COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Water Infrastructure and Supply Efficiency (WISE) Partnership: Western Pipeline Connection Engineering/Design

Name of Water Activity/Project

South Metro Water Supply Authority (SMWSA)

Name of Applicant

Metro Roundtable

Amount from Statewide Account: $1,413,000

Amount from Basin Account(s): $157,000

Total WSRA Funds Requested: $1,570,000

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

Application Content

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Required Exhibits

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

Appendices – Reference Material

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

Instructions

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

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

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

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

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

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

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

Water Supply Reserve Account – Application Form
Revised December 2011

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

1.	Applicant Name(s):	South Metro Water Supply Authority (SMWSA)		
	Mailing address:	8400 Prentice Ave. Suite 1500 Greenwood Village, CO 80111		
	Taxpayer ID#:	98-17791		
	Primary Contact:	Eric Hecox	Position/Title:	Executive Director
	Email:	erichecox@southmetrowater.org		
	Phone Numbers:	Cell: 303-968-6073	Office:	303-409-7747
	Alternate Contact:	Britta Strother	Position/Title:	Project Manager
	Email:	brittastrother@southmetrowater.org		
	Phone Numbers:	Cell: 303-968-7782	Office:	303-409-7747

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

	Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
x	Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated – mutual ditch companies, homeowners associations, corporations.
	Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
	Non-governmental organizations – broadly defined as any organization that is not part of the government.

3. Provide a brief description of your organization

South Metro Water Supply Authority (SMWSA) is an organization of 14 water providers located in Douglas and Arapahoe Counties that work together to plan, source and develop regional renewable water supply projects. SMWSA members include: Arapahoe County Water and Wastewater Authority, Castle Pines Metropolitan District, Castle Pines North Metropolitan District, Centennial Water & Sanitation District, Cottonwood Water and Sanitation District, East Cherry Creek Valley Water & Sanitation District, Dominion Water & Sanitation District, Inverness Water & Sanitation District, Meridian Metropolitan District, Parker Water & Wastewater District, Rangeview Metropolitan District, Stonegate Village Metropolitan District, and Town of Castle Rock. Of SMWSA's 14 members, 10 are participating in the WISE Partnership.

SMWSA members combined represent about 80% of Douglas County and 10% of Arapahoe County. Collectively, SMWSA Members currently serve about 300,000 people and population projections for the same area are 550,000 in 2050.

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

N/A

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

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

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

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

SMWSA does not anticipate any TABOR issues.

Part II. - Description of the Water Activity/Project

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

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

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

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

	Study	X	Implementation

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

	New Storage Created (acre-feet)
7,000	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)
	Existing Storage Preserved or Enhanced (acre-feet)
	Length of Stream Restored or Protected (linear feet)
316,800	Length of Pipe/Canal Built or Improved (linear feet)
	Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)
	Area of Restored or Preserved Habitat (acres)
	Other -- Explain: For the entire project not just WSRA funded portion.

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

Latitude: 39.551833 Longitude: -104.808314

The WISE Project Map (Attachment 1) shows the full project location; Attachment 2 is a map of the Western Pipeline System and Attachment 3 shows each of the 10 connections.

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

The Water Infrastructure and Supply Efficiency (WISE) Partnership is a regional water supply project between Aurora Water, Denver Water and the South Metro Water Supply Authority (SMWSA) to combine available water supplies and system capacities to create a sustainable new water supply. Through WISE, Aurora Water and Denver Water will provide 7,000 AFY (on average) of fully treated water to SMWSA for distribution to its members on a permanent basis. Aurora's Prairie Waters system will provide the backbone for delivering water from the South Platte when Aurora and Denver Water have available water supplies and capacity. WISE will also enable Denver Water to access its supplies through Prairie Waters during periods when it needs to utilize its additional water supplies. Denver Water and Aurora Water will supply water to SMWSA at a master meter located near Aurora's Binney Water Purification Facility (BWPF). SMWSA will develop infrastructure within their area for distribution to their members.

To distribute WISE water to its members, SMWSA is developing the Western Pipeline system (see attached map). This system will begin at a new pump station located at the BWPF. This pumping facility will be dedicated to pumping WISE water generally west to a high point located near the intersection of Smoky Hill Road and Highway E-470. From this location, WISE water would flow by gravity south and then west along the Highway E-470/C-470 corridor through an existing pipeline currently owned and operated by East Cherry Creek Valley Water & Sanitation District (ECCV) known as the ECCV western pipeline. Several turnouts will be constructed to deliver water directly to WISE partners with systems adjacent to this pipeline. A turnout and pump stations will also be constructed near the intersection of Chambers Rd. and E-470 to deliver water to WISE partners located south of the ECCV western pipeline. A pipeline will be constructed along the eastern side of Rueter-Hess Reservoir to allow storage of WISE water. In total, three new pump stations, 45 miles of new pipelines, 15 miles of existing pipe to be acquired from ECCV, and unique delivery points for each of the participants will be part of this system. In total this system will cost approximately $132 million.

SMWSA is seeking a WSRA grant to help with the engineering and design of the connections necessary to connect each participant to the ECCV western pipeline. In total, there will be 10 separate connections into the ECCV western pipeline (see attached map). These 10 connections are estimated to cost $6,855,000 to design and construct. The WSRA grant is for 23% of the cost associated with the 10 connections and 1% of the total project cost.

Part III. – Threshold and Evaluation Criteria

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

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

The WISE Partnership is consistent with the existing water rights adjudication system and full meets this threshold criteria

   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 WSRA grant application was approved by the Metro Roundtable on _____, and the Metro Roundtable Chair's letter is Attachment 4.

