THE COLORADO BASIN ROUNDTABLE
C/O P.O. BOX 1120
GLENWOOD SPRINGS, COLORADO
81602

July 26, 2012

Greg Johnson
COLORADO WATER CONSERVATION BOARD
1580 Logan Street, Suite 600
Denver, CO 80203

Dear Greg:

The Colorado Basin Roundtable voted at its July 23, 2012, meeting to approve six grant requests and forward them to the CWCB staff and board for consideration.

Five of the grants address the Roundtable initiative to implement short-term projects and methods to address nonconsumptive needs. Earlier this year, the CBRT set up a workshop to recruit interest in nonconsumptive projects. Five applications emerged for Water Supply Reserve Account potential funding. They are:

- **Grand County RICD Project.** The vote was 18-0 in favor with two abstentions. The abstentions related to conflicts of interest. The request is for $100,000 in Basin Funds and $400,000 in Statewide Funds. The CBRT believes this project on the Colorado River will solidify the recreational values enjoyed at the Pumphouse segment of the Colorado River, a benefit to the Basin and all of Colorado. Our funding would be directed at in-river work.

- **Grand Valley Riparian Restoration Collaborative Project/Tamarisk Coalition.** The vote was 20-0. The request is for $42,726 in Basin Funds and $207,274 in Statewide Funds. Funding would assist in tamarisk and Russian olive removal as well as work on invasive weeds. Money would also be directed at revegetation. Phreatophyte control is a local and statewide priority in water management and in restoring environmental integrity in important riparian zones.

- **Tenmile Creek Restoration Project/Blue River Watershed Group**. The vote was 19-1 in favor. The dissent questioned a "clear need" for the project. The request is $17,500 in Basin Funds and $332,500 in Statewide Funds. The targeted work on the creek will occur in the vicinity of the Copper Mountain Ski Area, a segment impacted over the decades by mining, timbering, ski area development, railroad and highway construction. The beauty of this project is that it is shovel-

ready and this money, along with cash and in-kind services, allows it to proceed to completion.

- **Colorado River Restoration and Conservation Projects/Eagle River Watershed Council.** The vote was 19-1 in favor. Dissent cited the fact that while this paves the way for projects, it is still a study. The request is for $20,000 in Basin Funds and $90,000 in Statewide Funds. This initiative seeks to create baseline information about a stretch of the Colorado River that has been little studied. It will prioritize strategies regarding rehabilitation projects and assess recreational impacts with an eye toward directing recreation to the most suitable sites on the river.

- **Crystal River Watershed Assessment and Design of Restoration Projects/Roaring Fork Conservancy.** The vote was 20-0 in favor. The request is for $15,854 in Basin Funds and $301,219 in Statewide Funds. This is a proposal to study a heavily impacted area of historical coal mining in drainage of the Crystal River. It will lead to projects, and includes a pilot project on road restoration.

As well, we approved one grant request addressed at consumptive uses. **The Robinson Ditch Company** that serves the Basalt-El Jebel area in the Roaring Fork Valley is seeking assistance for ditch piping. The request from the CBRT is for $60,000 from Basin Funds. The vote was 19-1. Please note that the application asks for $120,000. The dissent cited the lack of a revegetation plan, a need to engage the neighbors, impacts to wells and the fact that no ag was involved in this ditch that has seen uses migrate to urban uses. In halving the request, the applicants were also encouraged to apply for a low-interest CWCB loan to complete the work. The CBRT agreed overall that there are many benefits to piping this ditch that include safety to neighbors and the more efficient movement of water that enjoys about half its flow under pre-Colorado Compact water rights.

Sincerely yours,

Jim Pokrandt
Chair, Colorado Basin Roundtable

Attachment: CFWE grant applications

COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Grand Valley Riparian Restoration Collaborative (GVRRC) Project

Name of Water Activity/Project

Tamarisk Coalition (TC)

Name of Applicant

Colorado River Basin Roundtable

Approving Basin Roundtable(s)
(If multiple basins specify amounts in parentheses.)

Amount from Statewide Account: $207,274

Amount from Basin Account(s): $42,726

Total WSRA Funds Requested: $250,000

Application Content

Required Exhibits

A. Statement of Work, Budget, and Schedule
B. Project Map
C. As Needed (i.e. letters of support, photos, maps, etc.)

Appendices – Reference Material

1. Program Information
2. Insurance Requirements
3. WSRA Standard Contract Information (Required for Projects Over $100,000)
4. W-9 Form (Required for All Projects Prior to Contracting)

Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application **with a detailed statement of work including budget and schedule as Exhibit A** to CWCB staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCB website at: http://cwcb.state.co.us Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

Water Supply Reserve Account – Application Form
Revised December 2011

Part I. - Description of the Applicant (Project Sponsor or Owner);

1. Applicant Name(s): Tamarisk Coalition (TC)

Mailing address: P.O. Box 1907, Grand Junction, CO 81502

Taxpayer ID#: 27-0007315

Primary Contact: Stacy K. Beaugh Position/Title: Executive Director

Email: sbeaugh@tamariskcoalition.org

Phone Numbers: Cell: (630) 854-5129 Office: (970) 256-7400

Alternate Contact: Shannon Hatch Position/Title: Restoration Coordinator

Email: shatch@tamariskcoalition.org

Phone Numbers: Cell: (970) 985-8759 Office: (970) 256-7400

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

[ ] Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.

[ ] Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.

[ ] Private Incorporated – mutual ditch companies, homeowners associations, corporations.

[ ] Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.

[X] Non-governmental organizations – broadly defined as any organization that is not part of the government.

3. Provide a brief description of your organization

Tamarisk Coalition (TC), a 501(c)3 non-profit organization, was founded in 2002 with the mission of providing technical assistance and education to support the restoration of riparian lands in the western United States. With a staff of twelve people, and an annual budget of approximately $1 million, the goal of TC is to support the implementation of invasive species management and river restoration measures through development of long-term management and funding strategies. TC maintains strong partnerships with federal, state, tribal, and local agencies; non-profits; private landowners; and educational institutions. While TC works across the West, TC has a vested interest in and commitment to the continued restoration of riparian ecosystems in western Colorado, with particular emphasis on the Grand Valley, TC's home base. Articles of Incorporation and By-laws are attached with application.

TC recently spearheaded the formation of the Grand Valley Riparian Restoration Collaborative (GVRRC). The GVRRC was created with the intent to comprehensively restore and enhance riparian habitat impacted by invasive plants along the Colorado River and its tributaries in Mesa County. The Collaborative, comprised of numerous partner organizations (see below), is focused primarily on the holistic management of tamarisk and Russian olive, including secondary weed treatment, revegetation, monitoring, and maintenance. TC is submitting the WSRA application on behalf of the GVRRC.

4. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

TC will be the contracting entity, though all on-the-ground restoration activities will be completed and managed by the land managers of the project (or task) sites. These mangers include: Grand Valley Audubon Society, City of Grand Junction, Colorado Parks and Wildlife (CPW), Mesa County, and Town of Palisade.

5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.

[X] The Applicant will be able to contract with the CWCB using the Standard Contract

[ ] The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

6. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

TC is exempt from TABOR since it is a 501(c)3 non-profit organization.

Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

X	Nonconsumptive (Environmental or Recreational)
	Agricultural
	Municipal/Industrial
	Needs Assessment
	Education
	Other

2. If you feel this project addresses multiple purposes please explain.

This project will improve several attributes identified as at risk by the State, including: improved river geomorphic functions, aquatic ecological functions, riparian/wetland ecological function, and water quality and recreational resources of the Colorado River. In addition, as this project will greatly improve habitat diversity, structure and function, several nonconsumptive water supply recommendations identified by the CWCB Board's Statewide Water Supply Initiative (SWSI) 2010 update will also be addressed.

