



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT  
GRANT APPLICATION FORM



Rotary Sprinkler Nozzle Retrofit

Metro

Name of Water Activity/Project

Approving Basin Roundtable

\$250,000

Amount from Statewide Account

\$250,000

Total Amount of Funds Requested

Amount from Basin Account

**Application Content**

Application Instructions	page 2
Part A – Description of the Applicant	page 3
Part B – Description of the Water Activity	page 6
Part C – Threshold and Evaluation Criteria	page 8
Part D – Required Supporting Material	
Water Rights, Availability, and Sustainability	page 12
Related Studies	page 12
Statement of Work, Detailed Budget, and Project Schedule	page 12
Signature Page	page 17

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

Form Revised March 2009

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

1.	Applicant Name(s):	Douglas County Water Resource Authority		
	Mailing address:	100 Third Street Castle Rock, CO 80104		
	Taxpayer ID#:	to be provided	Email address:	markshively@mho.com
	Phone Numbers: Business:	(303) 888-9782		
	Home:	(303) 888-9782		
	Fax:	none		

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

Name:	Mark Shively
Position/Title	Executive Director

## 3. Eligible entities that may apply for grants from the WSRA include the following. What type of entity is the Applicant?

<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	Public (Districts) – special, water and sanitation, conservancy, conservation, irrigation, or water activity enterprises.
<input type="checkbox"/>	Private Incorporated – mutual ditch companies, homeowners associations, corporations.
<input type="checkbox"/>	Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
<input type="checkbox"/>	Non-governmental organizations – broadly defined as any organization that is not part of the government.

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

4. Provide a brief description of your organization

Douglas County Water Resource Authority (DCWRA) is a collection of nineteen entities, including special district, municipalities, and the County government to focus on water resource conservation, as well as education and public policy concerning water in the area of the members, which includes Douglas County and portions of Arapahoe County. This area is reliant upon non-renewable Denver Basin groundwater. The area is the state leader in water resource conservation and education efforts.

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

Same.

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.

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

No issues.

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

### Part B. – Description of the Water Activity

1. Name of the Water Activity/Project:

Rotary Sprinkler Nozzle Retrofit

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

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

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.

Rotary Sprinkler Nozzles are thirty percent more efficient in outdoor irrigation activities than traditional spray nozzles commonly in use in the project area. Water used for outdoor irrigation represents approximately fifty percent of the water used in the project area. Retrofit of existing spray heads with rotary sprinkler nozzles could reduce water used in the project area by fifteen percent, or approximately 6,305 ac-ft per year. There are approximately 107,000 yards in the project area which could be retrofitted. This project will retrofit 1,000 yards in the area. Accompanying public outreach will create interest in the retrofit project, and this interest can be used to encourage more widespread adoption over time of retrofits as effective, comfortable water resource conservation practices in the project area. The impact metrics derived from this project can be shared and used by water providers throughout the State of Colorado in order to use our most precious natural resource as thoughtfully as possible. High school students will be hired to perform the actual 1,000 retrofits as part of a summer jobs program in the Memorial Day to Labor Day timeframe over the summer of 2011. Their work will be supervised by adults experiences in this type of work. Not only will the rotary sprinkler nozzles be retrofitted, but they will also be aimed to avoid over-spraying and watering sidewalks. Irrigation controllers will be reset to reflect the proper application rates of the rotary sprinkler nozzles. Impact metrics will be collected to assure proper installation of the rotary sprinkler nozzles. Members of DCWRA are water providers who can read the meters of the yards receiving the retrofits, and measure and confirm actual water saved through this retrofit program. The retrofit program is expected to reduce annual water demands by fifty-nine ac-ft. A pilot program of fifty yards is being conducted over the August and September 2010 time frame to learn of issues associated with this type of retrofit program, as well as developing and honing the appropriate impact metrics to be collected and shared as part of this program. The pilot program includes partnerships between DCWRA, Douglas County School District's School to Work Alliance Program , Arapahoe/Douglas Works Workforce Center, and the Water Division of the Center for Resource Conservation. Funding for the pilot program comes from Arapahoe/Douglas Works and DCWRA. The pilot program is expected to reduce annual water demands by three ac-ft. WSRA funding will be used to purchase rotary sprinkler nozzles, pay high school students to perform retrofits, pay adults to schedule the retrofits and supervise the work of the high school students, collection of impact metrics, administrative oversight of the program, and public outreach to create excitement throughout the region for the retrofit program, and encourage widespread adoption over time of rotary sprinkler nozzles in the project area.

