



UPPER CARSON RIVER WATERSHED PLANNING AND PARTNERSHIP DEVELOPMENT



1.30.2018

Expanding Alpine Watershed Group's Efforts

WaterSMART Cooperative Watershed Management Program Phase I
CFDA Number 15.554
Funding Opportunity Announcement No. BOR-DO-18-F005

Applicant and Project Manager:
Alpine Watershed Group
Sarah Green, Executive Director
P.O. Box 296 Markleeville, CA 96120
awg.sarah@gmail.com
530-694-2327

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TABLE OF CONTENTS

TECHINCAL PROPOSAL AND EVALUATION CRITERIA	2
Executive Summary	2
Background Data.....	3
Project Location.....	5
Technical Project Description	6
Applicant Category	6
Eligibility of the Applicant	7
Goals.....	7
Approach.....	7
Evaluation Criteria.....	10
Evaluation Criteria A: Watershed Group Diversity and Geographic Scope	10
Evaluation Criteria B: Addressing Critical Watershed Needs	12
Evaluation Criteria C: Implementation and Results.....	18
Evaluation Criteria D: Nexus to the Department of the Interior Initiative.....	21
ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE	22
REQUIRED PERMITS OR APPROVALS	22
PROJECT BUDGET	23
Funding Plan/Budget Proposal.....	23
Budget Narrative.....	23
LETTERS OF SUPPORT.....	24
OFFICIAL RESOLUTION	24
UNIQUE ENTITY IDENTIFIER AND SYSTEM FOR AWARD MANAGEMENT	24
LIST OF ATTACHMENTS.....	25

TECHINICAL PROPOSAL AND EVALUATION CRITERIA

Executive Summary

Date: 1/30/18

Applicant: Alpine Watershed Group

Location: Woodfords, Alpine County, CA



The Alpine Watershed Group (AWG) will expand our efforts and capabilities as a collaborative community-based organization. As an existing and well-established watershed group, AWG has a proven track record for competently managing large grants, facilitating complex planning efforts, and implementing on-the-ground restoration projects. Funding through the Bureau of Reclamation will allow AWG to develop the existing efforts in the areas of watershed assessment, restoration planning, stakeholder participation and community outreach to more adequately address the needs of the Upper Carson River Watershed.

AWG fills two critical roles in the natural resource planning and watershed management needs of the Upper Carson River Watershed of Alpine County, California. First, our organization facilitates communication and collaboration among diverse stakeholders throughout the watershed. Second, AWG creates opportunities for local community members and seasonal visitors to participate in meaningful environmental stewardship programs. With 84% of the Upper Carson Watershed in Alpine County under public ownership, managed predominately by the USFS, it is critical for our organization to involve diverse public and private participation in watershed planning and management.

This proposal outlines AWG's plan to conduct the following activities focused on the Upper Carson River Watershed:

- Community Outreach & Partnership Development – expand the number and diversity of planning partners; enhance partner communication and collaboration; deepen partner investment; develop a Projects Planning Committee
- Information Gathering & Data Collection – identify priority monitoring activities; research existing watershed plans and assessment information; strengthen water quality monitoring efforts; recruit new volunteers
- Restoration Planning –prioritize watershed issues and restoration projects; develop Watershed Restoration Plans

These activities are essential next steps for our organization to be able to effectively serve the needs of the Upper Carson River Watershed into the future. Work involved in this project proposal will be implemented over a two year period from the time of grant agreement execution – approximately October 1, 2018 – September 30, 2020.

This proposal aligns with and helps promote the goals of this Funding Opportunity Announcement (FOA), such as through the following activities:

- Engaging diverse stakeholders to understand the natural resource management issues in our watershed by building the trust and involvement of local and regional stakeholders
- Developing plans to effectively implement needed watershed assessment and restoration project thereby improving ecological resilience of rivers and streams

Background Data

Overview

The Carson River Watershed is located east of the crest of the Sierra Nevada, and encompasses approximately 3,966 square miles. The watershed contains the 194-mile long Carson River from its headwaters in Alpine County, California to its termination in the Carson Sink – Churchill County, Nevada. Approximately 46 percent of the Carson River watershed, and the majority of the Upper Carson Watershed, (1,825 square miles) is within Alpine County. The Upper Carson Watershed consists of the headwaters areas of the Carson River in Alpine County, CA and includes two independent tributaries, the East and West Forks. The West Fork begins near Lost Lakes at an elevation of approximately 9,000 feet above sea level. The West Fork Carson River overlays the Carson Valley Groundwater Basin. The East Fork begins south of Ebbett's Pass, within the Carson-Iceberg Wilderness, at an elevation of approximately 11,460 feet above sea level. These forks converge into the main Carson River near the town of Genoa, Nevada. A significant amount of land within the watershed in California is under public ownership – 84% is public land, managed predominately by the USFS, with some BLM land and some lands of the Washoe Tribe of Nevada and California. The 16% of non-public land is largely agricultural (pasture) with some residential and commercial around the communities of Woodfords, Markleeville, and the Hung-a-Lel-Ti Washoe Tribe land. The population of the county is only 1,200 people, which in terms of landscape means there are only 1.6 people per square mile. About half of these people live in the Carson River watershed, which covers about two-thirds of Alpine County, mostly in and near the communities of Markleeville, Woodfords, and Paynesville, and in the Woodfords Indian Community.

The Alpine Watershed Group

Since the group's inception, the Alpine Watershed Group has been collaborating with the regional land and resource managers and other watershed-related organizations to identify monitoring, assessment and restoration needs. Water quality and watershed management are concerns of resource managers throughout the Carson River Watershed.

Water Rights and Uses

The Carson River's surface water rights are defined by the Alpine Decree. The water rights described in the decree begin in the headwaters of the West Fork and East Fork of the Carson River in California and end in the area below the Lahontan Dam in Churchill County. The federal decree states that the Carson River and its tributaries are fully appropriated. Applications to change the point of diversion, place, and manner of use in Nevada are filed with the Nevada state engineer. Ground water is strictly controlled and regulated in Nevada by the Division of Water Resources, with the state engineer as the executive head of the division. Surface water is not currently used for drinking water in the Carson Valley of Nevada because groundwater is more affordable to source. Currently about 95% of municipal and industrial water used in the watershed comes from ground water. Agriculture uses mostly surface water diverted from the Carson River to irrigate crops and pastures. More than 80% of the total annual water flow of the Carson River is diverted for use by agriculture. Some farms also have permits to irrigate using ground water wells.

Watershed Issues

Over the last 150 years Alpine County watersheds have experienced extensive mining, grazing, timber harvesting, and road building. Historically, the area contained numerous mines and logging operations that supported the Comstock mining region in Nevada. Today over 20 abandoned mines have been documented in the watershed with the most infamous being the Leviathan Mine. This mine has been declared a Superfund Site and is in the process of remediation.

Alpine County is a popular outdoor playground for visitors from California and Nevada (throughout the

Upper Carson River Watershed Planning and Partnership Development

region and the country). It is a popular recreation area for fishermen, backpackers and other outdoor enthusiasts. Substantial recreational use has resulted in impacts to the landscape, causing increased erosion and water quality degradation at certain locations. For example, the U.S. Forest Service has identified the need to eliminate some dispersed camping sites along the East Fork of the Carson due to the adverse impacts to vegetation and stream bank stability (East Carson River Strategy - Carson Ranger District, Humboldt-Toiyabe National Forest, July 2007).

The rural character of Alpine County also presents some resource management challenges. For instance, the majority of the Alpine County population relies on septic systems for waste water disposal. This factor will need to be addressed as the County considers future growth. In addition, some communities have been built in close proximity to stream corridors, encroaching onto the riparian and floodplain areas. The former U.S. Forest Service Markleeville Guard Station has experienced repeated and severe flooding over the years. The Carson River Floodplain Management Plan (Carson Water Subconservancy District, 2008) recommends the restoration of this site in order to “maintain river system to allow floodwaters to access floodplains.”

These land uses have had adverse impacts on the water quality of the Upper Carson River. Both the East and West Forks of the Carson River are listed as impaired under Section 303(d) of the Federal Clean Water Act. Impairments include elevated levels of nitrogen, phosphorus, sodium and pathogens. Watershed monitoring programs are important for providing data used to examine changes in water quality, habitat, land uses, and general watershed conditions over time. The Upper Carson River Watershed Water Quality Monitoring Program (Carson Water Subconservancy District, June 2007) emphasizes the importance of continuing and expanding monitoring efforts throughout the watershed.

Watershed Opportunities

The Carson flows from its source in California where there are very few water users to irrigate fields and recharge groundwater basins in Nevada. This creates a difficult management problem, especially in terms of funding, for California watershed stakeholders. The State of California is less likely to fund watershed projects that greatly benefit Nevadans. This makes federal and other bi-state funding sources particularly important. AWG works to overcome this challenge by studying and sharing the great ecosystem and recreation value of our watersheds with key partners.

The Carson River watershed is a priority watershed for Alpine County because of the high resource value of its waters, popularity for public recreation, and the impacts associated with current and historic land uses. Many species, such as the mule deer and coyote, are wide spread while other species such as the mountain lion, pronghorn and peregrine falcon, are declining in numbers. Some at-risk species that may reside in the region include spotted owl, pine marten, pacific fisher, leopard frog, and yellow-legged frog. The West Fork flows through scenic Hope Valley, where public funds have recently been spent to improve important wetland/riparian habitat. A segment of the East Fork between Hangman's Bridge and the Nevada state line is designated as a State Wild and Scenic River, and is a popular river rafting area. The U.S. Forest Service is studying some reaches of the East Fork in California for possible inclusion in the federal Wild and Scenic River system.

The U.S. Forest Service and the California State Water Resources Control Board also identify the West Fork of the Carson River Watershed as a priority watershed for other specific reasons. The Carson Ranger District on the Humboldt-Toiyabe National Forest has been working towards a larger landscape view of their restoration activities with a goal to integrate recent, past, present, and future activities within specific watersheds. With that in mind, they requested funding in 2016 to prioritize the West Carson River Watershed Restoration Project in order to provide for wildlife habitat, forest health, watershed improvements, fuels reduction, and improved recreational opportunities. In 2013, the U.S.

Environmental Protection Agency announced a new collaborative framework for implementing the Clean Water Act Section 303(d) program with states called the “Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program”. In 2015, Lahontan Regional Water Quality Control Board staff identified the West Fork Carson River to be addressed through the Vision Program. Water Board staff identified the West Fork of the Carson River as a good candidate for a Vision Project because of the dynamic restoration projects in the watershed, the high stakeholder involvement, and a robust data set characterizing water quality in the watershed. Water Board staff has begun initial informal outreach, but plan on developing a more formalized stakeholder outreach strategy which is scheduled to be implemented as soon as Summer 2018 and have requested support from AWG.

