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1. EXECUTIVE SUMMARY

1.1 APPLICANT

This proposal is being submitted in response to **Funding Opportunity Announcement No. R16-FOA-DO-008** with a submittal date of May 4, 2016. The applicant is Shadowcliff, a 501(c)(3) organization with located at 100 Summerland Park Rd. in the Town of Grand Lake, Grand County, Colorado 80447.

1.2 PROJECT SUMMARY

The Colorado Water Plan identifies one of its goals as the promotion of “watershed health and supports the development of watershed coalitions and watershed master plans that address the needs of a diverse set of local stakeholders”. In its *Watershed Planning and Management in Colorado* White Paper, the Getches-Wilkinson Center (2016) notes that “the watershed approach extends beyond environmental considerations; it seeks to integrate our consumptive and non-consumptive interests”. Today, there are approximately 80 watershed groups in existence across the state. While there are ongoing water quality and mitigation programs ongoing in the Upper Colorado River watershed, there is no single organization that can be defined as a watershed group, i.e. a grassroots, non-regulatory entity that addresses water availability and quality issues. This project has the goal of establishing an Upper Colorado River Watershed Group (UCRWG) that will be comprised of all stakeholder interests in the watershed to collaboratively work towards developing a comprehensive plan for restoring the watershed and determining its future needs.

The boundaries of Grand County, Colorado basically define the extent of the Upper Colorado River Watershed. The communities and citizens of this watershed are entirely dependent upon the water contained in this basin for their social and economic existence. Whatever impacts upon the waters in this Basin will ultimately affect the livelihood and future existence of the citizens and their communities.

The 2012 Upper Colorado River Water Quality Management Plan (NWCCOG 2012) identified a broad array of point and non-point source water issues in the Upper Colorado River Watershed. These issues were attributed to numerous sources and are having an impact on an even greater number of stakeholders. To date, there has never been a comprehensive assessment performed or watershed plan developed that addressed the needs and desires of all of the stakeholders in the Upper Colorado River Watershed. Lacking such planning, collaboration required to address the needs of all of the stakeholders in the watershed will be non-existent. This is further affirmed in a letter dated May 1, 2016, from the Northwest Colorado Council of Governments to Colorado Governor John Hickenlooper (see Appendix 1). This letter implored the Governor to send a letter to DOI and USDA requesting that they launch their coordination effort in the Colorado River Basin as soon as possible to address potential drought issues brought on by climate change. The letter further requested that local and state partners be at the table”. The goal of the proposed watershed grant is to establish an Upper Colorado River Watershed Group with broad stakeholder participation. In establishing such a group, the opportunity will be presented to bring

together diverse stakeholder interests to address the critical issues expressed in the NWCCOG letter mentioned above as well as the many water issues currently being faced by the critically important Upper Colorado River Watershed. This proposed project has four objectives to be completed over two years: a) Establish a watershed group, defined in the FOA as the creation of a grassroots, non-regulatory, legal entity and to include a broad array of stakeholders; b) Develop a mission statement for the watershed group; c) Develop watershed management project concepts; and d) Develop a watershed restoration plan. To initiate the project, a series of public meetings will be held across the watershed to provide information on what a watershed group is and to identify all stakeholders. Grand County has previously used and continues to use this model to incorporate its citizens into planning for the health care needs of the area. Discussions will be held to generate opinions as to what each stakeholder sees as their goals for the watershed. Based on the outcome of these meetings, a steering committee of stakeholders will be formed to help develop the mission statement, bylaws, management concepts, and the watershed restoration plan. The steering committee will represent the geographic diversity of the watershed and its universe of stakeholder interests. It is anticipated that with each objective, the steering committee will be soliciting inputs through additional public forums. The Shadowcliff board and staff have specific expertise not only in community organization, marketing, sustainability, and the environment, but also in facilitating group meetings to bring organizations together to insure success in reaching shared goals. This expertise will be used to reach out and engage the broadest number of individuals and interested parties and to help keep focus on the objectives of the project. Ultimately, a tactical watershed restoration plan will be produced to improve water quality and restore habitat such that diverse stakeholder interests are met and result in win/win community development and sustainable economic opportunities and increase public education to understand the processes that influence the watershed.

1.3 PROJECT SCHEDULE

The project is expected to begin in September 2016 and be completed within 24 months. Under this assumption, the plan would be to accomplish the first round of workshops across the county within three months. An additional three months would be used to finalize a steering committee and develop a mission statement. Subsequent public meetings and/or workshops would be held over the next six to nine months to identify and develop watershed project concepts. Over the remaining nine months of the 24 month contract, a watershed restoration plan will be produced.

2. BACKGROUND DATA

2.1 DESCRIPTION OF THE WATERSHED

The area of the Upper Colorado River Watershed (UCRW) proposed for this grant encompasses all of Grand County, Colorado with the exception of the Blue River that flows into the Colorado River outside of Kremmling. This area includes the Continental Divide on the east and north, the Williams Fork Mountains ridge to the south and west, and the Gore Range ridge to the northwest

(Figure 1). The UCRW area covers 1,869 square miles (1,196,000 acres) with altitudes ranging from 13,400 feet along the Continental Divide to 6,800 feet near Radium (NWCCOG 2012).

The 2012 Upper Colorado River Water Quality Management Plan (UCRWQMP) (NWCCOG 2012) has identified six major sub-basins making up the headwaters of the Colorado River. This Plan provides an extensive description of the characteristics of the watershed but only highlights are provided in the following section. According to the Plan, the six sub-basins include the Three Lakes (originates with the Colorado River in Rocky Mountain National Park and then flows into Grand Lake, Shadow Mountain Reservoir, and Lake Granby); the Fraser River; Willow Creek; Williams Fork; Troublesome Creek; and Muddy Creek. The Plan further summarizes the watershed as follows:

“Major tributaries flow from the Continental Divide through wilderness and National Park lands and include the North and East Inlets, Arapaho Creek, and the Roaring Fork Creek. The Fraser River originates at Berthoud Pass and flows northwest to its confluence with the Colorado River near Granby. Principal tributaries to the Fraser River include St. Louis Creek, flowing east, and Ranch Creek, flowing westward and joining the Fraser River near Fraser. Other principal tributaries to the Colorado River are: Williams Fork, flowing north and joining the Colorado River near Parshall; Troublesome Creek, flowing south and joining the Colorado River at Troublesome; Muddy Creek, flowing south from Rabbit Ears Pass and joining the Colorado River at Kremmling, and the Blue River, flowing north through Summit County to its mouth below Kremmling.”

