



**COLORADO WATER CONSERVATION BOARD**

**WATER SUPPLY RESERVE ACCOUNT  
GRANT APPLICATION FORM**



South Platte River Phreatophyte Control Pilot	South Platte
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<b>Name of Water Activity/Project</b>		<b>Approving Basin Roundtable</b>
\$ 65,000	<b>Amount from Statewide Account</b>	\$ 30,000
<b>Total Amount of Funds Requested</b>	<b>Amount from Basin Account</b>	\$ 35,000

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**Attachments**

1. Reference Information
2. Insurance Requirements (Projects Over \$25,000)
3. WSRA Standard Contract (Projects Over \$100,000)
4. W-9 Form (Required for All Projects)

# Water Supply Reserve Account – Grant Application Form

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## 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/approval is outlined in Attachment 1.

Once approved by the local Basin Roundtable, the applicant should submit this application, a detailed statement of work, detailed project budget, and project schedule to the CWCB staff by the application deadline.

The application deadlines are:

- Basin Account – 60 calendar days prior to the bi-monthly Board meeting
- Statewide Account – 60 calendar days prior to the September Board meeting

Board Meeting Dates	Basin Account Deadlines	Statewide Account Deadlines
July 20-21, 2010	May 21, 2010	n/a
September 21-22	July 23, 2010	July 23, 2010
November 16-17	September 17, 2010	n/a
January 2011	60 days prior	n/a
March 2011	60 days prior	n/a
May 2011	60 days prior	n/a
July 2011	60 days prior	n/a
September 2011	60 days prior	60 days prior

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <http://cwcb.state.co.us/IWMD>.

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:

Mr. Todd Doherty  
Colorado Water Conservation Board  
Water Supply Planning Section  
WSRA Application  
1580 Logan Street, Suite 200  
Denver, CO 80203  
[Todd.Doherty@state.co.us](mailto:Todd.Doherty@state.co.us)

If you have questions or need additional assistance, please contact Todd Doherty of the Water Supply Planning Section at 303-866-3441 x3210 or [todd.doherty@state.co.us](mailto:todd.doherty@state.co.us).

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

1. Applicant Name(s):

Mailing address:

Taxpayer ID#:  Email address:

Phone Numbers: Business:   
Home:   
Fax:

2. Person to contact regarding this application if different from above:

Name:

Position/Title:

3. Eligible entities that may apply for grants from the WSRA 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) – special, water and sanitation, conservancy, conservation, irrigation, or 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.
- Non-governmental organizations – broadly defined as any organization that is not part of the government.

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4. Provide a brief description of your organization

Ducks Unlimited, Inc. (DU) is a private not for profit (501(c)3) organization whose mission is to “conserve, restore and manage wetlands and associated habitats for North America’s waterfowl. These habitats also benefit other wildlife and people.” Established in 1937, DU was founded by a group of men who realized the climatic impact of the “Dust Bowl” was having a devastating effect on waterfowl populations. They set about to form an organization which has become the preeminent conservator of North American wetland habitats. Wetlands are one of the most dynamic natural systems on earth, providing flood irrigation, recharge of aquifers, contaminant removal, wildlife habitat, and they provide the basis for the livelihoods and recreation of millions of people. Over our 74 year history, DU has conserved more than 11 million acres of wetlands and associated habitats. DU is a science-based organization and it pursues its mission continent-wide, focusing on priority areas with the biggest impact on North American waterfowl populations.

In Colorado, DU has worked with several organizations focused on both wildlife conservation and water resources conservation. Since 1997, we have conserved, restored and managed more than 75,000 acres of wetlands and associated habitats in Colorado, including 16,000 acres in the South Platte River watershed (SPR). To deliver wetland conservation projects in the state, DU maintains a staff including a full-time program manager, a regional biologist, a certified engineer, and a regional director of grassroots membership. We also maintain a registered membership of over 10,000 members in the state of Colorado.

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

N/A

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6. 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 copy of this standard contract is included in Attachment 3. Please review this contract and check the appropriate box.

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.

7. 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.

