

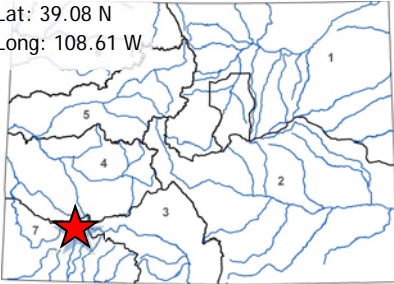


Audubon Nature Preserve Wetlands Improvements Project Grand Valley Audubon Society

May 2019 Board Meeting

Water Plan Grant Application

Lat: 39.08 N
Long: 108.61 W



L O C A T I O N	
County/Countries:	Mesa
Drainage Basin:	Southwest

D E T A I L S	
Total Project Cost:	\$266,224
Water Plan Grant Request:	\$130,352
Recommended amount:	\$0
Other CWCB Funding:	\$0
Other Funding Amount:	\$57,111
Applicant Match:	\$79,365
Project Type(s): Construction	
Project Category(Categories): Environmental & Recreation	
Measurable Result: 34.5 acres of restored and improved habitat	

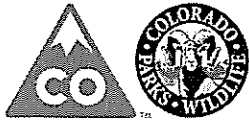
This project is a partnership between Grand Valley Audubon Society, Ducks Unlimited, RiversEdge West and Audubon Rockies to improve riparian forest and wetland habitat on the Audubon Nature Preserve property in the heart of Grand Junction. The Grand Valley Audubon Society (GVAS) owns and manages the 57-acre Audubon Nature Preserve in Grand Junction.

Currently, the property supports some populations of wetland birds, fish and amphibians. However, managers have no means to manage available habitats to maximize use by wildlife. Water quality is poor and anoxic. Wetland hydroperiods are driven by groundwater fluctuations, which are out of phase with wildlife needs. The result is opportunistic provision of habitats for wetland wildlife in this portion of the Colorado River basin.

This project will resolve current water quality, availability and habitat imbalances. GVAS will improve wetland habitat on 11.5 acres of former gravel pit ponds and semi-permanent wetlands by recontouring ponds to create shallow wetlands. Additionally, 23 acres of riparian forest will be improved via removal of invasive phreatophytes and planting of native species. CWCB funds will also be used to install interpretive signage to educate the public about the importance of wetland habitats for watershed health.

Colorado Parks and Wildlife (CPW) has written a letter of support for this project, stating that the project will help boost habitat quality and diversity. The project has also received a grant from CPW.





COLORADO

Parks and Wildlife

Department of Natural Resources

James M. Robb-Colorado River State Park
P.O. Box 700; 361 32 Rd
Clifton, CO. 81520
P 970.434.3388 | F 970.434.6878

January 23, 2019

Dear Colorado Water Conservation Board,

Colorado Parks and Wildlife is pleased to support Grand Valley Audubon's wetlands improvement project. The Audubon Nature Preserve property is adjacent to the Connected Lakes Section of the James M. Robb Colorado River State Park. We have long worked with Grand Valley Audubon Society, sharing riparian restoration expertise and other resources. The Audubon Property and the Connected Lakes State Park property are very similar in that both have ponds formed by old gravel pits. The ponds on the state park property are popular for fishing and some boating and we have means to maintain their water levels and quality. However, the ponds on the Audubon property are filled by groundwater only and there is no means to maintain their water levels or quality. As such, they are frequently anoxic and unproductive.

The Audubon property provides an uncommon opportunity to create valuable wildlife habitat by converting the unproductive Audubon ponds to shallow, emergent wetlands greatly enhancing their value to birds and other wildlife. While we have taken steps to improve the habitat value in the state park our ability to provide shallow wetlands for forage is limited and as mentioned the primary uses of fishing and boating are not compatible with a shallow wetland. However, the property is contiguous with the 120-acre state park and improving these wetlands will boost habitat quality and diversity on a much larger swath of the riparian corridor.

Colorado Parks and Wildlife is happy to support Grand Valley Audubon in their pursuit of a CWCB Water Plan grant.

Sincerely,

Pete Firmin
Park Manager

James M. Robb-Colorado River State Park



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

September 27, 2018

Chris Sturm
Colorado Water Conservation Board
CWCB Stream Restoration Program
1313 Sherman Street, Rom 721
Denver CO
(303) 866-3441

Dear Chris and staff,

The Colorado Basin Roundtable endorses the Grand Valley Audubon's Wetlands Improvement Project. This project will transform old gravel pit ponds with marginal water quality and limited habitat value into productive, shallow-water wetlands that are critical habitat for migrating waterfowl, shorebirds, amphibians and other wildlife.

This project fits into our Basin Implementation Plan's theme of "protecting and rehabilitating healthy rivers, streams, lakes and riparian areas." The project provides both environmental and wildlife-watching recreational benefits as it is situated near a high-traffic walking and biking trail, as well as a popular state park. Its high visibility also provides an opportunity to inform the public about the CBRT's goals and activities as well as the importance of wetland habitat.

The creation of shallow water wetland habitat on this property also supports the health of the wider watershed as this habitat type is in short supply. At lower elevations in the basin in particular, wetlands formed by agricultural irrigation or unlined irrigation ditches often substitute for naturally formed wetlands. As residential development increases in Mesa County and agricultural irrigation is made more efficient, we expect to lose some of these artificial wetlands. Creation of wetlands on the Audubon property would help offset this loss.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Jim Pokrandt", with a long, sweeping horizontal stroke extending to the right.

