COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT
GRANT APPLICATION FORM

Santa Maria & Continental Reservoirs: Priority Studies to Restore Capacity
Rio Grande Basin

Name of Water Activity/Project | **Approving Basin Roundtable**

$22,000	**Total Amount of Funds Requested**	**Amount from Statewide Account**	0
		Amount from Basin Account	$22,000

Application Content

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)

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

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.

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): Santa Maria Reservoir Company

Mailing address: P.O. Box 288
Monte Vista, CO 81144

Taxpayer ID#: 84-0418055 Email address: pleasant@gojade.org

Phone Numbers: Business: 719-852-3556
Home: 719-852-5847
Fax: 719-852-5958

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

Name: Ron Peterson

Position/Title President

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.

[X] 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.

4. Provide a brief description of your organization

Santa Maria Reservoir Company (SMR) is an eligible applicant under Senate Bill 06-179. It was incorporated in 1931, "to safeguard and protect the rights of all water users and consumers of water in what is commonly known as The Continental Reservoir (Continental), located in Hinsdale County, Colorado, and storing water for use in connection with The Rio Grande Canal and the Monte Vista Canal, supplying water for irrigation in the Counties of Rio Grande, Saguache, Conejos and Alamosa, in the State of Colorado, all in Water District numbers 20, 21,22, 26, and 27 in Irrigation Division No. 3 of the State of Colorado;" and "For the purpose of acquiring title, holding, maintaining and operating the Santa Maria Reservoir, the storage of water therein, the distribution of water therefrom, together with all extensions thereof or thereto, the inlet works, outlet works, settling ponds and maintaining the same…" Santa Maria Reservoir (Santa Maria) is located in the crater of an old volcano. The reservoir was constructed in 1910 and is operated in conjunction with Continental. Santa Maria receives regulated discharges from Continental Reservoir through a century-old conveyance system (the System) of a pipeline, a siphon and an open ditch (See Attachment A). Santa Maria stores irrigation water and also stores Rio Grande Compact water, San Luis Valley Water Conservancy District water, Colorado Division of Wildlife (CDOW) water, and Trans-Mountain water. Santa Maria also provides flood control. Continental, with a designed capacity of 27,000 acre feet, and Santa Maria, designed capacity 43,500 acre feet, irrigate a vast 5-county area of the San Luis Valley (Attachment B). For the past twenty years, however, Continental has been limited to storing only 15,000 AF due to the deteriorating condition and the leaks, seeps and losses in the dam. The conveyance system between Continental and Santa Maria is also in a severely deteriorated condition. Ninety percent of the water managed by SMR goes through the Rio Grande Canal, serving some of the best water rights in the San Luis Valley, therefore all of SMR's storage and release operations, curtailments and such, are governed by the Rio Grande Compact. The remaining 10% of SMR water goes through the Monte Vista Canal. SMR has 5,400 shares of outstanding stock, mostly split in groups of 10 shares, with 225 stockholders. A total of 65,000 acres are irrigated by this two-reservoir system. SMR's annual budget in 2010 was $135,000. SMR's 5-member Board, composed of farmers and ranchers, employs three full-time employees. The need for water storage facilities on the Rio Grande arose after 1880 when early settlers in the area had tapped most rivers and creeks, and by 1900 began to construct water storage facilities on the *Rio Bravo del Norte*, as it was called then. By 1913 private capital had completed two reservoirs in the Upper Rio Grande watershed, the Rio Grande Reservoir (also known as the Farmers Union) and the Santa Maria. Fifteen years later, in 1928, Continental was constructed on a tributary of the Rio Grande.

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

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.

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

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

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.

There are no Tabor issues involved.

Part B. - Description of the Water Activity

1. Name of the Water Activity/Project:

Santa Maria & Continental Reservoirs: Priority Studies to Restore Capacity

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

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

Study or Analysis of:

- [X] Structural project or activity
- [ ] Nonstructural project or activity
- [ ] Consumptive project or activity
- [ ] Nonconsumptive project or activity

[ ] Structural and/ or nonstructural water project or activity

1. 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.

This application seeks funds for the necessary continuation and expansion of an existing contract (Contract) between Santa Maria Reservoir Company (SMR) and the Colorado Water Conservation Board (CWCB). These funds will be used to conduct additional high priority engineering, surveying, and geotechnical studies at Continental Reservoir (Continental) and the 100 year old conveyance system between Continental and Santa Maria Reservoir (Santa Maria). The need for these additional funds arises in part from the findings of recently completed hydrology studies at Continental, performed under the Contract. Findings from these studies have provided a more thorough understanding of the complexities involved in restoring full capacity to Continental and Santa Maria, suggesting several alternative approaches to implementation, each of which requires full investigation. For this reason, working with URS Corporation (the Contractor), SMR seeks to re-prioritize some of the tasks originally proposed in that Contract's Scope of Work, re-allocating some of those funds into higher priority studies and seeking additional funds for a more extensive examination of the different implementation options. With the primary objective of restoring full storage capacity to Continental and Santa Maria, SMR is hereby increasing its commitment of matching funds from the Contract's original $18,000 to a total of $40,000, and seeks an equal additional commitment of $22,000 from the Rio Grande Basin's Water Supply Reserve Account, raising the total project cost from $210,000 to $254,060. By conducting these additional surveys and shifting the emphasis to specific and necessary geotechnical studies, SMR will be better able to assess potential alternatives and define the most viable method of rehabilitating and restoring full capacity to Continental Reservoir and Santa Maria Reservoir.

These studies will continue to address the following: Inadequate spillway capacity and left abutment seepage issues at Continental Dam; structural deterioration and potential re-design options for the diversion gate on the conveyance system; potential failure of the siphon support system, with a focus on alternative methods to reduce movement and resist lateral loads from the adjacent slide area; and surveys and hydraulic analyses of the severely deteriorated open ditch and underground pipeline conveyance system to determine the best means of restoring its full capacity from the Diversion Gate through the Open Ditch to Santa Maria Reservoir. SMR requests that Task 3.0 be eliminated from the Scope of Work described in the Contract, and that the $36,695 funds for that Task be redirected to fulfill the Scope of Work described in this proposal. The rationale for this decision is based on the relatively low return on investment of studying the capacity of Lakeman Lakes and Santa Maria conservation pool – as compared to determining the requirements to bring the Continental Reservoir back to its design capacity by specifically addressing the spillway and left abutment seepage issues. In recent months the Basin's need for additional storage has become a priority as Groundwater Subdistricts seek storage to meet their depletion needs. Removing the SMR curtailment might provide as much as 6,000 AF of additional basin storage.

