

## Exhibit A

# South Platte Roundtable and Metro Roundtable Basin Implementation Plan Integrated Scope of Work – Phase II BRT Consultant Component – WSRA Grant Application

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### Color Legend:

- **Blue:** Tasks under WSRA Grant Application performed by selected BRT consultant(s).
  - **Black:** Adapted from the Basin Implementation Plan Guidelines using Section nos. from Guidelines
  - **Red:** BRT Responsibilities. These are aimed at meeting the minimum guidance outlined in the Basin Implementation Plan Guidance document
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### Section 4: Projects and Methods

This section is the heart of the Basin Implementation Plans, identifying the projects and methods needed to meet the roundtables' consumptive and nonconsumptive needs. As part of this task, the BRTs should update and refine their list of consumptive and nonconsumptive identified projects and processes. Because every roundtable has a gap above and beyond their IPPs, the BRTs should also identify potential new structural and non-structural solutions to their gaps and shortages. For those BRTs including the optional tasks in Section 3, they should also include an in-basin solution analysis in those optional efforts. Examples of structural solutions include habitat restoration, new storage, enlarged storage, conveyance, direct reuse, and treatment. Examples of nonstructural solutions could include reservoir reoperation, voluntary flow management agreements, instream flow donations, conservation, and reuse by exchange. For those basins that do not conduct the optional tasks in Section 4, the CWCB will assist those BRTs in summarizing potential in-basin solutions based on the qualitative shortage analysis from section 3.4. The CWCB will assist the Roundtables in identifying projects for the major water sectors as well as multi-purpose projects.

The section will include the following subsections

- 4.1 Education, Participation, and Outreach
- 4.2 Watershed Health
- 4.3 New Multi-Purpose, Cooperative, and Regional Projects and Methods
- 4.4 M&I Projects and Methods (i.e. projects, conservation, reuse, drought planning, etc.)

- 4.5 Agricultural Projects & Methods
- 4.6 Nonconsumptive Projects and Methods
- 4.7 Interbasin Projects and Methods
- 4.8 Hydrologic Modeling

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## 4.1 Education, Participation and Outreach

The Metro and South Platte Basin Roundtable Education Liaisons will work with their basins to develop Education Action Plans that reach out to decision makers and potential project proponents. These plans will help the decision makers to understand the status of the basin's consumptive and nonconsumptive needs, planned projects, current river operation and opportunities and constraints associated with different hydrologic cycles.

### **BRT Responsibilities**

**BRT members develop and implement an education action plan**

### **CWCB Responsibilities**

CWCB will provide support to the education liaisons and the BRTs. In addition, CWCB will provide the consensus messages, contact information for decision makers and other support.

### **BRT Consultant Responsibilities**

#### **Task A: Education, Participation, and Outreach**

- **A.1:** Solicit input from stakeholders on water solutions and needs
  - **A.2:** Educate decision makers on water solutions and needs
    - Conduct regional workshops with separate M&I, Agriculture, and nonconsumptive meetings if needed to both educate and receive input
    - Demonstrate commonalities among stakeholders and regions for broader and multi-purpose projects
    - Provide a facilitator for these discussions
    - Identify ways in which stakeholders can participate in the BIP
  - **A.3:** Request input from decision makers on legislation and solutions
  - **A.4:** Identify ways to get public involvement
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## **Section 4.2 Watershed Health**

BRTs should identify watershed protection projects and methods that would protect critical water supplies from being harmed by fire or other hazards or mitigate damages already incurred. Watershed/Wildfire Assessments provide strategies for water providers, land management agencies, local environmental groups, private landowners, state and local governments, local fire authorities, and water users that identify and prioritize the type and specific location of treatments necessary to mitigate the impacts that occur to hydrology in a post-fire environment. The plans provide specific actions needed to protect reservoirs, intakes, water transportation and distribution structures, and other facilities from high-severity wildfires. They identify locations of hazardous fuels and areas prone to post-fire flooding. Fuel treatments are designed to protect water infrastructure. These projects and methods should

be implemented through a collaborative process with the parties described above. Pre-fire mitigation strategies should identify site locations for sediment check structures, contour log felling, sediment catchment basins, constructed alluvial fans, and other treatments designed dissipate flood energy. Monitoring of pre-fire treatments after a fire is critical to determine levels of success. Basin Roundtables should identify existing plans and assessments. Watersheds critical to water supply that do not have plans or assessments already in place should be addressed. In addition, watershed health issues such as water quality degradation and diminishing environmental and recreational qualities in areas where irrigated lands have been dried up are a major concern to the South Platte Basin. The overall Basin Implementation Plan should incorporate both existing work and further investigation into these watershed health issues and potential solutions on an overall basis.