3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

	Study	X	Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)
	Existing Storage Preserved or Enhanced (acre-feet)
X	Length of Stream Restored or Protected (linear feet)
	Length of Pipe/Canal Built or Improved (linear feet)
	Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)
X	Area of Restored or Preserved Habitat (acres)
X	Other -- Explain: Number of entities engaged in the process

4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude:	108°33'45.145"W	Longitude:	39°3'14.610"N

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

The goal of the GVRRC is to comprehensively restore the Colorado River corridor in Mesa County for the benefit of area residents and the environment alike. In order to achieve this goal GVRRC projects emphasize the replacement of invasive plant species with native vegetation as a means of improving aquatic, wetland, riparian, and adjacent terrestrial habitat for the benefit of wildlife and fish species. Through these actions, river access and recreational opportunities and experiences will be markedly enhanced. The Grand Valley, home to approximately 150,000 people, boasts a diverse economy which includes jobs in agriculture, natural resource extraction, health and medical fields, outdoor recreation and manufacturing industries. Due to the region's job opportunities, wealth of outdoor amenities, and favorable weather, population growth continues an upward trend.

For the purposes of this grant, the GVRRC is focused on the implementation of tasks incorporating both on-the-ground and capacity activities. Part of a larger initiative, these particular tasks were prioritized based on the numerous benefits project implementation could confer. Many of the sites are contiguous to each other, and/or adjacent to previously completed riparian restoration projects. This continuity can benefit wildlife, protect against reinvasion from some weed species, reduce wildfire risk, and help to decrease project costs through the sharing of resources. All sites are also located adjacent to the popular Colorado Riverfront Trail.

Five on-the-ground project tasks were identified. At three of the task sites, funding would be used primarily for tamarisk (*Tamarisk* spp.) and Russian olive (*Elaeagnus angustifolia*) removal, invasive weed control and revegetation. Some funding would be set aside for site assessment work prior to treatment (e.g. soils testing, monitoring well installation, baseline data collection). At the remaining two project sites, funding would be used exclusively to support revegetation and associated follow-up. While project specific tasks would be undertaken by land managers, WSRA funding would be used to support partner facilitation and coordination of project planning and implementation by TC. Technical assistance from TC would also be provided to partners with funding support.

While in its formative stages, the GVRRC is able to build upon prior planning efforts undertaken in Mesa County. In 2011 TC, in collaboration with Tetra Tech, completed draft restoration plans for the riparian corridor from Palisade to Loma. This work was completed as part of the *Colorado River Section 206 Aquatic Ecosystem Restoration Project (206 Project)*, which supports the U.S. Army Corp of Engineers (USACE) effort to develop and evaluate the Colorado River for a large-scale restoration project under the Continuing Authorities Program of the Water Resources Development Act. Although these plans are not currently being implemented by the USACE due to funding cuts, they serve as an invaluable resource and are available for use by GVRRC partners and other interested parties. The completion of restoration projects by partner organizations over the last decade has also provided the knowledge and confidence needed to successfully undertake additional work. The GVRRC is striving to bring cohesiveness to future project implementation such that landscape-scale change can be recognized.

Part III. – Threshold and Evaluation Criteria

1. Describe how the water activity meets these **Threshold Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

   a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.[1]

   Yes.

   b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRTs evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

[1] 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.[2] The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

d) Matching Requirement: For requests from the **Statewide Fund**, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the application was submitted to the CWCB. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in **Exhibit A** of this application)

A total of $177,260 in cash and in-kind contributions were obtained from partner organizations. This amount represents approximately 41% of total project costs. The Colorado River Basin Roundtable is also contributing a 10% match of the total project costs. All cash and in-kind match will be expended in accordance with the timeline outlined above. Please see Exhibit A for Detailed Budget.

In-kind support, totaling $34,280 was obtained for this grant. Funds were obtained from the Town of Palisade ($17,280), City of Grand Junction ($3,000), Grand Valley Audubon ($1,000), CPW ($10,000), and Mesa County ($3,000). These funds represent staff time donated to project planning and implementation.

A cash match of $142,980 was also obtained from: Xcel Energy ($10,000 site assessment training grant), ETC Canyon Pipe Supplemental Environment Project ($28,480 grant for revegetation project at 5th Street Bridge Task site), Colorado State Forest Service (CSFS) ($75,000 grant for revegetation project at 5th Street Bridge Task site), CPW ($14,000 for tamarisk and Russian olive removal), Grand Valley Audubon ($15,000 for fending materials), and Great Outdoors for Colorado ($500 for Riverfront Trail building activities within the Redlands Parkway project footprint).

[2] 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

2. For Applications that include a request for funds from the **Statewide Account**, describe how the water activity/project meets all applicable **Evaluation Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three "tiers" or categories. Each "tier" is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs

a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).
b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.
c. The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

Tier 2: Facilitating Water Activity Implementation

d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).
e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits

f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.
g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.
h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.
Please attach additional pages as necessary.

Unless otherwise noted, please refer to the following two documents for reference information:

- Tamarisk Coalition. 2009. Colorado River Basin Tamarisk and Russian Olive Assessment. Available at: http://www.tamariskcoalition.org/ColoradoRiver.html.

- Tamarisk Coalition & Tetra Tech. 2011 (DRAFT). Colorado River Section 206 Aquatic Ecosystem Restoration Mesa County, CO. Appendix B Engineering Appendix. Prepared for U.S. Army Corp of Engineers. 294 p. Available upon request.

Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs

a. Several at-risk attributes identified in the *Colorado River Basin Attributes at Risk Data Matrix* that this project addresses include: geomorphic function, aquatic ecological function, and riparian/wetland ecological function. Improvement of these attributes is a shared goal among many constituents, including CPW, U.S. Fish and Wildlife Service (USFWS), US Bureau of Reclamation (USBR), Natural Resources Conservation Service (NRCS), private landowners, industry, and numerous environmental organizations. Project implementation will also lead to an enhancement in the general physiognomy of the river corridor which is of interest to a suite of additional partners, including the Colorado Riverfront Commission (CRC), the recreation and tourism industry, as well as the real estate and community services sector.

Given the nexus of the project area, the Gunnison River watershed could also benefit from restoration activities undertaken along the Colorado River.

b. The work of the GVRRC is supported by numerous local, state, and federal organizations, with outreach to additional private/public partners ongoing. TC will be drafting a Memorandum of Understanding for the GVRRC to formalize partner involvement while clarifying roles and responsibilities.

A goal of the GVRRC is to bring cohesiveness to project implementation such that landscape-scale change can be recognized. Given the contiguous nature of the riverine system, collaboration is key to long-term and sustainable project success. Many of these agencies have a legacy of working together to address river corridor and Valley-wide resource concerns, such as building the Colorado Riverfront Trail system. This project will build on past success and will enhance the ability of partners to address riparian habitat issues affecting the Colorado River Basin and its neighboring watersheds.

GVRRC partners currently include: Grand Valley Audubon Society, City of Fruita, Clifton Sanitation, CPW, Colorado Mesa University (CMU), CRC, CSFS, Colorado Watershed Assembly, Mesa County, Mesa Land Trust, NRCS, National Park Service, Town of Palisade, USACE, U.S. Bureau of Land Management (BLM), USBR, USFWS, Western Colorado Conservation Corps (WCCC), and private land owners. Outreach to additional organizations is on-going; some of these organizations/groups include: Colorado Department of Transportation (CDOT), Grand River Mosquito Control District, Grand Valley Coalition for the Homeless, United Gravel, other mining companies, and additional private enterprise groups.

c. The GVRRC projects will help to achieve nonconsumptive water supply recommendations and strategies identified by the CWCB Board's SWSI 2010 update, including:

- Protect or enhance environmental and recreational values that benefit local and statewide economies.
- Encourage multi-purpose projects that benefit both water users and native species.