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.[1]

- This water activity meets the eligibility requirements in Part 2 of the criteria and guidelines as detailed above.

- The water activity is consistent with Section 37-75-102 C.R.S. because this project updates prior studies, conducts engineering and hydrology studies prior to structural repairs and upgrades on existing structures, and performs a multi-use enlargement inventory of all assets at, and resulting from the optimization of, Santa Maria and Continental Reservoirs. This project therefore does not supersede, abrogate, or otherwise impair the State's current system of allocating water within Colorado nor does it in any manner repeal or amend the existing water rights adjudication system. This project does not affect the State constitution's recognition of water rights as a private usufructuary property right nor is it 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.

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

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.

- This information is included in the letter from the Chairman of the Rio Grande Basin Roundtable.

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

- This water activity meets the provisions of Section 37-75-104 (2) (c), C.R.S. regarding the results of SWSI in that SMR has been working closely with CDOW to assist them in reaching their water use goals and storage objectives. Water stored by these reservoirs for CDOW will include Transmountain water, with cooperative and innovative negotiations presently under way to expand multiple uses and benefits throughout the Rio Grande System. The Project will provide information to expand the uses of the Santa Maria/Continental reservoir system to include and to more efficiently address both consumptive and non-consumptive needs of the Rio Grande Basin. This will include the potential to store additional water for irrigation, to store more water for third parties, and to increase storage of Rio Grande Compact water. In addition, the SWSI goal to increase non-consumptive uses associated with recreation (fishing and boating) will be met by identifying opportunities throughout the System which will enhance those activities. Rehabilitation of the System will also provide greater opportunities for flood control. In this process, SMR has consulted with and obtained the active support of the Rio Grande Water Conservation District, the San Luis Valley Water Conservancy District, Rio Grande Water Users, and the Colorado

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

Division of Water Resources. For effects upon recreation, wildlife, and flood control the Boards of Commissioners of Hinsdale and Mineral Counties have advised this project. SMR has also incorporated the concerns of Alamosa County Commissioners and Rio Grande County Commissioners relating to flood control issues for the municipalities of Alamosa, Monte Vista and Del Norte. Each of them strongly endorses this project for the positive effects it will have in protecting their agrarian tax base. Letters of support express the advice and input SMR has counted on from many stakeholders as it prepares to conduct the necessary studies to restore the Santa Maria and Continental Reservoirs to their full functionality and potential (Attachment F).

d) Matching Requirement: <u>For requests from the Statewide Fund</u>, 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)

- Although this proposal seeks only Basin funds, SMR is increasing its commitment to the project from $18,000 to $40,000 – an additional $22,000 in cash. This represents a significant contribution and reflects this applicant's determination to fulfill its Contract commitments and to perform the studies required prior to implementation – i.e. removal of the storage limitation and full restoration of storage capacity for Continental and Santa Maria reservoirs.

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

- This application requests funds from the Basin Account. Please refer to SMR's previous proposal and to the Contract for SMR's response to this question.

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.

- Water supplies to Continental Reservoir include North Clear Creek, Kitty Creek Ruby Creek, Big Buck Creek, and Buck Creek. Water supplies to Santa Maria Reservoir include regulated discharges from Continental Reservoir (including all of the above) as well as flows from Rito Hondo Creek, and Spring Creek, to which Big Spring, Mesa and Willow Creek are tributary. The only direct flow to Santa Maria is from Boulder Creek. The flow in the Rio Grande is influenced by three reservoirs, all located upstream of Creede. Rio Grande Reservoir, an on-stream reservoir, and Continental and Santa Maria Reservoirs, both off-stream reservoirs. Flows from these reservoirs are primarily regulated based on Rio Grande Compact requirements and storage rights within the reservoirs by private parties. The effect of this water project is to increase storage at Continental and Santa Maria Reservoirs and to provide CDOW, which owns and operates 3 transmountain diversions and does not have adequate storage capacity of its own, to store some of its transmountain water in Continental Reservoir and Santa Maria Reservoirs. This Project has the effect of increasing the flexibility of CDOW to use its water more effectively and to the greatest benefit for a variety of wildlife and wildlife habitat. Water stored in both reservoirs is released to meet agricultural needs and to irrigate lands for waterfowl nesting, shelter and forage and sustain and improve big game winter range.

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

- Please refer to the previous proposal and to the Contract for details. Prior studies reflect the many diverse interests of the Rio Grande Basin and of Colorado which are served by the Continental and Santa Maria reservoirs. Continental Reservoir has been used primarily to store irrigation water for agricultural producers in the San Luis Valley of Colorado. Continental Reservoir also stores CDOW water, Rio Grande Compact water, and San Luis Valley Water Conservancy District water, in addition to storage for other entities as needed. Continental's multiple uses include irrigation, flood control, spectacular high altitude recreational fishing and boating, and wildlife habitat. CDOW is using the Rio Grande Reservoir to assist in reaching its water use goals and objectives. Through this project SMR will further assist the CDOW in achieving these goals. The CDOW has water rights to 3 Transmountain diversions. By mutual agreement, the CDOW will be able to store enough water in Santa Maria to allow for an effective and well-thought-out plan for the most beneficial use to wildlife, increasing habitat in critical winter range lands. This will allow for a productive fishery; sustained and increased riparian habitat; irrigation of lands for wildlife nesting, shelter and forage; and for well augmentation. With this additional reservoir storage CDOW is also in a better position to answer water demands in case of an uncontrollable situation such as a drought. Storing additional water also allows flexibility in how and when water is distributed to different areas, depending on needs and available