N/A

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**Part B. - Description of the Water Activity**

1. Name of the Water Activity/Project:

South Platte River Phreatophyte Control Pilot

2. What is the purpose of this grant application? (Please check all that apply.)

Environmental compliance and feasibility study

Technical Assistance regarding permitting, feasibility studies, and environmental compliance

Studies or analysis of structural, nonstructural, consumptive, nonconsumptive water needs, projects

Study or Analysis of:

Structural project or activity

Nonstructural project or activity

Consumptive project or activity

Nonconsumptive project or activity

Structural and/ or nonstructural water project or activity

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3. 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.

The South Platte Phreatophyte Control Pilot will remove undesirable phreatophytic vegetation from targeted properties in multiple counties in the Basin that maintain stands of these water-loving plants. Phreatophyte control will decrease consumptive use of Platte River water supplies, increasing water supply in the watershed; it will improve habitat quality for wildlife, especially waterfowl: and, it will reduce the incidence of invasive Russian olive and saltcedar infestations. The project represents a partnership between the Weld County Youth Conservation Corps, Ducks Unlimited and landowners along the river. DU will manage the partnership and perform construction activities while the WCYCC performs the portions of the clearing work on pilot sites. The program scope encompasses the South Platte watershed from Denver downstream to the Nebraska line. We are requesting \$65,000 from the WSRA for work to be accomplished in 2011, 2012 and 2013.

There are two goals for the South Platte River Phreatophyte Control Pilot: First, we will determine the cost-effectiveness of different phreatophyte-treatment techniques (and the permitting requirements arising from those different techniques). This will allow us to continue the program in future years with a much clearer vision of the scope of work and attendant expense to achieve both our consumptive and our nonconsumptive water-supply goals; second, we will accomplish a measurable amount of on-the-ground work to achieve the water supply, invasive weed management, and habitat benefits noted above.

Work will be performed on nine river properties located between Greeley and Julesburg (see attached map). All of these properties have (or will have) long-term agreements or perpetual conservation easements ensuring that management activities will persist for some time. Initial clearing of identified treatment areas will occur in fall and winter of 2011 and spring of 2012. Subsequent reshaping and excavation of treatment areas will be initiated when river conditions and permitting requirements allow.

Total project cost is \$245,327. Ducks Unlimited is bringing \$ 180,327 in match (74%).The \$ 65,000 in WSRA funding requested is apportioned between four tasks: \$ 6,596 will offset DU's personnel costs in project site selection; \$ 25,040 of WSRA funds will be used in our permitting activities, including both DU personnel costs and the costs of procuring the necessary contractor; Another \$25,200 in WSRA funds will be used to pay for contractor fees and charges during post-cutting land shaping; and, finally, \$ 3,340 will be used to establish the monitoring stations tracking project accomplishments. \$ 4,824 of the request are indirect charges at DU's federally-approved rate of 8%.

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### Part C. – 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.<sup>1</sup>

All partners involved with this grant recognize and affirm that water is allocated in Colorado under the Prior Appropriation system. Because the proposed activities are considered “water-salvage” actions, none of the activities provided for under this proposal require a new water right nor do they require a change in use of existing water right.

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 BRT's 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.

The proposal was reviewed by the South Platte Basin Roundtable during their July 12, 2011 meeting in Longmont, CO. The Basin Roundtable committee approved the application with three dissenting votes. Concerns voiced over the proposal pertained to the effectiveness of the proposed activities in impacting a basin-wide problem. In effect, we were reproved for only “bringing a knife to a gunfight.” DU recognizes that the actions presented here will not solve the problems brought about by phreatophyte invasion of the South Platte River Channel. However, we continue to think it worthwhile to establish the effectiveness of techniques, the costs of the work and of permitting the work, and the persistence of benefits. We believe this will help managers at local, state and federal levels better plan for targeted phreatophyte control well into the future.

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.<sup>2</sup> The

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<sup>1</sup> 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.



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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.

The South Platte Basin Roundtable Consumptive Needs Assessment recognizes phreatophytes as one of seven major contributing factors whose net effect is “reduced flows, increased consumptive use, reduction in groundwater gains, more senior calls, and less water for agricultural well augmentation (P. 12, Section 2, 2009).” The proposed water activity will assist by removing undesirable phreatophytes from certain portions of the river channel, thus reducing (to a small degree) the consumptive use of South Platte water supplies. This activity will depress the trends identified in the preceding quote.