In addition to the previously referenced reports and efforts, a variety of watershed planning and assessment reports have been developed to document the watershed’s current conditions, guide proper management and identify restoration priorities. The following is a list of these documents which will be accessed for Tasks 2.1 in the Approach to this project. These documents were also used to develop this proposal, including Critical Watershed Needs and Issues:

- Upper Carson River Watershed Stream Corridor Condition Assessment (MACTEC Engineering, September 2004) - identifies specific stream restoration needs
- Carson River Aquatic Life Status Report (Carson Water Subconservancy District, December 2007) - offers valuable information for the Upper Carson River Watershed regarding the status of various aquatic life forms, including fish, macro-invertebrate and amphibians
- East Carson River Strategy (Carson Ranger District, Humboldt-Toiyabe National Forest, July 2007) - identifies specific management recommendations to improve wildlife habitat and protect water quality including specific projects to control invasive weeds and restore high-impact recreational sites
- Carson River Watershed Project Plan (Nevada Department of Environmental Protection, Bureau of Water Quality Planning) -Nevada focus, represents another critical resource and partners to collaborate with in the upper watershed
- Watershed Management Initiative (Lahontan Regional Water Quality Control Board, 2002) - designed to integrate various surface and ground water regulatory programs while promoting cooperative, collaborative efforts within a watershed

Project Location

The Upper Carson River Watershed is located in Alpine County, California and its neighbor, the State of Nevada. The Upper Carson Watershed encompasses approximately one-third of Alpine County – the entire area east of the Pacific Crest. The largest town in the watershed is Markleeville, CA with a population of just over 200 and approximately 600 people (half of the county’s population) live in the watershed, mostly in and near the communities of Markleeville, Woodfords, and Paynesville, and in the Woodfords Indian Community. The larger Carson River Watershed includes parts of 4 counties in Nevada: Douglas, Carson City, Lyon, and Churchill.

While AWG coordinates throughout the entire Carson River Basin (HUC-6: 160502), the geographic scope of this proposal is the Upper Carson River Sub-basin (HUC-8: 16050201). Slightly more specifically, the California side of the Upper Carson Sub-basin contains three watersheds: the West Fork Carson River (HUC-10: 1605020103), the Upper East Fork Carson River (HUC-10: 1605020101), and the Middle East Fork Carson River (HUC-10: 1605020102). See Figure 1: Watersheds and Rivers Overview Map on page 6 and Google Earth kmz file as Attachment A.

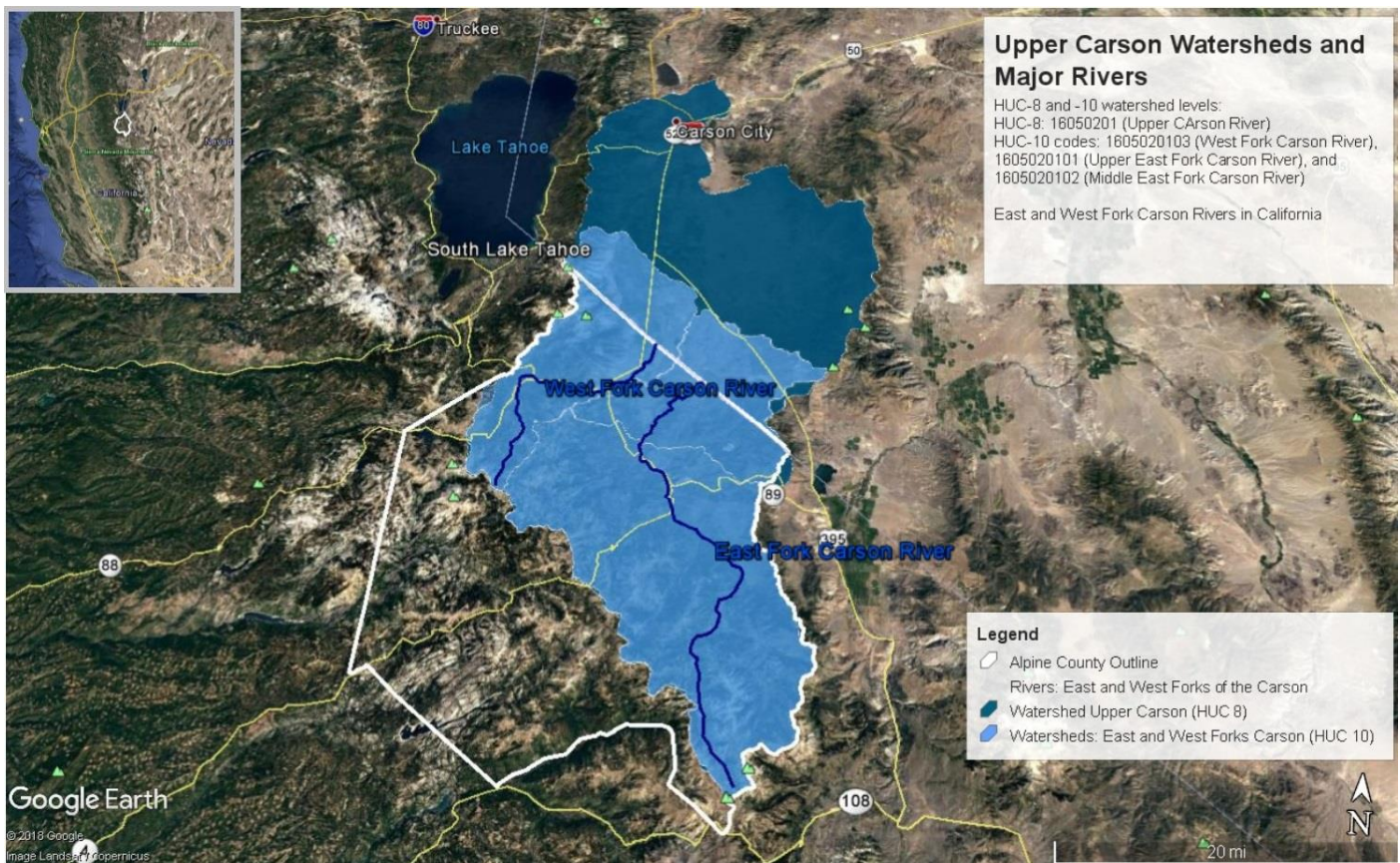


Figure 1: Watersheds and Rivers Overview Map

Technical Project Description

Applicant Category

The Alpine Watershed Group (AWG) is applying as an Existing Watershed Group. AWG is a collaborative non-profit 501(c)(3) organization whose mission is to preserve and enhance the natural system functions of Alpine County's watersheds for future generations. This is accomplished as a collaborative stakeholder group with strong citizen involvement, serving as a forum for dialogue around natural resource planning and management. Although AWG's region encompasses all of Alpine County, most of their programs serve the Upper Carson River Watershed, which is the focus of this funding request.

AWG has been serving the Upper Carson River Watershed in the arena of watershed planning, monitoring and restoration for almost 20 years. AWG began as a grass-roots effort to involve community members in watershed stewardship since the first Markleeville Creek Day event was held in 1999. Individuals and key partners began pulling together the resources for increased capacity. This allowed for the hiring of its first Watershed Coordinator in 2004 with the support of Alpine County as fiscal agent. In 2006, the group became a non-profit organization. AWG proudly became fully independent in 2009 by taking on the management of all financial responsibilities and organizational development needs.

Eligibility of the Applicant

The Alpine Watershed Group meets the eligibility requirements of this funding opportunity. AWG has been an independent nonprofit organization since 2006. AWG plays a critical role in serving the natural resource planning and watershed management needs of the Upper Carson River Watershed. AWG has successfully engaged diverse stakeholders and community members in watershed planning efforts, and has plans to engage remaining and new stakeholders. The organization represents a diverse and growing group of stakeholders with a variety of interests collaborating to preserve and enhance the natural system functions of Alpine County's watershed for future generations. General members include local landowners, conservationists, recreationists, agency representatives, tribal members, ranchers, and local business owners. As an existing and well-established watershed group, AWG also has a proven track record for competently managing large grants and complex planning efforts.

Goals

The following are the Alpine Watershed Group's organizational goals:

- 1) Monitor and restore Alpine County watersheds
- 2) Inspire community involvement and build public awareness around watershed issues
- 3) Build organizational capacity for a sustainable future

Within these goals, AWG fills two critical roles in the Upper Carson River Watershed of Alpine County, California. First, our organization facilitates communication and collaboration among diverse stakeholders from throughout the watershed. Second, AWG creates opportunities for local community members and seasonal visitors to participate in meaningful environmental stewardship programs.

Specific activities include conducting water monitoring and stream assessment, soliciting new stakeholder involvement and strengthening existing partnerships, recruiting local citizen involvement in watershed stewardship projects, and providing local watershed education and community outreach.

Approach

AWG will implement the following three primary tasks and associated activities:

- 4) Community Outreach and Partnership Development
- 5) Information Gathering and Data Collection
- 6) Watershed Restoration Planning

This approach will address Task Areas A and B as outlined in the FOA. Through this work, AWG will expand and strengthen AWG's ability to serve Alpine County and preserve and enhance the Upper Carson Watershed.

Task 1 – Community Outreach & Partnership Development

Expected Outcomes: increased number and diversity of planning partners; enhance partner communication and collaboration; heightened partner investment; newly established Restoration Planning Committee

1.1 Plan and host Stakeholder Forums - Good communication is critical for effective collaboration. Working with diverse stakeholders involves addressing divergent interests. AWG would like to increase our capacity to facilitate conversations which help stakeholders work through these differences. One technique that has proved to be successful is that of holding watershed topic forums. These events are

open to the whole community and usually attract a broad array of participants. Over the next two years, AWG will host four Stakeholder Forums to introduce or investigate watershed topics and encourage dialog among diverse stakeholders.

We would like to ensure that our membership has strong representation from all of the following types of stakeholders: ranchers, conservation groups, landowners, federal agencies, tribes, state agencies, local agencies, water districts, recreation interests, business owners, wildlife advocates, teachers, and unaffiliated residents and that there is meaningful participation from stakeholders

1.2 Conduct general community outreach - Our primary goal with outreach is to build awareness of local natural resources, understanding of watershed issues, and investment in long-term solutions. Ensuring long-term participation for enhanced watershed stewardship is important to guarantee watershed group sustainability. AWG will work to increase the diversity and commitment of our group members. AWG's communication system will be enhanced to ensure that all watershed stakeholders are informed and have an opportunity to be involved in the collaborative planning process. These efforts will effectively expand watershed group membership.

1.3 Develop Projects Committee – The purpose of the Projects Committee (PC) is to provide guidance to AWG staff, consultants, and land managers on restoration and monitoring project scope and design, monitoring procedures, data analysis and interpretation, public outreach, and environmental review and permitting, as applicable. PC membership will encompass a broad knowledge base and multiple scientific, academic, and technical disciplines that are related to restoration and monitoring projects. The PC will ideally be comprised of representatives from the primary natural resource managers (such as California Department of Fish and Wildlife, Lahontan Regional Water Board, and USFS) as well as other stakeholders and landowners within the watershed. The PC will meet periodically for planning input and collaborative decision making. Ad hoc groups to address a specific technical issue may also meet if needed. When appropriate, PC updates and recommendations will be presented to the Alpine Watershed Group board of directors. The PC will meet at least three times per year. The PC will be advisory only, ideally reaching consensus on plans and recommendations although differs viewpoints will be valuable.

Task 2 – Information Gathering & Data Collection

Expected Outcomes: priority monitoring activities identified; collected information regarding existing watershed plans; enhanced water monitoring efforts; recruitment of new volunteers

2.1 Conduct background research - Many watershed plans and assessments have been developed over the last few decades in the Upper Carson River Watershed. A comprehensive process of collecting and cataloging those resources is needed, allowing partners to get a better grasp on the scope of current planning and monitoring efforts and needed restoration projects. This task will facilitate the process of identifying data gaps and prioritizing planning, monitoring, and restoration projects. AWG will gather the multitude of assessments and data collected over the past two decades and conduct a gap analysis to identify needs.