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

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

Throughout the SWSI process, CWCB has consistently emphasized two objectives: 1) supporting projects/solutions that reduce the M&I Gap; and 2) supporting the implementation of local water providers identified projects and processes (IPPs). The WISE Partnership and this grant application help accomplish both of these objectives.

SWIS identified the South Metro area as significant gap area in SWSI Phase 1 and SWSI 2010. This is due to the combination of growing M&I demands and the need to replace current uses of non-renewable groundwater. The WISE Partnership will provide a sustainable renewable water supply to the South Metro area and reduce the areas M&I gap.

The WISE Partnership is also identified as an IPP in SWSI 2010 and the Metro Roundtable's needs assessment. Section 37-75-104(2) specifically charges each roundtable to develop a basin-wide needs assessment and propose projects and methods for meeting those needs. The Metro Roundtable did this in June 2011 with the "SWSI 2010 Metro Basin Report: Basin wide Consumptive and Non-consumptive Water Supply Needs Assessment." The second recommendation in this report is to "support the implementation of IPPs, including for example … WISE partnership [and] ask the project proponents if they would like support, such as letters or WSRA grants." The WISE Partnership is an important IPP for the Metro Roundtable and this grant application is consistent with the Metro Roundtable's 2010 recommendation.

The WISE Partnership is also the first local water supply project that the CWCB approved a resolution of support but did not have a direct roll in forming. (See Attachment 5).

[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.

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

Matching funds for the Statewide Fund request include:

- Basin Funds - $157,000 (10% of the Statewide Fund request)
- Local match - $5,285,000 (the Statewide Fund request is 20% of the total connection costs and 1% of the total project cost)

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

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

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

a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).

   The WISE Partnership is broadly supported by state leaders, the western slope, the environmental community, and entities throughout the Metro area. (see Attachment 6 Quotes of Support).

b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.

The WISE Partnership is a regional collaborative project between 10 South Metro water providers, Aurora Water, and Denver Water. It is promoting an unprecedented degree of cooperation among Metro area water providers. The WISE Partnership represents the future of cooperation between water providers on the front range and collectively impacts over 2 million Coloradoans.

c. The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

The WISE Partnership was specifically listed as an Identified Project and Process (IPP) in SWSI 2010 and the Metro Roundtable's Needs Assessment Report. This WSRA grant helps implement this important IPP and address the M&I gap in the South Metro area.

Tier 2: Facilitating Water Activity Implementation

d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).

Coordinating the funding of 10 individual participants in a $130 million project is a difficult undertaking. Funding from this Account will allow the Authority to expedite and coordinate engineering/design of the connections, thus allowing the individual participants to focus on securing funding for their share of the construction costs.

e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

This WSRA grant is a small, but important part of the overall project. It represents 1% of the total project cost and 23% of the costs associated with the connections.

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

f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.

The WISE Partnership indirectly helps sustain agriculture and meet environmental needs. It provides a renewable water supply to the South Metro area from reusable return flows. Without the ability to make use of these reusable return flows, the South Metro area would need to meet these needs either by acquiring agricultural water rights or developing new water supplies.

g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.

The WISE Partnership promotes maximum utilization of state waters by maximizing the use of reusable return flows from Denver Water and Aurora Water.

h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
N/A

i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.

The WISE Partnership implements an important IPP, helps meet the South Metro M&I Gap, provides a renewable water supply to the South Metro area there-by reducing reliance on non-renewable groundwater, provides a backup drought supply to Denver, and uses Aurora Water's existing infrastructure benefiting over 2 million Coloradoans.

j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

Individual WISE Participants are evaluating the CWCB Loan Program as a potential option for financing their portion of the $130 million in WISE infrastructure.

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

Part IV. – Required Supporting Material

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

The water supply source for the WISE Partnership is made up of a mixture of Denver Water and Aurora's water rights divertible from the South Platte River near Brighton utilizing the Aurora's Prairie Waters Project river bank well system. The water rights specifically being used to supply WISE water to South Metro include Denver Water and Aurora's reusable return flows as well as junior South Platte River water rights decreed to Aurora within the past 10 years. Hydrologic modeling performed by Denver Water, Aurora, and a consulting team (Black & Veatch) shows over 100,000 acre-feet is available over a 10-year historical periods between 1949 and 2010. Therefore, in any 10-year period, average delivery rates of 10,000 acre-feet per year are expected with somewhat less in some years and somewhat more in others.

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

The WISE Partnership will be implemented such that it does not require any Federal permitting or significant state permitting (there will be permitting associated with pipeline easements and other rights-of-way issues). This will be accomplished by locating all above ground facilities outside of wetland and listed species areas and utilizing tunnel construction methods to avoid impacts and permit triggers within these areas. The storage of WISE water in Reuter-Hess Reservoir (RHR) will require a modification of the use of storage identified in U.S. Army Corps of Engineers (Corps) permit to Parker Water & Sanitation District for RHR. However, the WISE Partnership can be implemented with or without this permit amendment. In 2001, the Corps issues a Special Public Notice for Consideration of Amendment to Existing Section 404 Permit for RHR and the comment period closed in January 2012. The WISE Participants submitted a response to these comments on June 7, 2012, and submitted additional information in response the Corps questions on April 24, 2013. The Corps is currently reviewing this information and a permit amendment is anticipated by the end of the year.

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

See Attached. Attached is a preliminarily Scope of Work/Budget/Schedule. The SMWSA will go through a competitive bidding process to procure assistance for project management, engineering/design, and construction services for the WISE Partnership. Should the Metro Roundtable and CWCB approve this WSRA grant application, SMWSA will provide a final scope of work prior to contracting with the state for release of the grant funds. This will allow the final scope of work for this grant to be consistent with the other project management, engineering/design, and construction services procured by SMWSA to support the implementation of the WISE Partnership.

