colorado Water Conservation Board, Colorado Parks and Wildlife, New Mexico Environment Department, the Natural Resources Conservation Service, San Juan National Forest and the Tres Rios BLM Management Area, the Bureau of Reclamation, Ute Mountain Ute Tribe, BHP/Billiton, Public Service New Mexico, BUGS Consulting LLC, Basin Hydrology, Inc., Ecosphere, private landowners and interested individuals.

AWP proposes to increase the diversity of its membership through new partnerships with the San Juan Soil and Water Conservation District in NM and the La Plata Conservation District in Colorado to plan and complete two nutrient management workshops with private property owners in priority tributaries. Also, we propose to engage in new outreach to municipal stormwater managers, oil and gas producers and permitted dischargers through introductory presentations, one- to- one meetings, and scheduled work sessions.

Subcriterion No. A2. Geographic Scope

The Animas Watershed Partnership has engaged affected stakeholders across the entire area of the Animas River Watershed boundary shown in Figure 1. The watershed is 1357 square miles in area and has an 8 digit hydrologic unit code (HUC 14080104). AWP has broad geographic scope, with current membership representing the full geographic scope of the watershed, including many partners from Colorado and New Mexico, from the headwaters to the confluence with the San Juan River, as well as the Southern Ute Indian Tribe. Until recently, the focus of AWP's data collection and planning efforts has been primarily on the mainstem of the Animas River. However, in 2012 the group identified priority tributaries and with this application is proposing to enhance outreach to stakeholders within those 10 tributaries, including 5 in Colorado (Junction Creek, Durango Skate Park, Lightner Creek, Trumble Draw, and the Florida River) and 5 in New Mexico (Cox Canyon, Tucker Canyon, Estes Arroyo, Flora Vista Arroyo, and City of Farmington), through outreach workshops with private landowners and agricultural producers, and introductory presentations or meetings with individual municipal stormwater managers, permitted dischargers, and oil and gas producers.

Evaluation Criteria B: Addressing Critical Watershed Needs (30 points)

Subcriterion No. B1. Critical Watershed Needs or Issues

Critical needs and issues existing in the Animas River Watershed include:

- Segments of the Animas River and its headwater tributaries are on the Colorado 303(d) list for heavy metals.
- A segment of the Animas River is on the Colorado 303(d) list for Manganese.
- Segments of the Animas River are on the New Mexico 303(d) list for temperature, Nutrient/Eutrophication Biological Indicators, Total phosphorus, E. coli, turbidity, and sedimentation.
- A TMDL for Nutrient/Eutrophication Biological Indicators has been established for the lowest reach of the Animas River in New Mexico.
- Draft TMDLs for Temperature, E. Coli and Total Phosphorus have been developed for one or both segments of the Animas River in New Mexico.
- The State of Colorado will begin adopting new interim table values for nitrogen, phosphorus, and chlorophyll-a as numeric criteria after 2017.
- The State of Colorado has adopted a new regulation that establishes numerical effluent limitations for nitrogen and phosphorus discharged from wastewater treatment plants above a certain size. The City of Durango's plant meets the minimum size.
- San Juan County, New Mexico is projected to grow by 35% by 2040 (NMBBER 2012).
- La Plata County, Colorado is projected to grow by over 80% by 2040 (CODOLA 2013).
- Drought is resulting in only partially filled reservoirs in Colorado. Lemon Reservoir on the Florida River is currently at 30% of Full capacity.

- Segments of the Animas headwaters are largely devoid of fish and other aquatic life due to heavy metals.
- Historic gravel mining has impacted a reach of the Animas River between Baker's Bridge and Trimble Lane, affecting the quality of the aquatic and riparian habitat, and the stability of the channel.
- Shale and clay soils in the southern portion of the watershed are highly and naturally erosive, contributing abundant fine sediment to the river, particularly during the monsoon season.
- Oil and Gas development in the southern portion of the Animas watershed has resulted in roads, well pads and pipeline corridors with the potential to increase sediment loading to the river and its tributaries.
- The Animas River is habitat for four native fish species of conservation concern. They are the roundtail chub, flannel mouth sucker and bluehead sucker in the lower reaches and the Colorado River Cutthroat Trout in some headwater reaches.
- The Southwest Willow Flycatcher, listed as Endangered under the Endangered Species Act, has been documented to occur within the lower portion of the Animas Watershed. The species nests in dense riparian shrub vegetation.

Subcriterion No. B2. Watershed Group Contributions that Address Watershed Needs or Issues

The Water Quality Goals of the AWP are to:

1) Improve all water quality segments within the watershed that do not currently meet water quality standards.
2) Improve and protect water quality on segments within the watershed that may be affected by emerging concerns.
3) Protect and restore naturally functioning floodplains to the watershed.

To date the group has brought stakeholders together across the various jurisdictional boundaries to assess water quality, identify and discuss issues and concerns, plan for and prioritize actions and implement projects. In December 2011 the Animas Watershed Partnership completed the first Animas River Watershed Based Plan with support from numerous local partners, Colorado and New Mexico water quality programs and two EPA regions. This plan assessed water quality in the mainstem, primarily below Baker's Bridge in Colorado, through the Southern Ute Tribal lands, to the confluence of the Animas River with the San Juan River at Farmington, New Mexico. This comprehensive sampling effort and allowed the AWP partners to assess and prioritize the relative contributions from inflows to the mainstem of nutrients (total phosphorus and total nitrogen), as well as to consider the channel and floodplain condition of reaches in Colorado (Animas River Watershed Based Plan 2011).

The plan recommends Best Management Practices for addressing the river health issues identified, and provides milestones, cost estimates and timelines.

In order to improve water quality and ecological resiliency, AWP has developed partnerships and secured funding to implement several assessment and management projects in areas prioritized by the Animas Watershed Based Plan. Beginning in 2011, AWP has worked with Basin Hydrology, Mountain Studies Institute, the City of Durango, San Juan Citizens Alliance, San Juan National Forest and the Southwestern Water Conservation District to identify top source areas for sediment in Lightner Creek, CO and to establish a baseline of the amount of suspended sediment conveyed to the Animas River.

In 2012 the AWP secured its first CO Non-Point Source 319 Implementation Grant and in 2013 began partnering with a rancher and the Durango La Plata Airport to develop a robust riparian buffer along 1 mile of the Florida River and to convert about 25 acres of adjacent flood irrigated pasture to sprinkler irrigation in order to decrease runoff of nutrients from these pastures to the Florida River. In New Mexico, in 2010 AWP worked with a private landowner, Conoco-Phillips, and the San Juan Watershed Group to restore a single thread channel and vegetation to a reach of Kiffin Creek, New Mexico. AWP plans to continue outreach to landowners on the Florida River and in the vicinity of Kiffin Creek, as well as in other priority tributaries to identify willing partners and potential projects of mutual interest and benefit. AWP will pursue funding from partners and grants to implement these projects in order to continue to work towards improvement of water quality and ecological function and resiliency. The group would especially like to focus time and funds on developing relationships with private landowners, municipal staff and leaders, oil and gas producers and permitted dischargers to increase their awareness of and trust in AWP as a resource.