2.2 Enhance monitoring efforts – AWG would like to build our Volunteer Monitoring Program to better capture the data needed for restoration project assessment and issue identification. AWG has been operating its citizen science monitoring program under a Quality Assurance Project Plan (QAPP) since 2004, last updated in 2007. The QAPP has been accepted by the State of California for inclusion of AWG data in the state database – California Environmental Data Exchange Network (CEDEN) – used for the federally-required Integrated Report which includes 303(d) listings. Under this task, volunteers and staff will conduct water quality monitoring 4 times a year and visual habitat surveys once a year at 8 sites in the Upper Carson watershed.

One key program that funding will support is water quality and quantity monitoring and photo assessment of restoration projects on the West Carson River in Hope Valley. AWG staff and volunteers have conducted this in partnership with American Rivers over the past 5 years. There is currently no funding available to continue this important “Meadow Stewards” monitoring program.

Two program augmentations that funding will allow for are 1) stream bioassessment and macroinvertebrate sample collection and 2) a new effort to test water for Contaminants of Emerging Concern in treated wastewater delivered to Alpine County from Lake Tahoe.

2.3 Build volunteer involvement and leadership - One critical component for sustainability of a watershed organization is a large group of commitment volunteers. AWG will expand our existing small cadre of volunteers. Many volunteers have been on board since the very beginning and are justifiably losing steam. Funding will allow AWG to recruit, train, and support volunteers to fully implement and expand its 2018 monitoring program. As part of this task, AWG will plan and market an annual Season Kick-off event to recruit new monitors. AWG will also provide professional citizen scientist trainings using in-house resources and California State Water Board staff at least once per year. Volunteer trainings are required by and allow AWG to stay in compliance with the QAPP, ensure data collected is accurate and reliable, maintain and improve our monitoring program, and help recruit and support volunteers.

Task 3 – Watershed Restoration Planning

Expected Outcomes: Watershed Restoration Plans developed to meet needs of various partners, 319 funding eligibility for the West Fork Carson.

This task will lay the groundwork for determining priority restoration projects in the watershed and begin to raise funding for project design and implementation. AWG will take a unique approach to watershed planning for each of the Forks of the Carson River, based on available data and watershed partners’ priorities and available resources.

3.1 West Fork Carson Watershed Plan Development - Working with the Lahontan Regional Water Quality Control Board (Lahontan) and the State Water Board Nonpoint Source Pollution department, AWG will help address West Fork comments from California Water Board and U.S. EPA representatives on the Stewardship Plan. The Stewardship Plan was created by the Carson Water Subconservancy District in 2007 and updated for the first time in 2017. The 2017 update has been accepted by Nevada as a 9-Element Plan for 319 funding. Comments from the California side of the watershed need to be addressed in order to qualify in both states. This is a priority for and technical resources are available from Lahontan because they selected the west fork as one of their region’s two Vision Projects.

3.2 East Fork Carson Watershed Plan Development - Because the East Fork is not a particularly high priority for Lahontan and the U.S. Forest Service has conducted minimal planning, AWG will focus on pre-planning and gap analysis. The goal is to leverage work being done on the West Fork in Alpine County to update as much as possible and identifying information gaps and resources needed to bring the East Fork to same level of watershed planning to detail as WFC in order to be accepted as a 9-element watershed plan in CA. The East Fork is a more simple system with fewer historic and current impacts – mostly mining, development/road building, and recreation.

The Plan will be standalone to meet Lahontan and EPA needs/requirements, but designed to integrate with the Stewardship Plan. For example, as planning goes forward and new information is gained and included, the project team will note where the information required for each specific plan – 9-Element and TMDL-alternative – fits into the Stewardship Plan.

Evaluation Criteria

Evaluation Criteria A: Watershed Group Diversity and Geographic Scope

AI. Watershed Group Diversity

The Alpine Watershed Group's current membership represents many of the stakeholders. AWG has a strong network of existing local and regional partners. Our primary watershed partners represent many of the local and state natural resource agencies and government jurisdictions, including Alpine County, Bureau of Land Management, California Department of Fish and Wildlife, California State Parks, Carson Water Subconservancy District, Lahontan Regional Water Quality Control Board, Nevada Department of Environmental Protection, Sierra Nevada Conservancy, Tahoe Sierra Integrated Regional Water Management Plan, Washoe Environmental Protection Department, Washoe Tribe of Nevada And California – Community Council, and the USFS, Carson Ranger District, Humboldt Toiyabe National Forest.

AWG's current membership also includes more diverse community representation such as local land owners, businesses, local/ state/ national nonprofits, and public service districts. These include Ace Herford Ranch, Alpine County Chamber of Commerce, Alpine County Garden Club, Alpine Fire Safe Council, Alpine/ Upper Carson Weed Management Group, American Rivers, Friends of Grover Hot Springs, Markleeville Public Utility District, River Wranglers, Sierra Nevada Alliance, Sorensen's Resort, and South Tahoe Public Utility District.

As diverse as this list is, certain stakeholders are yet unrepresented. AWG will build a more diverse stakeholder group by targeting other affected user groups, specifically private landowners (such as ranchers), businesses, and recreational user groups (such as fishermen and OHV users). AWG plans to engage this audience by highlighting past work conducted to benefit them. For instance, two years ago, AWG orchestrated the acquisition of grant funding for one local ranch, Ace Hereford Ranch, to implement grazing best management practices (BMPs) in the lower West Carson Watershed with great success. This now serves as a great example of what other ranches might consider.

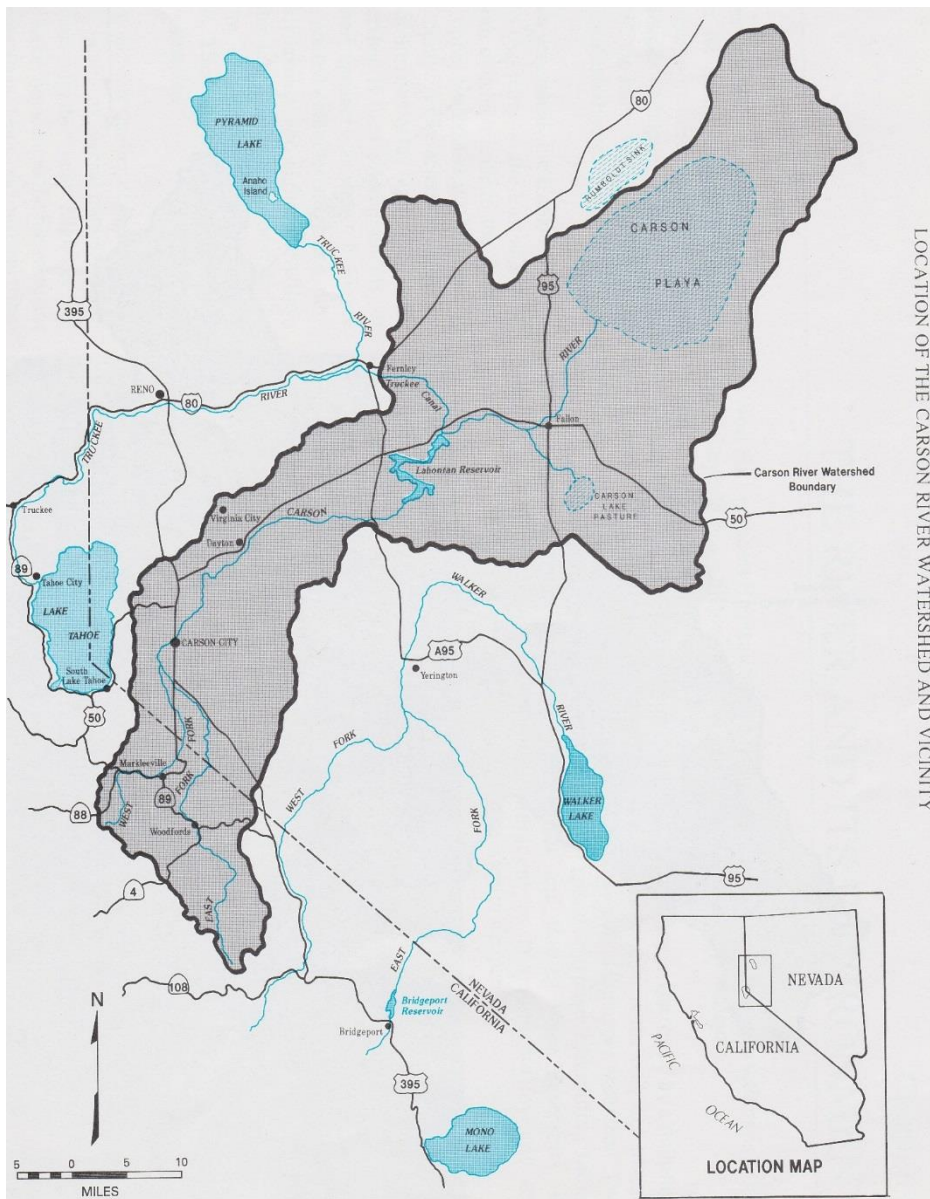
We have found that targeted invitations to individuals are highly effective. Key nonprofit and agency partners we intend to engage include CalTrout, Markleeville Water Company, Natural Resource Conservation Service, and U.S. Geological Survey. We will also expand our partnerships to include water-supply related partners. We already have a good relationship with the Markleeville Public Utilities District, and hope to work with to increase community knowledge of water conservation.

AWG implements specific strategies to engage specific stakeholders. Agency partners will be involved at a more technical level through the development of the Project Planning Committee as well as Technical Advisory Committees as needed. AWG will build on past efforts which have effectively expanded lines of communication and initiated dialogues between local and regional agencies.

A2. Geographic Scope

AWG does a thorough job at representing the geographic scope of the area. Since the Carson River is a bi-state watershed, bi-state collaboration is critical. Having worked with the Carson Water Subconservancy District and various other Nevada partners for 20 years now, AWG has developed a strong network of support throughout the Carson River Watershed.

Since our organization serves both California and Nevada, AWG has a strong network on the California side as well. On the state level, AWG has received funding through the California Department of Conservation, California State Parks Foundation, California State Parks Off-Highway Motor Vehicle Recreation Division, California State Water Resources Control Board, Sierra Business Council, Sierra Nevada Alliance, and Sierra Nevada Conservancy over the past 10 years alone. These state connections in both California and Nevada help highlight the value and significance of watershed resources in Alpine County's Upper Carson River Watershed.



LOCATION OF THE CARSON RIVER WATERSHED AND VICINITY

As described above, although AWG coordinates throughout the entire Carson River Basin (HUC-6: 160502), the geographic scope of this proposal is the Upper Carson River Sub-basin (HUC-8: 16050201).

This broad scope is difficult to capture in map format. However, AWG regularly uses this representation of Alpine County's bi-state water influence from the Carson River Atlas (Figure 2: Location of the Carson River Watershed and Vicinity). Several of AWG's stakeholder groups are located in the lower watershed of Nevada, such as several agency partners based in Minden, Gardnerville and Carson City as well as River Wranglers based in Silver Springs.