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

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

REPORTING AND FINAL DELIVERABLE

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

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

PAYMENT

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

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

Signature of Applicant:

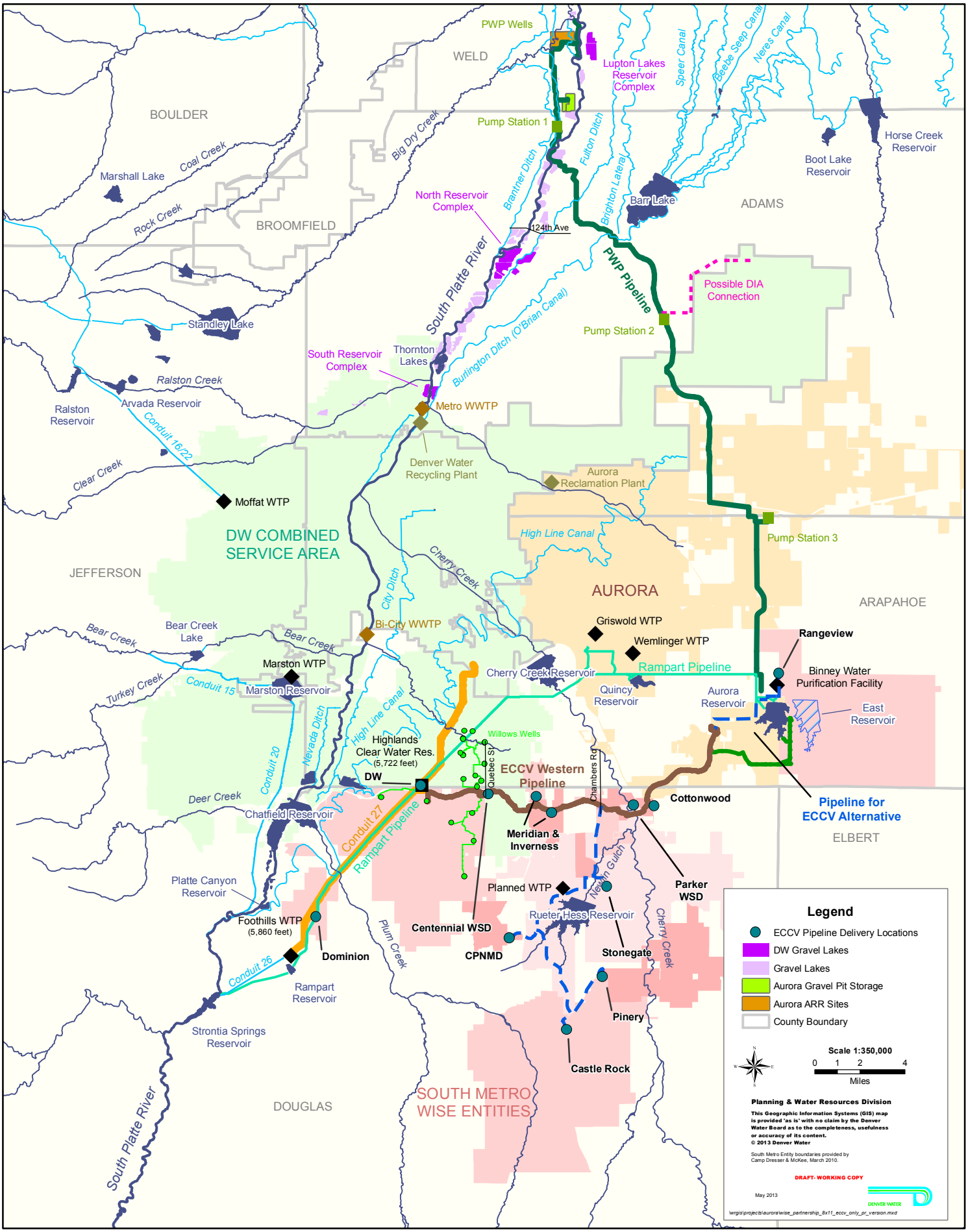
Print Applicant's Name:

Project Title:

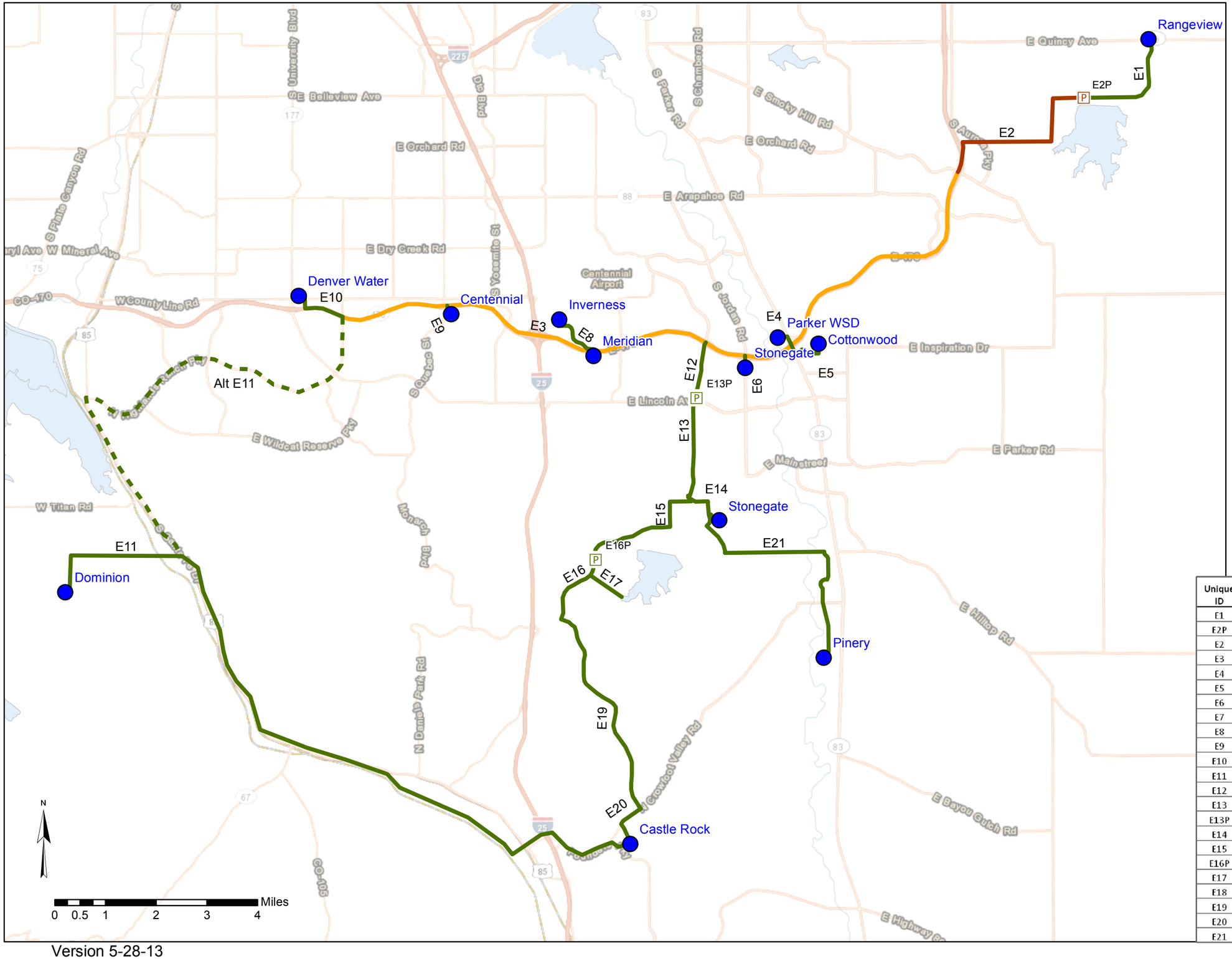
Return an electronic version (hardcopy may also be submitted) of this application to:

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

MAP 1:WISE OVERVIEW



MAP 2 PARTICIPANT DELIVERY LOCATIONS



Legend

- Proposed Delivery Locations

Proposed Pump Stations

- Core
- Local

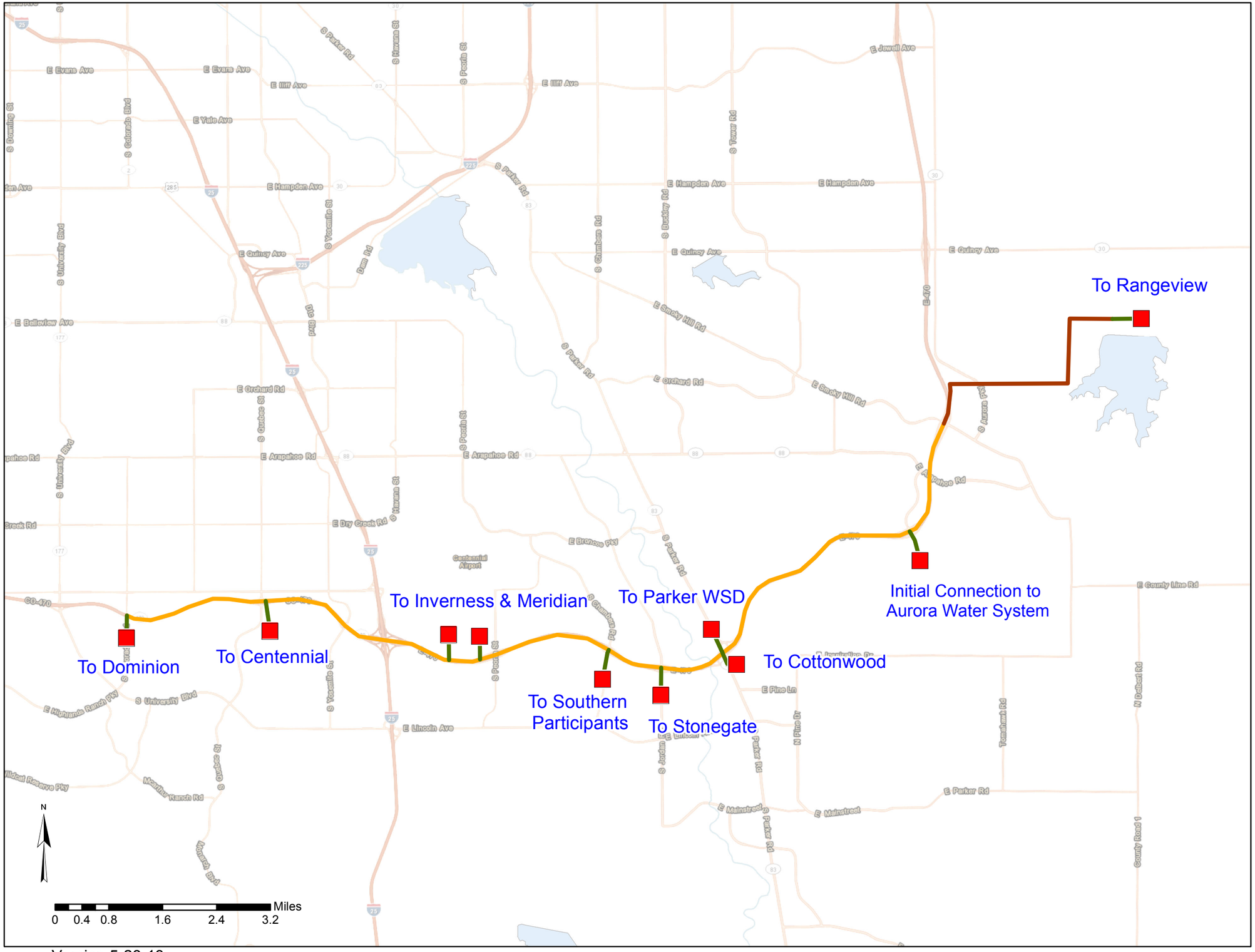
Proposed Pipe Cost Category

- Core
- ECCV (Core)
- Local
- Local (alternate)

Unique ID	Segment Description	Facility Type
E1	BWPF to Rangeview	Local
E2P	PS at BWPF	Core
E2	BWPF to Smoky Hill	Core
E3	ECCV Line Purchase (Placeholder)	ECCV (Core)
E4	ECCV to Parker	Local
E5	ECCV to Cottonwood	Local
E6	ECCV to Stonegate (Lower Zone)	Local
E7	ECCV to Meridian	Local
E8	ECCV to Inverness	Local
E9	ECCV to Centennial	Local
E10	ECCV to Denver Water	Local
E11	Castle Rock to Dominion	Local
E12	ECCV to Lincoln	Local
E13	Lincoln to Tee North of RHR	Local
E13P	Chambers PS	Local
E14	Tee North of RHR to Stonegate(Upper Zone)	Local
E15	Tee North of RHR to PS at RHR	Local
E16P	PS at RHR	Local
E17	PS at RHR to RHR Discharge Structure	Local
E18	CPNMD/CR Wye to CPNMD	Local
E19	CPNMD/CR Wye to Crowfoot Valley Rd	Local
E20	Crowfoot Valley Rd to Castle Rock	Local
E21	Stonegate TO to Pinery	Local

Version 5-28-13

MAP 3
CORE
TURNOUT
LOCATIONS



Legend

- Proposed Turnout Locations

Proposed Pipelines

- Core
- ECCV (Core)
- Local

Version 5-28-13

STATE OF COLORADO

Colorado Water Conservation Board
Department of Natural Resources
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Denver, Colorado 80203
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John W. Hickenlooper
Governor

Mike King
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

CWCB Resolution 2012 In Support of the WISE Partnership

WHEREAS**,** the CWCB identified in the Statewide Water Supply Initiative 2010 a significant need for the development of renewable water supplies in the South Metro Area both for future growth and the replacement of declining nontributary groundwater resources; and

WHEREAS, the Water, Infrastructure, and Supply Efficiency (WISE) Partnership was identified by CWCB and the Metro Basin Roundtable as a project that would help provide needed supplies; and

WHEREAS, the WISE Partnership will also reduce, minimize, and delay the need for further agriculture to urban water rights transfers; and

WHEREAS, the WISE Partnership will also allow Denver Water to have supplies during times of emergency, including drought; and

WHEREAS, the Metro Basin Roundtable unanimously voted to support the WISE Partnership on March 14th, 2012; and

WHEREAS, the fundamental scope of the WISE Partnership is a unique opportunity to achieve greater efficiencies to utilize existing water infrastructure (e.g., Prairie Waters, Rueter Hess, and Denver Water's system) and maximize existing water supplies, while promoting conservation through reuse; and

WHEREAS, the WISE Partnership strives to increase regional cooperation and creativity; and

WHEREAS, a consortium of 13 Metro Area water providers may benefit from the WISE Partnership; and

WHEREAS, the WISE Partnership has broad support from a strong coalition of water users and providers as well as from elected officials, government agencies, non-profit organizations, parties to the Colorado River Cooperative Agreement, and other stakeholders throughout Colorado.

NOW THEREFORE BE IT RESOLVED that the Colorado Water Conservation Board supports the WISE Partnership, which would provide additional water supply to South Metro Water Supply Authority participants of approximately 10,000 acre feet on an average annual basis with potential for additional supplies in the future.

BE IT FURTHER RESOLVED that the Colorado Water Conservation Board strongly encourages the U.S. Army Corps of Engineers to work expeditiously in reviewing and approving the allowance for storage of WISE water in Rueter Hess reservoir, which is necessary for the WISE Partnership to move forward.

CERTIFICATE I certify that the foregoing is a true and correct copy of a resolution adopted by a unanimous vote of the members of the Colorado Water Conservation Board in regular session assembled at Denver, Colorado, on the 21st day of March, 2012, at which a quorum was present.

John McClow, CWCB Board Chair

WISE Partnership Quotes of Support

“I applaud the water providers both big and small for coming together to form this historic partnership. The WISE agreement sets the standard for the type of cooperation needed to meet our water challenges now and in to the future.”

The Honorable Mike Coffman, Colorado House District 6

“Clean, safe and affordable water is vital to our communities and responsible economic growth. I applaud this water infrastructure and supply agreement because we can accomplish more when we work together because we really are in this together.”

The Honorable Ed Perlmutter, Colorado House District 7

"Douglas County commends the dedication and hard work of Denver Water, the City of Aurora, and members of the South Metro Water Supply Authority who are cooperatively addressing the future renewable water needs of Douglas County. We appreciate this regional, sustainable solution that leverages our existing water and infrastructure resources that will deliver permanent, renewable water supplies to Douglas County citizens and taxpayers."