All tasks submitted for funding consideration are multi-purpose, with multiple benefits to both the environment and diverse water users a desired outcome. Specific environmental benefits from project implementation, with emphasis on native species, are described in more detail below.

With respect to recreational values, tamarisk and Russian olive can provide some recreational benefit in the form of shade in the absence of native vegetation. However, tamarisk's dense, monotypic growth patterns can block access to waterways, create hazards for river runners, invade popular campsites, and facilitate dangerous wildlife encounters. Likewise, dense Russian olive growth curtails recreationalists' mobility and may exacerbate allergies. Both species impact wildlife, birdlife, fish, and aesthetics directly affecting outdoor enthusiasts as well. Management of tamarisk and Russian olive can help to increase revenue that the outdoor community and industry provides through tourism and retail outfitters.

Additionally, healthy and inviting natural landscapes can create community pride in the river system. As noted earlier, task sites are located adjacent to, or within the project footprint of, the Colorado Riverfront Trail system. This trail, which will ultimately run from Palisade to Loma, will provide uninterrupted off-highway access to the river corridor. Fourteen miles of the trail are currently complete; by 2014, residents and visitors alike will be able to travel unimpeded from Fruita to the eastern edge of Grand Junction. Restoration efforts at one task site (5th Street Bridge) will also greatly enhance the development of Las Colonias Park, a major priority for development by the City of Grand Junction Parks and Recreation Department. Plans for this park tentatively include development of park facilities, including a kayak park; residential and commercial buildings; and a large amphitheater.

The GVRRC project will also address the prioritized Colorado Basin attributes at risk in sections 62 and 64 outlined in the *Colorado Basin Attributes at Risk Data Matrix* and WFET results table. Attributes at risk include: **Geomorphic Functions, Aquatic Ecological Functions, Riparian/Wetland Ecological Function, and Water Quality**. Specific issues, as identified by the matrix, that the GVRRC projects will address include: **riparian dynamics, neo-tropical [birds], channel maintenance, and fish and aquatic life needs**, including fishes covered under the USFWS Upper Colorado River Endangered Fish Recovery Program (Recovery Program). Attributes, including specific issues, and how project implementation can begin to address them, are described below; links are made SWSI recommendations and strategies.

Geomorphic Function

Channel maintenance:

The establishment of tamarisk impacts the river channel's ability to shift morphology from single-thread meandering to braided. This is attributed to the fact that tamarisk stands have a higher stem density than native vegetation, which allows it to be more resistant to removal by large floods. Tamarisk stems change the landscape properties of gravel and cobble islands and bars, as well as those of adjacent channels, by slowing the flow velocities and increasing the force required to remobilize the channel bed, while woody roots increase the bed resistance to mobilization. Another impact of tamarisk establishment related to channel narrowing is the simplification of secondary channels.

Restoration is proposed for side channels and associated backwater areas through the removal of tamarisk and Russian olive. Invasive species are stabilizing the side channels, reducing flows and sediment transport resulting in a disconnection between the side channels and backwaters from flows in the main

channel. USFWS has indicated that backwater and side channels provide necessary habitat for rearing fish, and reconnection of these side channels and backwaters would likely improve survival of endangered and other native fish.

Aquatic Ecological Functions

Fish and aquatic life needs:

Four of the task sites have been specifically identified by the USFWS Recovery Program as areas that are high priorities for restoration as habitat for the benefit of native and endangered fish species. Endangered fish species found within the project area include the Bonytail (*Gila elegans*), Colorado Pikeminnow (*Ptychocheilus lucius*), Humpback Chub (*Gila cypha*), and Razorback Sucker (*Xyrauchen texanus*).

These species may be endangered in part, due to changes in the river's flow regime that have reduced the availability of backwaters, side channels, and bottomlands that are critical habitat. These changes in flow regime may have also contributed to tamarisk establishment. Tamarisk, in turn, further reduces the number of side channels and backwaters by stabilizing banks, and increasing sedimentation and channelization of the river. Clean gravel and cobble bars, critical for spawning of endangered fish species and other native fish, are stabilizing with tamarisk infestation and the subsequent increase in sedimentation.

During the *2o6 Project* planning process, restoration plans designed to improve the geomorphic and aquatic ecological function of the river through the replacement of species that tend to increase bank and cobble bar channelization to the detriment of aquatic species were developed in conjunction with the USFWS.

The Recovery Program is currently implementing flow regimes to mimic a more natural, dynamic process. The removal of tamarisk and Russian olive along the banks and within the confluence areas of these backwater areas, in combination with changes in flow operations, should help 1) unlock trapped sediment, 2) simulate a more natural river system, particularly a more dynamic system associated with increased sediment transport, and 3) increase bed mobilization.

A number of additional aquatic species could be also present in the project area, including the following native species: flannelmouth sucker (*Catostomus latipinnis)*, bluehead sucker (*Catostomus discobolus),* roundtail chub (*Gila robusta)*, and speckled dace (*Rhinichthys osculus)*.

Riparian/Wetland Ecological Function

In Colorado, it is estimated that 90 percent of the state's 800 species of fish and wildlife depends on riparian habitat, even though these areas comprise less than two percent of the state. Effects of invasive plants on wildlife are diverse and depend on the species considered. While several native animal species have adapted to life with tamarisk and Russian olive, replacement of woody invasives with native plant species, through passive or active measures, may greatly benefit wildlife. Denuded areas rarely support much wildlife, and unless tamarisk and Russian olive is replaced by vegetation of equal or greater habitat value, wildlife will not benefit from control efforts and may in fact be negatively affected. On-the-ground projects submitted for WSRA funding consideration will be completed in a manner that maximizes restoration benefit while minimizing disturbance to wildlife. Regularly assessing the impact of restoration work on wildlife both during and after a project will allow managers to adjust their current efforts and plan future efforts so as to benefit or minimize detriment to wildlife.

Native plant materials, including grass, shrub, and tree species, are recommended for all restoration activities occurring at GVRRC project task sites. Suggested species and quantities have been developed for each task site. Prevalent on these species list is Fremont cottonwood (*Populus fremontii*). While natural Fremont cottonwood recruitment and survival may be limited by the Colorado River's current flow regime,

cottonwoods can be established through the planting of poles and longstem products. Trees grown in these forms can be planted directly into the water table, thereby limiting the need for supplemental irrigation.

While some water savings may be gained from the removal of tamarisk and Russian olive, the range of water savings is large and depends on site ecology, hydrology, and the identity of replacement vegetation. Water savings requires the replacement of tamarisk with species that require less water. This can only occur on sites appropriate for more xeric replacement vegetation. In general, potential water savings will range from 50-60% to less than zero (if replacement vegetation uses more water than tamarisk). Water salvage will typically occur only for a few years (during early growth) in areas where riparian species such as cottonwood and willow are the appropriate replacement vegetation for tamarisk. For other replacement vegetation, potential water savings are higher but vary among species and depend strongly on site factors. The greatest opportunity for meaningful water savings will occur on upper terraces located within the floodplain. However, the greatest opportunities for recovery of other ecosystem service values may occur in the mesic riparian fringe where water savings are lower.

Riparian dynamics:

With the replacement of invasive plant species in wetland and riparian areas with native plant species, either through passive or active restoration, refugium for terrestrial and aquatic organisms may improve. As native plants become established, diverse food sources will likely increase abundance, as will the ability of native plant stands to serve as a seed source for passive revegetation of surrounding areas.

Tamarisk removal and revegetation with native plant species may also help to alleviate wildlife threats in the riparian corridor. Fire has replaced flooding as the major disturbance regime on many southwestern floodplains and in riparian corridors. Multiple sources report that while fire remains uncommon in tamarisk-free riparian areas, fire frequency has increased in many low-elevation riparian ecosystems where tamarisk has become established. Wildfire impacts include diminished water quality, altered flood regimes, and drier and more saline floodplain environments.