2.2 WATER USERS IN THE WATERSHED

The major population centers in the headwaters portion of the watershed are Winter Park, Fraser, Tabernash, Granby, Grand Lake, Hot Sulphur Springs, and Kremmling. The lower portion of the Upper Colorado River is remote and land uses generally consist of ranching, timbering, recreational boating and fishing, and mineral extraction.

Predominant land uses within the watershed are woodlands or rangelands managed by the US Forest Service (USFS) and Bureau of Land Management (BLM). The Arapahoe and Routt National Forests cover 892 square miles with BLM lands extending over 175 square miles. This accounts for 60% of the headwaters watershed (NWCCOG 2012).

The Three Lakes region and the Fraser River sub-basin economies rely primarily on eco-tourism and the many outdoor recreation opportunities Grand County has to offer. Agriculture supports the economy of the remaining parts of the watershed. Major ski areas are found at Winter Park, Granby Ranch, Devil's Thumb, Young Life Camp, and Snow Mountain Ranch in the Fraser sub-basin. The Three Lakes region is an important recreational area which include The Arapaho National Recreation Area (Lake Granby, Shadow Mountain Reservoir, Monarch Lake, and Willow Creek Reservoir) (Christensen 2012), Grand Lake, Rocky Mountain National Park, and

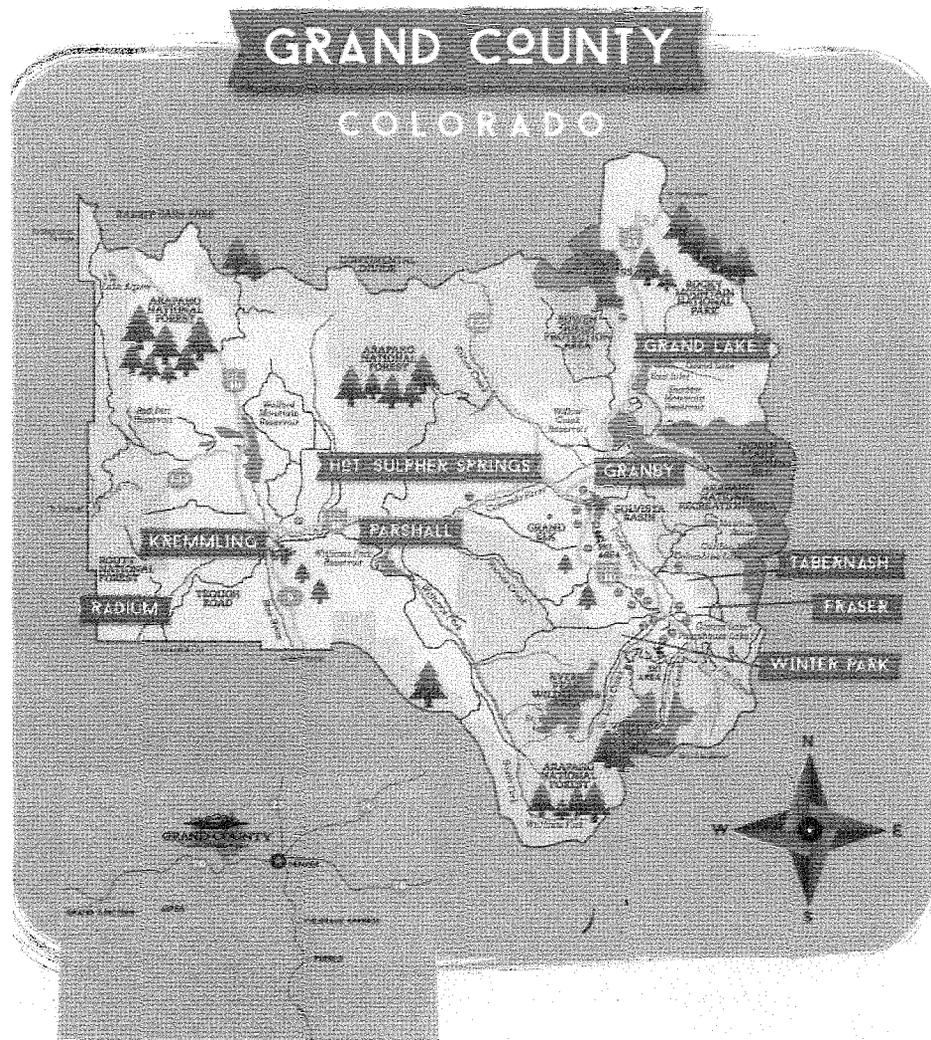


Figure 1. Upper Colorado River Watershed Boundaries.

the Never Summer and Indian Peaks Wilderness Areas. Numerous opportunities for lake and river-based recreation, camping, hiking, biking, horseback riding, hunting, snowmobiling, wildlife viewing, skiing, and golfing are present throughout the watershed. Ranching, timber production, and gravel mining, are the major activities downstream from Granby. Recreational boating and fishing are economic drivers throughout the watershed with the Upper Colorado River watershed accounting for over 25% of all commercial user days statewide in 2010 (NWCCOG 2012).

2.3 WATER ISSUES

The 2012 Upper Colorado River Water Quality Management Plan (NWCCOG 2012) provides an extensive review of water quality issues that affect the watershed. Because of page limitations, it is not possible to attach this document or those pages which describes these issues in detail. The following section briefly summarizes these data. The full report is available on request.

The 2012 Plan attributed the major water quality issues in the Upper Colorado River Watershed as largely the result of anthropogenic manipulation from point and nonpoint sources. Water diversions, elevated water temperature, excessive instream sedimentation, loss of clarity in Grand Lake, low dissolved oxygen, dissolved solid loads, and erosion are major concerns throughout. Load allocations are required for point source dischargers in order to meet ammonia standards in some stream segments.

Point source water quality issues in the Upper Colorado River watershed at the time of the report were attributed to clarity in Grand Lake and the Union Pacific Rail Road (UPRR) Moffat Tunnel Discharge. The discharge of metals (Ag, Cu, Fe, Pb, and U) is of concern as are < 3 micron particulate concentrations which can cause damage to fish and their habitat.