The larger benefit gained from these activities is a clearer understanding of the appropriate techniques and permitting processes that could be established to achieve gains in river flows through coordinated phreatophyte control efforts. Current efforts are disjoint and recent regulatory changes have complicated managers’ ability to efficiently treat phreatophytes in waters of the United States. DU’s proposed activities will test the effectiveness of different treatment techniques and will engage federal, state, and local regulatory agencies to ascertain the best route through the permitting process. It is our hope that this engagement will lead to larger efforts in the future.

The South Platte Basin Nonconsumptive Needs Assessment identified waterfowl habitat and waterfowl recreation as high priority issues in the watershed. The activities proposed here originate in a directive from the Colorado Wildlife Commission’s Blue Ribbon Panel investigating waterfowl habitat and recreation issues in the South Platte Basin. Waterfowl managers believe that the encroachment of woody vegetation in the Platte channel has degraded these habitats, making them less desirable for resident populations of wintering ducks and geese. In order to improve the magnitude and duration of use of the South Platte River Channel by waterfowl during nonbreeding seasons, the Blue Ribbon Panel recommended an increase in the targeted clearing of undesirable phreatophytic vegetation that has invaded the area. Pointbars, sandbars and other riverine habitats can serve as high-quality roosting, foraging and thermoregulatory cover.

The proposed project also addresses three of SWSI’s key recommendations:

- 1. Ongoing dialogue among all water interests is needed to help ensure wise management of Colorado’s water resources;*

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<sup>2</sup> 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.

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3. *Develop a program to evaluate, quantify, and prioritize environmental and recreational water enhancement goals; and,*
4. *Work toward consensus recommendations on funding mechanisms for environmental and recreational enhancements.*

We think that this proposal especially addresses item number 1 by encouraging, in a coordinated fashion, federal regulatory entities to consider water-supply planning through their permitting processes.

- 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. 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 Part D of this application)

Our match ratio of Statewide Funds to Basin Funds to non-WSRA funds is:

- Statewide Fund – \$ 30,000 (12%)
- South Platte Basin Fund – \$ 35,000 (14%)
- Ducks Unlimited Match – \$ 180,327 (74%)

All non-WSRA, DU match has been secured. Two sources of this match exist: DU's latest North American Wetlands Conservation Act Grant and a Colorado Youth Conservation Corps Grant issued by Great Outdoors Colorado. None of the match reflects past expenditures; it will all be directed to project activities from July 2011 through June 2013.

It is anticipated that the work funded under this proposal will also assist other federal and state agencies in performing similar work in the South Platte Basin. The work performed here will inform managers from the Natural Resources Conservation Service and the Colorado Division of Wildlife on proper techniques for phreatophyte control and provide information on appropriate permits.

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2. For Applications that include a request for funds from the Statewide Account, describe how the water activity meets the **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

### *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 nonconsumptive 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).*

The proposed phreatophyte control activities will address both consumptive and nonconsumptive needs by decreasing the amount of water transpired by plant communities along the Platte, by increasing the quality of nonbreeding wintering waterfowl habitats along the Platte, and by reducing the incidence of weedy species within the basin. More water will be made available for use by appropriators under the 'rising tides raise all ships' principle as transpiring trees are removed from the river channel. Municipal, industrial, and agricultural water users will all benefit from an increase in overall supply yield that this project will instigate. Populations of wintering waterfowl will increase as riverine habitats are restored to historic conditions, which benefits waterfowl hunters and birders from all along the Front Range and beyond. South Platte waterfowl regularly migrate to the Arkansas, Rio Grande and North Platte watersheds. Healthy conditions in the South Platte Basin will result in more ducks and geese returning to other portions of the state. And, the negative impacts of Russian olive and saltcedar stands, which include the destruction of biodiversity and the increased salinization of the watershed, will be alleviated. This is important because the South Platte River represents one of few major river basins in the state of Colorado where invasive weedy phreatophytes like saltcedar have not achieved dominance. Ensuring that this remains so is of statewide importance.

Finally, other basins in the state will benefit from the proposed work because it will demonstrate the effectiveness of various techniques in phreatophyte control and, more importantly, it will lay out a pathway through the regulatory framework that encompasses channel clearing activities. This information will be made available to all basins through both formal and informal means.