resources. This flexibility allows for the development of new ideas and practices that will ultimately be useful to wildlife as well as to the public. Operational flexibility and cost effectiveness are also contributed by this project to recreation, as CDOW may be able to fully utilize the water by offering it as potential payment for projects to private landowners in return for walk-in access on their lands for hunting and or fishing. Well augmentation also is of concern as many of the CDOW state wildlife areas (SWA) rely on wells in order to maintain wildlife habitat. CDOW currently has surface water rights and wells with a variety of use adjudications on SWA's. The establishment of groundwater conservation sub-districts within the SLV may have an effect on the amount of water pumped by any individual well on a SWA, regardless of the CDOW active participation in the district. Should a SWA fall within areas which are not regulated by a sub-district, the State Engineer may dictate a set of rules and regulations. Therefore, Transmountain water which is collected and stored in these reservoirs may serve to augment wells which cannot be re-adjudicated for the beneficial use of wildlife or which may be reduced in flow as a result of a sub-district or State Engineer rules and regulations. In addition, the release of Transmountain water throughout the year could be utilized to maintain a 'low flow' in the Rio Grande and its tributaries. This flow would promote the maintenance of fish populations, recreational activities, and in assisting in the efficient delivery of water. Currently, the CDOW is researching the amount of water needed to maintain a low flow in the Rio Grande. Cooperative and innovative efforts which effectively and efficiently provide multiple uses throughout the Rio Grande system will benefit all users and should be incorporated into water management plans. In all these ways, this project effectively addresses the Statewide Water Supply Initiative's Management Objectives and the Rio Grande Basin Roundtable's concerns regarding sustainability, restoring Santa Maria and Continental Reservoirs to optimal oper ational reliability, and, in the process, complying with all applicable laws and regulations.

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 - Santa Maria & Continental Reservoirs: Priority Studies to Restore Capacity

GRANT RECIPIENT – Santa Maria Reservoir Company

FUNDING SOURCE – Rio Grande Basin Account - WSRA

INTRODUCTION AND BACKGROUND

This application seeks funds for the necessary continuation and expansion of an existing contract (Contract) between Santa Maria Reservoir Company (SMR) and the Colorado Water Conservation Board (CWCB). In that Contract, Task 2.5 and all of Task 3.0 relate to studies of Santa Maria Reservoir. SMR has determined, based on data in the URS' recently completed *Continental Reservoir Flood Hydrology Final Report* dated June 10, 2010, that those tasks are of less priority and should be postponed to a later time. To be specific, funds relating to Task 2.5, in the existing Contract, entitled "Santa Maria Inlet Optimization," amounting to $12,195. Funds relating to Task 3.0 in the existing Contract, total $36,595. These two tasks, for which SMR has already been funded, total $48,790. We request that this amount be re-allocated to Tasks 1.6 and 1.7 in this proposal in order to fund additional Survey and Geotechnical studies.

These details are explained in the "Fee Estimate" submitted by URS Corporation.
To summarize:

SMR's previous commitment of $18,000 matching funds is increased by $22,000 more, for a total matching amount of $40,000.

Amount re-allocated already funded	$ 48,790
SMR Additional Matching funds	$ 22,000
WSRA Grant Funds	$ 22,000
	$ 92,790
Cost of remaining tasks in this proposal	$147,270
Total (modified) Project Cost	$254,060

Findings from the URS Hydrology studies have provided a more thorough understanding of the complexities involved in restoring full capacity to Continental and Santa Maria, suggesting several alternative approaches to implementation, each of which requires full investigation. This reallocation and re-commitment of funds by SMR, plus the funds requested here, provide the means to conduct a thorough assessment of the options for restoring full capacity to Continental and Santa Maria reservoirs.

OBJECTIVES

The objectives of this project are to complete, extend, and re-prioritize the Tasks described in the existing Contract between Santa Maria Reservoir Company (SMR) and the Colorado Water Conservancy Board and to conduct additional studies as described below in order to determine the most viable method to remove storage restrictions and restore full capacity to Continental and Santa Maria reservoirs. The Objectives for this proposal are identical to those proposed by SMR in its previous proposal and as formalized in its existing Contract with CWCB. This application for funding and this Scope of Work reflect agreements which have been agreed to, pending approval of this request for funding, between Santa Maria Reservoir Company and URS Corporation, the Contractor, per Contractor's Modifications to their Work Order No.1 dated September 2, 2009. The Scope of Work for this project is divided into two main tasks: 1) Continental Reservoir and 2) Pipeline, Siphon, and Open Ditch. These studies and the proposed alternative Continental Dam improvements will be conducted in conformance with Colorado State Engineer's Office (SEO) Dam Safety Rules and Regulations (Rules) dated January 2007.

Task 1 – Continental Reservoir

Task 1.1 – Hydrologic/Hydraulic Analysis

Description of Task: Perform hydrologic study to determine required spillway size. Determine hydrologic/hydraulic adequacy of spillway, according to State's regulations, so as to lift current restrictions. In addition, complete an analysis and identify any additional shortcomings of the water delivery and reservoir system, and make recommendations to address any such matters.

Method/Procedure: Consult with Project Sponsors regarding these recommendations to determine if further engineering needs to be completed to mitigate these matters. URS will meet with the Project Sponsors and SEO to discuss the project details during a project kickoff meeting and one-day site visit. URS will perform an inspection of the project features including Continental Dam; Pipeline, Siphon, and Open Ditch; and Santa Maria Dam during the site visit. URS will identify if there are additional dam safety issues other than the spillway and the seepage along the left dam abutment based on the project inspection. If additional dam safety issues exist, URS will make recommendations with respect to further field investigations, engineering analyses, and designs. URS will develop the 24-hour, 100-year precipitation using NOAA Atlas II; and local and general storm probable maximum precipitation (PMP) using EPAT and HMR-55A methods. URS will then develop the flood hydrology using the United States Army Corp of Engineers (USACE) HEC-HMS computer model using available project data. URS will then route the floods through the existing spillway to determine if the critical storm event meets SEO Rules. These analyses will be used to determine the required spillway configuration that will be evaluated in Task 1.2.