Nonpoint source water quality issues which were identified in the report include the loss of stream flows due to trans-basin diversions which reduces the amount of high quality water in the basin; impacts from road and construction activities, water quality impacts associated with recreational activities including snow making, nutrient loads from golf course irrigation, increased visitor impacts, agricultural activities; and sediment loads due to road traction sand, logging, gravel mining operations, and urban runoff. Increases in sediment in the Fraser River are a result of erosion and traction sanding along State Highway 40 (Berthoud Pass). The report noted that non-algal organic particulates, nutrients, and dissolved organic carbon decrease clarity in Grand Lake. These particulates support algae blooms and overgrowth of aquatic plants in Grand Lake and Shadow Mountain Reservoir.

Increased nutrient inputs result from land development activities in the Fraser River basin. Elevated water temperatures in the Fraser and Colorado Rivers as well as Ranch Creek are exacerbated due to trans-basin diversion of high quality water in the headwaters of the watershed. Loss of high quality "dilution flows" results in increased instream nutrient concentrations in the Fraser River. High concentrations of total iron and suspended sediment in the Colorado River downstream from Troublesome Creek are a result of natural runoff from iron rich and easily eroded geologic formations.

Of a more troublesome nature is the finding from the Department of the Interior's comprehensive 2012 Colorado River basin Water Supply and Demand Study that demand for the river's water now exceeds supply (letter from NWCCOG Water Quality/Quantity Committee to Colorado Governor John Hickenlooper, May 1, 2016, see Appendix 1). Such a condition could catastrophically affect the ability of communities to sustain their watershed dependent economies and limit community development while also increasing overall costs to restore the watershed.

3. PROJECT DESCRIPTION

Shadowcliff will lead the initial efforts leading to the formation of the Upper Colorado River Watershed Group and will insure the objectives of this project are achieved. Shadowcliff is

located within the town of Grand Lake and, as such, its employees and the people who utilize its meeting facility are all stakeholders impacted by activities in the Upper Colorado River watershed.. As a 501(c)(3) organization that was first conceived in 1956, Shadowcliff has a mission statement that calls itself "*An eco-friendly mountain sanctuary where together we are creating a climate for a restorative world*" and which continues to drive its work today. Construction on its Grand Lake facility was completed in 1981 through the efforts of approximately 650 volunteers from 42 countries. During the last decade, Shadowcliff has been a source of education, strategic planning and inspiration teaching sustainability principles to individuals, businesses and governments. This has included presenting watershed forums that brought together diverse stakeholder groups. Today the board and management of Shadowcliff includes expertise in community organization, marketing, environment and sustainability, all of which will be critical in the formation of the watershed group. This will also be important in disseminating the message contained in the mission statement and in bringing consensus to the diverse opinions of the stakeholders to develop project concepts and a watershed restoration plan.

The watershed group will be composed of individual and organizational stakeholders that represent the diverse interests of the watershed. As described in Section 2.2 above, stakeholders in the Upper Colorado River Watershed represent a broad cross-section of users incorporating most, if not all of the groups identified in the FOA. As part of the plan to develop the watershed group (discussed in detail below), all of these groups will be actively solicited as described later to become participants in the group. Specifically, this will include:

- a) Hydroelectric production associated with the Colorado-Big Thompson C-BT Project
- b) Livestock grazing through Cattleman's Association
- c) Timber production
- d) Land development through real estate organizations
- e) Recreation and tourism including ski resorts, county and local chambers of commerce, and local small businesses
- f) Irrigated agricultural production
- g) The environment including Grand County Water Information Network (GCWIN), the Three Lakes Watershed Association, Learning by Doing, and additional water and land trust fund and non-governmental (NGO) organizations
- h) Potable water purveyors and industrial water users through local utilities, Denver Water, Northern Water, and Colorado River Water Conservancy District
- i) Private property owners including full time and part time residents as well as ranchers and rural property owners
- j) Governmental organizations like the U.S. Forest Service, BLM, Rocky Mountain National Park and Bureau of Reclamation, all of which have interests in the watershed

- k) Colorado Department of Public Health and Environment who stewards water quality in the watershed
- l) Grand County Commissioners
- m) Local governments including Towns of Grand Lake, Granby, Tabernash, Fraser, Winter Park, Parshall, Hot Sulphur Springs, and Kremmling

The watershed group will be organized as a legally designated non-profit grassroots enterprise with no regulatory authority. The purpose of the watershed group will be to address water issues in the basin through collaborative citizen and stakeholder participation to insure a sustainable future. Stakeholders will be challenged to do planning that takes into account water availability and water quality and finds solutions to identify and prioritize maintenance, restoration, and improvement projects. The current vision for the proposed watershed group would be similar to the mission of the Cumberland Compact Organization (<http://cumberlandrivercompact.org/about/>) whose mantra is summarized as “teach, protect, connect”.

4. EVALUATION CRITERIA

The goals of the work performed under this funding will be fourfold:

- a) Establishment of a watershed group defined in the FOA as a grassroots, non-regulatory, legal entity. The group will be formally organized as a non-profit organization with a clearly defined set of bylaws. The form this organization structure will take will be determined by the stakeholders described in Section 3.1 above. However, it is anticipated that the watershed group will include a watershed coordinator at a minimum and with some level of dedicated, contracted and/or volunteer staffing as funding allows. Taking the example of the Cumberland River Compact Organization, they have a staff consisting of an Executive Director, Philanthropy Manager, Program Manager of Watershed Planning and Restoration, Program Manager for Education and Outreach, and Stream Restoration Coordinator. This represents a desired target for some future date as the group develops.
- b) Development of a mission statement for the watershed group. This will be a consensus statement developed by stakeholders based on how they view the watershed group will operate and how they view the future of the watershed.
- c) Development of watershed management project concepts. Like the mission statement, these will be developed by the stakeholders to focus the restoration and future management of the watershed. These concepts will be designed to incorporate the diversity of the watershed in terms of stakeholder interests and geographic distribution. It is anticipated that these target concepts would include environmental, economic, community development, research, and education objectives.

d) Development of a watershed restoration plan. This will be the tactical strategy that stakeholders determine will need to be achieved to meet the goals the watershed group defines. Projects will be prioritized on the basis critical need as determined by the stakeholders and available funding and resources. It could be expected that this plan will involve a mix of locally and regionally directed projects. The plan will also be developed to take advantage of collaboration opportunities to the maximum extent possible. Collaboration with federal agencies on drought resistance initiatives (discussed in more detail below) is a prime example of a win/win situation across the watershed. The following sections detail the work that will take place to achieve these goals.