Evaluation Criteria C: Implementation and Results (30 Points)

Subcriterion No. C1. Project Planning

In December 2011 the Animas Watershed Partnership completed the first Animas River Watershed Based Plan with support from numerous local partners, Colorado and New Mexico non-point source programs and two EPA regions. This plan assessed water quality in the mainstem, primarily below Baker's Bridge in Colorado, through the Southern Ute Tribal lands, to the confluence of the Animas River with the San Juan River at Farmington, New Mexico.

This comprehensive sampling effort and assessment allowed the AWP and partners to assess and prioritize the relative contributions from inflows to the mainstem of nutrients (total phosphorus and total nitrogen), as well as to consider the channel condition of reaches in Colorado (Animas River Watershed Based Plan 2011). The plan recommends Best Management Practices for addressing the river health issues identified, and provides milestones, cost

estimates and timelines. The plan can be accessed on the AWP website at http://animaswatershedpartnership.org/wp-content/uploads/2012/10/Final-Animas-Watershed-Management-Plan-12-22-11.pdf (due to its length, 109 pages, it is not included as an appendix to this application).

AWP is already applying the Animas River Watershed Based Plan (2012) as an overall restoration plan for water quality in the Animas River Watershed. Based on this plan, and as a next step toward refining the restoration needs of the watershed, the group has identified 10 priority tributaries to the Animas River, five in Colorado and five in New Mexico for focused assessment, stakeholder engagement, and action. With this application AWP seeks funding to secure the capacity necessary to compile and map existing water quality and landuse data in the drainages of these 10 priority tributaries of the Animas River, and to meet with stakeholders to review this data, discuss concerns and develop restoration goals for each tributary.

The project is well coordinated with other pertinent and complimentary programs. In March 2011, the AWP coordinator attended an NRCS meeting to provide input to help NRCS targeted conservation funding. The participants agreed that the Florida River should be proposed as a Targeted Conservation Project, in part based on the presentation of findings from the Animas Watershed-Based Plan.

The City of Durango is a key partner of the Animas Watershed Partnership. The City obtains the majority of its drinking water from the Animas River. In spring 2011 the City joined with six other public water suppliers to form the Florida River Source Water Protection Partnership and to jointly develop a source water protection plan. These partners included: Colorado Trails Ranch, Forrest Groves HOA, Colvig Silver Camps, Edgemont Ranch Metro District, El Rancho Florida Metro District and the Durango La Plata County Airport. The group has identified the potential sources of contamination in the Florida River drainage upstream of the lowest intake, the Durango La Plata County Airport's infiltration gallery on the Florida River. The group prioritized their contamination concerns and identified best management practices for addressing these concerns. Agricultural runoff was one of the top potential sources of contamination of concern to the group.

In all their efforts AWP seeks to stay well coordinated with the Southern Ute Indian Tribe's 319 Program. The Tribe is a key member on the Steering Committee and a strong and committed participant in the group.

The current and proposed efforts of the AWP implement at a local level the goals and objectives of the *Colorado NPS Management Plan (2005)*. The plan identifies reduction of sediment, nitrogen and phosphorus loading to CO waters as a joint priority with EPA. The

AWP's efforts focus on reducing loading of these pollutants to the Animas River and its tributaries. The *Colorado 2005 – 2010 Nonpoint Source Action Plan* aims to conduct voluntary nonpoint source projects with active groups of citizens. The AWP is just such a group of citizens. The Action Plan aims for activities to have been identified in a local watershed based plan, and supports strategic outreach. The *Animas River Watershed Based Plan (2011)* identifies the significant sources of sediment and nutrient loading to the Animas River, and suggests BMPs. The AWP's proposed outreach and restoration planning activities will follow-up on the plan's findings and refine the priority places and actions that the group can pursue to address these water quality issues, and develop relationships with affected stakeholders in these places.

Subcriterion No. C2. Readiness to Proceed

The major tasks and milestones for implementing the proposed scope of work is provided above in the Technical Proposal Project Description section, with the planned dates and duration of each major milestone presented in the Proposed Timeline section. The Costs for implementing the scope of work are provided in the Project Budget Budget Proposal table.

The AWP's efforts since 2002 demonstrate the group's readiness to proceed with the proposed project. Early on the group formed on the basis of motivated individuals and organizations working together to fund and conduct three synoptic water quality sampling efforts on the Animas River as it passes from Colorado into the Southern Ute Tribal lands and on into New Mexico to the San Juan River. Then, between 2005 and 2011 the group collaborated again to develop the Animas Watershed Based Plan (2011), with cash and in-kind support from 25 different businesses, and local state and federal agencies and organizations. That plan laid the groundwork for implementation projects and in 2011 the AWP secured an Implementation Grant from the Colorado Non-Point Source Program for a project on the Florida River including over $100,000 in cash and in-kind match.

Evaluation Criteria D: Watershed Group/Landscape Conservation Cooperatives Nexus (10 Points)

The Mountain Studies Institute (MSI) is an active and contributing partner of the Animas Watershed Partnership and participates in the Southern Rockies LCC as an interested party. MSI and AWP have discussed applied science needs that could support AWP and partner management decisions. The AWP as a group has not yet established a relationship with the Southern Rockies LCC, although AWP's commitment to using data and science to make informed decisions is dovetails perfectly with the LCC's commitment to supporting on the ground conservation efforts through applied science. The AWP's activities in the Animas River Watershed are close to the center of the Southern Rockies LCC, straddling the Colorado/New Mexico border.

Required Permits or Approvals

No permits or approvals are required for the work proposed in this application.

Project Budget

Funding Plan

AWP 's proposed budget includes $25,972 of non-federal in-kind contributions from several partners. These contributions are mostly in the form of staff or volunteer time, but also include office space for the proposed OSM/Vista Volunteer, and some outreach workshop materials. No other federal funding has been requested or received for the activities proposed in this application.

Table 1. Summary of Non-Federal and Federal Funding Sources

Funding Sources	Funding Amount
Non-Federal Entities	
1. AWP Steering Committee*	$1848
2. OSM/Vista Program*	$8000
3. La Plata Conservation District Board*	$10574
4. San Juan Soil and Water Conservation District *	$4650
5. City of Farmington Consultation*	$300
6. City of Durango Consultation*	$300
7. City of Aztec Consultation*	$300
Non-Federal Subtotal	*$25972*
Other Federal Entities	
none	
Other Federal Subtotal	*$0*
Requested Reclamation Funding:	*$96415*
Total Project Funding:	*$122387*

* denotes source of in-kind match.

Budget Proposal

With this application, the San Juan RC &D is requesting on behalf of the Animas Watershed Partnership $48,208 per year, for a 2-yr. total of $96,415 from Reclamation's WaterSMART Cooperative Watershed Management Program (Table 2). A budget narrative follows.