Jill Repella, Douglas County Commissioner and Board Chair

"The Water Wise Partnership is a tremendous step forward for the residents and businesses of Douglas County. It represents the type of collaboration that typifies the southern Metro area and goes a long way toward assuring the sustainability of water supply for the future. I congratulate Denver Water, the City of Aurora, the South Metro Water Supply Authority and all those throughout the state who tirelessly worked together to make this historic pact a reality."

Jim Gunning, Mayor of Lone Tree

“Six of the nine Fortune 500 Headquarters in Colorado are located in the South Metro area. WISE represents the kind of public cooperation that helps support this kind of private sector development which diversifies the economy in the region in turn benefiting the whole State. WISE is part of a modern infrastructure that helps position the region as a national and global center of excellence."

Peter A. Culshaw, Executive Vice President, Shea Properties & Chairman, Denver South Economic Development Partnership

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“We have watched with interest and concern over the past 30+ years the impending crisis of our water supply through the reality of its scarcity, particularly in this semi-arid climate. We have also watched with support and admiration for the efforts of numerous people, stakeholders, and organizations that are pro-active in achieving an equitable and collective solution for so many different stakeholders and differing agendas. We strongly support this plan that maximizes our water resources in a manner that will deliver a more reliable source for the future."

Walter A. (Buz) Koelbel Jr., President, Koelbel and Company

WISE Partnership Quotes of Support

"Over the past forty years that I have lived and practiced in Douglas County, efforts to obtain a reliable long term water supply have become increasing more urgent. The sustained joint effort by the South Metro Water Supply Authority participants to secure an agreement with Denver and Aurora, the regions largest water providers, has culminated in an agreement which I believe to be the very best thing that we in Douglas County can do to secure our long term water future."

Jim Folkestad, Folkestad Fazekas Barrick & Patoile, P.C.

"The WISE Partnership is a big step in how the Front Range can capitalize on its existing water supplies. The use of recaptured water is an important tool to address future growth and help existing communities that are dependent on groundwater. What's especially noteworthy to Western Colorado is that the WISE Partnership will more efficiently deploy water that Denver and Aurora already import from the Colorado River."

Eric Kuhn, General Manager, Colorado River District

"We are encouraged by the spirit of cooperation reflected in the WISE Partnership. Colorado Trout Unlimited is especially pleased at how WISE can help more efficiently use existing water resources - and more efficiency means more water left instream, and that means healthier rivers."

David Nickum, Executive Director, Colorado Trout Unlimited

"The WISE Partnership is a terrific example of how to meet future water demands on the Front Range. We commend the partners for crafting a project that is win-win—one that will make productive use of existing infrastructure, provide safe and clean drinking water, and help keep Colorado rivers healthy."

Drew Beckwith, Water Policy Manager at Western Resource Advocates

"Denver Water, Aurora, and South Metro have constructed a cooperative project that uses existing infrastructure and new system components in an imaginative fashion that, among other things, will allow Denver to capture and use more of its Blue River return flows and to manage its strategic reserve more efficiently for the benefit of its customers and its partners. To me, the WISE Project looks like a model of the future for Front Range urban water suppliers."

Dan Luecke, Hydrologist and Advisor to Colorado Environmental groups such as Western Resource Advocates, Trout Unlimited, Colorado Environmental Coalition and the Crane Trust

Resolutions or Letters of Support:

- Colorado Water Conservation Board (CWCB)
- Metro Roundtable
- Special Districts Association

Exhibit A

Statement of Work

WATER ACTIVITY NAME – Water Infrastructure and Supply Efficiency (WISE) Partnership: Western Pipeline Connection Engineering/Design

GRANT RECIPIENT – South Metro Water Supply Authority (SMWSA)

FUNDING SOURCE – WSRA Metro Basin Account ($157,000) and Statewide Account ($1,413,000)

INTRODUCTION AND BACKGROUND

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

The Water Infrastructure and Supply Efficiency (WISE) Partnership is a regional water supply project between Aurora Water, Denver Water and the South Metro Water Supply Authority (SMWSA) to combine available water supplies and system capacities to create a sustainable new water supply. Through WISE, Aurora Water and Denver Water will provide 7,000 AFY (on average) of fully treated water to South Metro for distribution to its members on a permanent basis. To distribute WISE water to its members, SMWSA is developing the Western Pipeline system including a new pump station at Aurora's Binney Water Purification Facility (BWPF), a new pipeline from this pump station to an existing pipeline currently owned by East Cherry Creek Valley Water & Sanitation District (ECCV), and 45 miles of new pipelines connecting individual WISE participants to the ECCV pipeline. 10 connections will be constructed to deliver water to individual WISE participants. This scope of work is for the engineering and design of the 10 connections necessary to connect each participant to the ECCV western pipeline. Figure 1 provides a breakdown of the WISE System Costs and identifies the connection construction costs and the connection engineering and design costs. The attached budget (Figure 2) provides a further breakdown of the connection engineering and design costs.

OBJECTIVES

1. Identify and evaluate options for locating each of the 10 turnout buildings or valve vaults
2. Perform the surveying, right-of-way evaluation, engineering, geotechnical, hydraulic, instrumentation and control logic, and other analysis necessary for 30%, 50%, and 90% design of the 10 connections.
3. Complete final design of the 10 connections with the detailed surveys, drawings, and plans needed for construction.

TASKS

TASK 1 – Site Study

Description of Task

Task 1 will identify and assess 3 options for locating the turnout building or valve vault for each of the 10 required turnout facilities.

Method/Procedure

10 turnouts are required along the main transmission line. The following will be performed for 10x3 or 30 sites:

- Assess high level space requirements
- Perform high level review of utility conflicts and hydraulics for each site
- Assess property ownership for each site
- Assess approximate property value for each site
- Identify recommended site location for each of the 10 turnouts.