Deliverable:

1. Project Execution Plan delivered one week prior to the project kick-off meeting.
2. Task memorandum presenting the findings and, if required recommendations, of the dam inspection.
3. Final design report section and appendices presenting the methodology, results, and recommendations for the flood hydrology.
4. Submittal to the SEO for approval.

(continued on next page)

Task 1.2 – Alternatives Development and Evaluation - Spillway

Description of Task: Confirm and specify how repairing the spillway, and any other identified issues, will meet the State Engineer's requirements, including but not limited to, passing the PMF.

Method/Procedure: URS will perform the required hydraulic, structural, and geotechnical analyses to develop up to three spillway alternatives. URS will evaluate the alternatives based on technical, environmental, social, and financial issues. URS will perform a one-day alternatives workshop to present and select the preferable alternative for the project. The alternatives development and evaluation will be performed in conjunction with the alternatives development and evaluation for Task 2 – Pipeline, Siphon, and Open Ditch to ensure the overall system alternative(s) are selected that best meet(s) the project goals.

Deliverable: A section in the Alternatives Development and Evaluation memorandum presenting the findings and recommendations.

Task 1.3 – Prepare Plans and Specifications - Spillway

Description of Task: Upon determination of existing spillway adequacy, prepare plans and specifications for an adequate spillway, and prepare cost estimate for completing this work with an accuracy of plus and minus 10%.

Method/Procedure: URS will perform the required hydraulic, structural, and geotechnical engineering analyses to develop the spillway design for the project. Based on these analyses, URS will prepare plans and specifications for the selected alternative. The plans and specifications will become part of the overall project plans and specifications that will also include the selected alternatives for Task 2 – Pipelines, Siphon. Engineers Joint Contract Documents Committee (EJCDC) revised by URS to satisfy the specific project requirements will be used for the project. Technical specifications will be prepared in Construction Specification Institute (CSI) format. Design review submittal will be made at the 95% design level. URS will include the Project Sponsor's comments in the 100% design submittal. URS will perform quantity takeoffs so that a probable construction cost estimate can be developed. The cost estimate will be prepared based on recent bid tabulations from similar projects. The cost estimate will include a 10% contingency.

(continued on next page)

Deliverables:

1. Final design report sections and appendices for spillway improvements.

2. 95% and 100% plans and specifications for spillway improvements.

3. 95% and 100% probable engineer's construction cost estimate for spillway improvements.

4. Submittal to the SEO for approval.

Task 1.4 – Alternatives Development and Evaluation - Seepage

Description of Task: Conduct an evaluation of the seepage migration through highly fractured abutment rocks; study stratification in the dam shell and effects of weathering on the embankment.

Method/Procedure: URS will use the available geotechnical data to evaluate the seepage through the fractured rock abutment. URS will prepare up to three alternatives to address the seepage issue based on analysis, dam inspection, and discussions with the Project Sponsors and SEO. URS will evaluate the alternatives based on technical, environmental, social, and financial issues. URS will perform a one-day alternatives workshop to present and select the preferable alternative for the project. The alternatives development and evaluation will be performed in conjunction with the alternatives development and evaluation for Task 2 – Pipeline, Siphon, and Open Ditch -- to ensure the overall system alternative(s) are selected that best meet(s) the project goals.

Deliverable: A section in the Alternatives Development and Evaluation memorandum presenting the findings and recommendations.

Task 1.5 – Prepare Plans and Specifications - Seepage

Description of Task: Prepare plans and specifications to reduce/eliminate seepage problem; and, if appropriate, establish monitoring plan for seepage rates and piezometers levels. Prepare cost estimate to reduce/eliminate seepage problem with an accuracy of plus and minus 10%.

Method/Procedure: URS will perform the required engineering analyses to enable the development of the final design plans to address the seepage issue. Based on these engineering analyses, URS will prepare plans and specifications for the selected seepage alternative. The plans and specifications will become part of the overall project plans and specifications that will also include the selected alternatives for Task 2 – Pipelines, Siphon;

and Open Ditch. EJCDC revised by URS to satisfy the specific project requirements will be used for the project. Technical specifications will be prepared in CSI format. Design review submittal will be made at the 95% design level. URS will include the Project Sponsor's comments in the 100% design submittal. URS will perform quantity takeoffs so that a probable construction cost estimate can be developed. The cost estimate will prepared based on recent bid tabulations from similar projects. The cost estimate will include a 10% contingency.

Deliverables:

1. Final design report sections and appendices for seepage improvements.
2. 95% and 100% plans and specifications for seepage improvements.
3. 95% and 100% probable engineer's construction cost estimate for seepage improvements.
4. Submittal to the SEO for approval.

Task 1.6 – Survey

Description of Task:

1.6.1 Survey Research - The U.S. Department of Commerce - National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Geodetic Survey (NGS) provides geodetic control throughout the United States. Although known by other agency names in the past, the National Geodetic Survey (NGS) is the primary source for geodetic data in Colorado. A minimum of two NGS Horizontal Monuments will be used to establish the Project's Horizontal Control Network, and a minimum of two NGS Vertical Monuments will be used to establish the projects Vertical Control Network.