**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>

At this time the source water for outdoor irrigation in the project area is primarily Denver Basin groundwater. Reduced demand allows this non-renewable resource to be conserved for future use, stretches the time until surface water is needed to provide for the needs to the citizens living in the area, and lessen the amount of water that needs to be imported to the area, treated, and transported throughout the area. Demand reductions in the project pressures lessen impacts on environmental and agricultural stakeholders in the State water rights discussion, but do not in any way diminish, impair, or cause injury to any water right in the State of Colorado.

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

The Metro Basin Roundtable discussed this water activity at its July 12th meeting, and unanimously approved a motion to request funding of this water activity.

---

<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.

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

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

This rotary sprinkler nozzle retrofit water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments by reducing demand by fifty-nine ac-ft per year for water resources in the Metro Basin roundtable area, and in the project area specifically. The project can lead to far greater water demand reductions through the widespread adoption of these rotary sprinkler nozzles throughout the project area, the Metro Basin roundtable area, and throughout the State of Colorado.

- 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)

The matching requirement of a \$250,000 award is \$50,000. The pilot project of 2010 will be part of the matching funds for this application. DCWRA will contribute \$10,000 to the 2010 effort in hiring the Center for Resource Conservation to schedule the fifty retrofits and supervise the high school installers. The Center will also help with impact metrics collection efforts. Arapahoe-Douglas will provide the financial compensation to the high school students, as well as transportation vouchers. This contribution is estimated at \$15,000. Total contribution from the 2010 pilot project is \$25,000. In addition, DCWRA anticipates contributing \$10,000 of its project management budget to this effort in 2011. DCWRA members will contribute \$40,000 worth of rotary sprinkler head rebates (splitting the costs of the rotary sprinkler nozzles with CWCB), and \$12,500 worth of staff time to collate data used to create impact metrics for the projects. The 2011 funds are subject to appropriation. In this way \$87,500 of non-IBCC funding is anticipated to be local matching funds contributed to the project. This reflects an approximate 35% match by non-IBCC funds.

---

<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.

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

DCWRA is also dialoguing with the office of US Senator Mark Udall to encourage the inclusion of EPA WaterSense or equivalent products in the 30% point of sale rebates that would be included in Federal "Home Star" legislation. The rotary sprinkler nozzles efficiency of 30% over existing sprinkler heads would constitute "or equivalent" status. While there can be no assurance this legislation will pass, these point of sale rebates could reduce the cost of the rotary sprinkler nozzles used in the program by 30%. DCWRA could serve as a rebate aggregator for the Federal rebates that could be applied to the rotary sprinkler nozzles as part of the Home Star point of sale rebates. Congressman Coffman is also supportive of this program.

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

a) Multiple Issues - A plethora of water interests throughout the State talk about the need for municipalities to simply conserve more water. Municipal conservation is one segment of a statewide approach to water issues, but it is no panacea. There is also a moral obligation for these other interests to do all they can to adopt practices to optimize the wise use of water in their endeavors - be they agricultural, recreational, or environmental in nature, be they consumptive or non-consumptive in nature. Voice range from Eric Kuhn of the River District, to Congressman John Salazar. OK, let's use this water activity to show how municipalities can in fact reduce water demand through the installation of rotary sprinkler nozzles.

b) Cooperation and Collaboration - Nineteen water interests are members of DCWRA, including special district water providers, municipalities, and Douglas County government. All covered entities have state approved water conservation plans - the only region in the State that can make that claim. In addition, the County government is pursuing a state approved water conservation plan for smaller, non-covered entity water providers. All these providers need to move forward to implement their water conservation plans. The rotary sprinkler nozzle retrofits, and the accompanying outreach, benefit the implementation efforts of all these state approved plans. Practices concerning the wise use of water can be shared with all the basins across the State. All basins feature outdoor irrigation, and therefore all basins can benefit from the impact metrics developed by this water activity. The wise use of water, and the accompanying decrease in per capita demand, positively impacts all intrabasin and interbasin needs and issues.

c) Meets Colorado's Needs - The project area has been identified by SWSI and the roundtable process as having the greatest need to close the gap between available supplies and future needs in the entire State of Colorado. Reducing demand through the efficient use of water resources can be a part of closing this gap, while making incremental supplies available is a prime component of closing the gap. This water activity works on the demand side of that equation.



## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

### Tier 2 - Facilitating Water Activity Implementation

d) Funding Reduces Uncertainty - Without this funding, the water activity will not take place in a meaningful way. There are 107,000 target retrofits in the project area. We can afford to fund 50 retrofits in one year. We can afford the pilot, but not any sort of widespread adoption. We request the assistance of the State in funding this next step. Without funding, it would take us 2,140 years to retrofit the project area. At 1,000 per year, it would take 107 years to retrofit the project area. With the public outreach effort that will accompany the retrofit project, we hope to show conclusively that the retrofits save both financial and natural resources here in the project area, so that the effort can expand to reach all of the families within the region within the next twelve years. Inclusion of rebates in the federal Home Star legislation, with the accompanying 30% point of sale rebates, can also help meet this goal.

e) Ability to Implement. DCWRA currently has access to all the high schools in the project area. We have a Facebook page to alert students to contest offering, such as writing essays about water. Our Ambassador Program has trained hundreds of high school students in conservation and water topics. This water activity is an opportunity to expand the capacity of these existing programs to offer high school student jobs in water related activities. Arapahoe Douglas Works has an interest in training high school students to work in the water industry, and this program is a good way to encourage students to learn more about careers in water. The Center for Resource Conservation has conducted its "Slow the Flow" water audits in the region the past several years. These auditors will work with the high school students under the auspices of Arapahoe Douglas Works to perform the pilot project in 2010. From this pilot project we will learn of issues surrounding retrofit programs, and apply this learning to the 2011 project to retrofit 1,000 yards. In addition, our experience with television, on-line advertising, and print media over the past several years give us the ability to trumpet word of this program and the importance of the wise use of water not only throughout the schools, but throughout every home and business in the region. DCWRA is uniquely qualified to implement this program based upon its success these past four years in similar activities that can now be scaled to deliver this program in 2011.

f) Providing Matching Funds - The applicant is providing 31% matching funds. If the federal Home Star program is passed, 30% rebates can lower the cost of the program, expanding the number of retrofits that can be done, and expanding the outreach to trumpet the program. \$15,000 is being contributed to the 2010 pilot program by Arapahoe Douglas Works. \$10,000 is being contributed to the 2010 pilot program by DCWRA. Additional in-kind support is being provided by the Douglas County School District, S. Metro Water Supply Authority, the underlying members of DCWRA, and local landscape contractors who will spend time explaining to students how the retrofit program works. Subject to appropriation, DCWRA contemplates contributing an additional \$40,000 of its 2011 outreach budget and \$22,000 of its 2011 administrative budget to this water activity.

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

### Tier 3 - Addressing Issues of Statewide Value and Maximized Benefits

g) Sustain Agriculture - Reducing water demands from customers can lessen pressures to transfer agricultural water rights to municipal and industrial use, and can also lessen depletions in the S. Platte that may impact threatened and endangered species in the lower S. Platte, or even adjacent states. Reduction in demand can buy more time until solutions to water supply issues in the project area must be delivered.

h) Administration of Compact Waters - Decreased demand can lessen depletions that impact threatened and endangered species that rely upon Compact waters to maintain habitat.

i) Recovery of Threatened and Endangered Species - Decreased demand can lessen depletions that impact threatened and endangered species that rely upon waters of the State of Colorado to maintain habitat.

j) High Level of Benefit - If the 1,000 retrofits envisioned by this water activity reduce demand by 59 ac-ft, and if the program costs a total of \$312,000 (\$250,000 from the State plus local funds) then the cost per ac-ft of water saved is \$5,288. This cost per ac-ft is very attractive at current pricing levels, and extremely attractive when considering what water may sell for in the not too distant future. If the product life cycle of the rotary sprinkler nozzles is seven years, and if unit costs decline as widespread acceptance of the product increases to the point that in the future the nozzles cost \$3 each, then a refurbishment of the nozzles in seven years into the future costs \$60. If over a 77 year life expectancy a citizen changes out the nozzles eleven times, the cost of a lifetime of refurbishments is \$660 per lifetime. If the citizen lives in a family of four, the cost of a lifetime of refurbishments is \$165 per citizen per lifetime. Combined with the cost per ac-ft of water to implement this water activity, there is an extremely high level of benefit to Colorado in relationship to the amount of funds requested. If you parlay this benefits to the other areas of the State, the value is even greater.