Jim Pokrandt
Chair, Colorado Basin Roundtable

Dear Colorado Water Conservation Board,

Audubon Rockies, a regional office of the National Audubon Society, is pleased to support Grand Valley Audubon's Wetlands Improvement Project through this Colorado Water Plan Implementation grant. Audubon believes in a world where people and wildlife both thrive and this project is an exemplar of the value. Specifically, this project will transform marginal wildlife habitat in the form of old gravel pit ponds into productive, shallow-water wetlands. Shallow-water wetlands are critical habitat, but limited in availability for migrating waterfowl, shorebirds and other wildlife along the Colorado River mainstem.

Currently, agricultural irrigation return flows and seepage from unlined irrigation ditches support substitute wetland habitat for birds like- American Avocet, Black-crowned Night Herons, and Sora. As Colorado and the Upper Basin states enact the Drought Contingency Plan and potential Demand Management practices, many of these substitute wetlands may dry up as we consider reform in irrigation water use, delivery, and locale.

The creation of quality wetlands on the Audubon Nature Preserve property -adjacent to the Colorado River mainstem- will help offset this loss, provide critical avian habitat, and offer remarkable bird-watching opportunities in the heart of Grand Junction. We have partnered with Grand Valley Audubon Society on previous Preserve restoration projects because we believe this property is a valuable resource for both the human and wildlife communities of the Grand Valley. Audubon Rockies is a steadfast partner now and in future technical and financial support for enduring restoration practices on the Grand Valley Audubon Preserve.

Audubon Rockies is eager to partner with Grand Valley Audubon Society on this project, and we enthusiastically support their efforts to secure this Colorado Water Plan Grant.

Sincerely,



Alison Holloran
Audubon Rockies, Executive Director
VP National Audubon Society



Abby Burk
Western Rivers Regional Program Manager
Audubon Rockies



January 30, 2019

Dear Colorado Water Conservation Board Water Plan Grant Committee,

The City of Grand Junction is pleased to partner with Grand Valley Audubon Society in their wetland habitat improvement efforts on the Audubon property in Grand Junction, CO. The City has worked with Grand Valley Audubon Society successfully on past restoration efforts and we are happy to support them in their pursuit of a Colorado Water Plan grant.

Aspects of Audubon's proposed wetland improvement project will require access to water. These include seasonal filling of the ephemeral pond and addition of limited water to the wetlands when necessary to maintain habitat value. Currently Grand Valley Audubon Society has no water rights, but the City of Grand Junction has water rights on the Grand Junction Redlands Tailrace which runs adjacent to Audubon's property.

The process of developing a method to provide water for this project will take time to prepare and introduce the topic to the city council. We cannot ensure an outcome at this time, but hope the council consider this a worthy project. Our original parameters will include sufficient water if and when water is available for wildlife habitat improvement for a reasonable length of time. We have similar lease agreements for similar purposes in the area.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Ritterbush".

Mark Ritterbush
Water Services Manager



January 22, 2019

Re: CWCB Water Plan Grant- Support for Grand Valley Audubon Wetlands Project

Dear Colorado Water Conservation Board,

RiversEdge West is pleased to partner with Grand Valley Audubon for their wetlands improvement project. RiversEdge West is a non-profit focused on riparian forest and floodplain health in the American West to address impacts from invasive plants, climate change and habitat fragmentation, and stressors that may result in diminished biodiversity and ecosystem services.

We worked closely with Grand Valley Audubon on the first phase of this project which included selective removal of invasive shrubs and native revegetation establishment on 23 acres of riparian forest. The next phase-improvement of their ponds to create emergent, shallow wetlands- will enhance the habitat value of this property immensely. There are many deeper, former gravel pit ponds in the Grand Valley, but shallow water wetlands are in short supply. Now that the Colorado River is highly managed, it no longer creates this type of wetland habitat naturally.

By converting these gravel pit ponds to shallow wetlands we can create this much needed riparian habitat type on a property that is managed and preserved for wildlife conservation purposes. This area is also adjacent to the Connected Lakes Section of James M. Robb Colorado River State Park where RiversEdge West has completed extensive invasive species and revegetation work through support from the Colorado Water Conservation Board. Continued habitat improvement on Grand Valley Audubon's property will add to the landscape scale approach of restoring riparian lands.

RiversEdge West has worked with Grand Valley Audubon successfully on many restoration efforts for over 10 years and we are happy to support them in their pursuit of a CWCB Water Plan grant.

Sincerely,

Shannon Wadas
Associate Director

FEIN 27-0007315

www.RiversEdgeWest.org

P.O. Box 1907 | Grand Junction, CO 81502

Advancing the restoration of riparian lands through collaboration, education, and technical assistance.



January 30, 2019

Dear Colorado Water Conservation Board Water Plan Grant Committee,

The City of Grand Junction is pleased to partner with Grand Valley Audubon Society in their wetland habitat improvement efforts on the Audubon property in Grand Junction, CO. The City has worked with Grand Valley Audubon Society successfully on past restoration efforts and we are happy to support them in their pursuit of a Colorado Water Plan grant.

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Sincerely,

A handwritten signature in black ink, appearing to read "Mark Ritterbush".