1.6.2 Survey Control - The Horizontal Control for this Project will be tied to the Colorado High Accuracy Reference Network (CHARN), referenced to the North American Datum of 1983 (NAD 83), using densification points in the area, a minimum of two (2) points will be used. Two permanent Control Monuments will be set at Continental Reservoir, one on each end of the dam, preferably outside of the potential construction disturbance zone. A Fast Static GPS survey will be conducted on the Control Monuments, and shall meet the requirements of a Colorado Department of Transportation Class A Primary Survey, as outlined in the CDOT Survey Manual dated January 2008. A Project Control Diagram will be developed showing the Control Monument with geodetic (WGS 84) coordinates, Colorado State Plane, South Zone coordinates, and project control (state plane coordinates brought to ground using the dam elevation) coordinates in feet. A statement shall be included describing the procedure to convert from State Plane Coordinates to Ground Coordinates, and from

Ground Coordinates to State Plane Coordinates. Elevations for the vertical control shall be established from existing national benchmarks, referenced and tied to the North American Vertical Datum of 1988 (NAVD 88). The Vertical Control for this project will be GPS derived orthometeric heights (elevations), for the Primary Control Monuments using a minimum of two Benchmarks Monuments. If more accurate vertical elevations are required at a later date, a closed loop Vertical Survey will be conducted. If needed, the closed loop survey will be calculated to meet the minimum elevation closure standards of a Second Order, Class II survey, as published in Part 4: Standards for A/E/C and Facility Management publication from the Federal Geographic Data Committee. The calculated closure cannot exceed the square root of the total horizontal distance of the differential level loop in miles multiplied by 0.035 feet, (0.035 *ft* $\sqrt{}$*d miles).*

Method/Procedure:

1.6.3 General Survey Conditions - The optimum time to conduct topographic and improvement surveys that may be used to generate a three dimensional models is during periods of low storage, and low flows. The topographic and improvement survey will be conducted on the dam structures using RTK GPS techniques. Any locations that the terrain is obscured by vegetation will be surveyed using a Conventional Total Station.

The survey will be broken down into five parts:

1. Survey the Dam crest, the toe of the downstream face, the spillway, and the outlet structure.
2. Survey the Geotechnical Boreholes.
3. Survey the profile of the outlet pipe to the concrete lined canal.
4. Survey the Canal and terrain within 25 feet of the centerline of the Canal.
5. Survey the Drop Structure.

1.6.4 Process Survey and Aerial Mapping Data - The ground survey data will be processed to create a three dimensional model of the project site, and a Triangulated Irregular Network (TIN) model will be created, and one foot contour intervals created. A three dimensional Microstation and AutoCad drawing will be created for the project site.

1.6.5 Boundary Survey - No Land Survey Boundaries are to be determined or surveyed at this time.

Deliverables: All data and submittals will be reviewed and/or checked by a State of Colorado Registered Professional Land Surveyor before delivery.

1. SURVEY REPORT
    a. The consultant shall deliver two copies of the survey report.
    b. The reports shall be bound in three ring binders.
    c. Each report shall include the following sections:
        i. Project description.
        ii. Certification of Survey.
            (a) A report that itemizes the procedures taken to assure that the survey data is of specified quality.
            (b) This report shall include meetings and progress reports, acquisition of permission to enter, traffic control, utility location, survey equipment and calibration. The report shall include actual closures, ratios, tolerances, and differences detected while performing the work and evaluating quality. The report is to be signed and sealed by the PLS in responsible charge of the survey work.
        iii. Copy of the Control Survey Diagram.
        iv. Equipment calibration report.
        v. Photographs of all found or set project control monuments.
        vi. Copy of GPS report.
        vii. Copy of field notes for surveys.
        viii. Copy of project point list.
        ix. The electronic data on compact disc.

Task 1.7 – Geotechnical

Description of Task: URS will conduct geotechnical investigations that include drilling, sampling, in-situ testing and laboratory testing to further characterize the existing spillway foundation materials and abutment rock to the right of the existing spillway.

Method/Procedure: The spillway will include ten test holes as follows:

Up to two test holes advanced through the upstream portion of the spillway near the dam crest to characterize and obtain samples of the foundation soil (if present) and underlying bedrock. Rock coring would be limited to approximately 10 feet in depth. These borings would define the profile of underlying rock and foundation soils, and will allow more accurate estimates of required rock excavation, and spillway under drain and anchor design.

Up to six test holes advanced through the spillway chute to characterize and obtain samples of the foundation soil (if present) and underlying bedrock. Rock coring would be limited to approximately 10 feet in depth. These borings would define the profile of

underlying rock and foundation soils, and will allow more accurate estimates of required rock excavation, and spillway under drain and anchor design.

Up to two more test holes advanced through the spillway stilling basin area to characterize and obtain samples of the foundation soil (if present) and underlying bedrock. Rock coring would be limited to approximately 10 feet in depth. These borings would define the profile of underlying rock and foundation soils, and will allow more accurate estimates of required rock excavation, and spillway under drain and anchor design.

The following will be performed during the program:

Sample using Split Spoon, Modified California, or Shelby tube samplers at 5-foot intervals or less to evaluate in-situ properties of spillway foundation soils, and to obtain samples for laboratory testing.

Collect rock core samples in the underlying bedrock to characterize the foundation rock and for subsequent laboratory testing.

Perform permeability testing of in-situ soil and rock to provide a basis for spillway underdrain design.

Conduct laboratory testing on selected samples collected from the field investigation. URS proposes to perform strength test to evaluate engineering properties of spillway foundation soils and foundation rock. In addition, index testing would be performed on foundation soils encountered during the investigation.

URS will use a track mounted casing advance ODEX drill rig being winched from the spillway crest, and anchored in the spillway to advance the borings in the steep (approximately 1.7H:1V) spillway chute slope. The same drill rig could be used to advance the other borings as well.

URS will prepare a geotechnical summary report presenting the field investigation methods and procedures, testing results, materials characterization, and design recommendations.

Deliverables: Draft and final geotechnical reports.

Assumptions:

(1) Access into the existing spillway is suitable for both a tracked drill rig, and for a large tow truck wrecker or equivalent.
(2) Holes may be cut through the existing spillway, and patched when completed.
(3) Anchors may be installed at the drilling locations to secure the rig in place.

(4) Soil materials beneath the spillway may consist of large cobbles, requiring the use of an ODEX drill rig. This same drill rig may also be used for core drilling.
(5) Worker platforms will be constructed to create a safe work environment.

Task 2 – Pipeline, Siphon, and Open Ditch

Task 2.1 – Diversion Gate

Description of Task: Evaluate condition at diversion gate and specify required actions. Prepare cost estimate for this work to be completed with an accuracy of plus and minus 10%.