4.1 EVALUATION CRITERION A: WATERSHED GROUP DIVERSITY AND GEOGRAPHIC SCOPE

4.1.1 Sub-criterion No. A1. Watershed Group Diversity

Numerous stakeholders representing a multitude of interests are present in the Upper Colorado River Watershed. They broadly represent commercial and community interests as well as regulatory driven interests. For the proper management of the watershed, the objectives of each of these interests must overlap and be complementary. To achieve that goal, it is necessary to have a watershed group that is representative of both regulatory and non-regulatory interests and which encompasses the widest geographical diversity. Many of these interest groups operate as independent entities within the watershed that have not previously been brought together under a collaborative and target-focused plan. As a result, management of the watershed continues to be done without a clear understanding as to the overall goals within and for the watershed.

In the process of developing this proposal, efforts were initiated to begin outreach to many of the groups identified in Section 3.1 above. This outreach continues to be extended across the county to provide information on the ongoing plans to develop a watershed group that will involve the greatest possible geographic distribution. As part of the effort moving forward to achieve the objectives of the proposed grant, Shadowcliff brings a particular advantage to this process of outreach in having marketing and community organizing expertise already well established within the organization. This expertise will be utilized to help develop an ongoing outreach program to insure all current and future interests are incorporated into the watershed group at the beginning and moving forward into the future. Examples of outreach will include electronic and print media, social media, and local announcement and bulletin boards,. A website (similar to that of the Cumberland Compact River group: <http://cumberlandrivercompact.org/about/>) will be developed for the organization as a recruiting and informational tool. Shadowcliff's expertise in conducting watershed and community organizing forums will be employed to bring the stakeholders together into groups and subgroups to facilitate communication amongst these varying interests.

Already letters of support have been received from some of these stakeholders (Attachment 1) indicating their desire to be involved in planning the future of the watershed. Outreach will be a

continuing process throughout the project to insure that all viewpoints are incorporated into the goals and objectives for the watershed. The proposed grant funding will facilitate the current momentum and further energize other stakeholders to become involved in achieving this critical goal.

4.1.2 Sub-criterion No. A2. Geographic Scope

The entire Upper Colorado River Basin is dependent on water for its economic and social existence. The value that an Upper Colorado River Watershed Group will bring to the watershed will be the opportunity to bring together peoples' interests to create a comprehensive plan that will determine how the communities individually and Grand County as a whole are going to develop and operate within their watershed. To meet this comprehensive planning objective, the watershed group will need to develop a roadmap that focuses on community development and economic targets that are watershed driven. To meet these targets, the various stakeholder interests within the group will need to collectively determine what kind of watershed projects will be priority and the resources (financial, technical, etc.) required for successful completion. Once resource needs have been identified, it will be necessary to determine how these resources will be obtained.

The watershed group is proposed to cover the watershed as it is shown in the Figure 1 map above. This basically covers all of Grand County. This encompasses the six sub-basins described in Section 2.1. Each of these sub-basins has its own set of water issues needing to be addressed. Whatever happens in each of these sub-basins has an impact on the watershed as a whole. Therefore, each sub-basin will be individually assessed and then analyzed together to create the picture as a whole.

As described previously stakeholders will be solicited for participation from groups representing environmental, economic, community and regulatory interests (see Sections 2.2 and 3.1). Their presence is spread across the county so by necessity the scope of the proposed work has to have broad geographic coverage and inclusiveness. The fact that the proposed geographic area is entirely contained in one county means that there is already an established governing structure for the watershed basin. This will facilitate identification of the stakeholder groups and interests because many of these relationships are already established. This also optimizes communication across the watershed to insure information is evenly disseminated throughout. Finally, the ability to eventually accomplish restoration and improvement projects are minimally impacted by cross county regulations and approval processes are streamlined.

4.2 EVALUATION CRITERION B: ADDRESSING CRITICAL WATERSHED NEEDS

4.2.1 Sub-criterion No. B1. Critical Watershed Needs or Issues

Critical watershed issues were presented in Section 2.3 and are largely based on the 2012 UCRWQM Plan. Mitigation to counter the loss of instream and riverine habitat, sedimentation, erosion, nutrient loading and excesses of water quality parameters are just some of the critical

watershed needs. Unfortunately, these impacts are not restricted to specific areas but are spread across the entire watershed. The proposed work will benefit from the information the 2012 UCRWQM Plan provides. This plan will be reviewed as part of the process to establish stakeholder concerns and watershed needs. The 2012 Plan will be updated as necessary as part of the process to make it current with regards to current watershed needs.

To date, limited resources have been available in the watershed to obtain the needed funds to perform mitigation and restoration. Many of these watershed issues have been known for extended periods of time yet little progress has been made to date to restore impacted habitats. The lack of these resources to date is, in itself, a critical issue that will need to be addressed moving forward. Therefore, once a watershed restoration plan has been completed, pursuit of additional funding for restoration projects will be a key objective of the group. Even still, it will be incumbent on the watershed group to prioritize projects and to consolidate and maximize available funding as part of its goals in implementing the watershed restoration plan. Applying best management practices and building on the experience from other watershed groups in Colorado and elsewhere will be a key objective in making sure optimum benefit is obtained from available funds. Participation with the Colorado Watershed Alliance will be part of the group's outreach. In performing outreach, the watershed group will look to form alliances that will encourage the exchange of information and lessons learned and pooled resources where possible.

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

As described previously (Section 2.3), the 2012 Upper Colorado River Water Quality Management Plan identified numerous and myriad water quality issues in the watershed. While there has been a substantial amount of work done in the watershed over the last decade, there has never been a coordinated effort to address these issues and no single owner to drive the work needed to resolve these issues. In looking to address the broad range of issues impacting the Lake Tahoe watershed, the states of California and Nevada came together to develop a comprehensive program which looks 65 years into the future and predicts over a billion dollars in spending to restore their watershed. And yet, with a watershed every bit, if not more, important than that of the Lake Tahoe area, there has never been a fully coordinated effort to address the issues and needs of the Upper Colorado River Watershed and no single owner to drive the work needed to provide solutions. Proposed funding to date barely touches on the needs already identified, much less what is to come in the future. The establishment of the Upper Colorado River Watershed Group being proposed for this grant will be a long overdue achievement.

The Upper Colorado River Watershed Group will provide a mechanism to establish ownership for the wide variety of work that needs to be done across the watershed to address current and future water quality issues. This will be accomplished by bringing together a diverse group of stakeholders with different interests across the watershed whose initial job will be to accomplish the four objectives of this grant.