Mark Ritterbush
Water Services Manager



Colorado Riverfront Foundation, Inc.

PO Box 2477

Grand Junction, CO 81502

Phone: 970.683.4333

info@OneRiverfront.org

OneRiverfront.org

January 22, 2019

Dear Colorado Water Conservation Board,

One Riverfront (the Riverfront Commission and the Colorado Riverfront Foundation, Inc.) is pleased to support Grand Valley Audubon's wetlands improvement project on their property adjacent to the Riverfront Trail. Grand Valley Audubon has been a long-time partner in development of the Riverfront Trail and their property is open to the public and enjoyed by many trail users.

The Riverfront Trail system is an ongoing, 30+ year-old valley-wide project to provide an uninterrupted public trail system from the Garfield/Mesa county line to Colorado/Utah state border, while preserving valuable riparian habitat. The Audubon property is on the trail in the heart of the Grand Valley. Its unpaved trails, interpretive signs and bird blinds are an attraction for Riverfront Trail users. Improvement of ponds on this property will enhance wildlife viewing opportunities along the Riverfront Trail and provide needed habitat for ducks, wading birds and other wildlife.

One Riverfront has worked with Grand Valley Audubon successfully on past restoration efforts and we are happy to support them in their pursuit of a CWCB Water Plan grant.

Sincerely,

A handwritten signature in blue ink that reads "Paul Nelson".

Paul Nelson

Colorado Riverfront Foundation, Inc., Chair

A handwritten signature in black ink that reads "Karen Jefferson".

Karen Jefferson

One Riverfront, Co-chair

Task 8 - Irrigation Water Conveyance Rehabilitation						
Conveyance (5" line with valves and outlets)	Linear Foot	2,300	11	25,300	16,867	8,433
Pump Rehabilitation	Lump Sum	1	20,000	20,000	13,333	6,667
Erosion Control	Lump Sum	1	2,500	2,500	1,667	833
Re-vegetation	Acres	1	500	500	333	167
Task 9- Riparian Forest Improvement						
plant and watering materials, volunteer meals, app	Acres	23		8,000.00	-	8,000
TOTAL				204,170	119,005	85,165



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Colorado Water Conservation Board
Water Plan Grant - Detailed Budget Estimate
Fair and Reasonable Estimate

Prepared Date:

2/26/2019

Name of Applicant:

Grand Valley Audubon Society

Name of Water Project:

Audubon Nature Preserve Wetlands Improvement Project

Construction

<i>Sub-task</i>	Unit	Quantity	Unit Cost (\$)	Total Cost (\$)	CWCB Funds (\$)	Matching Funds (\$)
Task 4 - Construction Mobilization and Site Preparation						
Mobilization	Lump Sum	1	10,000	10,000	6,667	3,333
Site Preparation	Lump Sum	1	7,500	7,500	5,000	2,500
GPS Survey Rental	Days	5	125	625	-	625
Task 5 - Pond #1 Construction and Restoration						
Pond #1 Excavation and Earth-moving	Cubic Yards	19,000	2	38,000	13,974	24,026
Pond #1 Water-control Structure	Lump Sum	1	10,000	10,000	6,667	3,333
Embankments	Cubic Yards	2,035	4	7,123	4,749	2,374
Erosion Control	Lump Sum	1	5,000	5,000	3,333	1,667
Re-vegetation	Acres	2	500	1,000	667	333
Task 6 - Pond #2 Construction and Restoration						
Pond #2 Excavation and Earth-moving	Cubic Yards	18,000	2	36,000	24,000	12,000
Pond #2 Water-control Structure	Lump Sum	1	10,000	10,000	6,667	3,333
Pond #2 Embankment	Cubic Yards	2,035	4	7,123	4,749	2,374
Erosion Control	Lump Sum	1	5,000	5,000	3,333	1,667
Re-vegetation	Acres	1	500	500	333	167
Task 7 - Pond #5 Construction and Restoration						
Pond #5	Cubic Yards	2,000	4	7,000	4,667	2,333
Erosion Control	Lump Sum	1	2,500	2,500	1,667	833
Re-vegetation	Acres	1	500	500	333	167



Colorado Water Conservation Board
Water Plan Grant - Detailed Budget Estimate
Fair and Reasonable Estimate

Prepared Date: 2/26/2019
Name of Applicant: Grand Valley Audubon Society
Name of Water Project: Audubon Nature Preserve Wetlands Improvement Project

Bio-Engineering

Sub-task	GVAS Executive Coordinator	22	Subtotal (\$)	Subcontracts					Project Total	CWCB Funds	Matching Funds	
				Regional Engineer 140	Regional Biologist 140	Project Engineer 120	Surveyor 120	Hydrologist 140				Subtotal (\$)
		Estimated Hours		Estimated Cost per Task and Subcontractor (Hours)								
Task 1 - Feasibility, Survey & Design												
Project Preliminary Reconnaissance and Scoping		182	4,000	20	31				7,070	11,070		11,070
Topographic and Bathymetric Survey			-				40		4,800	4,800		4,800
Project Control		42	924	20	40	8			9,360	10,284	978	9,306
Project Design			-	16		16		4	4,720	4,720	2,147	2,573
Project Drafting			-			40			4,800	4,800	2,200	2,600
Task 2 - Permitting												
Water Rights Evaluation		114	2,500					8	1,120	3,620	125	3,495
Clean Water Act Permitting			-		8				1,120	1,120	560	560
County/Local Permitting			-	4		4		2	1,320	1,320	660	660
Task 3 - Project Bid, Contracting, Construction Management and Evaluation												
Bid Package Preparation			-	4		4			1,040	1,040	520	520
Bid Contracting			-	4		4			1,040	1,040	520	520
Construction Management			-			24		24	6,240	6,240	2,517	3,723
Project Evaluation			-	16	8				3,360	3,360	1,120	2,240
Task 9 - Riparian Forest Improvement												
labor (GVAS staff= \$1302.40, volunteer= \$7337.72)			8,640						-	8,640	0	8,640
TOTAL			16,064							62,054	11,347	50,707