### **BRT Responsibilities**

BRT members will review existing data, and determine if there are additional watersheds that need assessment.

### **CWCB Responsibilities**

CWCB will provide data, maps, assessments, and plans currently in existence.

### **BRT Consultant Responsibilities**

#### **Task B: Critical Community Watershed Health Plans**

- **B.1:** Facilitated meeting to determine where additional Watershed Protection Plans need to be developed
  - **B.2:** Identify critical watershed health issues including degradation of water quality in upper and lower South Platte River as a result of current treatment technology and reduced diversions due to dryup of irrigated lands
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### **Sections 4.3 through 4.7: Multi-Purpose, M&I, Agricultural, Nonconsumptive, and Interbasin Projects and Methods**

The Metro and South Platte Roundtables will identify project and methods that meet their future water supply needs. The initial focus of the basin implementation plans are on in-basin projects, including conservation. One of the goals identified by SWSI and the IBCC is to develop additional multi-purpose, regional, or cooperative projects that meet the needs. The BRTs will assist CWCB in updating the IPP list by reaching out to project proponents in their basin.

### **BRT Responsibilities**

The BRTs will assist CWCB in updating the IPP list by reaching out to project proponents in their basin. For additional projects that may be needed, BRTs will be supported in examining the opportunities and constraints within their basin and going through a decision process to determine which projects and methods should be implemented. They will request to the CWCB the need for any stakeholder meetings to further develop projects and methods.

### **CWCB Responsibilities**

The CWCB will provide existing IPP lists and information. In addition, the CWCB will help host and provide leadership in stakeholder workshops in the basin to further explore which projects and methods could be developed that meet the basin's needs. CWCB will recalculate the gap to assist the consultant.

## **BRT Consultant Responsibilities**

### **Task C: Projects and Methods**

- **C.1:** Facilitated meetings to determine additional projects and methods
  - Regionally and topically based
  - Identify points of integration (i.e. interbasin, consumptive and nonconsumptive)
  - Identify and discuss issues with getting IPPs completed
  - Coordinate stakeholders and project proponents
  - Facilitate constructive discussion to identify any additional projects and methods that are needed to meet consumptive and nonconsumptive goals and measurable outcomes
  - Facilitate constructive dialogue amongst West and East Slopes with leadership and support by Governor, IBCC and CWCB
- **C.2:** Technical support to develop initial outlines of additional projects and methods
  - Include the work to date by nonconsumptive groups
  - Build database for Ag needs, supplies and gaps similar to M&I database
  - Update IPP lists
- **C.3:** Identify Ag and Ag Sharing new and planned projects and methods
  - Facilitate a conversation about ag sharing projects and methods
  - Further develop ag sharing opportunities into a reconnaissance analysis of viable potential projects.
  - Determine next steps to realizing the projects and methods.
- **C.4:** Identify and analyze multi-purpose, regional, and collaborative projects
  - Cross check nonconsumptive, agricultural and M&I IPPs to assist in coordination and possible integration.
  - Identify points of integration (i.e. interbasin, in-basin, consumptive and nonconsumptive)
  - Identify costs associated with making a project multi-purpose
  - Develop a proof of concept / strawman concept jointly with the west slope
  - Provide support to IBCC and CWCB board members on this topic
  - Further develop new M&I or nonconsumptive project and method opportunities into a reconnaissance analysis of viable potential projects that meet the identified goals and measurable outcomes.
- **C.5:** Support to further refine how to achieve conservation recommendations
- **C.6:** Conceptualize projects and methods

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  - Use proof of concept analyses for projects
  - Coordinate with Colorado River basin on interbasin projects
  - Insure that CWCB and IBCC are involved in discussions and coordination

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- **C.7: Identify available funding from participants for multi-purpose projects**
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#### **4.8 Hydrologic Modeling**

The purpose of this task would be to use modeling, such as the CWCB's CDSS, to compare or refine projects and methods. Refinement of a project could be used to optimize operations so that impacts are mitigated or the project can be operated to serve multiple purposes. Modeling can also be used to understand how projects and methods perform under various hydrological scenarios.

This is an analysis that the Metro and South Platte Roundtables desire and could also include a shortage analysis to summarize where municipal and industrial, agricultural and nonconsumptive needs may have shortages under varying hydrology such as dry, average and wet conditions. Recommendations from the East Slope Joint BRT white paper (see Section 5) include identifying the amounts, timing, and locations of east and west slope water supply gap that will remain after construction of planned supply projects.