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Figure 2: Location of the Carson River Watershed and Vicinity

Evaluation Criteria B: Addressing Critical Watershed Needs

BI. Critical Watershed Needs or Issues

Over the last 150 years Alpine County watersheds have experienced extensive mining, grazing, timber harvesting, and road building. Current stressors include recreation, invasive noxious weeds, housing and septic systems, limited grazing, and road use and maintenance. These historic and current activities, along with climate change create the watershed issues AWG works address. All current watershed plans, referenced throughout this application, identify the primary watershed issues to include: meadow stream bank stability, sediment input, channel modifications, reduced instream flows, degraded water quality and riparian habitat, invasive weeds, and public and environmental health and safety. The Upper Carson Watershed supports some threatened and endangered species and their current and historic habitat ranges. Alpine County's rural nature and the distance and jurisdictional boundaries between water supply and use in the Carson Watershed makes communication and collaboration particularly important and challenging. The Alpine Watershed Group and our partners have been monitoring water quality on the West Fork since 2004, providing data used to examine changes in water quality, habitat, land uses, and general watershed conditions over time. This data and our experience in the watershed, along with the plans and resources listed in the Background Data section, resulted in this project proposal.

Degraded Water Quality

Both the East and West Forks of the Carson River and Indian Creek, along with some of their tributaries and related waterbodies in Alpine County are on the California 303(d) List of impaired waterbodies. Additionally, eighteen reaches of the Carson River are listed on the Nevada 303(d) Impaired Waters List. The East Fork has been listed due to some historic drought conditions near the Nevada border. A federal General Accounting Office report identified watershed problems related to grazing on National Forest lands in the upper East Fork watershed. The SNEP report (University of California, Davis, 1996) identified human impacts on aquatic and riparian habitat in the East Fork watershed including grazing of meadows, camping, and fishing including heavy fishing pressure near highways, mine tailings, wastewater effluent, and introduced trout which compete with native species. Much of the East Fork below Monitor Pass, and various tributaries, are impaired due to the Leviathan Mine which is a Superfund site. The West Fork has historic boron, mercury, and coliform criteria violations near the state line. Livestock grazing has damaged stream geomorphology and riparian vegetation in Hope Valley. Indian Creek Reservoir is Section 303(d) listed due to eutrophication, and Indian Creek due to aquatic habitat degradation. Monitoring of surface waters in the lower Upper Carson Watershed shows very high levels of coliform bacteria that are not attributed to reclaimed wastewater discharges.

To date there is only one TMDL that has been developed for the California portion of the watershed. All other California 303(d) listed waterbodies have a low priority for TMDL development. The West Fork Carson is a U.S. EPA Vision Project meaning a TMDL-Alternative Plan will be developed by 2022. With support from this grant, AWG can help speed that process up and make it more stakeholder-driven. TMDL development for listed waterbodies in the East Fork Carson watershed that are associated with the Leviathan Mine Superfund Site, such as Aspen Creek, Bryant Creek, Monitor Creek, and Leviathan Creek, will be coordinated with ongoing Regional Board and CERCLA remediation activities at the mine site.

Riparian habitat and endangered species

The Upper Carson Watershed supports two subspecies of threatened trout, the Lahontan and Paiute cutthroat trout. Heenan Lake, which contains a population of Lahontan cutthroat trout, is one of the first six waters statewide in the California Department of Fish and Wildlife's "Heritage Trout Program." As a result of the Sierra Nevada Ecosystem Project (SNEP), the East Fork Carson River has been recognized as a potential "Aquatic Diversity Management Area", and its tributaries, Silver King Creek above Llewelyn Falls, and Whitecliff Lake, as "Significant Natural Areas (Aquatic)". The Pacific Rivers Council (1998)

identified the East Fork Carson River as an Aquatic Diversity Area, due to the presence of eight native fish species, and a native amphibian, the mountain yellow-legged frog. The East Fork above Carson Falls, Murray Canyon, and Poison Flat Creeks were identified as “Critical Refuges” for the Lahontan Cutthroat trout, and Silver King, Corral Valley, and Coyote Valley Creeks as Critical Refuges for the Paiute cutthroat trout. The “Aquatic Diversity Area” and Critical Refuge” designations relate to the degree of intactness of natural ecosystem processes, and the probability that protection of these areas will promote ecosystem recovery in the long term.

Mining

Historically, the area contained numerous mines and logging operations that supported the Comstock mining region in Nevada and today, over 40 abandoned mines have been documented in the watershed. All waters of the Carson River watershed in California are designated for the Municipal and Domestic supply (MUN) beneficial use, and are considered sources of drinking water under Proposition 65. Acid mine drainage and sedimentation problems associated with the inactive Leviathan Mine have impaired water quality and instream uses in downstream waters.

Grazing

Grazing in the riparian zone can increase sediment supply to the stream channel by increasing both surface erosion and mass wasting. The removal of vegetation and exposure of soil makes surface sheet erosion and gulying more likely. Mass wasting of sediment occurs along stream banks where livestock trample overhanging cut banks. Stream bank instability resulting from trampling and loss of vegetation on stream banks also tends to result in higher rates of bank erosion and increased sediment supply. Grazing is a primary cause of channel incision, which greatly increases available sediment. Incision results in substantial increases in mass wasting of stream banks and rill and gully erosion on adjacent floodplain surfaces. Surface erosion increases as well due to resulting changes in floodplain and riparian vegetation. Grazing impacts are a special concern with respect to the potential for recovery of the threatened Paiute cutthroat trout. Even in the areas where grazing has been removed, many of the river and stream channels have not fully recovered, indicating historic grazing is still having an effect and/or is not the sole issue.

Timber harvesting

Discovery of the Comstock Lode in 1859 brought an influx of prospectors and in 1860 gold was discovered along the East Fork Carson River at what would become the Silver Mountain Mining District. The construction demanded large quantities of timber, which was cut from the mountain forests up slope of the river corridor. For about 40 years starting in the mid-1860s, large quantities of saw logs were flumed down to the East Fork Carson River forming large log runs down the river. Throughout the Upper Carson Watershed, logging was an important industry during the 1860's and 1870's. Lumber was needed for the construction of towns, ranch structures, and flumes built in the area and for burning to drive steam engines. Timber harvest waxed and waned through the 1900s and between 1985 and 1989 approximately \$1,490,000 worth of timber was cut in Alpine County. There is currently very little commercial logging in the Upper Carson Watershed, but the legacy effects are still evident and in need of addressing.

Recreation

Alpine County is a popular outdoor playground for visitors from California and Nevada. The Upper Carson Watershed is popular for fishing, rafting, and other outdoor recreation activities that depend on high water quality. The West Fork flows through scenic Hope Valley, where public funds were spent to acquire important wetland and riparian habitat. A segment of the East Fork between Hangman's Bridge and the Nevada state line is designated as a California State Wild and Scenic River, and is a popular river rafting area. The U.S. Forest Service is studying some reaches of the East Fork in California for possible inclusion in the federal Wild and Scenic River system. Substantial recreational use has resulted in impacts to the landscape, causing increased erosion and water quality degradation at certain locations.

Invasive Noxious Weeds

Noxious invasive weeds such as cheat grass, sweet clover, perennial pepperweed, and tall whitetop have and continue to spread into riparian and wetland areas of the Carson Watershed. Noxious weeds can have significant impacts on natural ecosystems by outcompeting native plants and affecting the quality of food and habitat available to animals. AWG has programs in place to address noxious weed infestations and would like to increase our capacity in this respect.

Road building, use, and maintenance

Increases in both fine and coarse sediment delivery to the channel from the surrounding watershed have occurred as a result of land uses. Most of the upper West Fork area has been affected by increased sediment supply to channels. Roads are one of the primary land uses responsible for an increase in sediment supply. Both paved and unpaved roads contribute. Recreational impacts and natural processes may also contribute to stream issues. Also, pavement tends to increase and concentrate runoff. During storms that produce intense precipitation, concentrated runoff can erode road fill in discrete locations. Sediment produced from these sources, especially fine sediment, can degrade aquatic habitat when it enters stream channels.

Human development

These land uses have had adverse impacts on the water quality of the Upper Carson River. The rural character of Alpine County also presents some resource management challenges. For instance, the majority of the Alpine County population relies on septic systems for waste water disposal. In addition, some communities have been built in close proximity to stream corridors, encroaching onto the riparian and floodplain areas. The primary influence of human development in the meadow systems has been to increase rates of bank erosion, which in turn provides more sediment to the system. The West Forks of the Carson River is listed as impaired under Section 303(d) of the Federal Clean Water Act. Impairments include elevated levels of nitrogen, phosphorus, sodium and pathogens.

Climate Change

This project will serve to mitigate the potential long-term impacts of climate change. One likely result of climate change is the variability of the timing and amounts of spring run-off. Reestablishing a functional floodplain will allow the stream corridor to accommodate variable flows in the future. In addition, due to the potential for earlier spring run-off, it will be highly important for our lands to serve as natural storage areas. Floodplains and wet meadows offer some amount of water storage which improves late season, in-stream flows. Finally, continuous riparian vegetation along streams provides important wildlife habitat as well as travel corridors.

Public and Environmental Health and Safety

The project also provides Public Health and Safety benefits and Environmental Health and Safety benefits. The proposed project is critical floodplain restoration that will increase the capacity to attenuate floodwaters in the upper watershed; therefore, limiting flood damage impacts to downstream communities. Additionally, the West Fork of the Carson River provides public drinking water to users downstream. The project will reduce sediment and erosion issues, providing improved water quality benefits to this public drinking water source.

Communication and Collaboration

Communication and cooperation among public agencies and the private sector is an important aspect of watershed planning, restoration, monitoring, and education on private and public lands in the Carson River Watershed. AWG works to engage watershed partners in the planning process. The volunteer and citizen science projects AWG runs provide opportunities for community members to participate in on-the-ground watershed restoration and monitoring. Public outreach in the form of watershed education and stakeholder meetings will be used to generate and encourage of public participation in the watershed approach.

B2 - Developing Strategies to Address Critical Watershed Needs or Issues.

Stakeholder Outreach and Partnership Building

AWG will be building on 20 years of progressive development as a reliable network for watershed collaboration. As a collaborative watershed organization, AWG seeks to build consensus among stakeholders. Bringing stakeholders together is critical to building trust amongst players and discussing issues and solution. AWG has successfully filled that role of partner convener and discussion facilitator over the past 10 years in Alpine County.

AWG does involve conservation organization advocating for balanced stewardship and use of public lands, especially since the Upper Carson Watershed in Alpine County is 84% public land. Although AWG is not an advocacy organization, it is important to have a balanced approach to watershed stewardship. Like the USFS slogan states, “land of many uses,” AWG strives to ensure all interests have a say.

Over the past several years, AWG has expanded our partnership to work more closely with the local fire departments and Fire Safe Council. AWG and project partners collaborated to develop presentations and media to increase our community’s understanding of fire’s natural role in a health watershed, its benefits to forest ecology, all a while balancing the message with the threat of wildfire. A school-based educational program was also started to promote awareness amongst youth on wildfire prevention and personal responsibility, while educating them on the role of fire in a healthy ecosystem.