Cost: $210,000. This is based on $7,000 per site (50 hours per site at an average rate of $140/hr) times 30 sites.

Deliverable

1. Technical Memorandum analyzing 3 site options for each of the 10 turnouts
2. Recommended site location for each of the 10 turnouts

TASK 2 – Design Memorandum and 30% Preliminary Design

Description of Task

Based on the recommended site locations for each of the 10 turnouts from Task 1, Task 2 will perform the analysis and produce the plans, document, and drawing necessary for 30% preliminary design of the 10 turnouts.

Method/Procedure

The following will be performed for the 10 recommended turnout site locations from Task 1:

- Survey and right-of-way legal descriptions for all 10 sites. All sites are assumed to be unique, and standard design options are not available.
- Subsurface utility engineering (SUE) - Level C - utility survey for all 10 sites. All sites are assumed to be unique, and standard design options are not available.
- Geotechnical desktop review to investigate all 10 sites (all sites unique, no standard design option).
- Hydraulics for all 10 turnouts. Pressures will vary at all sites and flows will vary for all turnouts. Standard design options are not available.
- Preliminary civil site layout of pipelines to and from valve house. All sites are assumed to be unique, and standard design options are not available.
- Review the benefits of above grade versus below grade structures. If above grade is selected, develop standardized preliminary architectural theme.

- Preliminary structural layout based on selected value house type.
- Layout basic mechanical plan and section to confirm rough required site dimensions. This will be standardized as much as possible.
- Identify each WISE Participant's desired design criteria: pipe material types, value type, instrumentation and control interface. This will require input from and coordination with the 10 Participants.
- Develop preliminary process and instrumentation diagram and control strategy. This will be standardized as much as possible.
- Layout preliminary electrical connections and transformers in coordination with Xcel Power Supply.
- Site visits with each WISE Participant to review draft layouts and make preliminary refinements per request.
- Permitting analysis and punch list.
- Preliminary opinion of probable construction costs.

Cost: $478,000. Includes $80,000 in survey and legal descriptions, $75,000 in geotechnical investigations and reports, $60,000 in subsurface utility engineering and documentation, $50,000 in hydraulic assessments and control strategy documentation, and the remainder in 30% level drawings for all 10 sites.

Deliverable

1. Technical Memorandum detailing the results of the above analysis for each of the 10 turnout sites.
2. Drawings, design sheets, plans and reports necessary for preliminary 30% design of each of the 10 turnout sites.

TASK 3 – 50%, 90%, and Final Design

Description of Task

Task 3 will take the preliminary 30% design of each of the 10 turnout sites from Task 2 to Final Design. Final Design will include all survey sheets, plan sheets, and drawings in sufficient detail to bid and begin construction.

Method/Procedure

The following will be performed for the 10 recommended turnout site locations from Task 1 building on the 30% preliminary design from Task 2:

- Create general Notes to Contractor for each site.
- Create Right-of-Way / Survey Sheets for each site.
- Create detailed Site Plan Sheets for each site.
- Create Civil Site General Details for each site.
- Create Pipeline Plan and Profile drawings for each site.
- Create Structural Drawings for each site.
- Create Mechanical Drawings for each site.
- Create Mechanical General Details for all sites.
- Create Electrical Drawings for each site.

- Create Electrical General Details/Notes for all sites.
- Create Instrumentation and Control Drawings for each site. This will be a mix of standardized and custom for each site
- Create Landscape Drawings for each site. This will be a mix of standardized and custom for each site.

Cost: $882,000. Includes between 75 and 125 drawings, depending on how much can ultimately be standardized versus customized for each site. Also includes full set of required specifications for all material types and controls logic required for the instrumentation and controls equipment. Also includes front end specifications outlining all contractor legal requirements including insurance coverage, liability requirements, and performance requirements.

Deliverable

1. 50% design documents for each site.
2. 90% design documents for each site.
3. Final design documents for each site.

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.

BUDGET

See attached budget (Figure 2).

SCHEDULE

Engineering and design of the 10 connection sites will be completed under the following schedule.

Figure 3: Schedule

Task	Start Date	Finish Date
1	Upon NTP	NTP + 180 days
2	Upon Completion of Task 1	Completion of Task 1 + 180 days
3	Upon Completion of Task 2	Completion of Task 2 + 240 days

NTP = Notice to Proceed

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.