Eliminating the tamarisk dominated floodplain area and restoring a healthy diverse riparian ecosystem will likewise increase the system's capacity to react to the uncertainty that is inevitable in any climate-shifting scenario. By providing a richer seed bank from highly stress tolerant plants, restoration efforts will greatly increase the ability of the riparian corridor to withstand climate change.

Neotropical [birds]:

When tamarisk is intermixed with native vegetation and does not form a monoculture, it may be beneficial for many species of birds. However, mixed native-tamarisk stands (created via natural processes or restoration) may not be climax communities. If tamarisk continues to colonize and out-compete native plants, mixed stands may become tamarisk monocultures in the future. Restoration efforts that diversify vegetation structure and species composition can be beneficial to a suite of bird species, including neotropical migrants that utilize the Colorado River corridor.

Water Quality

The Colorado River within the planning area is listed for selenium impairment by the State of Colorado. The Colorado River reach from the Gunnison River to the state line has been sampled 76 times with an ambient level of 5.2 micrograms per liter. The existing chronic for aquatic life standard for selenium is 4.6 micrograms per liter. Salinity levels are also of concern in this reach.

The most important variables affecting selenium and salinity impacts that can be influenced by

management actions are vegetative cover and compaction. Proper land use, which includes objectives for increasing ground cover, stabilizing stream banks, controlling accelerated gully erosion, and minimizing surface disturbing activities, is the preferred method for achieving salinity control. GVRRC projects, through management for properly functioning riparian areas, and through the restoration of degraded areas to improve vegetative cover, can assist in the management of selenium and salinity.

Tier 2: Facilitating Water Activity Implementation

d. WSRA funding will significantly increase the scope and effectiveness of the GVRRC as it presents project partners an opportunity to better leverage resources on multiple levels. While project implementation has been occurring in the Grand Valley, it has been piecemeal and sporadic. Capacity funding from the WSRA to further develop the partnership is essential as partners strive to work in a collaborative, landscape-scale fashion that equitably benefits vested partners and the community at large. WSRA funding would also greatly alleviate the collective inertia experienced when anticipated federal funding was severely reduced due to federal budget cuts.

e. Matching funds from myriad partners, in the form of in-kind and cash contributions, are substantial. In total, matching funds approximate 41% of the total project cost.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits

f. The GVRRC project will improve the environmental, aesthetic, and socio-economic values of the Colorado River through the Grand Valley. A critical phase identified by city and county governments to establishing and improving open space, recreational amenities, and alternative transportation corridors along the river is the removal of invasive species. Many sites along the river already include wildlife viewing areas, soft and paved trails, park areas, and camping sites. Dense stands of tamarisk and Russian olive restrict and diminish these recreational uses. Tamarisk and Russian olive removal will mitigate these negative impacts and improve the recreational experience at various parks, State wildlife areas, the Colorado RiverfrontTrail and other recreational sites. Hunting, angling, hiking, biking and wildlife viewing, important socio-economic drivers for this region, will likely be improved through project completion.

g. This project does not assist in the administration of compact entitled waters.

h. This project assists in the recovery of threatened and endangered wildlife species and Colorado State species of concern. The 100-year floodplain of the Colorado River throughout the entire project area is designated by USFWS as critical habitat for the endangered Colorado pikeminnow, razorback sucker, humpback chub, and bonytail chub. Additionally, the entire project area is considered a high priority watershed for species richness by the CPW. Four task sites are identified by the USFWS as high priority sites for tamarisk control to restore endangered fish habitat. These high priority sites are specific areas that have had known occupation by one or more endangered fish species, or are considered to be unique and highly valued habitat with potential for occupation. See Tier 1 answers for more specifics on how project implementation will benefit fish species.

i. The activity provides a high level of benefit to Colorado in relationship to the amount of funds requested. Due to the habitat enhancement and recreational benefits described above, this project has the potential to

increase the economic value of the Colorado River in the Grand Valley. Secondly, implementation of restoration activities creates job opportunities for private contractors and youth through conservation corps programs. According to a recent report released by Southwick Associated (2012), economic gains associated with the Colorado River, in the state of Colorado alone, approximate $6 billion in direct spending. Nearly 80,000 jobs are associated with the river activities, with $4 billion in labor income generated. The report can be downloaded at the following link: http://protectflows.com/wp-content/uploads/2012/05/PTF-Fact-Sheet-Colorado.pdf.

j. This project is complementary to the criteria set within the CWCB Tamarisk and Russian Olive Control Cost Sharing Grant Program Guidance and Procedures. All on-the ground projects will utilize Integrated Pest Management, employ a combination of passive and/or active revegetation with native species, and follow a monitoring and maintenance program for a minimum of five years. Funds requested from the WSRA do not include monitoring and maintenance costs; TC will be looking at other funding options and have commitments from land managers to contribute staff time for these important tasks.

Projects goals also include: restoration of stream channel capacity such that flood risk is reduced, habitat creation for aquatic and terrestrial species, intensive restoration of riparian areas, erosion reduction, improved water quality, enhanced recreational access, and increased capacity to utilize water through demonstrated reductions in the non-beneficial consumption of water by tamarisk and Russian olive.

Part IV. – Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

The proposed project will not require water consumption, or augmentation of water supply. Projects will not require water rights or affect those water rights associated with this body of water. Any irrigation of plant materials required for revegetation will be done through the use of existing water rights.

2. Please provide a brief narrative of any related studies or permitting issues.

If necessary, required permits will be acquired by land managing partnering organizations, agencies and governments. River channel and in-stream modifications are not planned for the initial phase of the GVRRC projects. The proposed projects will not affect the river structure or impact water rights and or consumption of water from the Colorado River.

3. Statement/Scope of Work, Detailed Budget, and Project Schedule

Please see Exhibit A.

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. **Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement**. All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

Please provide a detailed statement of work using the template in Exhibit A. Additional sections or modifications may be included as necessary. Please define all acronyms and include page numbers.

REPORTING AND FINAL DELIVERABLE

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

The above statements are true to the best of my knowledge:

Signature of Applicant: 

Print Applicant's Name: Stacy Beaugh

Project Title: Grand Valley Riparian Restoration Project

Date: 7/6/2012

Return an electronic version (hardcopy may also be submitted) of this application to:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Exhibit A

Statement of Work

WATER ACTIVITY NAME – Grand Valley Riparian Restoration Collaborative (GVRRC) Project

GRANT RECIPIENT – Tamarisk Coalition (TC)

FUNDING SOURCE – Water Supply Reserve Account

INTRODUCTION AND BACKGROUND

Provide a brief description of the project. (Please limit to **no more than 200 words**; this will be used to inform reviewers and the public about your proposal)

Tamarisk Coalition (TC) respectfully requests, on behalf of the Grand Valley Riparian Restoration Collaborative (GVRRC), funding to coordinate and implement riparian restoration at five sites along the Colorado River in Mesa County. The GVRRC, which is comprised of numerous partner organizations, was recently created to comprehensively improve riparian habitat, with focus on the holistic management of tamarisk and Russian olive, including revegetation, monitoring, and maintenance. TC, a non-profit organization with the mission of providing education and technical assistance for the restoration of riparian lands, is serving as facilitator for GVRRC efforts.

GVRRC project implementation will improve aquatic, wetland, riparian, and adjacent upland habitats through the replacement of woody invasives with native plant species. Project implementation at the five high priority sites submitted for funding consideration will confer numerous benefits to the residents of the Grand Valley and to the Colorado River and its associated habitat types. Many of the sites are contiguous to each other, and/or adjacent to previously completed riparian restoration projects. This continuity can benefit wildlife, protect against reinvasion from weed species, reduce wildfire risk, and help to decrease project costs through the sharing of resources.