Method/Procedure: URS will review the diversion gate in the field. Based on the field investigation URS will recommend improvements or gate replacement, if required. The alternatives will be discussed and the preferred alternative will be selected during the combined alternatives workshop for the project. Recommendations will be made for additional engineering and designs to address the diversion gate findings. Design or analyses are not included in this scope of work.

Deliverable: A section in the Alternatives Development and Evaluation memorandum presenting the findings and recommendations.

Task 2.2 – Prepare Plans and Specifications – Siphon Support System Stabilization

Description of Task: Prepare plans and specifications to stabilize the support system on the siphon. Prepare cost estimates for this work to be completed, with an accuracy of plus and minus 10%.

Method/Procedure: URS will evaluate the structural integrity of the pipeline support system. The structure evaluation will evaluate the landslide loading condition induced by the upslope hill area, the dynamic hydraulic loading within the pipe, and the bearing capacity of the external support system. This analysis will be performed along with the other tasks presented under Task 2. Alternatives will be developed and evaluated for this task. URS will evaluate the alternatives based on technical, environmental, social, and financial issues. URS will perform an alternatives workshop to present and select the preferable alternative(s) for the project. URS will perform a one-day alternatives workshop to present and select the preferable alternative for the project. The alternatives development and evaluation will be performed in conjunction with the alternatives development and evaluation for Task 1 – Continental Reservoir to ensure the overall system alternative(s) are selected that best meets the project goals. URS will prepare plans and technical specifications for the selected alternative. The plans and technical specifications will become part of the overall project plans and specifications that will also include the selected alternatives for Task 1 –

Continental Reservoir. EJCDC revised by URS to satisfy the specific project requirements will be used for the project. Technical specifications will be prepared in CSI format. Design review submittal will be made at the 95% design level. URS will include the Project Sponsor's comments in the 100% design submittal. URS will perform quantity takeoffs so that a probable construction cost estimate can be developed. The cost estimate will prepared based on recent bid tabulations from similar projects. The cost estimate will include a 10% contingency.

Deliverables:

(1) A section in the Alternatives Development and Evaluation memorandum presenting the findings and recommendations.

(2) Final design report sections and appendices for the Siphon Support System.

(3) 95% and 100% plans and specifications for the Siphon Support System.

(4) 95% and 100% probable engineer's construction cost estimate for the Siphon Support System.

Task 2.3 – Pipeline and Siphon Capacity Assessment and Design

Description of Task: Evaluate condition and capacity of the pipeline and the siphon used to transport water in winter; study seasonal problems with open ditch – freezing in winter limits the use stored water, and the limitations on capacity in summer. Prepare plans and specifications to establish necessary capacity in pipeline. Prepare cost estimates for this work to be completed with an accuracy of plus and minus 10%.

Method/Procedure: During the project kick-off meeting and site visit, URS will discuss the systems' operation related to seasonal flows and past historical issues related to capacity. URS will then perform a baseline hydraulic analysis of the total system starting at the diversion gate to Santa Maria Reservoir. The analysis will include three system combinations of the open ditch and the underground pipeline after the siphon. The first analysis will include the hydraulics of the diversion gate, pipeline leading to the siphon, siphon, exit structure of the siphon into the open ditch, and open ditch. This analysis will be used to determine the system's performance when the underground pipe is not used to convey water. The second analysis will include the same hydraulics up to the open ditch where the combination of the open ditch/underground pipeline will be studied. The third analysis will include the same hydraulics up to the open ditch where the underground pipeline will be studied for winter diversions. These analyses will be performed in conjunction with performing Task 2.4. Based on the findings of the hydraulic analyses, URS will develop up to three alternatives to achieve the required flow through the system. URS will evaluate the alternatives based on technical, environmental, social, and financial issues. URS will perform an alternatives workshop to present and select the preferable alternative for the project. URS will perform a one-day

alternatives workshop to present and select the preferable alternative for the project. The alternatives development and evaluation will be performed in conjunction with the alternatives development and evaluation for Task 1 – Continental Reservoir to ensure the overall system alternative(s) are selected that best meets the project goals. URS will prepare plans and technical specifications for the selected alternative. The plans and specifications will become part of the overall project plans and specifications that will also include the selected alternatives for Task 1 – Continental Reservoir. EJCDC revised by URS to satisfy the specific project requirements will be used for the project. Technical specifications will be prepared in CSI format. Design review submittal will be made at the 95% design level. URS will include the Project Sponsor's comments in the 100% design submittal. URS will perform quantity takeoffs so that a probable construction cost estimate can be developed. The cost estimate will prepared based on recent bid tabulations from similar projects. The cost estimate will include a 10% contingency.

Deliverables:

(1) A section in the Alternatives Development and Evaluation memorandum m presenting the findings and recommendations.

(2) Final design report sections and appendices.

(3) 95% and 100% plans and specifications.

(4) 95% and 100% probable engineer's construction cost estimate.

Task 2.4 – Open Ditch and Underground Pipeline Assessment & Design

Description of Task: Analyze and evaluate water conveyance through open ditch and underground pipeline. Determine whether open ditch should be repaired/upgraded or replaced with underground pipe. Prepare cost estimates for these two (2) alternatives of open ditch or underground pipeline for this work to be completed, with an accuracy of plus and minus 10%.

Method/Procedure: The baseline hydraulic analysis prepared for Task 2.3 will be used to develop alternatives for this task. URS will evaluate the alternatives based on technical, environmental, social, and financial issues. URS will perform an alternatives workshop to present and select the preferable alternative(s) for the project. URS will perform a one-day alternatives workshop to present and select the preferable alternative for the project. The alternatives development and evaluation will be performed in conjunction with the alternatives development and evaluation for Task 1 – Continental Reservoir to ensure the overall system alternative(s) are selected that best meets the project goals. URS will prepare plans and technical specifications for the selected alternative. The plans and technical specifications will become part of the overall project plans and specifications that will also include the selected alternatives for Task 1 – Continental Reservoir. EJCDC revised by URS to satisfy the specific

project requirements will be used for the project. Technical specifications will be prepared in CSI format. Design review submittal will be made at the 95% design level. URS will include the Project Sponsor's comments in the 100% design submittal. SEO submittal of the design for the conveyance system is not required but will be included in the project design documents. URS will perform quantity takeoffs so that a probable construction cost estimate can be developed. The cost estimate will prepared based on recent bid tabulations from similar projects. The cost estimate will include a 10% contingency.