In May 2015, AWG held a Forum on Forest Health and Fuels Reduction in Alpine County.” A total of 31 community members and agency representatives attended, a great turnout for project partners. During the forum there were presentations from key land managers and funding partners including staff from USFS Carson Ranger District, CalFire and Sierra Nevada Conservancy. Presentations were followed by an open community forum regarding perceived fuels reduction needs. Unsolicited community feedback included comments such as “well organized” and “very professional”. Two outcomes from this effort included 1) a collaboration grant application for a fuels reduction and community education project and 2) the development of the Alpine Biomass Committee (ABC), a collaborative group with the mission to unify partners to promote forest and watershed health, and local economic development.

The 2015 forum established new partnerships and built network of communication around addressing fuel hazard and fire concerns on a regional level. It also tied this topic directly to watersheds and the protection of our water resources. AWG would like to continue improving the implementation of key strategies for conflict resolution.

The Carson Ranger District of the Humboldt-Toiyabe National Forest has also been active with AWG in identifying restoration and monitoring priorities. Through their participation on a Technical Advisory Committee for the Markleeville Guard Station Restoration Project, they have guided the development of the Restoration Design Plan as well as the pre- and post-project monitoring strategies. Other partners and collaborators include Alpine County Chamber of Commerce, American Rivers, CalTrout, Friends of Hope Valley, Markleeville Public Utility District, River Network, Sierra Nevada Alliance, Tahoe Sierra Integrated Regional Water Management Plan, U.S. Geological Survey and Washoe Tribe.

In order to ensure an effective, long-term watershed program, AWG will work with partners to clarify and formalize their commitment through Memorandums of Understanding. AWG intends to build more active working relationships with other agencies that have collaborated with us over the years – California Department of Fish and Game, California State Parks, South Tahoe Public Utility District and Bureau of Land Management.

Watershed Restoration Planning

In order to address the California requirements to adopt the Stewardship Plan, AWG will coordinate and facilitate project partners and land managers, conduct local stakeholder outreach, help identify and supply needed information such as monitoring data and completed watershed projects, provide input on feasible management measures, and eventually act as one of the implementers of specific projects included in the Plan. AWG will benefit from a close working relationship with Lahontan staff who have technical expertise such as pollutant source tracking, scientific models and tools, and time dedicated to this planning project. AWG will also leverage their monitoring data and restoration project results along with underutilized information and methods. For example, AWG has 14 years of water quality and habitat monitoring data that has not been used for watershed planning purposes on this scale. As part of the planning process, AWG will inventory past, current, and planned restoration efforts in the Upper Carson Watershed. Other sources of information that have been overlooked or underutilized will also be helpful in addressing requirements for plan approval in California, including: stream habitat surveys, mine remediation plans, and load duration curves established for areas in the lower watershed.

At the end of the two-year grant period, AWG will complete a comprehensive standalone watershed plan with gap analysis for the Upper Carson Watershed and integrate it with the existing Carson River Watershed Adaptive Stewardship Plan (Stewardship Plan). This plan will lay the groundwork for determining priority restoration projects in the watershed and beginning to raise funding to project design and implementation. Upper Carson River Watershed Restoration Plan will: 1) for the West Fork – meet the California requirements for a 9-Element Watershed Plan in order to qualify for federal 319 funding and is the baseline for a TMDL-Alternative Plan under the U.S. EPA Vision program; and 2) for the East Fork – include a non-technical update and gap analysis identifying future work needed to meet the 9-Element plan requirements in California. The Plan will be standalone to meet Lahontan and EPA requirements, but designed to integrate with the Stewardship Plan.

West Fork Carson: Planning

AWG will work with watershed stakeholders such as CWSD, Lahontan, State Water Board, USEPA, and U.S. Forest Service to address comments in order to get the first ever 9-Element Watershed Plan approved in California and increase the pace of the TMDL-Alternative Plan being pursued by Lahontan. A 9-Element Plan, as defined by USEPA, makes projects included in the plan qualify for federal 319 funding and puts the plan area in compliance with federal and regional TMDL development requirements. No 9-element plans have been approved in California as of this grant application. This is likely because all of the other Water Board regions in California have already developed TMDLs for their priority waterbodies so do not need alternative way to access federal resources such as 319. Lahontan is very rural and has few TMDL developed along with little staff time to develop TMDLs. AWG is at the center of a lot of action currently taking place in the West Carson watershed and is in the position to ensure recent, current, and future watershed planning and restoration work is holistic in nature and landscape in scale. The West Fork is a priority for and technical resources are available from Lahontan and the US Forest Service.

In 2013, the U.S. EPA announced a new collaborative framework for implementing the Clean Water Act Section 303(d) program with states called the “Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program” (Vision). The Vision focuses attention on priority waters and acknowledges that states have flexibility in using available tools in addition to Total Maximum Daily Loads (TMDLs) to attain water quality restoration and protection. In 2015, Lahontan staff identified the West Fork Carson River to be addressed through the Vision Program. Lahontan chose the West Fork as a good candidate for a Vision Project because of the dynamic restoration projects in the watershed, the high stakeholder involvement, and a robust data set characterizing water quality in the

watershed; much of which is thanks to AWG's past and ongoing efforts. The Carson Ranger District on the Humboldt-Toiyabe National Forest has been working towards a larger landscape view of their restoration activities. Their goal is to integrate recent, past, present, and future activities within the specific watersheds. The District is currently analyzing the West Carson River Watershed for opportunities to enhance aspen stands, reduce fuels, improve habitat for the endangered Sierra Nevada yellow-legged frog, and improve meadow habitat.

Some preliminary work identifying some of the potential sources of impairment has already started. Sources of impairment in this watershed are likely contributed by non-point sources and storm water runoff. Sources of phosphorus loading in the West Fork Carson River may include eroded sediment from streambanks, road and highway maintenance, construction sites, forest fires, storm water runoff and atmospheric deposition. Possible sources of nitrogen are septic systems, erosion, storm water, agricultural storm water, historic livestock grazing, treated effluent supplied for irrigation and natural nitrogen fixing by plants and soil bacteria. One likely source of fecal coliform is livestock waste. Other possible sources include wildlife, septic systems and recreational users of the watershed. Chloride, sulfate, total dissolved solids (TDS), and turbidity are likely caused by sources similar to the erosion factors mentioned above. These planning efforts give AWG and project partners a lot of good work to expand on.

East Fork Carson: Pre-planning

The East Fork is a lower priority for both Lahontan and the U.S. Forest Service because the watershed is not a Vision Project, the largest impacts are under the Leviathan Mine CERCLA purview, and the USFS has conducted minimal planning specific to watershed health. AWG will focus on pre-planning and gap analysis. The goal is to leverage work being done on the West Fork in Alpine County to update as much as possible and identifying information gaps and resources needed to bring the East Fork to same level of watershed planning to detail as WFC in order to be accepted as a 9-element watershed plan in CA.

The East Fork is a more simple system with fewer historic and current impacts – mostly mining, development/road building, and recreation. Lahontan has a Leviathan mine team that may be able to provide some technical support, and there are already detailed restoration and remediation plans for the area of the East Fork watershed affected by the Leviathan mine. There are studies and planning documents that AWG will build upon to start filling in information gaps: *Upper Carson River Watershed Stream Corridor Assessment* (2004) and the *East Carson River Strategy* (USFS, 2007). AWG has also been working on site-specific watershed restoration planning and project implementation to address issues associated with off highway vehicle use for the past several years.

Carson Watershed Plan Integration

The Plan will be standalone to meet Lahontan and EPA needs/requirements, but designed to integrate with the Stewardship Plan. For example, as planning goes forward and new information is gained and included, the project team will note where the information required for each specific plan – 9-Element and TMDL-alternative – fits into the Stewardship Plan.

Evaluation Criteria C: Implementation and Results

CI. Understanding of and Ability to Meet Program Requirements

AWG’s proposed Scope of Work is described in detail under the Approach section of the Technical Project Description above. The following table, organized by Task Category, outlines the estimated schedule of work for each major task. Also included are the milestones, start/end, and cost for each task.

Sub-Tasks	Start	End	Milestones	Cost
Community Outreach & Partnership Development				
Stakeholder forums	October-18	September-20	Calendar of forums, forum flyers, attendance rosters, meeting minutes	\$ 5,000
Community outreach	January-19	September-20	Calendar of community outreach opportunities, list of community outreach events, attendance roster	\$ 8,000
Committee development	April-19	September-20	Committee member list, meeting schedule, agendas, meeting minutes, attendance roster	\$ 3,000
Information Gathering & Data Collection				
Background research	October-18	September-19	List relevant watershed plans, initial gap analysis, final gap analysis	\$ 2,000
Monitoring	March-19	September-20	Priority monitoring activities identified, monitoring calendar developed, list of volunteer monitors, projects, and hours contributed, data available upon request	\$ 10,000
Volunteer recruitment & leadership	October-18	May-20	Annual Volunteer kickoff event, monitor training, volunteer list and volunteer hours	\$ 2,000
Restoration Plan Development				
West Fork Carson Plan Development	October-18	September-20	Plan needs and outline, 9-Element plan draft, 9-Element plan accepted by California Water Board, TMDL-alternative plan draft	\$ 15,000
East Fork Carson Plan Development	April-19	September-20	Plan outline, gap analysis, integration with 9-Element and Stewardship plans	\$ 5,000

C2. Building on Relevant Federal, State, or Regional Planning Efforts

AWG activities directly address various regional, state and federal efforts. The following is a brief description of these relationships:

Regional

Alpine County General Plan - AWG has developed restoration projects which assist Alpine County in correcting flood plain violations which bar any development from “controlling the alteration of natural flood plains, stream channels and natural protective barriers which help accommodate or channel floodwaters” [County Code (16.08.020)]. The County General Plan also states that any “encroachments into the floodplain which could adversely affect the velocity, volume or direction of flood flows in a manner which could create threat to public health and safety shall be prohibited in those zones” (Element II, Section D, Policy 23a).

Stewardship Plan - The Carson River Watershed Adaptive Stewardship Plan (Stewardship Plan) was completed in June 2007. The main purposes of the plan are to: a) provide an overview of the watershed and its challenges, b) identify potential sources of nonpoint source pollution, c) discuss short and long-term strategies and actions to address these potential sources, d) provide tracking mechanisms for projects and programs, e) identify future project and program opportunities, and f) address the nine criteria elements of the Clean Water Act (CWA) Section 319 Program. The 2007 plan recommends that an update be conducted on an as needed basis, not to exceed a three-year time frame. The first-ever update was just completed in 2017. The purpose of this update is to provide current information on projects and programs listed in the 2007 plan, add information acquired since 2007, and add projected and potential project and program information.

One primary project over the next year involves collaboration with CWSD and other partners to ensure that the Carson River Watershed Adaptive Stewardship Plan is adopted by California. The State of Nevada approved the document as a 9-Element Watershed Plan. On the California side, Lahontan Regional Water Board has approved it. However, final approval by California EPA is still needed in order for any California projects to be eligible for federal 319 funding. AWG will help further the update of the Stewardship Plan by ensuring all projects and planning efforts are included and by coordinating the plan acceptance process. Depending on funding available, AWG will facilitate partner communication, conduct local stakeholder outreach, help supply needed information such as monitoring data and completed watershed projects, and provide input on feasible management measures. This process will assist in the long term development of a TMDL-alternative plan (West Fork Carson only) under the USEPA Vision program, an effort which is a huge priority to the Lahontan Regional Water Board.