TASKS

Provide a detailed description of each task using the following format

TASK 1 – Palisade Riverbend Park

Description of Task

Native plant revegetation will be completed along 1,000 linear feet of bank along Riverbend Park in the Town of Palisade. Revegetation is being completed with the goal of stabilizing the bank to prevent further erosion, which was precipitated by flooding in 2011. Revegetation is the final stage of a multi-phase project that includes placement of a sedimentation barrier and bank contouring; these tasks were completed with outside funding. The Town of Palisade is responsible for project implementation. Restoration work will be undertaken by contractors. This site, which is adjacent to the Colorado Riverfront Trail and near downtown Palisade, receives high visitation and is home to numerous festivals. Opportunities for outreach and education are high at this site.

Method/Procedure

Cottonwood (*Populus fremontii*) stems, stakes, and posts along with willow whips (*Salix* spp.) will be planted in the bank and overbank areas of the project site. A device referred to as a "Stinger", which consists of a

metal rod attached to the arm of an excavator, will be used to install plants. A comprehensive harvesting and planting guide will be prepared and construction personnel will be trained to install plant materials in accordance with guidance published by the Upper Colorado Environmental Plant Center and similar agencies. Native shrub species** will be planted on the bank within a few feet of average water mark, in between rip-rap boulders. Overbank areas will be seeded with an upland mix* using a range drill and conventional broadcast methods.

Deliverables

Periodic reports, photos, and monitoring data documenting restoration activities and progress toward goals will be written by the Town of Palisade and compiled by TC.

TASK 2– 5th Street Bridge

Description of Task

The 5th Street Bridge Complex, which includes Watson Island, Las Colonias Park, and the Jarvis Property, is located within the active floodplain. This site, which includes mixed native vegetation, serves as an important fish breeding area and was ranked as high priority by the US Fish and Wildlife Service (USFWS) for restoration to benefit endangered Colorado River fish species. Given the complex's adjacency to the Colorado Riverfront Trail and the Western Colorado Botanical Gardens, and its visibility from Highway 50, educational and outreach opportunities abound.

On the property commonly referred to as the Jarvis Property (located to the northwest of the 5th Street Bridge), the City of Grand Junction will conduct a site assessment, create a site plan, identify a monitoring strategy, remove tamarisk and Russian olive, treat secondary weeds, and begin revegetation actions. On the Watson Island and Las Colonias Park sites (southeast of the 5th Street Bridge) the City, in collaboration with TC, will continue to treat secondary weeds while furthering restoration efforts with native grass and shrub species. Restoration activities at Watson Island and Las Colonias Park are fully funded by matching funds.

Method/Procedure

For the Jarvis Property, mechanical and hand cutting of tamarisk and Russian olive will be completed. Biomass will be mechanically mulched. The tamarisk leaf beetle (*Diorhabda* spp.) is established in this area and is considered a treatment tool; the beetle can be especially effective in the treatment of tamarisk re-sprouts. Secondary weeds of concern at this site, which include cheatgrass, Russian knapweed, kochia and Russian thistle, will be treated by a contractor through established methods. Revegetation will be completed with plantings of cottonwood, box elder (*Acer negundo*), and a mix of riparian shrubs. A riparian grass seed mix* will be utilized.

At the Watson Island and Las Colonias Park sites, the City will continue to work with TC to continue secondary weed treatment and revegetation with native plant species. TC has been the project lead at these two locations over the last several years.

Deliverables

Periodic reports, photos, and monitoring data documenting all removal and restoration activities and progress toward goals will be written by the City of Grand Junction and compiled by TC.

TASK 3 – Ela Preserve

Description of Task

This site, which is owned by Grand Valley Audubon, is populated by a mix of native riparian and wetland vegetation that supports diverse wildlife habitat. The site also contains endangered fish rearing ponds and backwaters that will benefit from restoration activities. It is considered high priority for restoration by USFWS. The area is open to the public, adjacent to the Colorado Riverfront Trail, and is bordered by Connected Lakes State Park.

Naturally recruited cottonwoods, that were established during 2011 spring flooding, will be fenced from beaver predation and wildlife browsing at this site. While cottonwoods can be planted using alternative methods, the Grand Valley Audubon Society, the party responsible for project implementation, recognizes the cost and environmental benefits of protecting trees that were able to take hold without human intervention.

Method/Procedure

The Western Colorado Conservation Corp will be used to install fencing at the Ela Preserve. Work will be completed during the fall of 2012.

Deliverables

Periodic reports, photos, and monitoring data documenting fencing activities and progress toward goals will be written by the Grand Valley Audubon Society and compiled by TC.

TASK 4 – Connected Lakes State Park

Description of Task

Connected Lakes State Park is open to the public and houses a portion of the Colorado Riverfront Trail. The area, which contains a mix of upland riparian vegetation that serves as excellent bird habitat, is used as a living laboratory for students in the environmental restoration program at Colorado Mesa University. The Park is adjacent to the Ela Preserve; it is also considered high priority for endangered fish habitat restoration by USFWS.

On this property, Colorado Parks and Wildlife (CPW) will conduct a site assessment, create a site plan, identify a monitoring strategy, remove tamarisk and Russian olive, treat secondary weeds, and begin revegetation actions.

Method/Procedure

Biological control with the tamarisk leaf beetle is the recommended control treatment for tamarisk at this site. Mechanical treatment and hand removal are the suggested treatments for Russian olive. Tamarisk can be left to naturally decompose; Russian olive biomass will be mulched.

Secondary weeds of concern at this site, which include cheatgrass, Russian knapweed, kochia and Russian thistle, will be treated by a contractor through established methods.

Cottonwood, box elder, and upland shrub plantings are recommended, as is seeding with a riparian seed mix*.

Deliverables
Periodic reports, photos, and monitoring data documenting fencing activities and progress toward goals will be written by CPW and compiled by TC.

TASK 5 – Redlands Parkway

Description of Task
The Redlands Parkway site, which is considered high priority for restoration by the USFWS for endangered fish, is located within the active floodplain and contains a mix of woody invasives and native vegetation. The site is adjacent to Walter Walker State Wildlife Area.

On this property the City of Grand Junction and Mesa County will conduct a site assessment, create a site plan, identify a monitoring strategy, remove tamarisk and Russian olive, treat secondary weeds, and begin revegetation actions. Retreatment of tamarisk and Russian olive will occur during the second year of project implementation. The City of Grand Junction and Mesa County are responsible for project management at this site.

Mesa County recently cleared a large swath of tamarisk from this site, and plans to conduct native grass seeding, in preparation for continuation of the Colorado Riverfront Trail system through this property.

Method/Procedure
Biological control with the tamarisk leaf beetle is the recommended control treatment for tamarisk at this site. Mechanical treatment and hand removal are the suggested treatments for Russian olive. Mulching is recommended for Russian olive disposal; tamarisk will be left to naturally decompose.

Secondary weeds of concern at this site, which include cheatgrass, Russian knapweed, kochia and Russian thistle, will be treated by a contractor through established methods.

A riparian grass mix* is recommended for the lower portions of this site near the pond. An upland salty grass mix is suggested for the drier sections of this property.

Deliverables
Periodic reports, photos, and monitoring data documenting fencing activities and progress toward goals will be written by the City of Grand Junction and Mesa County and compiled by TC.

TASK 6– Partnership Development

Description of Task
TC will coordinate all partner meetings related to the GVRRC projects and support the partners in implementing riparian restoration activities throughout the project area.