*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.*

DU understands and appreciates that water-supply planning in the 21<sup>st</sup> century will necessitate collaborative efforts amongst diverse interests to achieve the diverse aims a limited water supply is called upon to meet. Here we propose two things encouraging collaboration: First, we continue our tradition of utilizing conservation properties in the basin as demonstration areas where techniques in multi-benefit, water-supply work may be tested and communicated to diverse interests; Second, we recognize that, with a comprehensive approach, federal regulatory authorities could be mobilized to encourage phreatophyte-control. The proposed work will engage the Corps of Engineers, the Environmental Protection Agency, the United States Fish and Wildlife Service and other state and local agencies in a proactive way to find more efficient and reliable ways of engaging in phreatophyte clearing work in the Basin.

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The proposal also introduces the Weld County Youth Conservation Corps (WCYCC) as a strong partner in the collaboration. WCYCC engages its corps members in meaningful community and conservation (land, water, energy) service projects throughout Weld County and the rest of the South Platte Basin. Developing this corps under a pilot project will have positive, intrabasin benefits as it will allow agencies in the area to engage their expertise in similar, future endeavors.

*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.*

Bennett, Alvarado, and Wilson's 2007 memorandum under the South Platte Decision Support System estimates the average, annual evapo-transpiration rate of vegetation in the portion of the Platte River of interest in this proposal to range from 1.0 acre-foot per acre to 1.5 acre-feet per acre. Actual gains to the River's water supply are difficult to estimate because of variable precipitation rates, channel geomorphology and our ignorance of the ET rates of the plant communities that establish in treated areas. Assuming, however, a 100% reduction in ET from our treatment, this pilot work on 100 acres would salvage between 100 and 100 acre-feet of water annually. Diminished reductions would, obviously, proportionally reduce the yield gains from phreatophyte treatment. Calculating actual changes in ET rates pre- and post-treatment is outside of the scope of this project, but any forthcoming information on the topic will be incorporated into the final project report and future projections.

The work would also provide higher-quality habitats for Colorado's nonbreeding waterfowl populations without requiring additional appropriations of Platte River flows. Improvement of wetland habitat without increasing diversions is a particularly efficient means of achieving nonconsumptive water-supply goals in a water-short system.

### *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).*

Receipt of WSRA funding will ensure that DU and its partners can effectively approach the regulators who dictate the techniques, timelines and costs of phreatophyte clearing work. Recent experience has shown that a complicated network of permitting rules and procedures must be negotiated to accomplish phreatophyte-clearing work in the Platte River and its environs. Coordination with this groups, rather than piece-meal attempts, will be more effective in engaging these powerful entities. WSRA funding will allow us to do this. WSRA funding will also allow us to use more effective techniques in phreatophyte control – such as land reshaping and excavation – that will ensure benefits gained will persist for a longer period of time. Reducing the elevation of a sandbar or reshaping a portion of the river's channel will allow natural forces to maintain the treated areas, relieving managers of the cost in time and money of doing the same.

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*e. The applicant must demonstrate its ability to implement the proposed activity.*

The candidate pilot sites selected have long-standing agreements with DU to perform this type of restoration work. Moreover, DU has recently performed similar work in the proposal area and we have a network of interested parties that will assist us in proactively engaging the appropriate authorities and accomplishing our aims.

*f. The applicant is providing matching funds and the amount of matching funds or is obtaining partial funding from other sources and the amount and source of such other funds or is providing demonstrable in-kind contributions.*

DU has secured 74% matching funds for the project from two sources including the North American Wetlands Conservation Act (\$ 141,633) and Great Outdoors Colorado (\$ 42,000). Some landowners on the selected properties have signed letters of commitment to provide cash and in-kind contributions, but those are not reflected in the attached project budget.

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## Part D. – 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 the name/location of water bodies affected by the water activity.

The proposed activity does not require a water supply source. Phreatophyte control is considered “water salvage” under Colorado law and cannot be claimed as a new source. Water salvaged by the entity reducing consumptive use (via phreatophyte removal) does not belong to that entity and is not considered a new appropriation or water right.

The Colorado Revised Statutes (37-92-103(9)) state:

*“Plan for augmentation” does not include the salvage of tributary waters by the eradication of phreatophytes, nor does it include the use of tributary water collected from land surfaces that have been made impermeable, thereby increasing the runoff but not adding to the existing supply of tributary water.*

The activity will increase the overall consumable supply of alluvial water through the removal of “thirsty” plant communities in the South Platte River channel and adjacent riparian habitats. All users of South Platte water will benefit as a rising tide raises all ships.