Tahoe Sierra Integrated Regional Water Management (IRWM) Plan – AWG has been a partner in this regional effort for about 10 years. The State of California Department of Water Resources began IRWMs as a collaborative effort to identify and implement water management solutions on a regional scale that increase regional self-reliance, reduce conflict, and manage water to concurrently achieve social, environmental, and economic objectives. Integrated Water Management refers to the comprehensive and collaborative approach for managing water to concurrently achieve social, environmental, and economic objectives. Examples of multiple benefits include improved water quality, better flood management, restored and enhanced ecosystems, and more reliable water supplies.

State

California Water Plan - AWG's watershed planning and water monitoring activities address several of the California Water Plan Update (2013) resource management strategies in the "Ecosystem Restoration" category, including the following:

- Reconnect rivers to their historic floodplains as part of new flood management approaches
- Restore mountain meadows
- Maintain and create habitat around stream and river corridors that is compatible with stream and river functions.
- Restore and preserve stream channel morphology to provide floodwaters access to the floodplain and to encourage stable banks and channel form.

California Water Action Plan – Along the same lines, AWG projects would also be considered an effective strategies according to the CA Water Action Plan (2016) priorities to ensure the following:

- Restore Key Mountain Meadow Habitat
- Manage Headwaters for Multiple Benefits
- Protect and restore degraded stream and meadow ecosystems to assist in natural water management and improved habitat

Federal

In addition to the Department of Interior and its agencies' initiatives described in Evaluation Criteria D of this proposal, AWG's current and proposed activities build on many federal planning efforts. AWG has received a letter of support from Senator Feinstein's office regarding the "key role" the organization plays in the Upper Carson River Watershed. One overarching policy is the "Unified Federal Policy for a Watershed Approach to Federal Land and Resource Management" which provides a framework for a watershed approach to Federal land and resource management activities for the Departments of Agriculture, Commerce, Defense, Energy and the Interior, the Environmental Protection Agency, the Tennessee Valley Authority, and the Army Corps of Engineers. Some agency-specific plans include the following:

USDA Forest Service – the U.S. Forest Service is the largest land manager in the Upper Carson Watershed and AWG activities align with and support:

- Forest Service 2012 Planning Rule
- 2013 Inventory, Monitoring, and Assessment Strategy
- Collaborative Forest Landscape Restoration Program
- Watershed Condition Framework
- Climate Change Scorecard
- USFS GTR-680
- U.S. Public Participation Playbook
- 2017 Crowdsourcing and Citizen Science Act
- 2013 Open Government National Action Plan
- Forest Service Strategic Plan FY 2015-2020

United States Environmental Protection Agency

- Healthy Watersheds Program
- Handbook for Developing Watershed Plans to Restore and Protect Our Waters
- Watershed Academy – Introduction to Watershed Planning

USDA Natural Resources Conservation Service

- Watershed and Flood Prevention Operations Program
- Watershed Surveys and Planning through the Watershed and Flood Prevention Act
- Watershed Rehabilitation Program

Evaluation Criteria D: Nexus to the Department of the Interior Initiative

With thorough and holistic watershed planning, water quality and habitat monitoring, and meaningful engagement with our local tribal community, this proposal will help further the Department of Interior's mission to protect and manage the Nation's natural resources and cultural heritage. AWG's efforts will also provide scientific information about those resources and honor its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

Specifically, AWG's proposal supports specific DOI initiatives and goals. AWG's watershed planning and stakeholder engagement activities support the America's Great Outdoors Initiative by providing local ideas and solutions for environmental stewardship and connecting to our historic, cultural, and natural heritage. Funding would allow AWG to continue promoting innovative community-level efforts to conserve outdoor spaces and to reconnect Americans to the outdoors. AWG's meaningful stakeholder engagement supports DOI's Open Government Plan which recognizes that lasting conservation solutions should come from the American people and includes a commitment to engaging stakeholders and the public to better carry out DOI's mission. Additionally, AWG's current and proposed activities help achieve DOI's current Strategic Plan Missions of Celebrating and Enhancing America's Great Outdoors and Ensuring Healthy Watersheds and Sustainable, Secure Water Supplies.

This funding proposal directly achieves part of the Bureau of Reclamation's WaterSMART Strategic Implementation Plan by developing collaborative partnerships that go beyond political and institutional jurisdictions to ensure that the Nation's limited water resources are used efficiently, sufficient amounts are retained to protect and restore the environment, and supplies are managed to reliably meet new demands. If funded, AWG would help BoR achieve this specifically through the Cooperative Watershed Management Program. In Alpine County, AWG engages with the BLM through the Alpine Biomass Committee collaborative group to help reduce the potential for and impact of fires and facilitate and undertake invasive species management projects including cooperative weed management areas throughout the Carson watershed.

AWG's watershed planning, monitoring, and restoration programs also support the U.S. Fish and Wildlife Service's water-resource planning, management and research that conserves, protects and enhances our nation's fish, wildlife and plants. Specifically, AWG's proposal supports the Strategic Habitat Conservation Initiative by working at larger watershed scales (HUC-8), across watershed programs, and with our partners and stakeholders. Through collaboration with the Alpine Biomass Committee, Alpine Fire Safe Council, California Department of Forestry and Fire Protection, and other watershed stakeholders, AWG supports the Office of Wildland Fire. The Upper Carson Watershed is largely a forested watershed so AWG and partners work to ensure that our landscapes and communities are resilient to fire by planning and implementing fuel treatments to protect the public, our infrastructure, and our landscapes.

The Upper Carson Watershed supports two subspecies of threatened trout, the Lahontan and Paiute cutthroat trout. The Lahontan cutthroat trout has a historic range throughout the Upper Carson Watershed, but was federally listed as Endangered in 1970 and reclassified as Threatened in 1975. Upstream Lahontan populations have been isolated and decimated by poorly managed grazing, excessive water withdrawals for irrigation, extensive landscape changes associated with development, mining, timber harvest, road and railroad building, dams and diversions, pollution, non-native fish introductions, and commercial harvest. In the mid-1800s, the "silver rush" of the Comstock Lode further impacted this subspecies. It is well documented they were harvested heavily in the late 1800s and shipped by rail to

mining camps, San Francisco, Salt Lake City, and other locations. The East Fork Carson headwaters and many of its tributaries have been identified as “Critical Refuges” for the Lahontan and the closely related Paiute cutthroat trout. The Paiute is native to Silver King Creek and tributaries in the headwaters of the East Fork Carson River drainage, but was federally listed as Endangered in 1967 (one of the first animals in the nation to be listed) and reclassified as Threatened in 1975. Past habitat degradation from sheep and cattle grazing greatly reduced the Paiute cutthroat trout population. Current populations are small and isolated, putting them at risk from potential hybridization with non-native trout as well as wildfires, drought, and climate change.) The Pacific Rivers Council (1998) identified the East Fork Carson River as an Aquatic Diversity Area, due to the presence of eight native fish species, and a native amphibian, the mountain yellow-legged frog. The mountain yellow-legged frog is federally listed as Endangered. In various locations throughout the Upper Carson Watershed, a new sub-species, the Sierra Nevada yellow-legged frog, has historic habitat. In 2013, the Sierra Nevada species was proposed as an endangered species with its decline attributed to many factors including livestock grazing, pesticides, drought, chytrid fungus, and introduced fish species.

The Upper Carson River Watershed represents an important historical and cultural resource of the Washoe Tribe. For over 10 years, the Alpine Watershed Group has been working with the Washoe Tribe’s Cultural and Environmental Departments in addressing water quality issues and developing projects which protect the cultural and environmental resources of significance to the Washoe Tribe. The two entities are also developing new, collaborative community outreach and youth education programs. This project would help to restore Tribal ancestral lands, and benefit the plants and animals that occupy the lands and the Tribal members who visit the lands.

ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

None of the monitoring or other field work will require environmental or cultural resource compliance.

REQUIRED PERMITS OR APPROVALS

The only permits required for the proposed work are a Scientific Collection permit from California Department of Fish & Wildlife (CDFW) to collect macroinvertebrates during bioassessment monitoring and a Notice of Exemption (NOE) under the California Environmental Quality Act for volunteer restoration work on CDFW Land. The Scientific Collection permit is a renewal that will happen in spring 2018 and the NOE is already submitted and approved. Any project-specific permits or approvals will be addressed through restoration project-specific plans and efforts.

PROJECT BUDGET

Funding Plan/Budget Proposal

Budget Item	Rate	Quantity	Unit	Grant Request
Salaries and Wages				
Executive Director	\$ 32.00	700	hours	\$ 22,400
Program Manager	\$ 26.00	1650	hours	\$ 42,900
Fringe Benefits				
Executive Director	\$ 9.00	700	hours	\$ 6,300
Program Manager	\$ 6.50	1650	hours	\$ 10,725
Travel				
Local	\$ 0.545	3600	miles	\$ 1,962
Conference	\$ 200.00	4	events	\$ 800
Equipment				\$ -
Materials & Supplies				
Office supplies	\$ 40.00	24	months	\$ 960
Printing/ copying	\$ 1,000.00	1	misc items	\$ 1,000
Meeting supplies	\$ 300.00	1	misc items	\$ 300
Monitoring supplies	\$ 1,000.00	1	misc items	\$ 1,000
Contractual				
Bookkeeper	\$ 35.00	72	hours	\$ 2,520
<i>Subtotal</i>				\$ 90,867
Indirect				
<i>de minimus rate</i>	10%	\$ 90,867		\$ 9,087
TOTAL				\$ 99,954

Budget Narrative

Salaries and Wages – AWG Watershed Program Manager, Gavin Feiger, will conduct the day to day planning and implementation of all activities. He will dedicate just over one-third of his position (825 hours per year or 1650 over 2 years) to the implementation of the tasks outlined in this proposal. He is compensated at a rate of \$26/ hour. Executive Director, Sarah Green, is responsible for partnership development and stakeholder outreach. She will also manage the overall implementation of the grant. These roles are estimated at 350 hours per year (700 hours total) at a rate of \$32/ hour.

Fringe Benefits - This includes state and federal withholdings (Social Security, Medicare, Unemployment Insurance), health insurance, paid holidays, and paid time off.

Travel – Travel covers the cost of staff to attend meetings, conduct site visits and manage program activities, covering 150 miles/month over 24 months (3,600 miles) at the current 2018 federal mileage rate of \$0.545/ mile. This funding will cover only a portion of staff travel. Travel also includes staff participation at four workshops, trainings and conferences as needed (costs include conference fees, lodging, meals and mileage) which average \$200/ event. Annual events for expected AWG participation are the Sierra Nevada Alliance Annual Conference and the Carson Water Subconservancy District's annual Water Forum. Other conferences may include the California Clean Water Team's Citizen Monitoring Program trainings and the Rose Foundation's annual Grassroots Convening Conference.

Upper Carson River Watershed Planning and Partnership Development

Equipment – There will be no equipment needs for this project.

Materials & Supplies – Costs include office supplies (averaging \$40/month over 24 months - \$960), printing/copying of meeting flyers, brochures and outreach materials (estimated at \$1,000), postage for stakeholder outreach (at \$200/year - \$400), and meeting costs such as room use fees and refreshments (estimated at \$300). Monitoring supplies that will be covered include the purchase of replacement and additional water quality monitoring meters and testing kits (~\$400) and miscellaneous monitoring supplies needs such as gloves, calibration fluids, and CDFW bioassessment permit (\$600).