Last Updated: November 2018

Performance Measures

Performance measures for this contract shall include the following:

- (a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.
- (b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.
- (c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.
- (d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

Last Updated: November 2018

Tasks
also be planted to increase tree species diversity on the property. New native plantings will be manually watered through the summer of 2018 and the spring/summer of 2019 or until sufficiently established.
Task 9 Deliverable:
By September 2019, Approximately 23 acres of riparian forest habitat on the property will be improved via the establishment of native species- including mid-story shrubs beneath a mature cottonwood gallery. Density of invasive phreatophytes will be reduced and additional native tree species will be established.

Budget and Schedule
This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements
<p>Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status 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.</p>
<p>Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:</p> <ul style="list-style-type: none"> Summarizes the project and how the project was completed. Describes any obstacles encountered, and how these obstacles were overcome. Confirms that all matching commitments have been fulfilled. Includes photographs, summaries of meetings and engineering reports/designs. <p>The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.</p>

Payment
<p>Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.</p> <p>Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to CWCB in hard copy and electronic format as part of the project documentation.</p>

Last Updated: November 2018

Tasks
Task 7 – Pond #5 Construction and Restoration
Description of Task 7:
At least four (4) acres of shallow-water wetland in Pond #5 will be enhanced to allow for plant communities preferred by foraging waterbirds to grow.
Task 7 Method/Procedure:
Approximately 2,000 cubic yards of fill will be excavated from the pond boundary at elevations known to grow preferred wetland plant communities under normal hydrologic conditions on the property.
Task 7 Deliverable:
By 5/15/2020, GVAS will certify that: 1.) at least four additional acres of shallow-water wetland has been constructed in Pond #5.

Tasks
Task 8 – Irrigation Water Conveyance Rehabilitation
Description of Task 8:
Existing irrigation infrastructure on the site will be rehabilitated, replaced and expanded to allow for the supplemental surface irrigation of desired wetland plant communities.
Task 8 Method/Procedure:
Based on engineered design water supply and conveyance to three ponds on the property will be rehabilitated, replaced and/or expanded to allow for managed irrigation of wetland plant communities. Irrigation line of at least five inches will be routed to the ponds and entrained with required valves and outlets permitting efficient use of available surface water supplies. Pump mechanical and electrical systems will be rehabilitated to ensure managers have a secure supply of water.
Task 8 Deliverable:
By 6/15/2020, approximately 2,000 linear feet of pipeline and appurtenant valves and outlets will be attached to a functioning pump allowing for the supplemental irrigation of wetland plant communities in three units on the GVAC property.

Tasks
Task 9 – Riparian Forest Improvement
Description of Task 9:
Improvement of riparian forest habitat via selective removal of invasive phreatophytes and planting of native riparian species.
Task 9 Method/Procedure:
GVAS will coordinate a two-day volunteer event with its partners Audubon Rockies and RiversEdge West. Volunteers will selectively remove Russian olive (<i>Elaeagnus angustifolia</i>) from the mid-story of existing cottonwood galleries and plant native shrubs including three-leaf sumac (<i>Rhus trilobata</i>), woods rose (<i>Rosa woodsii</i>), New Mexico privet (<i>Forestiera neomexicana</i>), silver buffaloberry (<i>Shepherdia argentea</i>), and golden currant (<i>Ribes aureum</i>). Selective removal will preserve existing mid-story cover for birds until natives establish and further Russian olive can be removed. Volunteers will also cage existing cottonwoods to protect them from herbivory by beavers. Native trees including boxelder (<i>Acer negundo</i>) and netleaf hackberry (<i>Celtis reticulata</i>) will

Last Updated: November 2018

Tasks
Task 4 Method/Procedure:
After a contractor is awarded a construction contract by DU, they will have at least four weeks to mobilize to the GVAC property and begin site preparations. Required materials and equipment will be purchased and brought to the site.
Task 4 Deliverable:
By 2/15/2020, GVAS will submit written notification to CWCB that project contractors have fully mobilized and restoration activities and construction work have commenced.

Tasks
Task 5 – Pond #1 Construction and Restoration
Description of Task 5:
At least four (4) acres of shallow-water wetlands in Pond #1 will be restored to allow for plant communities preferred by foraging waterbirds to grow.
Task 5 Method/Procedure:
Approximately 19,000 cubic yards of fill will be excavated and placed within the gravel pit boundary at elevations known to grow preferred wetland plant communities under normal hydrologic conditions on the property. One (1) inline, inverted-t stoplog water control structure will be installed within an embankment isolating waters in Pond #1. This structure will allow for the management of water levels within the pond, benefitting wetland plant communities.
Task 5 Deliverable:
By 5/15/2020, GVAS will certify that: 1.) at least four acres of shallow-water wetland have been constructed along the margins of Pond #1; and, 2.) An earthen embankment separating the pond from the other bodies of water on the property will be constructed with a water-control structure.