In preparing this grant request, letters of support were requested from a variety of stakeholders within the watershed. To date, these letters have been received from public entities (e.g. town councils, chambers of commerce, non-governmental organizations (e.g. Rotary Club), and political figures. These public stakeholders have different economic and community development needs than those issues that have driven past and currently proposed regulatory driven restoration projects in the watershed. The grant organizers are continuing to build on this success in gaining support as it represents broad community and stakeholder recognition of the need for everyone to come together to work on solutions for the watershed.

Receipt of the proposed grant request will mark the first step in getting to a solution to implement a comprehensive restoration program and planning for the watershed. It will allow formal establishment of the watershed group as a non-regulatory, citizen driven and non-profit organization (Objective 1). This group will develop a formal mission statement (Objective 2) which will drive the project concepts (Objective 3) for the work to follow. Development of these project concepts will be a critical element of the project since they will form the strategic plan under which the group will guide its future operations. Ultimately, it is envisioned that this concept would draw on the experience of other watershed groups such as the Cumberland Compact Organization (<http://cumberlandrivercompact.org/about/>) which incorporates watershed restoration and collaboration into programs that facilitate and promote community development, economic development and watershed education.

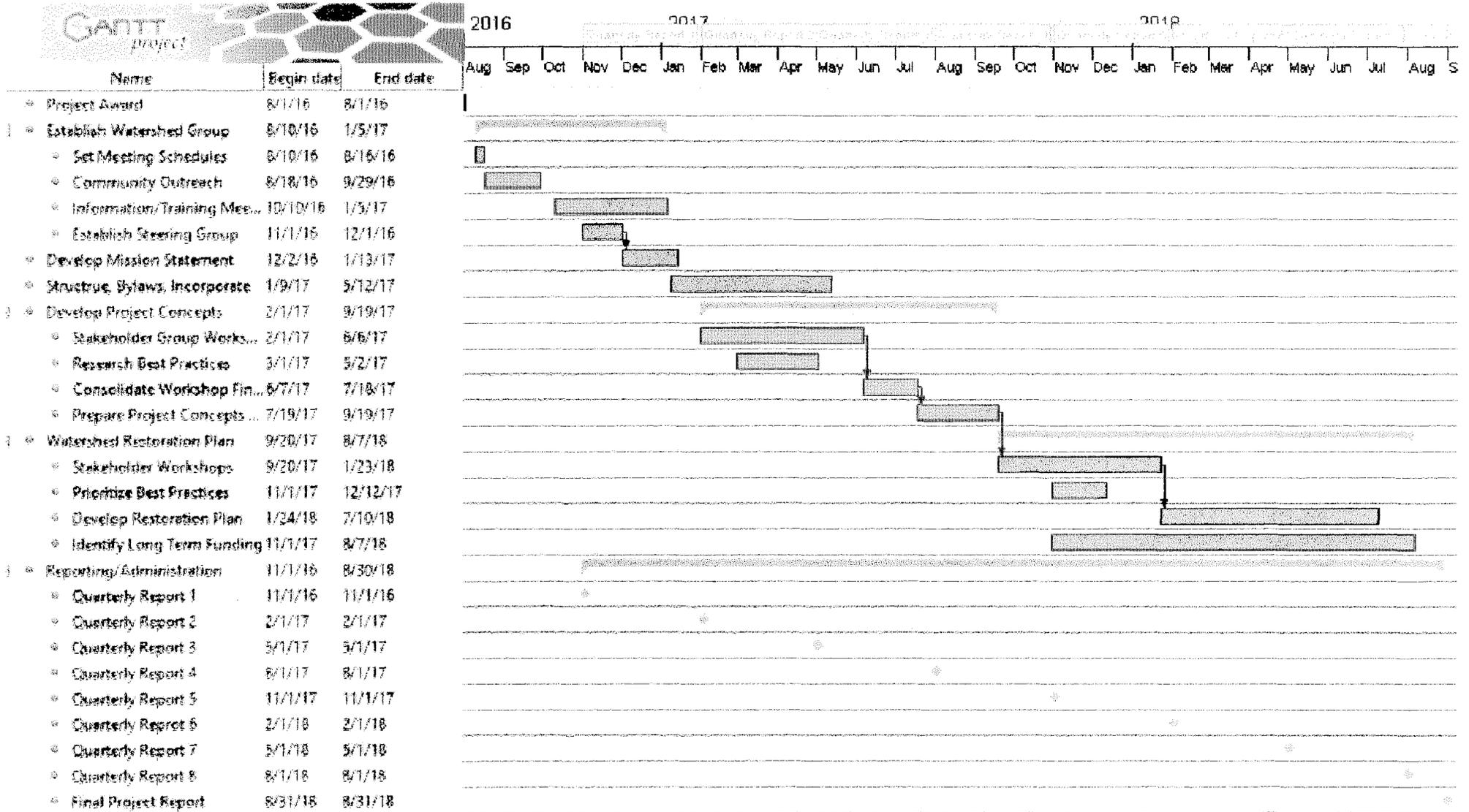
Creation of the watershed plan will be the fourth objective of this grant. This will define the tactical operations for the group. It will identify specific targets and project priorities, needed resources, plans to achieve those resources, and finally a high level description of how the projects will be completed with proposed timetables. The plan will remain green with the understanding that it will be updated according to changing priorities and funding opportunities.

4.3 EVALUATION CRITERION C: IMPLEMENTATION AND RESULTS

4.3.1 Subcriterion No. C1—Understanding of and Ability to Meet Program Requirements

The scope of work includes establishment of a watershed group that includes a mission statement, bylaws and articles of incorporation, development of project concepts, and preparation of a watershed restoration plan. Under the proposed grant, 24 months is allowed to complete these objectives. Table 1 provides a project schedule with various milestones. The first milestone is for completing the mission statement by the end of 2016. Bylaws and articles of incorporation would be done by the end of the first quarter 2017 with formal recognition of the legal status of the watershed group by the end of April 2017. A formal report containing project concepts would be issued at the end of October 2017. The final report and issuance of the watershed restoration plan is proposed for no later than the end of August 2018.

Table 1. Project Schedule.



This schedule provides flexibility in terms of completing the work such that no major difficulties are anticipated at this time. While all activities are shown to occur in sequential fashion, it is expected that some of these tasks will be running concurrently. That should provide a conservative schedule for reaching milestones.