Budget Narrative

Salaries and Wages

The program manager will be the Animas Watershed Partnership Coordinator, Ann Oliver. San Juan RC&D contracts Ms. Oliver on behalf of the Animas Watershed Partnership at a rate of

Table 2. Budget Proposal

	Year 1						Year 2						
Budget Item Description	**$/Unit**	**Unit**	**Quant.**	**AWP In-kind**	**Reclamation Funding**	**Other Non-Federal In-Kind**	**$/Unit**	**Unit**	**Quant.**	**AWP In-kind**	**Reclamation Funding**	**Other Non-Federal In-Kind**	**Total Cost**
Salaries and Wages													
AWP Steering Committee	$22	hour	42	$924			$22	hour	42	$924			$1,848
La Plata Conservation District Board	$22	hour	42			$924							$924
San Juan Soil and Water Conservation Dist.	$50	hour	72			$3,600	$50	hour	20			$1,000	$4,600
City of Farmington Consultation							$50	hour	6			$300	$300
City of Aztec Consultation							$50	hour	6			$300	$300
City of Durango Consultation							$50	hour	6			$300	$300
Fringe Benefits	$0		0	$0	$0	$0	$0		0	$0	$0	$0	$0
Travel													
CO Watershed Assembly Conference	$400	conf.	2		$800		$400	conf.	2		$800		$1,600
New Mexico Watershed Forum	$400	conf.	2		$800		$400	conf.	2		$800		$1,600
Local Travel	$0.50	mile	904		$452		$0.50	mile	440		$220		$672
Equipment	$0		0	$0	$0	$0	$0		0	$0	$0	$0	$0
Materials and Supplies													
Computer	$1,000	item	1		$1,000								$1,000
Printer	$200	item	1		$200								$200
Office Supplies	$230	year	1		$230		$200	year	1		$200		$430
Outreach Workshop Materials	$10	person	50		$400	$100							$500
Events - food and beverage	$250	event	4		$1,000								$1,000
Contractual													
Ann Oliver, AWP Coordinator/Program Manager	$65	hour	392		$25,480		$65	hour	504		$32,760		$58,240
Marsha Porter-Norton, Non-Profit Mgt. Consultant/Facilitator	$70	hour	14		$980		$70	hour	14		$980		$1,960
							$0.50	mile	104		$52		
Other													
OSM/Vista Volunteer	$12,000	year	1		$8,000	$4,000	$12,000	year	1		$8,000	$4,000	$24,000
Office Space	$400	month	12			$4,800	$400	month	12			$4,800	$9,600
Meeting Room	$80	meeting	4		$320								$320
Reporting	$70	hour	20		$1,400		$70	hour	30		$2,100		$3,500
Soil Sample Analysis	$65	sample	50		$3,250								$3,250
NM Nutrient Mgt Expert Stipend	$800	workshop	1		$800								$800
CO Nutrient Mgt Expert Stipend	$800	workshop	1		$800								$800
Total Direct Costs				**$924**	**$45,912**	**$13,424**				**$924**	**$45,912**	**$10,700**	**$117,796**
Indirect Costs - 5%					$2,296						$2,296		$4,591
Total Project Costs				**$924**	**$48,208**	**$13,424**				**$924**	**$48,208**	**$10,700**	**$122,387**

$65/hr, and this contract is reflected in the budget under the Contractual category in Table 2. Estimated hours for year 1 are 392 hours and 504 hours in year 2. The Coordinator will lead all mandatory activities described in the Project Description section of the Technical Proposal, except for the annual Animas Watershed Partnership Action Planning Meetings, which will be lead by a subcontracted non-profit management consultant and facilitator, Marsha Porter Norton. This contract, also reflected under the Contractual category in Table 2, will be for an estimated 14 hours/annual meeting, at the rate of $70/hr. No fringe benefits are proposed in the budget.

In-kind contributions in this category include Animas Watershed Partnership Steering Committee members' time, La Plata Conservation District Board Member's time, San Juan Soil and Water Conservation District staff time as regular attendees at AWP meetings as well as partnering on landowner outreach, and consultation with municipal partners during development of project concepts.

Fringe Benefits

The proposed budget does not include fringe benefits.

Travel

Travel includes conference attendance by the Animas Watershed Partnership Coordinator and the OSM/VISTA volunteer two conferences per year. The annual Colorado Watershed Assembly – Sustaining Colorado Watersheds Conference is in Avon, CO (3 days/2 nights) and the annual New Mexico Watershed Forum (3 days/2 nights) in Albuquerque. The conference costs include registration fees, mileage, and lodging.

Local travel within the Animas River watershed is estimated at 904 miles in year 1 and 440 miles in year 2, at a rate of $0.50/mile. In addition, for year 2, 104 miles are budgeted in the Non-Profit Mgt Consultant's contract at $.50/mile for travel to Farmington, NM. Local travel includes site visits, Animas Watershed Partnership meetings, and meetings with watershed collaborators for outreach and project concept development.

Equipment

No equipment funds are requested from Reclamation in this proposal.

Materials and Supplies

Requested materials and supplies are for office use and for outreach events (brochures, notebooks, BMP information, food & beverage supplies for stakeholder meetings and events). Some of the outreach materials will be cost-shared by partnering organizations. On behalf of AWP, San Juan RC&D requests Reclamation funds for a computer and printer for the use of the OSM/Vista volunteer.

Contractual

The program manager will be the Animas Watershed Partnership Coordinator, Ann Oliver. San Juan RC&D contracts Ms. Oliver on behalf of the Animas Watershed Partnership at a rate of $65/hr. Estimated Program Manager hours for year 1 are 392 hours and 504 hours in year 2. The Coordinator will lead all mandatory activities described in the Project Description section of the Technical Proposal, except for the annual Animas Watershed Partnership Action Planning Meetings, which will be lead by a subcontracted non-profit management consultant and facilitator, Marsha Porter Norton. This contract will be for an estimated 14 hours/annual retreat, at the rate of $70/hr.

The Coordinator's rate is her standard contracting rate as a consultant. The estimated time corresponds to the time anticipated to be spent leading the completion of the mandatory activities. The estimated time and rate for the year 1 and year 2 annual retreats is based on the Animas Watershed Partnership's 2012 first annual Steering Committee retreat, which was planned and facilitated by Marsha Porter-Norton.

Reporting

The budget includes coordinator compensation for preparation of 8 quarterly reports, 1 sufficiency report, 1 final report, estimated at 20 hours in year 1 and 30 hrs in year 2, at $70/hour.

Other

AWP proposes funding to cover the cost of an OSM/Vista Volunteer for two years, at $8000/year. Office space for the Volunteer will be provided by a partner organization as in-kind support. The budget includes coordinator compensation for preparation of 8 quarterly reports, 1 sufficiency report, 1 final report, estimated at 20 hours in year 1 and 30 hrs in year 2, at $70/hour.