Method/Procedure
A quarter time Restoration Coordination will be responsible for coordination of this effort through the above activities with support from the Executive Director. Other TC staff (Program Director, Staff Scientist, Funding Program Coordinator) will be available for technical assistance as needed. TC will be responsible for facilitating and coordinating full partnership and smaller meetings, documenting and monitoring

progress toward the shared goals of the partners, outreaching and publicizing restoration efforts of the partners, and providing other capacity and technical support where needed. Specifically, TC will document and monitor progress toward shared goals of the partners related to riparian restoration efforts and assist with implementation of restoration plans created for the Grand Valley. TC will also be responsible for coordinating with existing partners to expand participation to new organizations and private land owners, and to identify and apply for additional funding resources.

Deliverables

Periodic reports documenting all capacity activities and progress toward goals will be written by TC with input from project partners.

***Grass/forb seed mixes (pending soil type and location):**

- **Upland** - Alkali sacaton (*Sporobolus airoides*), slender wheatgrass (*Elymus trachycaulus*), Indian ricegrass (*Achnatherum hymenoides*), scarlet globemallow (*Sphaeralcea coccinea*), evening primrose (*Oenothera* spp.)
- **Upland Salty** - Alkali sacaton (*Sporobolus airoides*), slender wheatgrass (*Elymus trachycaulus*), western wheatgrass (*Pascopyrum smithii*)
- **Riparian** - Alkali sacaton (*Sporobolus airoides*), slender wheatgrass (*Elymus trachycaulus*), inland saltgrass (*Distichlis spicata*)

****Recommended shrubs for revegetation (pending soil type and location) include:**

- three-leaf sumac (*Rhus trilobata*)
- golden currant (*Ribes aureum*)
- Woods' rose (*Rosa woodsii*)
- silver buffaloberry (*Shepherdia argentea*)
- rubber rabbitbrush (*Ericameria nauseosa*)
- four-wing saltbrush (*Atriplex canescens*)
- big sagebrush (*Artemisia tridentata*)
- winterfat (*Kraschenninnikovia lanata*)

REPORTING AND FINAL DELIVERABLE

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Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, $/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

Budget begins next page.

Task Description	Project Budget				
	Project Budget	*Labor*	*Materials/ Supplies*	*Mileage*	*Budget Description*
Task 1 - Palisade Riverbend Park					
Coordination	**$ 7,080**	$ 7,080	$ -	$ -	Town of Palisade staff 16 hrs @ $30; Contractor 66 hrs @ $100
Revegetation	**$ 59,400**	$ 34,800	$ 24,600	$ -	Town of Palisade staff 560 hrs @ $30; Contractor 180 hrs @ $100; materials: shrubs, grass seed and amendments
Subtotal	***$ 66,480***	*$ 41,880*	*$ 24,600*	*$ -*	
Task 2 - 5th Street Bridge					
Coordination	**$ 18,780**	$ 18,780		$ -	TC Restoration Coordinator 320 hrs @ $45, Staff Scientist 48 hrs @ $60; City of Grand Junction 37.5 hrs @ $40
Site Assessment	**$ 8,000**	$ 3,000	$ 5,000	$ -	1/2 week conservation corps crew @ $3,000; materials: monitoring wells, soil samples, tools, equipment
Tamarisk and Russian Olive Control	**$ 46,876**	$ 44,100	$ 2,776	$ -	7 weeks conservation corps crew @ $6,300; materials: herbicide
Secondary Weed Treatment	**$ 20,000**	$ 14,400	$ 5,600	$ -	Contractor 160 hrs @ $90; materials: herbicide
Revegetation	**$ 62,655**	$ 25,560	$ 37,095	$ -	3 weeks conservation corps, contractor 74 hrs @ $90; materials: grass seed and amendments, shrubs
Subtotal	***$ 156,311***	*$ 105,840*	*$ 50,471*	*$ -*	
Task 3 - Ela Preserve					
Coordination	**$ 1,000**	$ 1,000	$ -	$ -	Grand Valley Audubon 25 hrs @ $40
Revegetation	**$ 21,300**	$ 6,300	$ 15,000	$ -	1 week conservation corps crew @ $6,300; Materials: Fencing and tools
Subtotal	***$ 22,300***	*$ 6,300*	*$ 15,000*	*$ -*	
Task 4 - Connected Lakes State Park					
Coordination	**$ 10,000**	$ 10,000	$ -	$ -	Colorado Parks and Wildlife 200 hrs @ $50
Site Assessment	**$ 8,000**	$ 3,000	$ 5,000	$ -	1/2 week conservation corps crew @ $3,000; materials: monitoring wells, soil samples, tools, equipment
Tamarisk and Russian Olive Control	**$ 44,000**	$ 37,140	$ 6,860	$ -	60% mechanical contractor 82 hrs @ $145; 40% hand cut 4 weeks conservation corps @ $6,300 a week; Materials: herbicide
Secondary Weed Treatment	**$ 15,000**	$ 10,800	$ 4,200	$ -	Contractor 120 hrs @ $90; materials: herbicide
Revegetation	**$ 5,000**	$ 3,050	$ 1,950	$ -	Contractor 34 hrs @ $90/hr; materials: grass seed and amendments
Subtotal	***$ 82,000***	*$ 63,990*	*$ 18,010*	*$ -*	
Task 5 - Redlands Parkway					
Coordination	**$ 4,500**	$ 4,500	$ -	$ -	City of Grand Junction 37.5 hrs @ $40; Mesa County 60 hrs @ $50
Site Assessment	**$ 8,000**	$ 3,000	$ 5,000	$ -	1/2 week conservation corps crew @ $3,000; materials: monitoring wells, soil samples, tools, equipment
Tamarisk and Russian Olive Control	**$ 15,000**	$ 10,875	$ 4,125	$ -	100 % mechanical contractor 75 hrs @ $145; materials: herbicide
Secondary Weed Treatment	**$ 5,244**	$ 3,780	$ 1,464	$ -	Contractor 42 hrs @ $90; materials: herbicide
Revegetation	**$ 24,188**	$ 8,550	$ 15,638	$ -	1 week conservation corps @ $6,300; contractor 25 hrs @ $90; materials: Grass seed and amendments, shrubs
Subtotal	***$ 56,932***	*$ 26,205*	*$ 26,227*	*$ -*	
Task 6 - Partnership Development					
Coordination and Capacity Support	**$ 43,237**	$ 40,800	$ 2,162	$ 275	TC Exec. Director 80 hrs @ $60, Restoration Coordinator 520 hrs @ $50; Restoration consultants 100 hrs @ $100; materials: education/outreach signs, printing, meeting supplies, mileage for travel around Mesa County
Subtotal	***$ 43,237***	*$ 40,800*	*$ 2,162*	*$ 275*	
Total	**$ 427,260**	*$ 285,015*	*$ 136,470*	*$ 275*	

*Retreatment costs for tamarisk, Russian olive and secondary weeks are included in tamarisk and Russian olive control and secondary weed line items.