### 2. Please provide a brief narrative of any related or relevant previous studies.

Both Ducks Unlimited and the Colorado Division of Wildlife have performed limited phreatophyte clearing on State Wildlife Areas in the South Platte River Basin. This work, funded by DU, CDOW and previous NAWCA grants, was prompted by the South Platte Blue Ribbon Panel habitat recommendations and was performed in 2010 and 2011. Treated areas included Tamarack SWA, Cottonwood SWA and Centennial Valley SWA. In Logan County, the CDOW performed both woody vegetation removal and sandbar reshaping to achieve desired results. In Weld County, DU performed woody vegetation and chemical treatment of a 26-acre site. Clearing was accomplished, but it is too early to document bird response and plant community changes. What was discovered in these attempts, however, is the confusing regulatory net that phreatophyte control activities must pass through prior to initiation of the work. It is this discovery that, in part, prompted the work proposed in this application, particularly the increased attention to coordinated permitting of phreatophyte control projects.

### 3. Statement of Work, Detailed Budget, and Project Schedule

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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.

Please provide a detailed statement of work using the following template. Additional sections or modifications may be included as necessary. Please define all acronyms. If a grant is awarded an independent statement of work document will be required with correct page numbers.

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### Statement of Work

**WATER ACTIVITY NAME - South Platte River Phreatophyte Control Pilot**

**GRANT RECIPIENT – Ducks Unlimited, Inc.**

**FUNDING SOURCE – South Platte Basin Roundtable Account/Statewide 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)

The South Platte Phreatophyte Control Pilot will remove undesirable phreatophytic vegetation from targeted properties that maintain stands of these water-loving plants. Phreatophyte control will decrease consumptive use of Platte River water supplies, increasing water supply in the watershed, it will improve habitat quality for wildlife, especially waterfowl, and it will reduce the incidence of invasive Russian olive and saltcedar infestations. The project represents a partnership between the Weld County Youth Conservation Corps, Ducks Unlimited and landowners along the river. DU will manage the partnership and perform construction activities while the WCYCC performs the portions of the clearing work on pilot sites. Weld County Weed, DU and the Natural Resources Conservation Service will provide technical assistance, permitting expertise, and, when available, cost share. The program scope encompasses the South Platte watershed from Denver downstream to the Nebraska line. We are requesting \$65,000 from the WSRA for work to be accomplished in 2011, 2012 and 2013.

#### **OBJECTIVES**

List the objectives of the project

There are two goals for the South Platte River Phreatophyte Control Pilot: First, we will, in this pilot effort, determine the cost-effectiveness of different phreatophyte-treatment techniques (and the permitting requirements arising from those different techniques). This will allow us to continue the program with a much clearer vision of the scope of work and attendant expense to achieve both consumptive and nonconsumptive goals; second, we will accomplish a measurable amount of on-the-ground work to achieve the water supply, invasive weed management, and habitat benefits noted above.

Program objectives, then, are as follows:

1. Program Pilot Site Identification – Properties will be chosen based on their location within the watershed, plant community composition in the area, wildlife habitat potential and suggested control techniques. Treatment sites on these properties will be chosen based upon the site's representation of typical Platte sandbars, ease of access, capacity for on-going operations and maintenance of treated lands and landowner knowledge of river dynamics;



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2. Pilot Site Permitting – phreatophyte removal work in the channel and on riparian lands adjacent to the channel of the South Platte River requires the oversight and authority of several governmental entities on the Federal, State and local levels. It is anticipated that the following permits may need to be acquired to achieve project goals: Section 404 Clean Water Act Discharge permits; Flood Hazard Prevention Permits; National Pollutant Discharge Elimination System permits; National Historic Preservation Permits; National Environmental Policy Act assessments; Migratory Bird Treaty Act permits and clearance from the Division of Water Resources.
  