Tasks
Task 6 – Pond #2 Construction and Restoration
Description of Task 6:
At least three and a half (3.5) acres of shallow-water wetlands in Pond #2 will be restored to allow for plant communities preferred by foraging waterbirds to grow.
Task 6 Method/Procedure:
Approximately 18,000 cubic yards of fill will be excavated and placed within the gravel pit boundary at elevations known to grow preferred wetland plant communities under normal hydrologic conditions on the property. One (1) inline, inverted-t stoplog water control structure will be installed within an embankment isolating waters in Pond #2. This structure will allow for the management of water levels within the pond, benefitting wetland plant communities.
Task 6 Deliverable:
By 5/15/2020, GVAS will certify that: 1.) at least three and a half acres of shallow-water wetland have been constructed along the margins of Pond #2; and, 2.) An earthen embankment separating the pond from the other bodies of water on the property will be constructed with a water-control structure.

Last Updated: November 2018

Permitting
<p>GVAS in cooperation with Ducks Unlimited will obtain permits for wetland restoration and enhancement projects. The type of work proposed here is regulated under Section 404 of the Clean Water Act. These activities are commonly permitted under Nationwide Permit No. 27 Aquatic Habitat Improvement Projects as allowed by the U.S. Army Corps of Engineers. GVAS will pursue a 40-year lease of a small portion of the City or Grand Junction's water right from the Grand Junction Redlands Tailrace which runs adjacent to the Audubon property. The City currently has a similar agreement leasing water rights to Colorado Parks and Wildlife to maintain water levels in its ponds on the state park property adjacent to the Audubon property. Water will be used to maintain beneficial hydroperiods in the wetlands constructed or improved on the Audubon property. Further, GVAS and DU will work with Mesa County to ensure that all county construction permits (e.g. erosion control plans) are secured.</p>
<p>Deliverable:</p> <p>By 12/31/2019, GVAS and DU will have: 1.) Secured permission from the USACE to proceed under NWP27; 2.) Secured all local permits required of construction projects in Mesa County; and, 3.) Developed a water-sharing framework agreement with the City of Grand Junction to allow supplemental surface flows to irrigate the restored wetlands.</p>

Tasks
<p>Task 3 – Project Bid, Contracting, Construction Management and Evaluation</p>
<p>Description of Task:</p> <p>GVAS will employ DU to procure contractors able to deliver the wetland restoration project, manage construction of those restored wetlands and evaluate final project outcomes.</p>
<p>Method/Procedure:</p> <p>Project delivery follows a regular pattern of bidding, contracting, construction and evaluation. DU performs all work under each stage of this project delivery pattern. When all required permits are secure, DU places the project out to bid. DU uses an online, competitive bid process to select the subcontractor(s) working on the project. Our procurement system is designed to meet the demands of Federal, State and local insurance, bonding, and wage-protection requirements. The lowest bidder for any given amount of work is awarded the contract, which is executed between DU and the winning contractor. These contracts are drafted to meet the requirements of Federal, State and local procurement law, rule, and administrative order. Upon execution of all required contracts for the workplan of the project, DU will schedule project construction. DU's engineering team performs construction management on our wetland conservation sites to ensure that all standards, specifications and details contained in the permitted plan are met during the construction phase. Change orders are evaluated by our bio-engineering team and, if consequential enough, are submitted to our funding partners for review and authorization. Upon completion of construction, but before demobilization, we perform a project evaluation with the contractor, our engineering team, the land owner or manager and any interested funding party to ensure that the completed work matches the expectations of those parties.</p>
<p>Deliverable:</p> <p>By 6/30/2020, GVAS will submit a final project completion report summarizing project accomplishments.</p>

Tasks
<p>Task 4 – Construction Mobilization and Site Preparation</p>
<p>Description of Task 4:</p> <p>Selected contractors will mobilize construction equipment and purchase supplies required by project design planset. The project site will be readied for timely delivery of project components.</p>

Last Updated: November 2018

The objectives of the Audubon Nature Preserve Wetland Improvement Project are to:

- Convert 7.5 acres of gravel pit ponds to shallow, emergent wetlands.
- Enhance 4 acres of existing shallow wetlands to maximize their benefit to native wildlife.
- Install necessary water management infrastructure so that beneficial water levels and hydroperiods can be maintained in improved wetlands.
- Improve 23 acres of riparian forest to improve habitat value for native birds including the threatened Western Yellow-billed Cuckoo.
- Install interpretive signage at improved wetlands to educate the public on the importance of wetlands to watershed health and wildlife habitat.

Tasks
Task 1 – Feasibility, Survey and Design
Description of Task 1:
GVAS, in cooperation with Ducks Unlimited, Inc., will perform preliminary reconnaissance, topographic and bathymetric survey, site inspection and engage with stakeholders to determine the best practices, methods and scope to achieve project objectives in the most efficient and cost-effective manner possible.
Task 1 Method/Procedure:
Personnel will visit the site and document current conditions relative to desired wetland habitat. Geomorphology, hydrology, water chemistry and plant community condition will all be assessed to determine baseline habitat condition and opportunity for wetland restoration and/or enhancement. GPS-based topographic survey and bathymetric surveys will be performed to develop a surface model of the property allowing biological and engineering staff to conceive of proper restoration and construction practices.
Task 1 Deliverable:
By 6/30/2019, GVAS and DU will provide a stamped construction planset detailing and specifying the structures, embankments and fill required to achieve desired wetland habitat conditions on the GVAC property.