4.3.2 Subcriterion No. C2—Building on Relevant Federal, State, or Regional Planning Efforts

The Colorado Water Plan led to development of Basin Implementation Plans for each of the state's major river basins, including that of the Colorado River. These plans include information about water supply and water use as well as expected consumptive and non-consumptive future needs. The basin roundtables that were formed in response to the Colorado Water Plan are heavily weighted towards water supply and use interests (*Watershed Planning and Management in Colorado*, Getches-Wilkinson Center Working Paper 2016). This study suggested that consideration be given to enlarging representation of non-consumptive interests such as those that will be stakeholders in the UCRWG. Similarly, it was suggested that the roundtable could participate in the development of sub-basin and watershed plans that help refine the original basin-wide assessment of needed projects and activities. The establishment of the UCRWG would meet this objective by providing a forum for not only utilizing the data available in the BIPs but also to better refine these objectives by incorporating the concerns and needs of stakeholders making up the watershed group.

There is a level of ongoing and/or proposed work in the watershed, most of it being driven by regulatory requirements associated with water development projects. This includes proposed work by the Learning by Doing Group and ongoing monitoring being conducted by the Grand County Water Information Network (GCWIN). These groups would be stakeholders within the overall UCRWG. Other efforts being proposed or started across the county are under the direction of various communities. For instance, the town of Granby has identified a river front property which is being targeted for potential recreation. The town of Hot Sulphur Springs and the Grand Lake Rotary Club have independently been working on education programs incorporating the Colorado River. In the Town of Grand Lake, the town is starting to conceive of a community development project based on Outstanding Grand Lake and tied in with its Grand Lake Center. The objectives of all of these projects are complementary to one another and can benefit from the collaborative efforts offered under the proposed UCRWG. The opportunity to build on these collaborative efforts will be a key benefit of a watershed group in the Upper Colorado River basin.

Another opportunity to build upon work that has already been done will come from the previously created the 2012 Upper Colorado River Water Quality Management Plan (NWCCOG 2012). This plan identified many of the issues that existed in the watershed at the date of its printing and which continue to be relevant today. The information in this plan will be updated with recent data to prepare the most current status of water quality issues that exist in the watershed. Also reports of work done since the 2012 report will be incorporated such as that

done by Northern Water and the U.S. Bureau of Reclamation. The USFS, BLM, NPS and the Colorado Department of Health and Environment will be agencies contacted to insure the plan is consistent with the status of ongoing and/or recently completed water quality, restoration, and mitigation projects within the watershed. Similarly, concepts being proposed in the recently developed Colorado Statewide Water Plan will also be evaluated in this review and incorporated, as applicable, in the project concepts.

4.4 EVALUATION CRITERION D: BUILDING RESILIENCE TO DROUGHT

A review of the U.S. Drought Monitor data extending back to 2001 has shown that the watershed has experienced extended periods of drought with the most recent occurring in 2012-2013. Climate change may increase these occurrences. Environmental documents prepared to date to evaluate projects' impacts in the watershed have minimally covered potential impacts from possible climate change. This is a critical need that requires better development and discussion in the future and in such plans as the Colorado Statewide Water Plan as climate change has far ranging impacts beyond just the Upper Colorado River Watershed. Over time, this is a discussion that needs to be had amongst all of Colorado so that statewide mitigation can be developed.

The NWCCOG May 1, 2016 letter to Governor John Hickenlooper (see Appendix 1) builds upon this need for widespread cooperation to address this issue. The letter comments on the fact that "federal agencies offer an array of programs offering partial solutions". The letter goes on to implore the Department of the Interior (DOI) and the Department of Agriculture (DOA) to better coordinate their programs. In truth, drought is not a problem that demands solutions from only the federal government. It is a problem that requires local, regional, statewide and nationwide cooperation. No drought resistance program will be successful in the Upper Colorado River Watershed that does not include the cooperation of stakeholders across the watershed. The proposed UCRWG includes participation by federal, state, and local agencies and various citizen groups. This group will facilitate the local coordination needed to implement collaborative and comprehensive drought resistance measures across the watershed which can then be interfaced with regional and statewide solutions. These solutions will be incorporated into the project concepts (Objective 3) so that tactical drought oriented projects can become part of the watershed restoration plan. Through its communication and education channels, the watershed group will be able to reach across the watershed to direct the DOA and DOI program towards stakeholders, communities and citizens.

5. LETTERS OF SUPPORT FOR ESTABLISHING OR FURTHER DEVELOPING AN EXISTING WATERSHED GROUP

Letters of support have been received and continue to come in from a broad cross-section of stakeholders in the Upper Colorado Watershed. These include politicians, towns, chambers of commerce, and non-governmental organizations (e.g. Rotary Club, GCWIN). Letters of support that were received in time to meet the deadline of grant submission are provided in Attachment 1.

6. REQUIRED PERMITS OR APPROVALS

There are no permits or other approvals needed for this work to proceed.

7. OFFICIAL BOARD RESOLUTION

An official resolution from the Board of Shadowcliff is attached in Appendix 2.

8. PROJECT BUDGET

The following section provides a description of the proposed budget for this project. A detailed project breakdown is provided in Appendix 3 which includes mandatory forms SF-424, SF-424A, and SF-424B.

8.1 SALARIES AND WAGES

Ms. Hillary Mizia, Executive Director of Shadowcliff, will serve as the Program Manager for the project. Ms. Mizia will be devoting approximately 10% of her time to the project. She will be supported by Mr. Geoff Elliott who will serve as an assistant program manager in the area of stream restoration and mitigation. Mr. Ken Fucik will also provide substantial support under this grant focusing on the organizational and technical aspects of the project. Each of these individuals brings 20-40 years of professional experience in the areas of environment, social responsibility, and program management. Other personnel will provide administrative and specialized technical (e.g. community organization, marketing) support. The administrative support will be charged directly since no provision is made in labor rates to cover such costs. The administrative personnel will provide support in budget tracking, man-hour tracking, and in preparing quarterly and technical reports. They will also maintain spreadsheets containing names and pertinent information on stakeholders and workshop participants. Note that these rates are being proposed for application purposes although they are expected to hold for the course of the project.

8.2 TRAVEL

Travel is being estimated to cover costs for two specialists in community organization and marketing to travel to Grand Lake to participate in organizational workshops. The proposed travel expenses will be used to cover mileage and per diem for a period of 4 days for each specialist. Mileage will be charged per prevailing IRS rates for charitable organizations currently estimated at \$0.14 per mile for 2016.

8.3 EQUIPMENT

No equipment purchases are anticipated under this contract.

8.4 MATERIALS AND SUPPLIES

Materials and supplies are expected to be a minimal cost to the project. Any chargeable items to the project are expected to be associated with the production of reports, computer supplies (e.g. printer ink), and/or refreshments at meetings.