The remaining budget requests in this category are to support two 2-day landowner workshops addressing nutrient management, one workshop in Colorado and one in New Mexico, to be conducted in partnership with the La Plata Conservation District and the San Juan Soil and Water Conservation District, respectively. Funding is requested to cover the cost of meeting room rental at $80/meeting day for four days. The workshops will feature nutrient management extension experts from each State's land grant institution and AWP requests funds to cover a travel stipend for each expert, at $800/expert to cover the costs of travel, room and board. Finally, the workshops will show landowners how to collect soil samples on their land, have the samples analyzed and assess and apply the results in order to optimize the amount of fertilizer they apply. AWP requests funding to cover the costs of 1 sample analysis per participant ($65/sample), for 25 landowners participating in each workshop.

Indirect Cost

The rate for recovery of labor overhead and general and administrative costs by AWP's fiscal agent, San Juan Resource Conservation and Development will be 5%. The official resolution from the

authorized official will be delivered upon receipt of the resolution following San Juan RC&D's Board Meeting on June 12, 2013. Due to their Board Meeting schedule, the resolution could not be attached in time for the CWMP June 11 deadline.

Total Cost

Total costs for the 2-year funding cycle are $122, 387 and are included in Table 2. Requested Reclamation funding is $96,415, applicant in-kind contributions are $1,848 and other non-federal in-kind contributions are $24,124.

Appendix A. Background Information, pages 17-24 of the Animas Watershed Based Plan (2011).

Appendix B. Memorandum of Understanding between the San Juan Resource Conservation & Development Council, Inc. and the Animas Watershed Partnership.

Appendix C. Letters of Support for Expanding the Animas Watershed Partnership

Appendix D. Watershed Group Resolution

Appendix E. Applicant Resolution

Appendix A. Background Information, pages 17-24 of the Animas Watershed Based Plan (2011).

contains information regarding the activities of the SJRIP and other related activities (http://www.fws.gov/southwest/sjrip/).

Farmington Storm-water Program

The City of Farmington has collected samples at 13 urban outfall sites on 12 dates between February 2007 and May 2008, as part of their Storm-water Program[4]. Parameters measured include nutrients, bacteria, metals, and physical parameters such as specific conductivity, temperature, and pH. This is an ongoing monitoring program.

Durango Stormwater Program

The City of Durango City of Durango requires the implementation of stormwater treatment facilities that are in accordance with the Urban Drainage and Flood Control District's (UDFCD) Urban Storm Drainage Criteria.

Section II. Inventory of the Watershed

The purpose of this section was to describe natural features such as geography, geology, soils, land cover, climate, hydrology and land cover as well as anthropogenic features such as politics demographics, recreation, economics, certified drinking water sources, agriculture land practices, diversions, point discharges water treatment plants, threatened and endangered species and land-use patterns that may currently or in the future affect water quality in the Animas River.

Natural Features

Geography

The headwaters of the Animas River originate in southwestern Colorado in the San Juan Mountains. The watershed is 1,357 square miles ($mi^{2)}$. The Animas River flows through the Town of Silverton and City of Durango, CO, Aztec and Town of Flora Vista, NM and to the Confluence with the San Juan River that lies within the City of Farmington, NM. Within the State of Colorado the Animas River also flows through the reservation of the Southern Ute Indian Tribe (SUIT). Counties in the Watershed include San Juan and La Plata counties in Colorado and San Juan County in New Mexico. The reservation of the Southern Ute Indian Tribe and the State of Colorado are under the jurisdiction of the Environmental Protection Agency's Region 8 and New Mexico is under the jurisdiction of EPA Region 6.

The New Mexico portion of the Animas River Watershed is approximately 277 mi^2 and includes several ephemeral tributaries. The Colorado portion is approximately 1,080 mi^2 and of that there is approximately 170 mi^2 within the boundaries of the Reservation of the SUIT.

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[4] http://www.fmtn.org/city_government/public_works/stormwater_management.html.

In NM, land ownership within the Animas River Watershed is 34% private, 60% BLM and 6% State land. Land use includes 56% forest, 8% agriculture, 29% rangeland, 5% built-up land, 1% water and less than 1% wetlands and barren land.

The total land area of La Plata County is 1,083,085 acres (1,692 mi^2). Of these, 43% are private lands, 16% are tribal lands (Southern Ute and Ute Mountain Ute) and 41% are state and federal lands. Agricultural land comprises 25% of the total land in La Plata County. The boundaries of the Southern Ute Reservation encompass about 681,000 acres. The Tribe has approximately 309,000 surface acres of trust land, and another 4,000 acres of allotted land. The remaining 368,000 acres within the reservation boundary are privately owned or belong to government agencies. Land use on the Reservation within the boundaries of the SUIT is primarily undeveloped with roads and well pads serving coal-bed methane extraction.

San Juan County in Colorado is 250,880 acres. Of these 28,000 acres is private, 172,000 acres is National Forest, 49,000 acres is BLM, and the State of Colorado owns 1,880 acres.

Geology

Different types of rocks differ in their erosional capacity and chemical constituents, each with various impacts on water quality. For example: rocks in the headwaters of the Animas River have high levels of metals and sedimentary rocks found downstream from Silverton, Colorado may have high levels of phosphorus.

The geology of the western San Juan Mountains in the region of the Animas River headwaters has rock types representing every geologic era from the Proterozoic to Cenozoic. Precambrian rocks are exposed south of Silverton along the Animas River and are part of an uplifted and eroded surface. Many of the rocks contain calcite which is important for their acid-neutralizing potential.

Below Silverton, the Animas River flows through a deeply incised canyon until just above the confluence with Hermosa Creek where the river empties into the broad, Animas River Valley and becomes a meandering river through riverine deposits.

At Durango, the Animas River flows through glacial moraines and changes to a steeper gradient and flows across the geological formation known as the Fruitland outcrop and into the San Juan Basin (Figure 4 and Figure 5).

The Fruitland outcrop is a complex anticline with a number of layers of sedimentary strata that include: Kirtland Shale, Fruitland Formation, Lewis Shale, Mesa Verde Group, Mancos Shale, Dakota Sandstone, Morrison Formation, Entrada Sandstone, and Chinle Formation.

The San Juan Basin is a large depressed region in NWNew Mexico and SW Colorado. Cretaceous and Tertiary sedimentary rocks bow down in the San Juan basin into a large, shallow sag approximately 100 miles across. The geology of the Animas River Watershed in the San Juan Basin is predominantly comprised of the Tertiary Nacimiento Formation with limited areas of the San Jose Formation near the northeast section of the New Mexico portion of the Animas River Watershed. The sedimentary rocks that fill the San Juan Basin contain both source rocks

and natural reservoirs for oil and gas. The San Juan basin gas field contains many well sites and roads. The gas is found several thousand feet below the surface.

Land Cover and Ecoregions

Ecoregions (Figure 6) denote areas of general similarity in ecosystems and in the type, quality and quantity of environmental resources. They are designed to serve as a spatial framework for the research, assessment, management and monitoring of ecosystems and ecosystem components. These general-purpose regions are critical for structuring and implementing ecosystem management strategies and monitoring strategies across federal agencies, state agencies and non-government organizations that are responsible for different types of resources within the same geographical areas. Ecoregion data also reveals land cover-types and therefore reflects the amount of erosion that may take place in a landscape and thus the effect on water quality.