Permitting
Task 2- Permitting
Description of Task:
GVAS will obtain the necessary federal, state and local permits required for planned restoration work. We will negotiate an agreement with the City of Grand Junction to lease water rights that will supplement groundwater supplies supporting desired wetland plant communities. Note: we have begun discussions with the City of Grand Junction regarding water rights and we have a letter of support from the city's Water Services Manager, Mark Ritterbush.
Method/Procedure:

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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	January 31, 2019
Name of Grantee:	Grand Valley Audubon Society
Name of Water Project:	Audubon Nature Preserve Wetlands Improvement Project
Funding Source:	Water Plan Grant- Environmental and Recreation Project
Water Project Overview:	
<p>This project is a partnership between Grand Valley Audubon Society, Ducks Unlimited, RiversEdge West and Audubon Rockies to improve riparian forest and wetland habitat on the Audubon Nature Preserve property in the heart of Grand Junction. We will improve wetland habitat on 11.5 acres of former gravel pit ponds and semi-permanent wetlands by recontouring portions to create shallow, emergent wetlands. Additionally, 23 acres of riparian forest will be improved via removal of invasive phreatophytes and planting of native species. We seek \$130,352 in CWCB funding to match \$135,872 in other funds for construction and installation of water management infrastructure in order to maintain water quality and hydroperiods that benefit native wildlife. CWCB funds will also be used to install interpretive signage to educate the public about the importance of wetland habitats for watershed health.</p> <p>Current wetland conditions on the property support some populations of waterfowl, shorebirds as well as other wetland species. Fish and amphibian habitat is also maintained. However, managers have no means by which to enhance, modify or otherwise manage available habitats to maximize use by wildlife. Water quality is poor and anoxic. Wetland hydroperiods are driven by groundwater fluctuations, out of phase with habitat needs on an intra- and inter-annual basis. The result is opportunistic provision of habitats for wildlife using wetlands in this portion of the Colorado River basin.</p> <p>Riparian forest habitat on the property will also be improved. In April 2018, with funding from our partners Audubon Rockies and RiversEdge West, we hosted a two-day volunteer event on the property. Volunteers caged cottonwoods to protect them from beavers, selectively removed Russian Olive and plants over 60 native trees and shrubs. Our goal is to restore native riparian vegetation, while minimizing disturbance to existing bird populations and maximizing habitat value for threatened riparian species such as the Western Yellow-billed cuckoo. Manual watering and maintenance of the newly planted natives continued throughout the summer and will resume in the 2019 growing season until the plants are established.</p> <p>In the future we hope develop habitat for the Colorado River's endemic, endangered fish species on the property. We have met with staff from the Upper Colorado Endangered Fish Recovery Program and they have toured the property. Their biologists have expressed interest in modifying the pond north of Dike Rd and adjacent to the Colorado River to make it a grow-out or transition site for hatchery reared endangered Razorback Sucker. (That pond will not be altered in the project proposed here.) The Grand Valley Audubon Society is enthusiastic about this potential partnership and is pursuing it.</p>	
Project Objectives:	

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Overview (answer for both tracks)
Describe potential short- and long-term challenges with this project.

Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just leave it blank. Please answer each question that relates to your project. Please reference the relevant documents and use chapters and page numbers (Colorado's Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).

Engagement Track
Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado's Water Plan to "significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys."
Describe how the project achieves the other measurable objectives and critical goals and actions laid out in Colorado's Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.
Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).
Describe how the project achieves the basin roundtable's PEPO Education Action Plans.

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ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

Introduction & Purpose

Colorado's Water Plan calls for an outreach, education, public engagement, and innovation grant fund in Chapter 9.5.

The overall goal of the Engagement & Innovation Grant Fund is to enhance Colorado's water communication, outreach, education, and public engagement efforts; advance Colorado's water supply planning process; and support a statewide water innovation ecosystem.

The grant fund aims to engage the public to promote well-informed community discourse regarding balanced water solutions statewide. The grant fund aims to support water innovation in Colorado. The grant fund prioritizes measuring and evaluating the success of programs, projects, and initiatives. The grant fund prioritizes efforts designed using research, data, and best practices. The grant fund prioritizes a commitment to collaboration and community engagement. The grant fund will support local and statewide efforts.

The grant fund is divided into two tracks: engagement and innovation. The Engagement Track supports education, outreach, communication, and public participation efforts related to water. The Innovation Track supports efforts that advance the water innovation ecosystem in Colorado.

Application Questions
*The grant fund request is referred to as "project" in this application.
Overview (answer for both tracks)
In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?
Describe how you plan to measure and evaluate the success and impact of the project?
What research, evidence, and data support your project?