		Matching Funds				Request		
Task Description	**Total Project Budget**	**Total Match**	*In-kind*	*Cash*	*Match Source*	**Total Request**	*CBRT Request*	*WSRA Request*
Task 1 - Palisade Riverbend Park								
Coordination	**$ 7,080**	**$ 480**	$ 480	$ -	Town of Palisade			
Revegetation	**$ 59,400**	**$ 16,800**	$ 16,800		Town of Palisade			
Subtotal	***$ 66,480***	***$ 17,280***	*$ 17,280*	*$ -*		***$ 49,200***	*$ 6,648*	*$ 42,552*
Task 2 - 5th Street Bridge								
Coordination	**$ 18,780**	**$ 1,500**	$ 1,500	$ -	City of Grand Junction			
Site Assessment	**$ 8,000**	**$ -**	$ -	$ -				
Tamarisk and Russian Olive Control	**$ 46,876**	**$ -**	$ -	$ -				
Secondary Weed Treatment	**$ 20,000**	**$ 28,480**	$ -	$ 28,480	ETC Canyon Pipe SEP			
Revegetation	**$ 62,655**	**$ 75,000**	$ -	$ 75,000	CO State Forest Service			
Subtotal	***$ 156,311***	***$ 104,980***	*$ 1,500*	*$ 103,480*		***$ 51,331***	*$ 15,631*	*$ 35,700*
Task 3 - Ela Preserve								
Coordination	**$ 1,000**	**$ 1,000**	$ 1,000	$ -				
Revegetation	**$ 21,300**	**$ 15,000**	$ -	$ 15,000	Grand Valley Audubon			
Subtotal	***$ 22,300***	***$ 16,000***	*$ 1,000*	*$ 15,000*		***$ 6,300***	*$ 2,230*	*$ 4,070*
Task 4 - Connected Lakes State Park								
Coordination	**$ 10,000**	**$ 10,000**	$ 10,000	$ -	CO Parks and Wildlife			
Site Assessment	**$ 8,000**	**$ -**	$ -	$ -				
Tamarisk and Russian Olive Control	**$ 44,000**	**$ 14,000**	$ -	$ 14,000	CO Parks and Wildlife			
Secondary Weed Treatment	**$ 15,000**	**$ -**	$ -	$ -				
Revegetation	**$ 5,000**	**$ -**	$ -	$ -				
Subtotal	***$ 82,000***	***$ 24,000***	*$ 10,000*	*$ 14,000*		***$ 58,000***	*$ 8,200*	*$ 49,800*
Task 5 - Redlands Parkway								
Coordination	**$ 4,500**	**$ 4,500**	$ 4,500	$ -	Mesa County and City of Grand Junction			
Site Assessment	**$ 8,000**	**$ -**	$ -	$ -				
Tamarisk and Russian Olive Control	**$ 15,000**	**$ -**	$ -	$ -				
Secondary Weed Treatment	**$ 5,244**	**$ -**	$ -	$ -				
Revegetation	**$ 24,188**	**$ 500**	$ -	$ 500	Great Outdoors Colorado			
Subtotal	***$ 56,932***	***$ 5,000***	*$ 4,500*	*$ 500*		***$ 51,932***	*$ 5,693*	*$ 46,239*
Task 6 - Partnership Development								
Coordination and Capacity Support	**$ 43,237**	**$ 10,000**	$ -	$ 10,000	Xcel Energy			
Subtotal	***$ 43,237***	***$ 10,000***	*$ -*	*$ 10,000*		***$ 33,237***	*$ 4,324*	*$ 28,913*
Total	**$ 427,260**	**$ 177,260**	*$ 34,280*	*$ 142,980*		**$ 250,000**	*$ 42,726*	*$ 207,274*

GVRRC Budget Summary				
Task / Name	**Budget**	**Match**	**CBRT Request**	**WSRA Request**
Task 1 - Palisade Riverbend Park	$ 66,480	$ 17,280	$ 6,648	$ 42,552
Task 2 - 5th Street Bridge	$ 156,311	$ 104,980	$ 15,631	$ 35,700
Task 3 - Ela Preserve	$ 22,300	$ 16,000	$ 2,230	$ 4,070
Task 4 - Connected Lakes State Park	$ 82,000	$ 24,000	$ 8,200	$ 49,800
Task 5 - Redlands Parkway	$ 56,932	$ 5,000	$ 5,693	$ 46,239
Task 6 - Partnership Development	$ 43,237	$ 10,000	$ 4,324	$ 28,913
Total	**$ 427,260**	**$ 177,260**	**$ 42,726**	**$ 207,274**

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

Planning for plant materials and baseline data gathering will commence upon the grant being awarded. Removal and revegetation activities will be staged according to the land manager goals and site restrictions (e.g. to avoid wildlife breeding sites and times of year). Monitoring and maintenance of each site will be required throughout the implementation process in order to make on-site management adaptations if needed. Monitoring and maintenance will also continue beyond project timeline delineated below.

An estimated schedule, which can be adjusted upon receiving the NTP, is as follows:

Task Implementation Timeline									
Task Number	**Restoration Activity**	**Year 1** Fall 2012-Summer 2013				**Year 2** Fall 2013-Summer 2014			
		F	W	Sp	Su	F	W	Sp	Su
Task 1 – Palisade Riverbend Park	Planning and design								
	Training								
	Plant harvesting, preparation & storage								
	Planting								
	Management & inspection								
	Maintenance								
Task 2, 4, 5 - 5th Street Bridge, Connected Lakes State Park & Redlands Parkway	Site assessment								
	Development of tree & shrub plant materials								
	Tamarisk & Russian olive removal								
	Tamarisk & Russian olive re-sprout treatments								
	Secondary invasive weed treatments								
	Native grass seeding								
	Planting of tree & shrub materials (if indicated)								
	Monitoring & maintenance								
Task 3 – Ela Preserve	Fencing of cottonwoods								
	Monitoring & maintenance								
Task 6 – Partnership Development	Facilitation & coordination								

NOTE: Blue shading signifies active work. **F** = fall months of September, October and November; **W** = winter months of December, January and February; **Sp** = spring months of March, April and May; **Su** = summer months of June, July and August.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

Appendix 1
Reference Information

The following information is available via the internet. The reference information provides additional detail and background information.

- Water Supply Reserve Account main webpage:
  - http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/main.aspx
- Water Supply Reserve Account – Basin Fund Application Details:
  - http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx
- Water Supply Reserve Account – Statewide Fund Application Details:
  - http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/StatewideWaterSupplyReserveAccountGrants.aspx
- Colorado Water Conservation Board main website:
  - http://cwcb.state.co.us/
- Interbasin Compact Committee and Basin Roundtables:
  - http://cwcb.state.co.us/about-us/about-the-ibcc-brts/Pages/main.aspx/Templates/BasinHome.aspx
- House Bill 05-1177 – (Also known as the Water for the 21st Century Act):
  - http://cwcbweblink.state.co.us/DocView.aspx?id=105662&searchhandle=28318
- House Bill 06-1400 – (Adopted the Interbasin Compact Committee Charter):
  - http://cwcbweblink.state.co.us/DocView.aspx?id=21291&searchhandle=12911
- Senate Bill 06-179 – (Created the Water Supply Reserve Account):
  - http://cwcbweblink.state.co.us/DocView.aspx?id=21379&searchhandle=12911
- Statewide Water Supply Initiative 2010:
  - http://cwcb.state.co.us/water-management/water-supply-planning/Pages/SWSI2010.aspx

Appendix 2
Insurance Requirements

NOTE: The following insurance requirements taken from the standard contract apply to WSRA projects that exceed $25,000 in accordance with the policies of the State Controller's Office. Proof of insurance as stated below is necessary prior to the execution of a contract.

13. INSURANCE

Grantee and its Sub-grantees shall obtain and maintain insurance as specified in this section at all times during the term of this Grant: All policies evidencing the insurance coverage required hereunder shall be issued by insurance companies satisfactory to Grantee and the State.

A. Grantee

i. Public Entities

If Grantee is a "public entity" within the meaning of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq., as amended (the "GIA"), then Grantee shall maintain at all times during the term of this Grant such liability insurance, by commercial policy or self-insurance, as is necessary to meet its liabilities under the GIA. Grantee shall show proof of such insurance satisfactory to the State, if requested by the State. Grantee shall require each Grant with Sub-grantees that are public entities, providing Goods or Services hereunder, to include the insurance requirements necessary to meet Sub-grantee's liabilities under the GIA.

ii. Non-Public Entities

If Grantee is not a "public entity" within the meaning of the GIA, Grantee shall obtain and maintain during the term of this Grant insurance coverage and policies meeting the same requirements set forth in **§13(B)** with respect to sub-Grantees that are not "public entities".