Deliverables:

(1) A section in the Alternatives Development and Evaluation memorandum presenting the findings and recommendations.
(2) Final design report sections and appendices.
(3) 95% and 100% plans and specifications.
(4) 95% and 100% probable engineer's construction cost estimate.

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.

Schedule

The schedule on the following page is based on milestone delivery durations for the project based on the revised Notice to Proceed (NTP) date. The Modified NTP date will be based on the execution of this scope of work. The schedule will be modified to reflect the actual Modified NTP date.

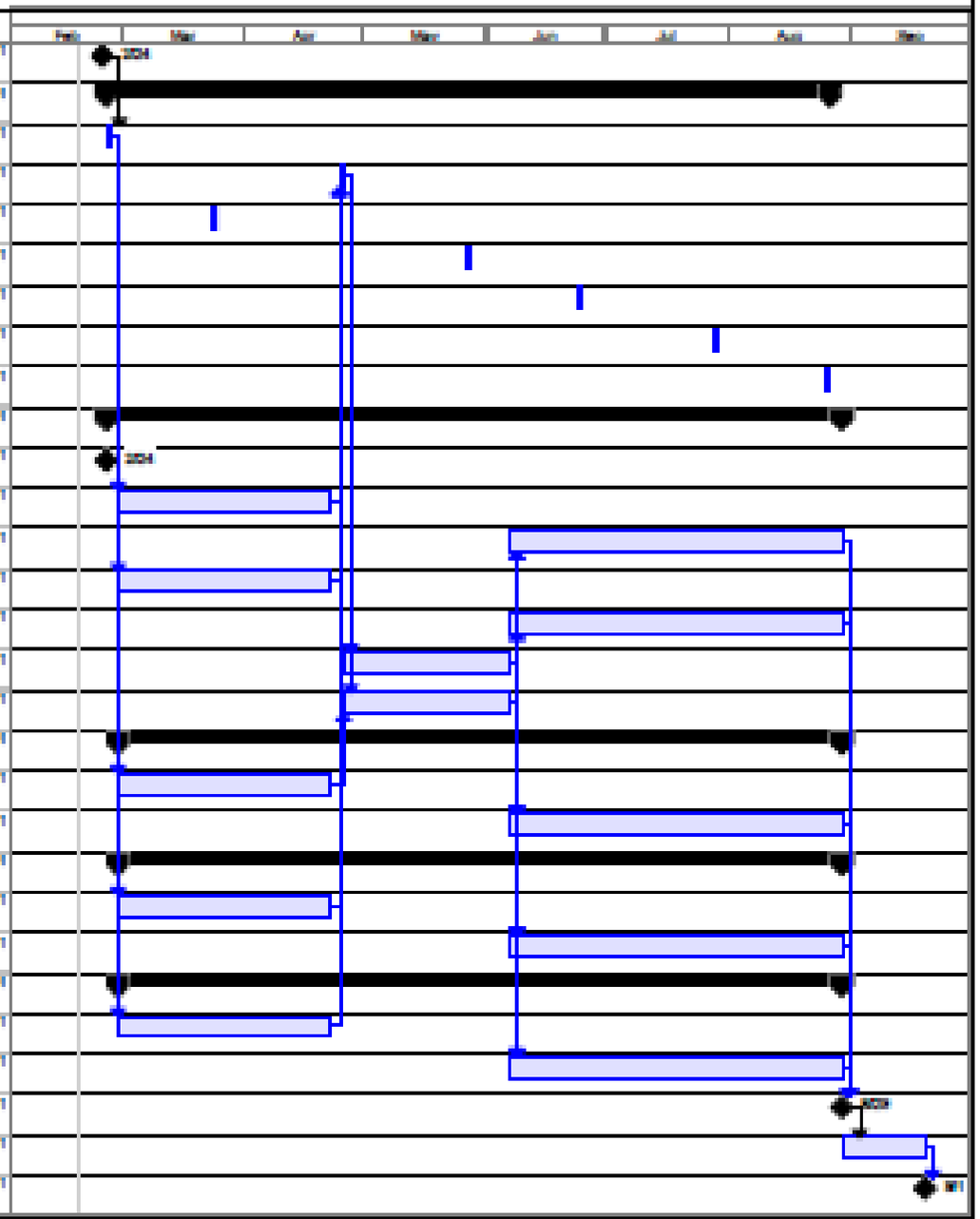
(**Note: If the following two pages do not display properly in the electronic version, please see attached separate documents, "Santa Maria Schedule" and "Santa Maria Budget" or refer to the hard-copy versions which are easily readable.)**

Continental Reservoir and Santa Maria Reservoir Engineering Services

Santa Maria Reservoir Company

Project Schedule (presented in Working Days)