Ecoregions of Colorado can be viewed at http://www.epa.gov/wed/pages/ecoregions/co_eco.htm and ecoregions of New Mexico at: http://www.epa.gov/wed/pages/ecoregions/nm_eco.htm.

Climate

The climate in the watershed is characterized by a steep gradient where average annual precipitation ranges from 44 inches in the highest elevations (over 13,000ft) to 13 inches in the lower elevations at 5,500ft (Figure 7). The primary sources of precipitation in the watershed are winter snowfall and late summer monsoonal thunderstorms. Where approximately 40% of the watershed is above 8,000 feet and higher, the snowpack typically accumulates throughout late fall to early spring. The winter snowpack is an essential element of water storage where the volume of water stored in the snowpack is greater than the demand and the storage capacity of surrounding area reservoirs. Lemon Reservoir on the Florida River, a major tributary of the Animas River, was built in order to store runoff from snowmelt and precipitation after the snowmelt season.

Hydrology

Stream flow in the Animas River is typical of mountain streams of the southern Rocky Mountains. Stream flow is dominated by snowmelt runoff, which typically occurs between April and July peaking in late May or early June and decreasing in July. Snowmelt runoff is augmented by monsoon rains from July through September. Low stream flow conditions exist from late August to March. Base stream flow in the study area is maintained by ground-water flows. Historical and live stream flow conditions in Colorado can be found at: http://waterwatch.usgs.gov/?m=real&r=co&w=map and in New Mexico at: http://waterwatch.usgs.gov/?m=real&r=nm&w=real%2Cmap.

Anthropogenic Features

Water Rights

Water rights in Colorado are governed by the Colorado Doctrine and water in Colorado can legally be diverted for a purpose and used beneficially to obtain a water right. Beneficial use is

the use of a reasonable amount of water necessary to accomplish the purpose of the appropriation, without waste. Some common types of beneficial use are: irrigation, municipal, wildlife, recreation, mining and household use.

The Decision Support System in Colorado provides a wide range of water related research tools that are available online free of charge. These tools enable users to retrieve water data contained within HydroBase; including streamflows, lake levels, water rights, diversion records, calls, etc.. Map Viewer is a map based tool available online and free of charge. This tool enables users to view data layers on a map. Layers include climate stations, stream gages, diversion structures, well permits and land use studies. Products is a list of all of the products produced by the Decision Support System. Includes links to consumptive use, data management interfaces (DMI) utilities, GIS data, ground water model, surface water model, water budget and other products. Colorado water rights and use data and information can be found at: http://cdss.state.co.us/DNN/Home/tabid/36/Default.aspx.

In New Mexico, water law is based on the doctrine of prior appropriation or "first in time - first in right." All waters in New Mexico are declared to be public and subject to appropriation for beneficial use. There are five basic components of a water right in New Mexico: point of diversion (or constructed work), place of use, purpose of use, owner and quantity. Although these factors are statutorily required, past court decisions, legal opinions and the discretion of the state engineer allow flexibility in the interpretation of these basic requirements. Water rights data and use information in New Mexico can be found at: http://www.ose.state.nm.us/waters_db_index.html.

Demographics

The population estimate for San Juan County, Colorado in 2005 was 577. The population estimate for San Juan County, NM in 2004 was 124,166 (59% urban, 41% rural), an increase of 9.11% from the 2000 census. The population estimate for La Plata County in 2005 was 47,452 (35% urban, 65% rural). The population estimate for the Southern Ute Tribal membership in 2006 was 1,365 persons. About 75% of the Tribal members live on the reservation. The population estimate for Durango, CO in July 2007 was 16,007 and the population change since 2000 was plus 14.3%.The population estimate for Flora Vista, NM in 2000 was 1,383 and in Aztec, NM the population estimate in July 2007 was 6,810, a 6.8% increase since 2000. The population estimate of Farmington, NM in 2003 was 41,420.

Economics

Economic statistics are available from the Bureau of Economic Affairs and from the United States Agricultural Service. Information regarding compensation by industry, employment structure and breakdowns of farm incomes are available for each of the Counties in the Animas Watershed. Of particular interest to water quality is data on the agricultural sector (Table 1, Table 2, Table 3, and Table 4). Agriculture has a disproportionate, negative impact on the river when compared to beneficial employment and economic statistics in the watershed. Data is not available for recreational use of the river which includes fishing, rafting and kayaking. Region 9 economic data in Colorado can be found at: http://www.scan.org/regional_data.html. Economic

data for San Juan County can be found through the San Juan Economic Development Services at: http://www.sanjuaneds.com/.

Agriculture

The growing season for high elevation areas are often shortened by frost in the late spring and early fall. The 20% of the watershed that falls above 9,000 feet can reach sub-freezing temperatures throughout the year. The growing season in the lowest elevations of the watershed is where most agriculture is concentrated and is approximately 100 days.

The Wilderness Society published an economic profile of La Plata County in 1997 (Wilderness Society 1997). This document illustrated how the county has changed economically over a 25-year period. As has happened in many areas of the country, between the years of 1970 and 1997 agriculture has been in steady decline since its peak in 1975. Agricultural-related income in La Plata County had fallen from 5% of total personal income in 1972 to 0.4% in 1997, and agricultural-related employment had declined from a 10% high in 1970 to 4% of total employment in 1997. This decline is credited as a response to a decrease in agricultural commodity prices and the significance of agricultural income as other sectors of the economy, such as service, retail, construction and trade expanded (Table 1). Over 95% of the water diverted from the Animas River is used for the Agricultural sector. The remaining amount is used for municipal and industrial purposes.

Within the agricultural employment sector there has been an increase in employment in the agricultural services category. This encompasses off-farm, agriculturally related jobs such as machine repair, bookkeeping, administration, science, research and transportation (Table 2).

Within the Animas River Watershed in San Juan County, NM, agriculture is similar to that found in La Plata County. The statistics in New Mexico, however, reflect the progress of the Navajo Agricultural Products Industry (NAPI) which is not within the boundaries of the Animas River Watershed and are not typical of the agriculture that is found along the Animas River in New Mexico.

Animas- La Plata (A-LP) Project

The A-LP project was authorized in 1968 through the Colorado River Basin Storage Project Act. Water shares are divided between the: Southern Ute Indian Tribe, Ute Mountain Ute Indian Tribe, La Plata Conservancy District, San Juan Water Commission, Colorado Water Resources and Power Authority, Navajo Nation, and Colorado. The Southern Ute Tribe is allocated 29.6%, Ute Mountain Ute Indian Tribe is allocated 29.6%, La Plata Conservancy District is allocated 1.3%, San Juan Water Commission is allocated 18.6%, Colorado Water Resources and Power Authority is allocated 4.6%, Navajo Nation is allocated 4.1%, and Colorado is allocated 9.3% Ridges Basin Dam is 99% complete, Durango Pumping Plant is 99%, Ridges Basin Inlet Conduit is 100%, County Road 211 reconstruction is 96% complete and the Navajo Nation Municiple Pipeline is 57% complete. There are many environmental compliances that have to be met.