3. Pilot Site Clearing – program partners will accomplish clearing on nine properties in the South Platte watershed. While actual surface acres to be cleared in this pilot effort are undetermined, initial estimates indicate that around twelve (12) sites will be treated in the initial phase of the program; and,
  
4. Pilot Site Monitoring and Evaluation – post-project treatment program partners will engage in qualitative monitoring and subsequent evaluation of program activities. Assessment of clearing techniques and, more broadly, appraisal of our progress towards achieving program goals will be accomplished through the tracking of plant community response to treatment and via photographic evidence. Through this monitoring and evaluation we will be able to assess the need for re-treatment on specific project sites, tally our progress throughout the watershed, and, importantly, document success and failures in treating sandbars to achieve water savings, manage weed populations and improve wildlife habitat.

### TASKS

Provide a detailed description of each task using the following format

#### TASK 1 – Site Selection

##### Description of Task

Suitable areas for phreatophyte removal will be selected from among nine conservation properties in Weld, Morgan, Logan, and Sedgwick Counties. See map 1 (attached).

##### Method/Procedure

Pilot project properties located in Weld County include Eagle’s Nest Gun Club and K4 Ranch. Pilot project properties located in Morgan County include DT Ranch, Drake Land Farms, Bridge Farm, and the Olsen River Ranch. In Logan County, we have included the Ferrin Property and Golden Eagle Ranch. In Sedgwick County, the South Platte River Ranch is included. All of these properties have (or will have) either long-term Site Specific Agreements or perpetual conservation easements that mandate management activities to benefit river ecology, wetlands and waterfowl populations.

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Treatment areas within these properties will be selected based on the extent of the phreatophyte invasion, the potential for wildlife habitat post-treatment, and the extent of invasion by Russian olive and saltcedar stands. We will also consider the variety of control techniques available to each treatment area. Different strategies will test the regulatory regime in different ways and will result in a broader cost-benefit analysis of phreatophyte control techniques.

### Deliverable

1.1 By December 2011, Ducks Unlimited and our partners will have selected up to twelve pilot sites for phreatophyte control treatment. We will supply maps of the areas and the selected control methods. The estimated extent of control within the areas will be mapped.

## TASK 2 – Site Permitting

### Description of Task

Ducks Unlimited will acquire the appropriate permits needed to perform the proposed work within the South Platte River channel and its adjacent riparian areas. Depending upon the characteristics of the nominated project site, a single or multiple federal, state and local permits may be required prior to the commencement of clearing activities. This process will be much more efficient than individual landowner acquisition of permits as the professional knowledge of partners and economies of scale are brought to bear on the sometimes troubling process of acquiring regulatory approval of activities within the Platte's floodplain.

### Method/Procedure

After identification of the project pilot areas and completion of conceptual plans, Ducks Unlimited will identify the necessary permits needed to initiate sandbar clearing activities. Appropriate regulators will be approached and permits requested for the planned work. Particular focus will be paid to the permitting of channel clearing activities under Section 404 of the Clean Water Act. Recent clarifications in the rule-making process have altered the Corps of Engineers' approach in determining jurisdiction as well as allowing for exemptions. Also, the COE has recently changed its approach to allowing aquatic habitat improvements under General Nationwide Permit No. 27, presenting a much more conservative interpretation of allowable activities under that once streamlined process. DU will utilize staff and knowledgeable contractors to establish which clearing techniques are allowed under current exemptions, current Nationwide Permits, or could be accomplished under a new General Permit for these activities. The intent here is to lay the groundwork to avoid an Individual Permit under Section 404 each time an entity wishes to perform phreatophyte control and channel work to achieve water supply goals (both consumptive and nonconsumptive). If successful, this work will greatly reduce the future costs for any agent

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performing similar work in the Basin. Other federal permitting activities will be addressed in a similar manner, including FEMA Flood Hazard permitting.

### Deliverable

2.1 Necessary federal, state, and local permits will be acquired prior to initiation of the phreatophyte clearing;

2.2 Copies of project permits will be added to the project portfolio; and,

2.3 A report on phreatophyte-clearing permitting issues and solutions will be produced at project's end such that lessons learned, expenses borne and patterns established may be appreciated by other entities wishing to engage in similar treatments.

### TASK 3 – Site Clearing and Treatment

#### Description of Task

DU, the Weld County Youth Conservation Corp or their assignees will clear the selected tracts of undesirable phreatophytic vegetation. Post-cut treatments will be applied to guarantee re-establishment by phreatophytes is minimized. Where appropriate, cleared areas will be re-contoured such that regular river flows contribute to the maintenance of desirable plant communities and habitat conditions. It is anticipated that twelve (12) sites will be treated in this phase of the program. If fewer or more areas are cleared under this grant, the reasons for this over- or under-estimate will be made clear.