8.5 CONTRACTUAL

Potential subcontractors that are being proposed for this grant include legal support for incorporating and filing the needed paperwork to establish the watershed group; watershed consultants from Colorado Mountain College; specialists to create and maintain a website; and technical consultant support for report preparation. In each case, a fixed price was negotiated with each of the proposed subcontractors for the estimated level of work required.

8.6 OTHER

No additional costs other than those outlined in the SF-424A Budget Form are anticipated at this time.

8.7 INDIRECT COSTS

No Indirect Costs have been included for this budget.

8.8 TOTAL COST

The total cost of the project will be \$100,000 allocated over the two year period of the grant (see Form SF-424A Budget in Appendix 9.3). This does not include in-kind contributions that will be provided under this grant. First year's budget is \$50,000. Approximately 270 days after award of the grant, a request will be made to allocate the remaining \$50,000 to the project. A minimum of \$10,000 in in-kind contributions will be provided each year.

9. APPENDICES

9.1 NWCCOG LETTER TO GOVERNOR JOHN HICKENLOOPER DATED MAY 1, 2016



WATER QUALITY / QUANTITY COMMITTEE (QQ)

P.O. Box 2308 • Silverthorne, Colorado 80498
970-468-0295 • Fax 970-468-1208 • email: qqwater@nwccog.org

May 1, 2016

Dear Governor John Hickenlooper,

Your leadership in writing Colorado's first ever Water Plan is an important step forward for Colorado on future water management. We commend your "start with conservation" approach to solving Colorado's water challenges and look to you as a regional leader on drought. We encourage you to continue your leadership by pushing for additional coordination among federal agencies on drought programs in the Colorado River Basin.

The Northwest Colorado Council of Governments Water Quality/ Quantity Committee (QQ) is made up of elected officials from local governments in the headwaters of the Gunnison, Colorado, South Platte, and Yampa Basins who've worked together since the 70s on issues relating to land use authority, environmental protection and economic development. We are joined in this letter by local government leaders from around Colorado who share these interests.

The value the Colorado River provides to the Southwest is staggering. The river system supplies drinking water for 40 million people, irrigates 5 million acres of land that grows 15 percent of our nation's crops, and serves as a major economic powerhouse fueling economies in Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming. As revealed in the Department of the Interior's (DOI) comprehensive 2012 Colorado River Basin Water Supply & Demand Study, demand for the river's water now exceeds supply.

As the severity of the drought grows throughout the West, federal agencies offer an array of programs offering partial solutions. Both the Department of Agriculture's Natural Resources Conservation Service (NRCS) and Department of Interior's Bureau of Reclamation (BOR) offer programs supporting measures that increase efficiency of water use and assist in drought response. However, these programs are not currently coordinated efficiently. For example, the grants for BOR's WaterSMART and NRCS's Regional Conservation Partnership Program are awarded on entirely different schedules, making it more cumbersome and slower than it needs to be.

A federal Colorado River strategy to better coordinate these programs can produce greater efficiencies and better programs to benefit Coloradoans, including farmers and ranchers. Leveraging resources from several agencies would maximize the effectiveness of the program and establish a long-term framework for improved water management in Colorado River Basin states, including Colorado. This type of coordinated effort would also help to expedite the resources to reach projects on the ground quicker.

We know that collaboration works. DOI and NRCS recently collaborated with state and local leaders like you to create Greater Sage-Grouse conservation plans that use the resources of both agencies to conserve habitat for the species and avoid the necessity of an endangered species listing.

We commend the White House for their recent [Presidential Federal Drought Action Plan](#) which will increase on-the-ground coordination among federal agencies to better utilize their resources to combat the drought and protect vital water resources. This is the first step in knocking down a major barrier to protecting the Colorado River, the headwaters and its tributaries.

As the architect of the region's most recent and collaborative water plan, you are uniquely qualified to send a letter to DOI and USDA requesting that they launch their coordination effort in the Colorado River Basin as soon as possible. Additionally, please request that local and state partners be at the table. With climate change forecasted to reduce flow in the Colorado River by 10 to 30 percent by 2050 we cannot afford to postpone federal program coordination. Thank you for your consideration and leadership for Colorado.

9.2 SHADOWCLIFF BOARD RESOLUTION

Shadowcliff

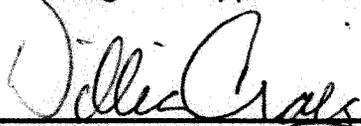
RESOLUTION, Adopted May 02, 2016

Shadowcliff is a 501C3 organization located in Grand Lake, Colorado. Since our founding in 1956, Shadowcliff has provided services that have focused on bringing together diverse organizations to understand and focus on sustainable solutions to environmental issues.

Working on this premise, the Shadowcliff Board of Directors has adopted a resolution to submit a proposal to the Bureau of Reclamation to establish the Upper Colorado River Watershed Group under the WaterSMART: Cooperative Watershed Management Program Grants for FY 2016, as advertised under Funding Opportunity Announcement No. R16-FOA-DO-008. Although no in-kind funding is required under this grant, the Shadowcliff budget includes a meaningful contribution of in-kind support.

Under this resolution, the Shadowcliff Board of Directors assigns Mrs. Hillary Mizia, Executive Director, with the legal authority to enter an agreement that arises from this grant request. The Board has resolved to work with the Bureau of Reclamation to meet established guidelines to enter into a cooperative financial assistance agreement.

Shadowcliff recognizes that the establishment of an Upper Colorado River Watershed Group will be a significant leap forward in helping to plan and manage the future of the watershed. As President of the Board, I am pleased to add my signature to acknowledge our approach to meeting the objectives of the grant.



William Craig, President of the Board

May 2, 2016
Date

9.3 MANDATORY FORMS INCLUDING SF-424, SF-424A, AND SF-424B

ATTACHMENT I. LETTERS OF SUPPORT

State Representative
KC Becker
Colorado State Capitol
200 East Colfax Avenue, Room 271
Denver, Colorado 80203
Office: 303-866-2578
Email: KCBecker.house@state.co.us



Member:
House Finance Committee
Agriculture, Livestock, & Natural
Resources Committee

May 4, 2016

COLORADO
HOUSE OF REPRESENTATIVES

STATE CAPITOL

DENVER

80203

Mr. Darren Olson
Bureau of Reclamation
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

**RE: STATEMENT OF SUPPORT FOR ESTABLISHMENT OF AN UPPER
COLORADO WATERSHED GROUP**

Dear Mr. Olson:

I, Representative KC Becker, recognize that the management of the Upper Colorado River watershed is necessary to maintain a viable economic future and quality of life for the residents and visitors of local communities and surrounding areas. The participation of interested parties and stakeholders in the watershed is critical to defining the scope of watershed planning efforts, establishing water quality goals, identifying watershed management strategies, and developing and implementing a watershed restoration plan. Therefore, I am pleased to provide this letter as an expression of my support for first-phase grant funding from the U.S. Department of the Interior's Cooperative Watershed Management Program for the establishment of an Upper Colorado River watershed group.