Seasonal bypass flows of 225 cfs (April-September), 160 cfs (October-November) and 125 cfs (December-March) will be honored

If these standards are met than the A-LP project can pump water.

The majority of agriculture land in the Animas River Watershed is found within the Florida River Watershed, a major tributary of the Animas River and a major contributor of agricultural

related pollutants. The majority of irrigation in the watershed is accomplished by flood irrigation, a very inefficient but inexpensive method of irrigating farmland that results in a number of pollutants, such as warm water, sediment, nutrients and salts entering Animas River (Table 5 and Figure 8). A method of reducing the amount of polluted runoff to rivers is through a sprinkler irrigation system and according to the local USDA Natural Resource Conservation Service (NRCS) office, irrigators on the Florida Mesa and Oxford tracts are converting about 500 acres from flood to sprinkler irrigation each year, utilizing a financial assistance program offered through the NRCS (EQIP).

Diversions

Structures that divert surface and ground water occur within the Animas River channel throughout the watershed and dramatically reduce stream flows of the Animas River. Water from the Animas River is diverted for a variety of uses, though the majority is for irrigation purposes primarily to grow hay, maintain pastures for livestock and irrigate lawns and golf courses. Commercial uses (i.e. making snow) also divert water from the stream during winter months.

The larger diversions along the Animas River are associated with agricultural purposes and not all of the water is utilized by the crops, especially on hobby farms where there is very little oversight or consideration to the amount of water applied to a field. Thus, there is leftover water that flows back to the Animas River from agricultural fields. Agricultural return flows are warmer, with less oxygen and carry a number of pollutants, especially sediment and nutrients. Diversions also result in reduced water in the river channel, especially during late summer and early fall low flows when demand for watering crops is at the highest, resulting in warmer water temperatures and less oxygen.

The offices of the Colorado and New Mexico State Engineers have databases that make the agency's water rights records readily accessible[5]. The databases provide individual water right claims in New Mexico and Colorado and their point of diversions in the watershed. Using these databases, one can obtain information concerning water use, including data about domestic, irrigation, commercial and other types of water rights, the location of specific water rights and the owners of those water rights. In particular, users can find out how much water is in use under permits in a water basin, track changes in water use patterns, bring together regional data on water use and compile and analyze data to build water use models. A search of the databases reveals over 700 records of water rights claims and other structures that affect water within the Animas River Watershed. Organizing these claims and looking at the amount of water being diverted from the river should be accomplished in order to complete existing and potential loading analysis of pollutants to the river. Building in-stream diversions that do not degrade the functioning capacity of the river or impede fish passage is important.

A major diversion, the Animas-la Plata Project, has begun diverting up to 280 cubic feet per second (cfs) from the Animas River in 2009. The sewage outfall from the Durango Sewage Treatment Plant has been located below this diversion that may result in between a 2 to 3 times

[5] Water rights data and use information in New Mexico can be found at: http://www.ose.state.nm.us/waters_db_index.html. Colorado water rights and use data and information can be found at: http://cdss.state.co.us/DNN/Home/tabid/36/Default.aspx.

increase in the concentration of sewage effluent in the river downstream of the ALP diversion. Also, releases from the project will return to the river at Basin Creek confluence. It is unclear how the operation of the ALP will affect water quality in the river or what the quality of the return flows from the ALP will be and their effect on the river.

Drinking Water Sources

Use of Animas River or groundwater sources in the watershed for domestic uses affects both the quantity of the water in the river as well as management of the river. There are 18 entities (Table 6) within the watershed that have permits for providing drinking water to customers. The total withdrawal of raw water for domestic uses in San Juan County, New Mexico is 17.29 million gallons per day (2% from groundwater sources and 98% is from surface water sources). Total withdrawal of raw water for domestic uses in La Plata County is 7.01 million gallons per day (18% is from groundwater and 82% is from surface water sources, data from: http://www.city-data.com/county/).

Information on sources of drinking water in La Plata County can be found at (Web Link) and information on sources of drinking water San Juan County can be found at: (Web Link).

From: Mike Meschke, San Juan Basin Health Department

One point important to any Colorado or USA waterway discussion is the lack of treatment for complex & persistent compounds of a manmade nature. Many chemicals are known as endocrine disruptors. Also, Colorado treatment standards, as well as national, allow discharge permits which are above the drinking water standards for the parameters that they do list, a cause for concern (e.g., nitrates). In one generation globally, our fish have acquired unsafe levels of mercury (from atmospheric sources), and many waterways suffer dramatically before discharging to an ocean, creating large dead zones, where there used to be prolific sealife.

The list of continuing damage from an environmental cocktail of low-dose poisons is getting pretty long.

Relevent Links:

http://www.americanrivers.org/our-work/clean-water/sewage-and-stormwater/pharmaceuticals-and-personal.html

http://www.epa.gov/ppcp/

Discharge Permits

There are 29 discharge permits in the Animas River Watershed (Table 7, and Figure 9). The towns of Silverton and Durango, CO and Aztec, NM have larger, municipal treatment plants that discharge into the Animas River. A number of other permits exist for small, wastewater treatment plants that serve resorts or mobile home parks. Other discharge permits are for hardrock mining in the Silverton area or for gravel mining north of Durango in the Animas River Valley (See Envirofacts at: http://www.epa.gov/enviro/index.html)

Waste Water Treatment

Waste products from wastewater treatment plants contribute organic matter into aquatic systems and highly available forms of nitrogen and phosphorus. These additions result in increases in algal growth. The algal growth reduces dissolved oxygen levels and impacts habitat quality through the process of eutrophication.

Threatened, Endangered and Sensitive Species

Management of threatened and endangered species is significant to the Animas River because the San Juan River downstream of the Animas River is the site of the San Juan Recovery Implementation Program (SJRIP). The SJRIP has the purpose to recover endangered fishes in the San Juan River basin while water development and management activities continue in compliance with all applicable Federal and State laws. Endangered species include the Colorado Pikeminnow (formerly known as the Colorado Squawfish), or *Ptychocheilus lucius*, and the Razorback Sucker, or *Xyrauchen texan*us. It is anticipated that actions taken under this Program will provide benefits to other native fishes in the basin and prevent them from becoming endangered in the future. The SJRIP Hydrology Committee provides oversight regarding hydrologic data and models used in the SJRIP. The San Juan Basin Hydrologic Model (SJBHM) developed by the SJRIP is used to simulate and assess the impacts of various levels of water development or depletion scenarios on stream flows and determine if the flow criteria could be met with a given level of development. The model is a guidance tool only.

Other fish species of concern in the Animas River include: roundtail chub (Gila robusta), flannelmouth sucker (Catostomus latipinnis) and bluehead sucker (Catostomus discobolus). Colorado River cutthroat trout are a species of concern and a significant restoration effort is occurring in the upper part of the watershed.