#### Method/Procedure

The clearing and treatment task will have two phases: First, Ducks Unlimited, Weld County Youth Conservation Corps, or our agents will remove phreatophytic vegetation from the sandbars. Saw crews will spend about 1 week on average on each property (about 6 weeks total) cutting and removing stands of invasive trees. The crews will then apply herbicide directly to the stumps to prevent regrowth. We estimate that up to 10-20 acres will be treated on each site, for a total project benefit of up to 100 acres of improvement. The cut material will be placed on the shoreline out of normal flooding reaches where it may add to the habitat value of the riparian forest. Herbicide will be applied to the root system left on treated areas to finish treating all vegetation. This work will begin in 2011 when water levels, permitting schedules and migratory bird occupancy allow. Our plan is to have most of the cutting work performed by WYCC accomplished by spring of 2012.

In the second phase, when appropriate and permitted, DU or its agents will utilize earth-moving equipment to contour site slopes such that normal river flows naturally maintain phreatophyte-free areas. Bull-dozers, root rakes, and excavating equipment will be used to achieve these

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conditions. This is the portion of the work most likely to achieve long-term benefits in phreatophyte control (because it addresses, to some extent, the underlying ecological drivers of phreatophyte invasions); it is also the portion of the project most likely to come under scrutiny of federal regulatory authorities managing earth-moving activities in the river channel (eg. The Corps of Engineers, the Environmental Protection Agency and the Federal Emergency Management Agency). Other treatment techniques may be utilized should they prove to be more efficient, less harmful to existing habitat or easier to permit under current rules and regulations. It is the intent of this program to explore these costs and benefits.

### Deliverable

By June of 2013, we will deliver:

3.1 Woody phreatophyte clearing on identified pilot sites distributed throughout the South Platte River watershed between Denver and Julesburg; and,

3.2 An analysis of techniques used, costs incurred, problems encountered and other information pertaining to woody phreatophyte clearing in the South Platte Basin.

## TASK 4 – Monitoring and Evaluation

### Description of Task

To achieve Objective 4, Ducks Unlimited will qualitatively monitor the treated areas, tracking the re-establishment of vegetation communities, assessing habitat quality and bird use, and evaluating the need for additional management and/or maintenance treatments.

### Method/Procedure

Prior to treatment, Ducks Unlimited and/or their assignees will establish photopoints in locations suitable to document, through digital photography, the changes in plant community composition pre- and post-project activity. Follow up inspections will be made at the beginning and the end of the growing season (May and October, respectively) after the work is completed for the first two years. Annual inspections will be made thereafter. Plant community composition, trends in stand vigor, presence of noxious/invasive weeds, and observed wildlife use will be recorded in the project portfolio. Digital photographic evidence of project accomplishments will be evaluated and archived by program partners. Similarly, digital aerial photography of project sites will be collected annually to provide evidence of project outcomes.

### Deliverable:

By June of 2013, we will deliver:

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4.1 A set of geo-referenced photopoints for each clearing site;

4.2 Pre-project photographic evidence of each site's plant community composition; and,

4.3 An established digital database of project site ground and aerial photography.

Biennially thereafter, we will deliver:

4.4 Updates to the digital project archive, documenting photographic evidence and observed response to project activities.

### **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.

DU will also make this report available to members of the South Platte Basin Roundtable and, if invited, will present our findings to that group as the project progresses.

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### **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.

See attached budget spreadsheet

TOTAL COSTS						Total Project	
Task	Labor		Other Direct Costs		Matching Funds		Costs
Site Identification	\$	6,596	\$	-	\$	6,596	\$ 13,192
Permitting	\$	5,840	\$	19,200	\$	3,328	\$ 28,368
Clearing & Treatment	\$	-	\$	25,200	\$	155,115	\$ 180,315
Monitoring & Eval.	\$	1,752	\$	1,588	\$	1,488	\$ 4,828
<b>Total Costs</b>	<b>\$</b>	<b>14,188</b>	<b>\$</b>	<b>45,988</b>	<b>\$</b>	<b>166,527</b>	<b>\$ 226,703</b>
Indirect (<10%)	\$	-	\$	4,824	\$	13,800	\$ 18,624
<b>Total Request:</b>	<b>\$</b>		<b>\$</b>	<b>65,000</b>			<b>\$ 245,327</b>