ID	Task Name	Duration	Start	Finish
1	Mod 1 NTP	0 days	Thu 2/24/11	Thu 2/24/11
2	Meetings and Workshops	191 days	Fri 2/25/11	Fri 9/30/11
3	Mod 1 Kick-Off Meeting	1 day	Fri 2/25/11	Fri 2/25/11
4	Alternatives Workshop	1 day	Mon 4/25/11	Mon 4/25/11
5	Progress Meeting No. 1	1 day	Thu 3/24/11	Thu 3/24/11
6	Progress Meeting No. 2	1 day	Fri 5/27/11	Fri 5/27/11
7	Progress Meeting No. 3	1 day	Fri 8/26/11	Fri 8/26/11
8	Progress Meeting No. 4	1 day	Fri 7/29/11	Fri 7/29/11
9	Progress Meeting No. 5	1 day	Fri 9/30/11	Fri 9/30/11
10	Task 1 - Continental Reservoir	150 days	Thu 2/24/11	Mon 9/26/11
11	Task 1.1 Hydrology/Hydraulic Analysis (SUBMITTED TO SMC under WO No. 1)	0 days	Thu 2/24/11	Thu 2/24/11
12	Task 1.2 Alternatives Development and Evaluation - Spillway	40 days	Mon 2/28/11	Fri 4/22/11
13	Task 1.3 Prepare Plans and Specifications - Spillway	80 days	Tue 5/1/11	Mon 8/29/11
14	Task 1.4 Alternatives Development and Evaluation - Seepage	40 days	Mon 2/28/11	Fri 4/22/11
15	Task 1.5 Prepare Plans and Specifications - Seepage	80 days	Tue 5/1/11	Mon 8/29/11
16	Task 1.6 Survey	30 days	Tue 4/26/11	Mon 6/6/11
17	Task 1.7 Geotechnical	30 days	Tue 4/26/11	Mon 6/6/11
18	Task 2 - Pipeline, Siphon and Open Ditch	191 days	Mon 2/28/11	Mon 9/26/11
19	Task 2.1 Dimension Data	40 days	Mon 2/28/11	Fri 4/22/11
20	Task 2.2 Prepare Plans and Specifications - Siphon Support System Stabilization	80 days	Tue 5/1/11	Mon 8/29/11
21	Task 2.3 Pipeline and Siphon Capacity Assessment and Design	191 days	Mon 2/28/11	Mon 9/26/11
22	Prepare Alternatives	40 days	Mon 2/28/11	Fri 4/22/11
23	Prepare Plans and Specifications	80 days	Tue 5/1/11	Mon 8/29/11
24	Task 2.4 Open Ditch and Underground Pipeline Assessment and Design	191 days	Mon 2/28/11	Mon 9/26/11
25	Prepare Alternatives	40 days	Mon 2/28/11	Fri 4/22/11
26	Prepare Plans and Specifications	80 days	Tue 5/1/11	Mon 8/29/11
27	Design Submittal at 95%	0 days	Mon 8/29/11	Mon 8/29/11
28	Address Design Comments	15 days	Tue 8/30/11	Mon 9/19/11
29	Submit Final Design	0 days	Mon 9/19/11	Mon 9/19/11



LRSI Corporation

Page 1

Fri 2/18/11

BUDGET

	SANTA MARIA & CONTINENTAL RESERVOIRS: PRIORITY STUDIES TO RESTORE CAPACITY								
								TOTAL	
		CREDIT	Requested	FUNDED			CREDIT	CREDITS	TOTAL
		Additional	Additional	PREVIOUS	CURRENT	NET	CONTRACT	TO	NET
		SMR	GRANT	URS	URS	PROJECT	TASKS	PROJECT	PROJECT
TASK		MATCH	WSRA	COST	COST	COST	TRANSFER	COST	VALUE
1.0	Continental Reservoir								
1.1	Hydrologic/Hyudraulic Analysis			same	16,815				
1.2	Alternatives Development & Evaluation - Spillway			same	14,955				
1.3	Prepare Plans & Specifications - Spillway			same	22,670				
1.4	Alternatives Development and Evaluation - Seepage			same	15,115				
1.5	Prepare Plans & Specifications - Seepage			same	23,905				
1.6	Survey			10,000	38,675	28,675			
1.7	Geotechnical			15,000	81,675	66,675			
	Travel Expenses - Santa Maria					440			
	TOTAL NEW COSTS TO BE FUNDED					92,790			92,790
	Matching Funds -- Santa Maria	22,000						22,000	
	Transfer Funds - Contract Task 2.5						12,195		
	Transfer Funds - Contract Task 3.0						36,595	48,790	
	WSRA R.G. BASIN FUNDS REQUEST		22,000					22,000	
	TOTAL CREDITS							92,790	-92,790
	CONTINENTAL RESERVOIR TOTAL				210,820				210,820
2.0	Pipeline, Siphon & Open Ditch								
2.1	Diversion Gate			same	6,555				
2.2	Plans & Specifications - Siphon Support Stabilization			same	12,355				
2.3	Pipeline & Siphons Capacity Assessment & Design			same	13,425				
2.4	Open Ditch & Underground Pipeline Assess & Design			same	10,835				
	CONVEYANCE SYSTEM TOTAL			same	$43,240				$43,240
	TOTALS	$22,000	$22,000	$25,000	$254,060	$92,790		-$92,790	
	NET TOTAL PROJECT				$254,060	$92,790		-$92,790	$254,060

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:

Project Title:

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

Attachment 1
Reference Information

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

Colorado Water Conservation Board (http://cwcb.state.co.us/)

Loan and Grant policies and information are available at – http://cwcb.state.co.us/Finance/

Interbasin Compact Committee and Basin Roundtables (http://ibcc.state.co.us/)

Interbasin Compact Committee By-laws and Charter (under Helpful Links section) –

http://ibcc.state.co.us/Basins/IBCC/

Legislation

House Bill 05-1177 - Also known as the Water for the 21st Century Act –

http://cwcbweblink.state.co.us/DocView.aspx?id=105662&searchhandle=28318

House Bill 06-1400 – Adopted the Interbasin Compact Committee Charter –

http://cwcbweblink.state.co.us/DocView.aspx?id=21291&searchhandle=12911

Senate Bill 06-179 – Created the Water Supply Reserve Account –

http://cwcbweblink.state.co.us/DocView.aspx?id=21379&searchhandle=12911

Statewide Water Supply Initiative

General Information – http://cwcb.state.co.us/IWMD/

Phase 1 Report – http://cwcb.state.co.us/IWMD/SWSITechnicalResources/SWSIPhaseIReport/

Attachment 2
Insurance Requirements

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

13. INSURANCE

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

A. Grantee

i. Public Entities

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

ii. Non-Public Entities

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

B. Sub-Grantees

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

i. Worker's Compensation

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

ii. General Liability

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

iii. Automobile Liability

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

iv. Additional Insured

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

v. Primacy of Coverage

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

vi. Cancellation

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

vii. Subrogation Waiver

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

C. Certificates

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

Attachment 3
Water Supply Reserve Account Standard Contract

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

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

Attachment 4
W-9 Form

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