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Submittal Checklist	
	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract .
Exhibit A	
X	Statement of Work ⁽¹⁾
X	Budget & Schedule ⁽¹⁾
X	Engineer's statement of probable cost (projects over \$100,000)
X	Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾
Exhibit C	
X	Map (if applicable) ⁽¹⁾
	Photos/Drawings/Reports
X	Letters of Support (Optional)
X	Certificate of Insurance (General, Auto, & Workers' Comp.) ⁽²⁾
X	Certificate of Good Standing with Colorado Secretary of State ⁽²⁾
	W-9 ⁽²⁾
	Independent Contractor Form ⁽²⁾ (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
	Engagement & Innovation Supplemental Application ⁽¹⁾

(1) Required with application.

(2) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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- The project is located in a Nonconsumptive Needs Assessment (NCNA) segment area with identified environmental and recreational risk as seen in the CO Basin Implementation Plan (Fig. 21, pg. 120)
- In a "Survey of Critical Wetlands and Riparian Areas in Mesa County" prepared by the Colorado Natural Heritage Program in 2002, the project site was ranked number 3 out of 21 priority areas (see pg. 81) in the Colorado River Potential Conservation Area based on biodiversity, wetland types and other factors.
- The project is located in the Grand Valley Riparian Corridor Important Bird Area identified by the National Audubon Society (2000)

Previous CWCB Grants, Loans or Other Funding

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order; 6) Percentage of other CWCB funding for your overall project.

The Grand Valley Audubon Society has not received any CWCB grants.

Taxpayer Bill of Rights

The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.

We have received a grant of \$33,000 from the Colorado Parks and Wildlife's Wetlands for Wildlife program. That is the only funding we have received from the State of Colorado for this project to this date.

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practices will decrease the amount of these substitute wetlands in the Basin. Additionally, possible Demand Management related fallowing practices could reduce the number of wetlands currently supported by irrigated agriculture. This project will create wetlands that will help offset this loss to the watershed.

Furthermore, public outreach surveys by the Basin Roundtable ranked "environmental health" as the second most common water issue concern among Basin residents following adequacy of supply (pg. 34.) Clearly a healthy environment- of which wetland habitat is an important component- is a top priority of Basin residents.

In a 2012 article in the journal Restoration Ecology, Weisberg et al. note that a majority of riparian restoration efforts has focused on restoring riparian forests because they are more appealing for human recreation and require lower stream flows to maintain. However, the researchers point out that:

"Reconstruction of a mosaic of plant communities including shallow-rooted wetland herbaceous plants and deep-rooted woody phreatophytes ... will ultimately lead to increased ecological function at the whole-watershed level (pg. 3)"

They go on to conclude that herbaceous wetlands "should become a focus for active restoration efforts where passive restoration of watershed processes proves insufficient to generate ... missing community types that have historically been dominated by herbaceous plant species."

Finally, the project site is a priority for restoration and conservation. In a "Survey of Critical Wetlands and Riparian Areas in Mesa County" prepared by the Colorado Natural Heritage Program in 2002, the project site was ranked number 3 out of 21 priority areas (see pg. 81) in the Colorado River Potential Conservation Area based on biodiversity, wetland types and other factors. In addition, it is included in the Grand Valley Riparian Corridor Important Bird Area identified by the National Audubon Society (2000) "due to the fact that nearly 300 bird species have used the lowland riparian vegetation in the Grand Valley over the last 15 years, including nearly 70 breeding species and over 70 wintering species."

Related Studies

Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.

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	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
	Number of Coloradans Impacted by Engagement Activity	
X	Other	Explain: Installation of interpretive sign re: importance of wetlands and water conservation

Water Project Justification

Provide a description of how this water project supports the goals of [Colorado's Water Plan](#), the most recent [Statewide Water Supply Initiative](#), and the applicable Roundtable [Basin Implementation Plan](#) and [Education Action Plan](#). The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).

The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)

This project will result in the conversion of old gravel pit ponds with marginal habitat value to highly productive emergent wetlands while providing improved watershed health and opportunity for public engagement. According to the US Environmental Protection Agency:

"Wetlands play an integral role in the ecology of the watershed. The combination of shallow water, high levels of nutrients and primary productivity is ideal for the development of organisms that form the base of the food web and feed many species of fish, amphibians, shellfish and insects. Many species of birds and mammals rely on wetlands for food, water and shelter, especially during migration and breeding."

Chapter 7.1 of the Colorado Water Plan focuses on watershed management and the role that watershed health plays in water availability and quality (pg. 1.) Watershed health is comprised of ecosystem structure and function which includes species richness, habitat complexity and nutrient cycling (CO Water Plan, Ch. 7, pg. 3) Shallow water wetlands are hotbeds of species richness and nutrient cycling and contribute to a diverse and complex mix of habitats within the watershed. While much of Chapter 7.1 focuses on high elevation portions of watersheds, it notes that in lower elevations of the watershed "rangelands, **wetlands**, and riparian corridors play a substantial role in water storage, transport, sediment control, water quality, wildlife habitat, and stream flows (CO Water Plan, CH. 7, pg. 5.)" In particular it notes here that wetland complexes may "favorably influence lower elevation watershed health."

This project also relates to many of the goals identified in Chapter 6.6. of the CO Water Plan on page 6-157. These include: the restoration of imperiled plant communities, the enhancement of economic values to local economies that rely on environmental water uses, such as wildlife watching, and the protection and improvement of wetland habitat to promote long-term sustainability and resiliency.