B. Sub-Grantees

Grantee shall require each Grant with Sub-grantees, other than those that are public entities, providing Goods or Services in connection with this Grant, to include insurance requirements substantially similar to the following:

i. Worker's Compensation

Worker's Compensation Insurance as required by State statute, and Employer's Liability Insurance covering all of Grantee and Sub-grantee employees acting within the course and scope of their employment.

ii. General Liability

Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent Grantees, products and completed operations, blanket Grantual liability, personal injury, and advertising liability with minimum limits as follows: **(a)**$1,000,000 each occurrence; **(b)** $1,000,000 general aggregate; **(c)** $1,000,000 products and completed operations aggregate; and **(d)** $50,000 any one fire. If any aggregate limit is reduced below $1,000,000 because of claims made or paid, Sub-grantee shall immediately obtain additional insurance to restore the full aggregate limit and furnish to Grantee a certificate or other document satisfactory to Grantee showing compliance with this provision.

iii. Automobile Liability

Automobile Liability Insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit of $1,000,000 each accident combined single limit.

iv. Additional Insured

Grantee and the State shall be named as additional insured on the Commercial General Liability and Automobile Liability Insurance policies (leases and construction Grants require additional insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037, or equivalent).

v. Primacy of Coverage

Coverage required of Grantee and Sub-grantees shall be primary over any insurance or self-insurance program carried by Grantee or the State.

vi. Cancellation

The above insurance policies shall include provisions preventing cancellation or non-renewal without at least 45 days prior notice to the Grantee and the State by certified mail.

vii. Subrogation Waiver

All insurance policies in any way related to this Grant and secured and maintained by Grantee or its Sub-grantees as required herein shall include clauses stating that each carrier shall waive all rights of recovery, under subrogation or otherwise, against Grantee or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

C. Certificates

Grantee and all Sub-grantees shall provide certificates showing insurance coverage required hereunder to the State within seven business days of the Effective Date of this Grant. No later than 15 days prior to the expiration date of any such coverage, Grantee and each Sub-grantee shall deliver to the State or Grantee certificates of insurance evidencing renewals thereof. In addition, upon request by the State at any other time during the term of this Grant or any sub-grant, Grantee and each Sub-grantee shall, within 10 days of such request, supply to the State evidence satisfactory to the State of compliance with the provisions of this **§13**.

Appendix 3
Water Supply Reserve Account Standard Contract Information

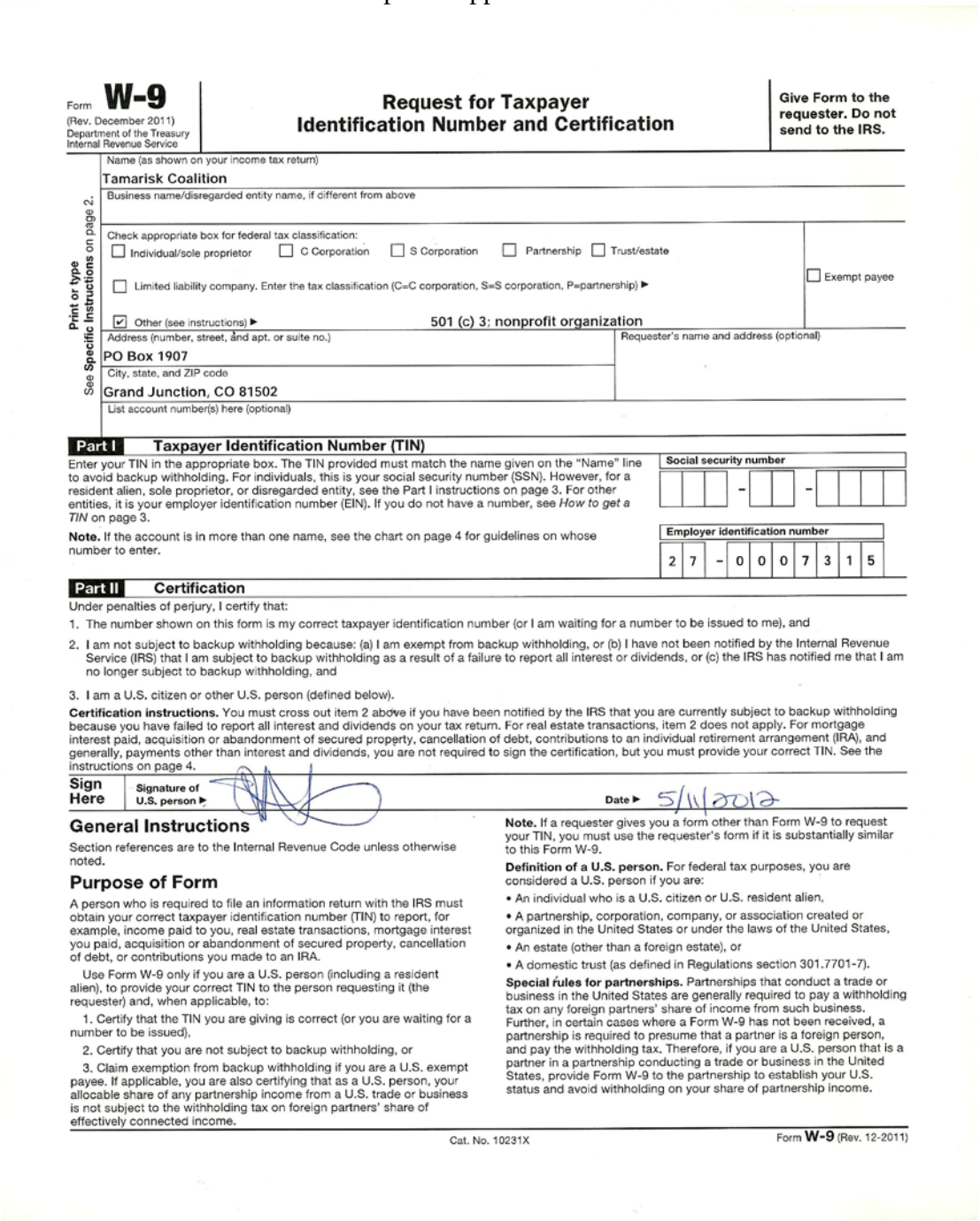
NOTE: The standard contract is required for WSRA projects that exceed $100,000. (Projects under this amount will normally be funded through a purchase order process.) Applicants are encouraged to review the standard contract to understand the terms and conditions required by the State in the event a WSRA grant is awarded. Significant changes to the standard contract require approval of the State Controller's Office and often prolong the contracting process.

It should also be noted that grant funds to be used for the purchase of real property (e.g. water rights, land, conservation easements, etc.) will require additional review and approval. In such cases applicants should expect the grant contracting process to take approximately 3 to 6 months from the date of CWCB approval.

The standard contract is available here under the header "Additional Resources" on the right side: http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx

Appendix 4
W-9 Form

NOTE: A completed W-9 form is required for all WSRA projects prior execution of a contract or purchase order. Please submit this form with the completed application.



Form **W-9**
(Rev. December 2011)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type See Specific Instructions on page 2.

Name (as shown on your income tax return)
Tamarisk Coalition

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:
☐ Individual/sole proprietor ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Exempt payee

☑ Other (see instructions) ▶ 501 (c) 3; nonprofit organization

Address (number, street, and apt. or suite no.)
PO Box 1907

Requester's name and address (optional)

City, state, and ZIP code
Grand Junction, CO 81502

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number: ___ - ___ - ____

Employer identification number: 27-0007315

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person ▶ [signature] Date ▶ 5/11/2012

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

Cat. No. 10231X Form **W-9** (Rev. 12-2011)