Figure 1: Breakdown of WISE System Costs
Updated: 5-28-13

ID	Description	Size	Length (feet)	Pump Size (HP)	Total Cost	Connection Construction Cost	Connection E&D* Cost
E1	BWPF to Rangeview Connection	12-in	12,017	-	$1,650,000	$1,400,000	$250,000.00
E2P	PS at BWPF	-		1,585	$10,700,000		
E2	BWPF to Smoky Hill	42-in	19,550	-	$11,930,000		
E3	ECCV Pipeline Purchase		78,190	-	$34,000,000		
E4	ECCV to Parker Connection	16-in	1,991	-	$780,000	$580,000	$200,000.00
E5	ECCV to Cottonwood Connection	12-in	4,570	-	$1,175,000	$950,000	$225,000.00
E6	ECCV to Stonegate (Lower Zone) Connection	12-in	1,265	-	$300,000	$200,000	$100,000.00
E7	ECCV to Meridian Connection	8-in	544	-	$210,000	$130,000	$80,000.00
E8	ECCV to Inverness Connection	12-in	5,670	-	$1,000,000	$800,000	$200,000.00
E9	ECCV to Centennial Connection	16-in	1,128	-	$470,000	$295,000	$175,000.00
E10	ECCV to Denver Water	42-in	5,821	-	$3,730,000		
E11a	ECCV Turnout to Dominion Connection	18-in	1,128	-	$420,000	$300,000	$120,000.00
E11b	ECCV Dominion Turnout to Dominion	18-in	70,500	-	$19,930,000		
E12a	ECCV Turnout to Chambers Connection	24-in	1,000		$500,000	$380,000	$120,000.00
E12b	ECCV Clamberers Turnout to Lincoln	24-in	6,080	-	$1,900,000		
E13	Lincoln to Tee North of RHR	24-in	10,860	-	$3,400,000		
E13P	Chambers PS	-		395	$4,740,000		
E14	Tee North of RHR to Stonegate(Upper Zone)	16-in	4,775	-	$950,000		
E15	Tee North of RHR to PS at RHR	24-in	16,566	-	$5,890,000		
E16P	PS at RHR	-		1,728	$11,660,000		
E17	PS at RHR to RHR Discharge Structure	16-in	3,934	-	$780,000		
~~E18~~	~~CPNMD/CR Wye to CPNMD~~	~~0-in~~	~~8,541~~	~~-~~	~~$0~~		
E19	CPNMD/CR Wye to Crowfoot Valley Rd	30-in	23,148	-	$8,600,000		
E20	Crowfoot Valley Rd to Castle Rock	30-in	5,064	-	$1,880,000		
E21	Stonegate TO to Pinery	12-in	27,503	-	$4,090,000		
E22	Connection to AW	42-in		-	350,000	$250,000	$100,000.00
*Engineering and Design Costs					$131,035,000	$5,285,000	$1,570,000

Figure 2: Budget - WISE Connections Engineering and Design

Task 1: Site Study		
Description	*Cost Assumptions*	*Cost*
-Assess high level space requirements.	Identify and assess 3 options for locating each of the 10 turnouts	
- Hhigh level review of utility conflicts and hydraulics for each site.	Perform Task 1 analysis for 10x3=30 sites	
- Assess property ownership for each site.	50 hours per site at an average rate of $140/hr = $7,000 per site	
- Assess approximately property value of each site and begin discussion with property owner.	Total cost is $7,000 x 30 sites = $210,000	
- Identify recommended site location for each of the 10 turnouts.		
Task 1 Total		**$210,000**
Task 2: Design Memorandum and 30% Preliminary Design		
Description	*Cost Assumptions*	*Cost*
- Survey and right-of-way legal descriptions for all 10 sites (all sites unique, no standard design option)	$10,000 per site x 10 sites = $100,000	$100,000
- Subsurface utility engineering (SUE) - Level C - utility survey for all 10 sites (all sites unique, no standard design option)	$4,000 per site x 10 sites = $40,000	$40,000
- Geotechnical desk top review investigate at all 10 sites (all sites unique, no standard design option)	$7,500 per site x 10 sites = $75,000	$75,000
- Hydraulics for all 10 turnouts (pressures vary at all sites and flows vary for all turnouts, no standard design option)	32 hours per site x 10 sites x $150/hr = $48,000	$48,000
- Preliminary civil site layout of pipelines to and from valve house (all sites unique, no standard design option)	40 hours per site engineer x $130/hr average = $52,000	$52,000
- Review of benefits of above grade versus below grade structures. If above grade is selected, standardized preliminary architectural theme developed	80 hours x$150/hr = $12,000	$12,000
- Preliminary structural layout based on selected value house type.	60 hours x $175/hour = $10,000	$10,000
- Layout basic mechanical plan and section to confirm rough required site dimensions. (standardized as much as possible)	100 hours x $150/hr = $15,000	$15,000
- Identify each utilities desired design criteria: pipe material types, value type, instrumentation and control interface (required input from 10 utilities)	20 hours per utility x 10 utilities X $150/hour = $30,000	$30,000
- Develop preliminary process and instrumentation diagram and control strategy (standardized as much as possible)	120 hours x $175 = $21,000	$21,000
- Layout preliminary electrical connections and transformers (Xcel Power Supply Coordination)	$2,500 per site x 10 sites.	$25,000
- Site visits with each utility to review draft layouts and make preliminary refinements per utility request		$25,000
- Permitting analysis and punch list		$10,000
- Preliminary opinion of probable construction costs.		$15,000
Task 2 Total		**$478,000**
Task 3: 50%, 90%, and Final Design		
Description	*Cost Assumptions*	*Cost**
- General Notes to Contractor	3 Sheets	$21,000
- Right-of-Way / Survey Sheets	2 Sheetsper site x 10 sites = 20 sheets	$140,000
- Detailed Site Plan Sheets	2 Sheets per site x 10 sites = 20 sheets	$140,000

- Civil Site General Details	5 sheets (applicable to all sites)	$35,000
- Yard Pipe Plan and Profile	2 Sheets per site x 10 sites = 20 sheets	$140,000
- Structural Drawings	Mix of standardized and custom for each site (10 sheets total)	$70,000
- Mechanical Drawings	1 plan and 1 section per site x 10 sites = 20 sheets	$140,000
- Mechanical General Details:	2 sheets standard for all sites	$14,000
- Electrical Drawings:	1 Sheet per site = 10 sheets	$70,000
- Electrical General Details/notes	1 sheet standard for all sites	$7,000
- Instrumentation and Control Drawings	Mix of standardized and custom for each site (15 sheets total)	$105,000
Task 3 Total		**$882,000**
*Design sheets vary in cost, but typically the average cost of a design set is between $5,000 and $8,000 per sheet, it is estimated that the above design is on average $7,000 per sheet.		
Total		**$1,570,000**