k) Complimentary to Other CWCB Programs - Water conservation is a part of the study at Chatfield Reservoir, where CWCB serves as the local non-federal project sponsor on this effort with the U.S Army Corps of Engineers. The project area includes participants in the Chatfield study. This exemplary water activity could be included in the Chatfield FR/EIS efforts. CWCB and IBCC has previously awarded grants to DCWRA to pursue if and how the Bureau of Reclamation's Rural Water Supply Program can be applied to the project area. Water Conservation is a part of this regional watershed based effort to secure both planning and funding assistance from Reclamation. This exemplary water activity could be included in the Reclamation Rural Water Supply Project efforts. CWCB and the IBCC has previously awarded grants to South Metro Water Supply Authority to study Aquifer Storage and Recovery (ASR) in the project area. The water reduction obtained from use of the rotary sprinkler nozzles could be redirected as ASR injection water as a drought supply for the project area. All covered entities have a CWCB approved water conservation plan. This water activity can be used the these entities to implement their plans and achieve the water reduction goals outlined in the plans. CWCB currently funds water education

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

efforts through the Colorado Foundation for Water Education. The lessons learned from this water activity can be shared at sessions developed for water entities around the State as part of the CFWE efforts.

### **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.

Denver Basin groundwater rights held by the water providers in the project area are the source water to be utilized in this project in 2011. Wise use of this resource creates time to put other plans in place so that depletions do not impact threatened and endangered species in neighboring downstream states subject to Compact considerations, and agriculture is not negatively impacted.

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

DCWRA received a matching funds grant from CWCB in 2007 to distribute 107,000 Xeriscape DVDs in the region. The Colorado Foundation for Water Education found that three quarters of recipients remembered receiving the DVD, and 48% indicated they watched a portion of the video and intended to implement water saving strategies in their own yards. Water providers throughout the region have submitted CWCB approved water conservation plans, and now go about implementing these plans. DCWRA has instituted a Water Ambassador education program in every high school and elementary school in the project area. The program was piloted in 2008, expanded to four high schools in the region in 2009, and now all high schools send students to elementary schools to teach fourth graders about conservation and water. DCWRA advertised on Colorado Rockies baseball telecasts in '07 and '09. In 2010, on-line and newspaper advertising, as well as 1,750 cable television ads on ten channels spread throughout the region, trumpeting the availability of rebates for water conserving products and services (including rotary sprinkler nozzles by some water providers). DCWRA partnered with Lockheed Martin in 2009 to produce the "Out of This World Water Conservation" video, which features NASA astronauts speaking to the importance of the wise use of water resource on space

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

missions. 5,000 students have been taught about the importance of the wise use of water in their home, and shown easy water saving behaviors their families can adopt. DCWRA also outreaches to homeowners associations, middle school teachers, and land use authorities on the wise use of water.

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

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.

### **Statement of Work**

**WATER ACTIVITY NAME - Rotary Sprinkler Nozzle Retrofit**

**GRANT RECIPIENT – Douglas County Water Resource Authority**

**FUNDING SOURCE - Statewide Account, Plus 35% in Local Matching Funds**

### **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)

### **OBJECTIVES**

a) Install (retrofit) +/- 20,000 rotary sprinkler nozzles in 1,000 yards. b) Outreach to the public to create excitement about the jobs available to high school students, and the water and money saved by retrofitting rotary sprinkler nozzles in the region so as to promote a groundswell of voluntary retrofits over and above the program. c) Collect impact metrics to affirm the reduction in water demands because of the retrofit project. d) Share this information with other water entities around the State of Colorado.

### **TASKS**

Provide a detailed description of each task using the following format

**TASK 1 – Plan Project, recruit student installers, recruit supervisors of students, recruit 1,000 yards, secure 20,000 rotary sprinkler nozzles at advantageous pricing.**

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

Description of Task - Identify high school students who will work over their summer break to retrofit rotary sprinkler nozzles, as well as supervisors who will direct the effort of each high school crew, advertize the availability of the program to 1,000 yards that may be interested in the water activity, and competitively bid out +/- 20,000 rotary sprinkler nozzles from various manufacturers and distributors.