Contractual – The only contract service to be covered by this proposal is a portion of the AWG Bookkeeper, whose contractor rate is \$35/hour. It is estimate that the Bookkeeper will spend 3 hours/month over 24 months (72 hours total) for services under this grant.

Indirect Costs – This covers a de minimis rate of 10% of all modified indirect costs. All budget costs fall within the modified total direct cost, therefore the cost basis for this calculation is \$90,867. Indirect costs include all expenses directly associated with the overall administration of this grant, such as administrative and legal services, rent, and utilities.

Additional Funding - AWG has funding for specific restoration projects from the Carson Water Subconservancy District, Sierra Nevada Conservancy and CA State Water Resources Control Board.

LETTERS OF SUPPORT

Letters of support have been submitted by the following key watershed partners (see Attachment B):

Letters of Support Received

- Alpine County
- Alpine County Garden Club
- Alpine/ Upper Carson Weed Management Group
- American Rivers
- California State Parks (not attached, sent via mail directly to BOR)
- California Department of Fish and Wildlife
- Carson Water Subconservancy District
- Clean Water Team
- Friends of Grover Hot Springs
- Lahontan Regional Water Quality Control Board
- Nevada Department of Environmental Protection
- River Wranglers
- U.S. Forest Service, Carson Ranger District, Humboldt Toiyabe National Forest
- U.S. Senate, Dianne Feinstein's Office
- Washoe Environmental Protection Department

OFFICIAL RESOLUTION

Attachment C contains the Alpine Watershed Group Board Resolution for this grant application.

UNIQUE ENTITY IDENTIFIER AND SYSTEM FOR AWARD MANAGEMENT

SAM registration currently active through January 29, 2019.

DUNS: 0200746360000

LIST OF ATTACHMENTS

Attachment A: Location Map file – Google Earth kmz file.

Attachment B: Letters of Support – In order listed in Letters of Support section, page 24.

Attachment C: Official Resolution – From the Alpine Watershed Group Board of Directors



COUNTY OF ALPINE
Community Development

Brian Peters, Director

January 18, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

On behalf of the Alpine County Community Development Department, I am pleased to support the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

The Alpine County community is increasingly recognizing the Alpine Watershed Group (AWG) as a fundamental resource in natural resource management issues. AWG has been serving Alpine County for 20 years to facilitate watershed partner collaboration, assist with project planning and implementation, and engage community members as environmental stewards.

AWG fills two critical roles in the Upper Carson River Watershed of Alpine County, California. First, the organization facilitates communication and collaboration among diverse stakeholders from throughout the watershed. Second, AWG creates opportunities for local community members and seasonal visitors to participate in meaningful environmental stewardship programs.

The majority of Alpine County is managed by state and federal agencies with 96% of the county designated as public land, primarily under jurisdiction of the U.S. Forest Service and the Bureau of Land Management. The population of the county is only 1,200 people, which in terms of landscape means there are only 1.5 people per square mile. This can make it difficult for the county to secure funding for important watershed work, especially with relatively large and well-known neighboring watersheds and communities.

Support for the Alpine Watershed Group would ensure their continued role in Alpine County. We encourage you to fund their grant proposal.

Sincerely,

Director

Alpine County Garden Club
P.O. Box 162
Markleeville, CA 96120

January 24, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

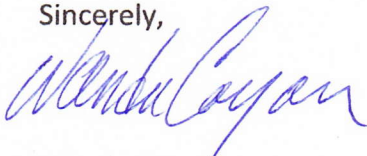
The Alpine County Garden Club would like to express our support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

The Alpine Watershed Group (AWG) and the Garden Club have worked in partnership with California State Parks to develop a Native Plant Demonstration Garden for public education about the threat of invasive weeds to healthy watersheds. Our organization has been working with AWG over the past several years with their increased activities in Grover Hot Springs State Park.

Through their restoration efforts in the state park, such as the annual Markleeville Creek Day and Earth Day events, AWG continues to help improve the ecological resilience of rivers and streams. They are *highly effective at providing public education about healthy watersheds and at engaging community members as volunteer stewards for state park projects.*

We hope you will support the Alpine Watershed Group's grant application for their important role in Grover Hot Spring State Park.

Sincerely,



Wanda Coyan
President



**ALPINE/UPPER CARSON RIVER WATERSHED
WEED MANAGEMENT GROUP**

ALPINE COUNTY

DOUGLAS COUNTY WEED DISTRICT

CARSON WATER SUBCONSERVANCY
DISTRICT

WASHOE TRIBE OF
NEVADA AND CALIFORNIA

ALPINE RESOURCE
CONSERVATION DISTRICT

CALIFORNIA STATE PARKS
GROVER HOT SPRINGS

CENTRAL SIERRA RESOURCE
CONSERVATION AND DEVELOPMENT
COUNCIL

USFS –HUMBOLDT/TOIYABE

SOUTH TAHOE PUBLIC
UTILITIES DISTRICT

CALTRANS

BUREAU OF LAND MANAGEMENT

*This
cooperative weed management
group will coordinate
integrated weed management
activities necessary for the
prevention and control
of noxious and invasive weeds in
Alpine County and the
Upper Carson River Watershed
(California/Nevada).*

January 24, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

On behalf of the Alpine/ Upper Carson Weed Management Group, I would like to express our support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

The Alpine Watershed Group (AWG) has been a valuable partner in the Upper Carson River Watershed. Our organizations have worked together to implement important weed management projects at several locations in Alpine County. Invasive weed removal projects have been conducted during the annual Earth Day and Markleeville Creek Day events. AWG also has been instrumental in planning and developing a Native Plant Demonstration Garden for public education about the threat of invasive weeds to healthy watersheds at Grover Hot Springs State Park.

Through their efforts to engage diverse stakeholders for collaborative watershed management, AWG continues to help improve the ecological resilience of rivers and streams. They are also highly effective at engaging community members as volunteer stewards for state park projects.

We hope you will support the Alpine Watershed Group's grant application for their critical role in cooperative watershed management at the local level.

Sincerely,

Sincerely,

LeeAnne Mila
Chair
Alpine/Upper Carson River Weed Management Group



American Rivers
Rivers Connect Us®

January 24, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

We are writing to support the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

American Rivers has been working with the Alpine Watershed Group (AWG) since 2011. AWG is a reliable and professional non-profit organization. We are happy to recommend them based on their ability to provide meaningful community engagement, work with local and regional partners, and conduct needed water quality and restoration monitoring.

Without a physical presence in the Carson River Watershed, we rely on AWG to act as a community liaison as we pursue watershed assessment and restoration projects. AWG plays an important role in monitoring the progress and effectiveness of restoration projects that we have lead on U.S. Forest Service land. Having AWG staff able to respond to community questions and concerns, and also be our eyes-on-the-ground and respond on short notice to monitor after weather events greatly supports our work.

Our collaborative restoration work helps further state and regional goals contained in numerous plans, including the California Water Plan, California Water Action Plan, Carson River Watershed Stewardship Plan, Upper Carson River Watershed Adaptive Stewardship Plan, and the National Fish and Wildlife Foundation's Sierra Nevada Meadow Restoration Business Plan. With support from AWG, American Rivers recently completed a large scale streambank restoration project in Hope Valley Meadow on the Upper West Carson River. We are also beginning the planning phase of additional restoration work for Faith and Forestdale meadows in the Upper West Carson River Watershed, and plan to continue to partner with AWG for local outreach and monitoring.

Thank you for considering AWG's grant application. We urge the Bureau of Reclamation to fully fund their important work in the Upper Carson River Watershed.

Sincerely,

Julie Fair
Associate Director, CA Conservation



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Road
Rancho Cordova, CA 95670
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



January 24, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

The California Department of Fish and Wildlife (CDFW) is providing this letter in support for the Alpine Watershed Group's (AGW) grant application to the WaterSMART Cooperative Watershed Management Program.

Alpine County is in a remote part of California and contains many important fish and wildlife resources. CDFW owns and maintains several Wildlife Areas and other properties within the county for protection of these resources. AWG has been an instrumental partner in terms of providing water quality and habitat data as well as engaging volunteers in citizen science and restoration on CDFW land.

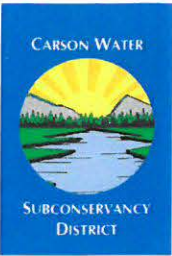
Funding for this proposal would increase the ability of regional partners to accomplish needed restoration in the Upper Carson River Watershed.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sarah Mussulman".

Sarah Mussulman
Senior Environmental Scientist, Supervisor
North Central Region



CARSON WATER SUBCONSERVANCY DISTRICT

777 East William Street, Suite 110A

Carson City, NV 89701

775/887-7450, fax 775/887-7457

www.cwsd.org

January 31, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

Please accept this letter of support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program. The Alpine Watershed Group (AWG) is a key partner in the work of the Carson Waters Subconservancy District (CWSD).

AWG's efforts greatly benefit all of the work we are doing in the Carson River Watershed. AWG provides a critical service in addressing water quality issues and developing projects that benefit our region. Their efforts increase the ability of regional partners to accomplish restoration project identified in the Carson River Watershed Adaptive Stewardship Plan. AWG engages diverse stakeholders to develop collaborative solutions to address our shared water management needs. They also work effectively with local communities to support the sustainable development of water resources and improve the ecological resilience of rivers and streams.

The Carson Water Subconservancy District is a bi-state, multi-county organization with responsibility for regional planning of water resources for the Carson River Watershed. Our member counties include Alpine County in California and Douglas County, Carson City, Lyon, Storey and Churchill Counties in Nevada. As such, we have the opportunity to work with many different groups in addressing a variety of topics of watershed-side concern.

As the regional water management agency, we are committed to supporting regional programs which help further our watershed-wide goals. CWSD provides both technical and financial support to the Alpine Watershed Group.

We hope that this project receives the funding it needs for implementation.

Sincerely,

A handwritten signature in blue ink that reads "Brenda Hunt". The signature is written in a cursive, flowing style.

Brenda Hunt

Watershed Program Manager

State Water Resources Control Board

January 25, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

The State Water Resource Control Board's California Clean Water Team (CWT) would like to express its support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

The Alpine Watershed Group (AWG) provides a critical service in addressing important water quality issues and developing sustainable watershed projects that benefit Alpine County and the Upper Carson River Watershed.

Through their community-based efforts, AWG effectively addresses the California Water Action Plan (2016) priorities to ensure watershed health. The projects they implement address several of the California Water Plan Update (2013) resource management strategies in the "Ecosystem Restoration" category, including the following:

- 1) reconnect rivers to their historic floodplains as part of new flood management approaches,
- 2) maintain and create habitat around stream and river corridors that is compatible with stream and river functions, and
- 3) restore and preserve stream channel morphology to provide floodwaters access to the floodplain and to encourage stable banks and channel form.

AWG serves a critical function in facilitating local resource management collaborations, collecting and sharing valuable monitoring data, and implementing needed restoration projects. We hope you will fund this important work in the Upper Carson River Watershed.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Burres". The signature is written in a cursive style with a horizontal line underneath.