The Southern Ute Indian Tribe, the Colorado Division of Wildlife (CDOW) and the New Mexico Game and Fish Department (NMG&F) maintain lists of sensitive fish and monitor fish populations in the Animas River and tributaries. The NMG&F mention the Animas River as a possible stream within which to recover roundtail chub. The CDOW maintains cutthroat populations in Dry Creek and Hermosa Creek and regularly stock trout for recreational fishing. They also maintain a Gold Medal Fishery in the Animas River below Durango through stocking rainbow (*Onchorynchus mykiss*) and brown (*Salmo trutta*) on annual basis. The SUIT also stocks significant amounts of recreational fish (trout) annually and maintains a trophy regulation stretch on SUIT lands.

Section III. Water Quality Monitoring Data

Monitoring Entities

Water quality monitoring has been completed in the Animas River Watershed since 1900, with over 165,000 measurements of various physical, chemical and biological water quality parameters at over 250 locations (Table 8). Many of the 13 agencies and stakeholder groups listed in Table 8 are actively collecting water quality data in the Animas River Watershed. The date ranges and number of results in Table 8 refer to the contents of the database created and updated for the purposes of the Animas Watershed Partnership.

This extensive data record is useful for identifying water quality tendencies and trends at visited locations. There is currently a need to coordinate the numerous monitoring efforts that occur in the Animas River. The Colorado Water Quality Monitoring Council hosts the Data Sharing

June 9, 2013

Bureau of Reclamation
Financial Assistance Services
Attn: Michelle Maher
Mail Code: 84-27850
PO Box 25007
Denver, Colorado 80225

Re: Animas Watershed Partnership

Dear Ms. Maher,

This letter is to voice our support for the AWP's grant application to the WaterSmart Cooperative Watershed Management Program and AWPs efforts to improve the Animas River. The La Plata Conservation District [LPCD] would be pleased to participate in AWP's continued work. LPCD, founded in 1947 has as part of its State of Colorado statue the responsibility:

> "To sponsor, plan, construct, maintain, and operate flood prevention and watershed improvement projects for the development, conservation, control, and utilization of water resources..."

LPCD considers AWP's mission as mapping directly with LPCD's mission and we would be glad to participate with them in improving the Animas River.

Sincerely,

Tom Hartnett

LPCD President

UTAH | COLO.
ARIZ. | N.M.

CITY OF FARMINGTON
800 Municipal Drive
Farmington, NM 87401-2663
(505) 599-1100
Fax: (505) 599-8430
www.fmtn.org

June 10, 2013

Bureau of Reclamation
Financial Assistance Services
Attn: Michelle Maher
Mail Code: 84-27850
PO Box 25007
Denver, Colorado 80225

Dear Ms. Maher:

The City of Farmington encourages the Bureau of Reclamation's (BOR) financial support in the Animas Watershed Partnership's (AWP) WaterSmart Cooperative Watershed Cooperative Management Program. Successfully obtaining this grant will provide funding for AWP's planning and outreach efforts to improve/maintain water quality in our watershed. Maintaining Animas River water quality is very important to the city as the Animas River is Farmington's sole source of municipal water supply providing water to approximately 45,000 people and businesses.

Farmington fully supports AWP's Cooperative Watershed Management Program Grant application to expand the group's capacity to develop effective projects and to conduct outreach that will support its project planning and outreach efforts to demonstrate to stakeholders the importance of maintaining Animas River water quality. Successfully identifying new projects and outreach will require enhanced coordination efforts by AWP, additional staffing (acquiring a Vista Volunteer), identifying new partners and their needs, and identifying new outreach venues.

Maintaining Animas River water quality is a particular challenge because the river flows through two states (southwestern Colorado, northwestern New Mexico), one Indian Tribe (Southern Ute Indian Reservation), two counties in Colorado (La Plata, San Juan) and one county in New Mexico (San Juan), one city in Colorado (Durango, Colorado) and two in New Mexico (Aztec and Farmington), and two Environmental Protection Agency regions (VII, VI). Despite all of these political boundaries, federal/ state laws and regulations, and the diverse water needs, AWP has successfully found collaborative ways to work with diverse partners for the benefit of the river.

Let me conclude by thanking BOR for considering these observations and for their consideration of AWP's WaterSmart Cooperative Watershed Management Program Grant for Fiscal Year 2013. The funding of this grant will greatly benefit many in northwest New Mexico and southwest Colorado. If you have any questions in this matter, please feel free to email them to me (rcampbell@fmtn.org) or call me at (505) 599-1102.

Sincerely,

R J Campbell

Bob Campbell
Assistant City Manager

Cc: Jeff Smaka, P. E., Public Works Director
Paul A. Montoia, Water Resource Specialist
Ann Oliver, AWP Coordinator

MEMORANDUM OF UNDERSTANDING (MOU)
between the
SAN JUAN RESOURCE CONSERVATION & DEVELOPMENT COUNCIL, INC.
and the
ANIMAS WATERSHED PARTNERSHIP

THIS MEMORANDUM OF UNDERSTANDING (MOU) is between the San Juan Resource Conservation & Development (RC&D) Council (hereafter referred to as the Council) and the Animas Watershed Partnership (hereafter referred to as AWP). It is effective upon the authorized signatory of both parties.

This contract is governed by the laws of the United States and the State of Colorado and any dispute shall be finally resolved by the Colorado courts. Any modifications to this MOU must be written amendments and signed by both parties. This MOU may be terminated by either party after 30 days written notice.

I. Purpose & Scope

The purpose of this MOU is to clearly identify the roles and responsibilities of each party as they relate to the AWP.

The Council will:

1. Serve as the Umbrella 501c3 organization for the AWP.
2. Provide a legal and 501(c)3 nonprofit status.
3. Serve as Fiscal Agent for the AWP.
4. Annual review/audit by a CPA specializing in nonprofits.
5. Accounting and bookkeeping of applicable funds.
6. Provide oversight of funds and obligations.
7. Maintain the funds in FDIC insured accounts at local financial institutions.
8. Bond fiscal managers against loss of funds.
9. Provide Directors and Officers insurance for board members of the Council.
10. Receive donations with receipt to donor.
11. Make payments based on approval and receipt of funds from the grant funder's reimbursement for invoiced work as authorized in the Statement of Work.
12. Pay expenses on behalf of AWP with approval of AWP chair or coordinator with funds collected on behalf of the AWP.
13. Prepare and submit invoices and appropriate requests for reimbursements.
14. Monthly financial statements detailing deposits and expenditures.
15. Assess a 5% administration fee when funds are received.
16. Develop website and maintain content.
17. Provide other services for fees as agreed upon by both parties and bill AWP for those services.