Method/Procedure - Announce the opportunity for summer jobs to high school students through the DCWRA Water Ambassador program and associated E-mail lists, by placing posters printed with DCWRA wide format printer in the halls of the high schools, using DCWRA's FaceBook page, as well as [www.DCWater.org](http://www.DCWater.org). Consult with the Center For Resource Conservation, and other similar organizations to assess their interest in securing crews to supervise the students work, and to reset the irrigation controllers. Solicit bids from manufacturers to supply the rotary sprinkler nozzles for the program, in association with local distributors or retailers (Ewing, Home Depot, Lowe's, etc.)

Deliverable - Advertising materials alerting students of the summer jobs, letters describing indications of interest from the supervisory entities, and notices of RFQ or RFP to supply the rotary nozzles.

### **TASK 2 – Retrofit Rotary Sprinkler Nozzles in 1,000 yards in project area**

Description of Task - Crews of high school students will assemble at a yard to be retrofitted, perform the retrofit, adjust sprinkler nozzles, and reset the irrigation controller. The crews will be supervised by adults who have experience in this type of work.

Method/Procedure - Students will physically remove existing sprinkler heads and replace those heads with rotary sprinkler nozzles. They will fill out forms detailing the work performed. The adults will complete the forms to confirm that the work was done. The completed paperwork will be turned in.

Deliverable - Reports summarizing works performed will be submitted to CWCB for reimbursement on a weekly basis. We will need to be able to facilitate this funding so that the workers are paid on time.

### **TASK 3 – Assemble and Report Impact Metrics of Retrofit Project**

Description of Task - Collate the reports of installation and distribute them to the respective water providers in the project area. Ask the water providers to report the changes in water demand in those homes receiving the retrofits, as compared with a control group that does not receive the retrofits. (This will help factor our changes in cool wet summer vs hot dry summer that may occur during the project horizon.)

Method/Procedure - Water providers will be asked to agree to share such information on their customers before being included into the project. Property owners benefitting from the retrofits will sign a statement authorizing the water provider to share this data for purposes of DCWRA data

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

collection and reporting. Water providers will share this data with DCWRA in the five months of May to September, in 2011 and 2012.

Deliverable - DCWRA will supply annual summaries (11/11 and 11/12) to CWCB.

### **REPORTING AND FINAL DELIVERABLE**

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

### **BUDGET**

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

# Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

Total Costs				
	Labor	Other Direct Costs	Matching Funds (If Applicable)	Total Project Costs
Task 1 - Plan Project				
Task 2 - Retrofit Nozzles				
Task 3 - Report Project Results				
Total Costs:				

## Example Titles

Example Project Personnel: Hourly Rate:	Project Manager	Project Engineer	Geologist	Scientist	Graphics/ Designer	Clerical		Total Costs
Task 1 -								
Task 2 -								
Total Hours:								
Cost:								

## Other Direct Costs

Item:	Copies	Materials	Equipment/ Supplies	Mileage		Total
Units: Unit Cost:	No.			Miles		
Task 1 -						
Task 2 -						
Total Units:						
Total Cost:						

## In-Kind Contributions (If Applicable)

Project Personnel: Hourly Rate:				Total
Task 1 -				
Task 2 -				
Total Hours:				
Total Cost:				

## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

### 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.

#### Example 1

Task	Start Date	Finish Date
1	Upon NTP	NTP + 90 days
2	Upon NTP	NTP + 180 days
3	Upon NTP	NTP + 180 days
4	Upon NTP	12/31/11
5	NTP + 60 days	12/31/11
6	NTP + 60 days	12/31/11
7	NTP + 60 days	12/31/11

NTP = Notice to Proceed

#### Example 2

Task	First 6 Months						Second 6 Months					
	1/10 – 3/10			4/10 – 6/10			7/10 – 9/10			10/10 - 12/10		
A – Economic Analysis												
B – Storage Analysis												
C – TA for Ditch Cos												
D – Injury Analysis												
Final Reports												

### 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.



## Water Supply Reserve Account – Grant Application Form

Form Revised March 2009

---

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

**Signature of Applicant:**

**Print Applicant's Name:** Douglas County Water Resource Authority

**Project Title:** Rotary Sprinkler Nozzle Retrofit

**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)