Sincerely,

KC Becker
State Representative, Colorado House District 13

Cc: Hillary Mizia, Executive Director
Shadowcliff
405 Summerland Park Road
Grand Lake, CO 80447



May 4, 2016

Mr. Darren Olson
Bureau of Reclamation
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

**RE: STATEMENT OF SUPPORT FOR ESTABLISHMENT OF AN UPPER
COLORADO WATERSHED GROUP**

Dear Mr. Olson:

The Granby Chamber of Commerce recognizes that the management of the Upper Colorado River watershed is necessary to maintain a viable economic future and quality of life for the residents and visitors of local communities and surrounding areas. The participation of interested parties and stakeholders in the watershed is critical to defining the scope of watershed planning efforts, establishing water quality goals, identifying watershed management strategies, and developing and implementing a watershed restoration plan. Therefore, the Granby Chamber is pleased to provide this letter as an expression of support for first-phase grant funding from the U.S. Department of the Interior's Cooperative Watershed Management Program for the establishment of an Upper Colorado River watershed group.

Sincerely,

A handwritten signature in black ink, appearing to read "Cathie Hook", is written over a faint, circular stamp or watermark.

Cathie Hook
Executive Director



May 4, 2016

Mr. Darren Olson
Bureau of Reclamation
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

**RE: STATEMENT OF SUPPORT FOR ESTABLISHMENT OF AN UPPER COLORADO
WATERSHED GROUP**

Dear Mr. Olson:

The Grand Lake Chamber of Commerce recognizes that the management of the Upper Colorado River watershed is necessary to maintain a viable economic future and quality of life for the residents and visitors of local communities and surrounding areas. The participation of interested parties and stakeholders in the watershed is critical to defining the scope of watershed planning efforts, establishing water quality goals, identifying watershed management strategies, and developing and implementing a watershed restoration plan. Therefore, the Grand Lake Chamber of Commerce is pleased to provide this letter as an expression of support for first-phase grant funding from the U.S. Department of the Interior's Cooperative Watershed Management Program for the establishment of an Upper Colorado River watershed group.

Sincerely,

A handwritten signature in black ink, appearing to read "Samantha Miller". The signature is fluid and cursive.

Samantha Miller
Executive Director
Grand Lake Chamber of Commerce



April 21, 2016

Mr. Darren Olson
Bureau of Reclamation
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

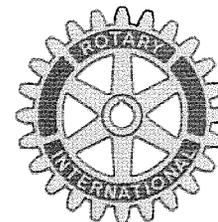
**RE: STATEMENT OF SUPPORT FOR ESTABLISHMENT OF AN UPPER COLORADO
WATERSHED GROUP**

Dear Mr. Olson:

The Town of Fraser recognizes that the management of the Upper Colorado River watershed is necessary to maintain a viable economic future and quality of life for the residents and visitors of local communities and surrounding areas. The participation of interested parties and stakeholders in the watershed is critical to defining the scope of watershed planning efforts, establishing water quality goals, identifying watershed management strategies, and developing and implementing a watershed restoration plan. Therefore, the Town of Fraser is pleased to provide this letter as an expression of support for first-phase grant funding from the U.S. Department of the Interior's Cooperative Watershed Management Program for the establishment of an Upper Colorado River watershed group.

Sincerely,

Philip Vandernail
Mayor, Town of Fraser



**Rotary Club of
Grand Lake**

May 1, 2016

Michelle Maher
US Bureau of Reclamation
Mail Code: 84-27852
PO Box 25007
Denver, CO 80225

RE: R16-FOA-DO-008
Statement of Support for Establishing an Upper Colorado River Watershed Group

Dear Ms Maher,

The Grand Lake Rotary Club recognizes the importance of cooperative watershed management in the Colorado River Headwaters and commends the US Bureau of Reclamation (USBR) for reaching out to our community. With a new spirit of cooperation growing out of recent negotiations in the upper Colorado River Basin, we see a golden opportunity to move forward with a larger vision toward sustainable economic development, project-based education/Citizen Science, and real watershed action.

Participation of a broad spectrum of interested parties and stakeholders in the watershed will be critical to defining an optimal non-regulatory, citizen-based effort and our club members are excited to participate.

We are therefore pleased to provide this letter of support for first-phase grant funding from the USBR's WaterSMART Cooperative Watershed Management Program for establishment of an Upper Colorado River Watershed Group.

Sincerely,

A handwritten signature in black ink, appearing to read "David Heil".

Dr. David Heil, Grand Lake Rotary Club President 2015-2016

A handwritten signature in black ink, appearing to read "Steve Kudron".

Steve Kudron, Grand Lake Rotary Club President 2016-2017

ROTARY CLUB OF GRAND LAKE
P.O. Box 723, Grand Lake, CO 80447 USA



TOWN OF
GRAND LAKE

May 2, 2016

Michelle Maher
US Bureau of Reclamation
Mail Code: 84-27852
PO Box 25007
Denver, CO 80225

RE: Town of Grand Lake Letter of Support

Dear Ms. Maher:

The Town of Grand Lake Board of Trustees endorses the formation of a citizen-based Upper Colorado River Watershed Group (UCRWG) that would represent all of Grand County and build upon many years of work by our Grand County Commissioners, the Three-Lakes Watershed Association, Grand County Water Information Network (GCWIN), and our Town of Grand Lake Trustees.

We support this effort as a means to enhance economic development that builds a sustainable future; promotes a broad range of recreational opportunities; and focuses on appropriate infrastructure, especially water and sanitation.

The Town of Grand Lake looks forward to working with you to establish a citizens-based Upper Colorado River Watershed Group and urges the US Bureau of Reclamation to accept this project by awarding first phase funding from the Department of Interior's Cooperative Watershed Management Program.

Respectfully submitted,

James C. Peterson
Mayor
Town of Grand Lake, CO