PROJECT PERSONNEL COSTS				DU					
Personnel:	WCYCC Crew	Professional		Technical					
		HRC	HRC	HRC	HRC				
Tasks	\$175.00	\$73.00	\$62.00						
Site Identification	0	72	128						200
Permitting	0	112	16						128
Clearing & Treatment	240	212	320						772
Monitoring & Eval.	0	24	24						48
Site Identification	\$ -	\$ 5,256	\$ 7,936	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,192
Permitting	\$ -	\$ 8,176	\$ 992	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,168
Clearing & Treatment	\$ 42,000	\$ 15,476	\$ 19,840	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 77,316
Monitoring & Eval.	\$ -	\$ 1,752	\$ 1,488	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,240
<b>Total Hours</b>	<b>240</b>	<b>420</b>	<b>488</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,148</b>
<b>Direct Personnel Costs</b>	<b>\$ 42,000</b>	<b>\$ 30,660</b>	<b>\$ 30,256</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 102,916</b>

OTHER DIRECT EXPENSES						
Tasks	Items & Description	Est. Quant.	Unit	Unit Price	Total	
Permitting	6510 Contractor Fees	160	HR	\$ 120.00	\$	19,200
Clearing & Treatment	6510 NAWCA Fees and contracts	1	LS	\$ 74,133.00	\$	74,133
	6530 NAWCA Materials	1	LS	\$ 3,666.00	\$	3,666
	6510 Contractor Fees (Excavation)	120	HR	\$ 210.00	\$	25,200
Monitoring & Eval.	DU Mileage	2295	Mi	\$ 0.55	\$	1,262
	DU Stipend	3	Day	\$ 32.00	\$	96
	DU Lodging	2	Day	\$ 115.00	\$	230
<b>TOTAL DIRECT EXPENSE</b>						<b>\$ 123,787</b>

MATCH CONTRIBUTIONS								
Project Task	Sources	Grant \$\$		Match \$\$		In-kind \$\$		Total
Site Identification	WSRA	\$	6,596	\$	-	\$	-	\$ 6,596
	NAWCA	\$	-	\$	6,596	\$	-	\$ 6,596
	WCYCC	\$	-	\$	-	\$	-	\$ -
								\$ 13,192
Permitting	WSRA	\$	25,040	\$	-	\$	-	\$ 25,040
	NAWCA	\$	-	\$	3,328	\$	-	\$ 3,328
	WCYCC	\$	-	\$	-	\$	-	\$ -
								\$ 28,368
Clearing & Treatment	WSRA	\$	25,200	\$	-	\$	-	\$ 25,200
	NAWCA	\$	-	\$	113,115	\$	-	\$ 113,115
	WCYCC	\$	-	\$	42,000	\$	-	\$ 42,000
								\$ 180,315
Monitoring & Eval.	WSRA	\$	3,340	\$	-	\$	-	\$ 3,340
	DU	\$	-	\$	-	\$	1,488	\$ 1,488
								\$ 4,828
Indirect (<10%)	NAWCA	\$	4,824	\$	13,800	\$	-	\$ 18,624
<b>Total</b>		<b>\$</b>	<b>65,000</b>	<b>\$</b>	<b>178,839</b>	<b>\$</b>	<b>1,488</b>	<b>\$ 245,327</b>

## 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.

NTP = October 30, 2011

Task	Begin	End	
1. Project Selection	NTP	NTP +60 days	
2. Project Permitting	NTP	NTP +420 days	
3. Project Clearing & Treatment			
a. Cutting and removal	NTP	NTP +180 days	
b. Post-treatment reshaping	NTP +30 days	NTP +600 days	Depending upon permit requirements
4. Project monitoring	NTP	NTP +600 days	

## 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:** Ryan Heiniger, Director Conservation Programs

### Return this application to:

Mr. Todd Doherty  
Intrastate Water Management and Development Section  
COLORADO WATER CONSERVATION BOARD  
1580 Logan Street, Suite 200  
Denver, CO 80203

To submit applications by Email, send to: [todd.doherty@state.co.us](mailto:todd.doherty@state.co.us)