Theme 1-A of the Colorado Basin Implementation Plan is defined as "Protect and rehabilitate healthy rivers, streams, lakes and riparian areas" with one of its short-term needs to "Identify habitat restoration projects to benefit important recreational or natural values (pg. 47)" ^{SEP} This project fits that criteria nicely as it restores a valuable habitat type on a publicly accessible property in the heart of the largest city in western Colorado, providing wildlife watching recreational opportunities for a broad community.

Due to development as well as diversions and management of flows in the Colorado River, naturally created wetland habitat is scarce in the lower elevations of the Basin. Wetlands formed by agricultural irrigation and leakage from irrigation ditches substitute for natural wetlands in this portion of the Basin, but these may also become more scarce as land and water use/availability changes. Notably, the Basin Implementation Plan projects that about half of the urbanization in the Basin is expected to occur in the Grand Valley (pg. 30), where this project is located. Conversion of agricultural land to residential development, and more efficient irrigation

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Location of Water Project	
Please provide the general county and coordinates of the proposed project below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Mesa
Latitude	39.07721° N latitude
Longitude	-108.605103° longitude

Water Project Overview
<p>Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain. The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.</p>
<p>This is a collaboration between GVAS, Ducks Unlimited, RiversEdge West, and Audubon Rockies, to improve riparian and wetland habitat on the Audubon Nature Preserve property in Grand Junction. The publicly accessible, highly visible property is adjacent to the Colorado River mainstem, endangered fish habitat, a state park and public trail. We will improve wetland habitat on 11.5 acres of former gravel pit ponds and semi-permanent wetlands by recontouring ponds to create shallow wetlands. Additionally, 23 acres of riparian forest will be improved via removal of invasive phreatophytes and planting of native species. We can provide \$135,872 in matching funds and seek \$130,352 in CWCB funding for construction and installation of water management infrastructure. Additionally, we will install interpretive signage about wetlands and watershed health.</p> <p>Currently, the property supports some populations of wetland birds, fish and amphibians. However, managers have no means to manage available habitats to maximize use by wildlife. Water quality is poor and anoxic. Wetland hydroperiods are driven by groundwater fluctuations, which are out of phase with wildlife needs. The result is opportunistic provision of habitats for wetland wildlife in this portion of the Colorado River basin. This project will resolve current water quality, availability and habitat imbalances.</p>

Measurable Results	
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:	
	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (indicate acre-feet/year OR dollars/year)
34.5	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms

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	Public (Government): Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. 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: Private parties may be eligible for funding.
X	Non-governmental organizations (NGO): Organization that is not part of the government and is non-profit in nature.
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes .

Type of Water Project (check all that apply)	
	Study
X	Construction
	Identified Projects and Processes (IPP)
	Other

Category of Water Project (check the primary category that applies and include relevant tasks)		
	Water Storage - Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap.. <i>Applicable Exhibit A Task(s):</i>	
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. <i>Applicable Exhibit A Task(s):</i>	
	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. <i>Applicable Exhibit A Task(s):</i>	
	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s):</i>	
X	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. <i>Applicable Exhibit A Task(s):</i>	
	Other	Explain:

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Name of Grantee(s): Grand Valley Audubon Society
Mailing Address: PO Box 1211, Grand Junction, CO 81502
FEIN: 23- 7205741
Organization Contact: Meredith Walker, Ph.D
Position/Title: Executive Coordinator, Grand Valley Audubon Society
Email: gvas.executivecoordinator@gmail.com
Phone: (970) 712-9699
Grant Management Contact: same as organization contact
Position/Title
Email
Phone
Name of Applicant (if different than grantee): Same as grantee
Mailing Address
Position/Title
Email
Phone
Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
The Grand Valley Audubon Society (GVAS) is a 501 (c)(3) non-profit based in Grand Junction, Colorado. We foster an appreciation for birds and other wildlife, preserve a diversity of habitats, and provide a sustainable healthy environment through community education, research and individual action. GVAS received its charter from the National Audubon Society in 1972 and is currently supported by the Audubon Rockies regional office, and over 800 members of the local community. Our organization owns and manages the 57-acre Audubon Nature Preserve in Grand Junction and provides birding field trips and educational programs for adults and students in Mesa County.

Type of Eligible Entity (check one)

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Colorado Water Conservation Board

Water Plan Grant Application

Instructions

To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as “project”) funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website.

If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas:

Water Storage Projects	Anna.Mauss@state.co.us
Conservation, Land Use Planning	Kevin.Reidy@state.co.us
Engagement & Innovation Activities	Ben.Wade@state.co.us
Agricultural Projects	Alexander.Funk@state.co.us
Environmental & Recreation Projects	Chris.Sturm@state.co.us

FINAL SUBMISSION: Submit all application materials in one email to

waterplan.grants@state.co.us

in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.

Water Project Summary

Name of Applicant	Grand Valley Audubon Society	
Name of Water Project	Audubon Nature Preserve Wetlands Improvement Project	
CWP Grant Request Amount		\$130,352
Other Funding Sources	<u>CO Parks and Wildlife</u>	\$43,927
Other Funding Sources	<u>Ducks Unlimited</u>	\$5,184
Other Funding Sources	<u>Audubon Rockies</u>	\$5,000
Other Funding Sources	<u>RiversEdge West</u>	\$3,000
Applicant Funding Contribution		\$79,365
Total Project Cost		\$ 266,224

Applicant & Grantee Information