The AWP will:

1. Provide all requested information to The Council in a timely manner.
2. Submit all invoices for work done on behalf of the AWP in a timely manner.
3. In the Event that the AWP has other business activities and or funds that are not managed by the Council, AWP agrees that it will not engage in any business practices or manage its other funds or financial affairs in any manner that would jeopardize the project covered by this MOU or Council's status as a not-for-profit corporation, including the Council's designation as a 501(c)3 for income tax purposes. Provided, further, AWP agrees to affirmatively cooperate and indemnify the Council in the event any costs or loss is occurred arising out of AWP's operation of such other business activities or financial affairs.

II. EFFECTIVE DATE AND SIGNATURE

This MOU shall be effective upon the signature of San Juan Resource Conservation & Development, Inc. and the Animas Watershed Partnership.

Parties indicate agreement with this MOU by their signatures and date.

Jim Smith 5/14/13

Jim Smith, Chair, SJRCD Date

Paul A. Montoia 5/13/2013

Paul Montoia, Chair, AWP Date

San Juan Watershed Group
David Tomko, Coordinator
Julia Campus, OSM/VISTA, Planning & Outreach Coordinator
18 Road 4865
Bloomfield, New Mexico 87413
505-632-8008
jtomko73@msn.com

June 10, 2013

Bureau of Reclamation
Financial Assistance Services
Attn: Michelle Maher
Mail Code: 84-27850
PO Box 25007
Denver, Colorado 80225

Animas Watershed Partnership WaterSmart Cooperative Watershed Management Program Application

Re: Letter of Support and Assistance

Dear Ms. Maher

The San Juan Watershed Group (SJWG) is in support of the Animas Watershed Partnership's WaterSmart Cooperative Watershed Management Program application. The Animas Watershed Partnership (AWP) works to improve and protect water quality in the Animas River in Colorado and New Mexico. AWP is unique in working across multiple jurisdictions (States of Colorado and New Mexico, Southern Ute Indian Reservation and two EPA regions) to achieve water quality improvements.

The SJWG works to improve and protect water quality in the San Juan River watershed in New Mexico, which also includes the Animas and La Plata Rivers. The state of New Mexico recently listed the entire New Mexico portion of the Animas River as impaired for excess levels of nutrients, *E. coli* bacteria and turbidity. The Animas River already exceeds nutrient standards when it crosses into New Mexico from Colorado. Improvements in the New Mexico segment of the Animas River will depend on developing a cooperative and collaborative approach from both states and the Southern Ute Tribe.

Granting the Animas Watershed Partnership's WaterSmart Cooperative Watershed Management Program application will increase AWP's capacity to accomplish that goal. Partnering with the Western Hardrock Watershed Team to place an OSM/VISTA volunteer will provide a full-time position for planning, outreach and education. The SJWG is in its second year with an OSM/VISTA volunteer and the results have been outstanding.

Please feel free to contact me if you have questions or need additional information.

Sincerely,

David Tomko

David Tomko
Coordinator

Animas Watershed Partnership
2340 CR 203
Durango, CO 81301
(970) 903-9361

Bureau of Reclamation
Financial Assistance Services
Attn: Michelle Maher
Mail Code: 84-27850
PO Box 25007
Denver, Colorado 80225

JUNE 10, 2013

Dear Ms. Maher,

The Animas Watershed Partnership (AWP) is a collaborative, non-regulatory, grassroots group, committed to working across boundaries, and to using data and science to inform our decisions. The efforts of the AWP are guided by a Steering Committee composed of nine members including representatives of 2 governmental entities and 2 citizens from CO, 2 governmental entities and 2 citizens from NM; and one Tribal representative. Our current Steering Committee membership includes representatives from the City of Durango, the Southwestern Water Conservation District, the City of Farmington, the San Juan Water Commission, Trout Unlimited 5 Rivers Chapter, the San Juan Watershed Group, two individuals, and the Southern Ute Tribe. Our fiscal sponsor is San Juan Resource Conservation and Development (San Juan RC&D).

The Steering Committee of the Animas Watershed Partnership (AWP) resolves that we support the accompanying application to Reclamation's WaterSMART Cooperative Watershed Management Program (FY2013), submitted on our behalf by our fiscal sponsor, San Juan RC&D. The application proposes funding to expand our partnership and to enhance the AWP's capacity to work toward and accomplish our mission:

To protect and improve the quality of water resources to benefit the Animas River, now and in the future.

The assistance offered through the WaterSMART CWMP will enable us to advance more quickly and consistently in our outreach and project concept development efforts by allowing us to engage Ms Oliver for more time and by allowing us to obtain the services of an OSM/Vista Volunteer.

We further resolve that with the support of our partners, including our fiscal sponsor San Juan Resource Conservation and Development, and with the services of our coordinator Ann Oliver, we have the capability to provide the in-kind contributions specified in the funding plan, as well as the capacity and commitment to meet the deadlines for entering into a cooperative agreement with Reclamation.

Thank you for the opportunity to submit an application and for your consideration.

Sincerely,

Paul A. Montoia
AWP Steering Committee Chair

San Juan Soil and Water Conservation District
1427 W. Aztec Blvd., Suite 1
Aztec, NM 87410
Phone: (505) 334-3090
Emma Lee Deyo – District Coordinator

June 10, 2013

Bureau of Reclamation - Financial Assistance Services
Attn: Michelle Maher
Mail Code: 84-27850
PO Box 25007
Denver, Colorado 80225

Dear Ms. Maher,

This letter is written in support of the Animas Watershed Partnership's WaterSmart grant application. The entire length of the Animas River within New Mexico runs within the boundaries of our Soil and Water Conservation District, and we thus support the Animas Watershed Partnership's efforts to expand their presence in New Mexico and to work to improve the quality of water resources for the citizens of our District and the watershed as a whole.

The San Juan Soil and Water Conservation District frequently works with private landowners and agricultural producers to address natural resource issues on their land. In light of the problems with nutrient and bacterial loading to the Animas River, working with our landowners on nutrient management issues is an important priority. Hosting a Nutrient Management Workshop alongside the Animas Watershed Partnership will allow us to help landowners along the Animas in New Mexico to get the most out of their soil, optimize the fertilizer they are using, and reduce nutrient inputs reaching the river via runoff.

Additionally, the inclusion of the Western Hardrock Watershed Team as a partner to the Animas Watershed Partnership will provide tremendous capacity to their organization. Our District has received great benefit from two years of an AmeriCorps VISTA volunteer working in our office through Western Hardrock Watershed Team. The value of having a VISTA working full time on grant writing, outreach, and capacity building far surpassed the cost; investing in a VISTA volunteer through the WaterSmart program will surely help the Animas Watershed Partnership to expand their scope and grow in the coming years.

The San Juan Soil and Water Conservation District fully supports the efforts of the Animas Watershed Partnership, and recommends that this project be funded by the Bureau of Reclamation. Please feel free to contact me if you have questions or need additional information.

Sincerely,

Emma Lee Deyo

Emma Lee Deyo
District Coordinator
San Juan Soil and Water Conservation District
1427 W. Aztec Blvd Ste 1
Aztec NM 87410
505-334-3090 EXT 108
Emma.Deyo@nm.nacdnet.net