Erick Burres
Citizen Monitoring Coordinator
Sr. Env. Scientist Specialist

Friends of Grover Hot Springs

P.O. Box 218
Markleeville, CA 96120



January 22, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

The Friends of Grover Hot Springs would like to express our support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

Our organization has been working with the Alpine Watershed Group (AWG) over the past several years with their increased activities in Grover Hot Springs State Park. Through their restoration projects in the park, such as the annual Markleeville Creek Day and Earth Day events, AWG continues to help improve the ecological resilience of rivers and streams. They are highly effective at providing public education about healthy watersheds and at engaging community members as volunteer stewards for state park projects. AWG has been a valuable partner in Alpine County.

We hope you will support the Alpine Watershed Group's grant application for their important role in Grover Hot Spring State Park.

Sincerely,

A handwritten signature in black ink that reads "Mark Pupich". The signature is fluid and cursive.

Mark Pupich
Visitor Center Manager
mark@bodiefoundation.org

Lahontan Regional Water Quality Control Board

January 19, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Support for Alpine Watershed Group from the U.S. Bureau of Reclamation WaterSMART Cooperative Watershed Management Program

We are pleased to strongly support the Alpine Watershed Group's (AWG) grant application to the WaterSMART Cooperative Watershed Management Program. The AWG is our key partner in the Upper Carson River Watershed.

State of California's Lahontan Regional Water Quality Control Board staff is fortunate to work with AWG and other partners in the Carson River Watershed to address water quality issues in the watershed. The Carson River Watershed is a priority watershed in the Lahontan Region – it is one of five focus watersheds in our Watershed Management Initiative and a key watershed in the Tahoe-Sierra Integrated Regional Water Management Plan. We have identified the West Fork Carson River as an U.S. EPA Vision Project, making it a high priority for our staff. The West Fork Carson River Vision Project is a new collaborative framework to attain water quality restoration and protection. AWG's monitoring and other efforts will help us achieve our Vision Project goals by providing invaluable data to prioritize implementation projects, track attainment of water quality objectives, and positively engage with area stakeholders.

In California, Regional Water Boards adopt and implement Water Quality Control Plans (Basin Plans) which recognize regional differences in natural water quality, designate beneficial uses, and identify water quality objectives to be protective of identified beneficial uses. AWG's citizen science monitoring program provides water quality data to help determine if waterbodies are healthy or impaired. The AWG's watershed planning, monitoring, restoration, and education and outreach efforts help us achieve California's water quality goals.

The WaterSMART grant would provide much needed funding for AWG to continue its important work in the Carson River Watershed. Thank you for considering our support. Should you have any questions, please do not hesitate to contact me at (530) 542-5466 or (daniel.sussman@waterboards.ca.gov).



Daniel Sussman
Chief, Planning and Assessment Unit

CDW/gg/T: LOS BOR Version 3 Lahontan
File Under: ECM / TMDL / Development / Miscellaneous

PETER C. PUMPHREY, CHAIR | PATTY Z. KOUYOUMDJIAN, EXECUTIVE OFFICER



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

STATE OF NEVADA
Department of Conservation & Natural Resources

Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

January 18, 2018

Bureau of Reclamation | Financial Assistance Section
Attn: Mr. Darren Olsen | Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

The Nevada Department of Environmental Protection (NDEP) would like to express our support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

The Alpine Watershed Group (AWG) provides a critical service in addressing water quality issues and developing projects that benefit our region. AWG's programs are an essential component of the Carson River Watershed Adaptive Stewardship Plan.

Their proposal increases the ability of regional partners to accomplish needed restoration in the Upper Carson River Watershed. AWG engages diverse stakeholders to develop collaborative solutions to address our shared water management needs. They also work effectively with local communities to support the sustainable development of water resources and improve the ecological resilience of rivers and streams.

NDEP relies on our California neighbors to steward the source of our water. Alpine Watershed Group consistently monitors water quality, amount, and overall watershed health. Beyond the data AWG collects, they also support the annual Carson River Snapshot Day, a priority project for NDEP. Snapshot Day is a bi-state citizen stream monitoring event for the entire Carson River watershed. The event provides meaningful public engagement and learning opportunities by proactively engaging youth and low-income communities. Citizen volunteers and local school classes learn about their watershed, water quality issues, how streams function, and how to assess stream health.

As a Nevada-based organization, we rely on AWG to provide water quality and quantity data, monitor habitat quality, watch for large watershed issues in our headwaters, and implement and monitor restoration projects. Without healthy headwaters, it is impossible to undertake holistic watershed assessment planning in order to meet water users' needs throughout the watershed.

We hope you will fund this important work in the Carson River Watershed.

Sincerely,

Mary Kay Wagner
Environmental Scientist
p: 775.687.9454
mkwagner@ndep.nv.gov





River Wranglers

EMPOWERING YOUTH THROUGH HANDS-ON EDUCATION

1355 East Badger Street, Silver Springs, NV 89429

775.230.0633

RiverWranglers.org

RW@RiverWranglers.org

RiverWranglers.Blogspot.com

Like us on Facebook: RiverWranglersNV

January 24, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

Please accept this letter of support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

River Wrangler's mission is to inspire youth through hands-on learning to explore, conserve and understand the importance of local rivers. River Wranglers has been working the Alpine Watershed Group (AWG) over the past several years to provide a more comprehensive community outreach and education program throughout the Carson River Watershed, from the headwaters in California to the Carson Sink in Nevada.

Since the Carson River is a bi-state watershed, bi-state collaboration is critical. AWG's involvement is critical to ensure that we provide a consistent and effective watershed-wide approach to stewardship. AWG is highly effective at providing public education about healthy watersheds and at engaging community members as volunteer stewards for state park projects.

AWG is an important partner in the headwaters of the Carson River. We hope that this project receives the funding it needs for implementation.

Sincerely,

Linda Conlin, Executive Director



United States Senate

WASHINGTON, DC 20510-0504

<http://feinstein.senate.gov>

January 29, 2018

The Honorable Brenda Burman
Commissioner
U.S. Bureau of Reclamation
1849 C St NW # 7654
Washington, DC 20240

Dear Commissioner Burman,

I write in support of the Alpine Watershed Group's (AWG) application for funding from the WaterSMART Cooperative Watershed Management Grant Program, administered by the Bureau of Reclamation.

AWG plays a key role in the watershed management and natural resource planning of the Upper Carson River watershed in Alpine County, California. Alpine County is located at the headwaters of five rivers – the Carson, Mokelumne, Stanislaus, Truckee and American– which provide water to Western Nevada and California's Central Valley. Over the last 150 years, Alpine County watersheds have experienced extensive mining, grazing, timber harvesting and road building.

By facilitating communication among stakeholders and creating engaging and unique environmental stewardship programs, AWG offers opportunities for community members and seasonal visitors to be involved in the planning and management of the Upper Carson River watershed. If awarded funding, AWG will bolster its efforts in community outreach and partnership development, information gathering and data collection, and restoration planning. This will allow the group to foster collaboration and encourage good watershed management by expanding its number of planning partners, strengthening water monitoring efforts, and prioritizing watershed issues and restoration projects. These expanded efforts are essential to AWG's continued ability to serve Alpine County's watersheds.

I urge you to give AWG's application your full consideration. If you have any questions, please do not hesitate to contact me or have your staff contact my Fresno office at (559) 485-7430.

Sincerely,

A handwritten signature in blue ink that reads "Dianne Feinstein". The signature is fluid and cursive, with the first name "Dianne" being particularly prominent.

Dianne Feinstein
United States Senator

DF/mm



File Code: 2500
Date: January 19, 2018

Mr. Darren Olsen
Bureau of Reclamation
Financial Assistance Support Section
Mail Code: 84-27814
PO Box 25007
Denver, CO 80225

Dear Mr. Olsen,

The Carson Ranger District of the Humboldt-Toiyabe National Forest (USFS) is submitting this letter of support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

The Alpine Watershed Group (AWG) provides an important service in watershed planning and management efforts in the Upper Carson River Watershed. The AWG has a strong history of establishing, strengthening, and sustaining strategic partnerships and facilitating collaboration between organizations and agencies.

The AWG is the only community-based watershed organization serving the Upper Carson River Watershed. We rely on the AWG to help bring partners together and educate the community about current management strategies. The AWG is helping to leave a legacy of conservation stewardship and build trust with the local community.

This proposal would increase the ability of regional partners to accomplish needed restoration in the Upper Carson River Watershed. The AWG engages diverse stakeholders to develop collaborative solutions to address our shared water management needs. They also work effectively with local communities to support the sustainable development of water resources and improve the ecological resilience of rivers and streams.

Thank you for considering the Alpine Watershed Group's grant application for their important work in the Upper Carson River Watershed.

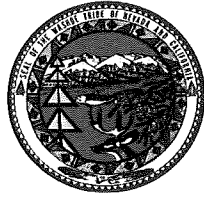
Sincerely,

Sally Champion
for
IRENE DAVIDSON
District Ranger



Washoe Tribe of Nevada and California

Environmental Protection Department



January 22, 2018

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Darren Olsen
Mail Code: 84-27814
P.O. Box 25007
Denver, CO 80225

Dear Mr. Olsen,

The Washoe Environmental Protection Department would like to express our support for the Alpine Watershed Group's grant application to the WaterSMART Cooperative Watershed Management Program.

The Alpine Watershed Group (AWG) is a key natural resource management partner in the Upper Carson River Watershed. AWG has a strong history of sustaining critical water monitoring programs and planning important watershed restoration projects. They also serve an important role in facilitating collaboration between organizations and agencies. Funding this proposal would ensure AWG's continued role in Alpine County.

The Upper Carson River Watershed represents an important historical and cultural resource of the Washoe Tribe. For over 10 years, the Alpine Watershed Group has been working with the Washoe Tribe's Cultural and Environmental Departments in addressing water quality issues and developing projects which protect the cultural and environmental resources of significance to the Washoe Tribe.

We hope you will consider funding the Alpine Watershed Group's grant application to support efforts in the Upper Carson River Watershed.

Sincerely,

A handwritten signature in black ink, appearing to read "Norman Harry", is written over a large, stylized, light-colored scribble.

Norman Harry
Director
Washoe Environmental Protection Department
(775) 782-8682
Norman.Harry@washoetribe.us

RESOLUTION OF THE ALPINE WATERSHED GROUP
Endorsing the Application for Grant Funds
From the Bureau of Reclamation WaterSMART
Cooperative Watershed Management Program

RESOLUTION NO. AWG-2018-1

Now, therefore, be it resolved by the Alpine Watershed Group Board of Directors that:

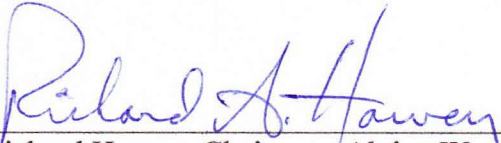
The Alpine Watershed Group (AWG) submit a grant application to the Bureau of Reclamation WaterSMART Cooperative Watershed Management Program.

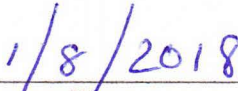
AWG Executive Director will have legal authority to enter into contractual agreements and manage all financial obligations associated with the grant award.

AWG Watershed Program Manager will act as Project Manager.

AWG assures it's capability to manage this grant and partner commitment to fulfill all obligations.

Resolution adopted by AWG Board of Directors on Tuesday, January 8, 2018.


Richard Harvey, Chairman, Alpine Watershed Group


Date