#### **BRT Responsibilities**

The BRTs would assist the consultant on the desired results of the modeling and provide guidance on modeling assumptions.

#### **CWCB Responsibilities**

CWCB would provide technical support in the use of the SPDSS modeling framework and the IBCC scenarios. In addition, wet, average, and dry hydrologies will be provided as part of SWSI updates.

#### **BRT Consultant Responsibilities**

##### **Task D: Hydrologic Modeling**

- **D.1: Project and Methods Optimization**
  - **D.2: Shortage Analysis**
  - **D.3: Regional drought impacts on project yields**
  - **D.4: Implement a "spread sheet" model to support the above three tasks.**
  - **D.5: Use the spreadsheet model to identify gaps, shortages, and availability for projects and methods identified under Sections 4.3 through 4.7.**
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#### **Section 5: Implementation Strategies for the Projects and Methods**

The Basin Roundtable Implementation Plan will identify water management challenges and opportunities within the Basin and provide a framework for meeting the challenges. **The CWCB will work with the Metro and South Platte BRTs to address their recommendations for the path forward including cross-basin recommendations and collaboration opportunities.**

Section 5 of the Basin Implementation Plan report may include:

- Description of any cross-basin recommendations or needs for additional cooperation
- Description of what is needed to fully implement the projects and methods. This may include:
  - Identifying strategies to ensure public education and acceptance

- Identifying funding mechanisms and strategies for implementing water supply projects and methods
- Additional feasibility analysis and identifying partnerships/sponsors
- Timelines for identified projects and key tasks/milestones

### **BRT Responsibilities**

The BRT will identify which of the following items will become tasks after the BRT defines its priorities and subject to availability of funds.

The South Platte, Arkansas, and Metro Roundtables prepared a draft of a joint statement regarding the filling of the East Slope municipal water supply gap. This draft white paper was reviewed and discussed at the East Slope Joint BRT meeting on July 24, 2013. In addition to the items listed above, it is recommended that the South Platte Basin Implementation Plan give consideration to the recommendations presented in the draft white paper on a number of relevant topics and provide insight as to how the recommendations may be successfully implemented. The recommendations, which will require varying degrees of political and legislative support, are as follows:

- Municipal conservation
  - The selling of only high efficiency plumbing fixtures and appliances in Colorado.
  - High efficiency standards in new residential and commercial development for plumbing fixtures, appliances, and landscaping.
  - High efficiency standards for the resale of residences for plumbing fixtures and irrigation system audits.
  - Coordination of urban land planning and water supply planning.
- Municipal reuse
  - Regional cooperation in the development of reusable supplies.
  - Financing methods for reuse projects.
  - Research, testing, and development of environmentally responsible methods for disposal of large amount of brine needed for potable reuse.
- Planned supply projects
  - Agreement between state and federal agencies that when a supply project fits under the purposes and guidelines of the Colorado Water Plan, the “purpose and need” of a supply project will be met.
  - Streamlining of approval and permitting processes through an interagency coordination process between state and federal agencies.
  - Endorsement and advocacy by all state agencies, once a supply project receives the required state approvals and permits. This includes advocacy in the federal permitting process.
  - A protocol to keep Colorado’s congressional delegation informed of federal agency actions needed for planned supply projects.
- Water sharing with agriculture
  - Continued state funding of practical research and pilot projects for water sharing partnerships between cities and agriculture including alternative water transfer methods (ATMs).

- Investigating possibilities for streamlining the water court and water administration processes for water sharing partnerships that continue to protect vested rights.
- Incentives to encourage water sharing methods without regulatory interference with free market transactions.
- Agricultural conservation easements coupled with municipal water lease options.
- New Colorado River supply
  - Identify the locations and conceptual configurations of state water projects on the Green, Yampa, and Gunnison rivers using SWSI information as a starting point.
  - Identify the amounts, locations, and timing of east and west slope supply gaps that will remain after construction of the planned supply projects.
  - Preserve the option to build projects on the Green, Yampa, and Gunnison rivers including securing water rights and land easements or ownership.
  - Establish a trigger for determining when the project(s) would be needed and establish legislative and financial support for the project.
  - Require an allowance for identified projects in relevant recreational in-channel diversion project and Wild and Scenic process and alternative protection plans.
  - An objective and creative investigation of how to operate Colorado River Storage Project Act (CRSPA) reservoirs in the state to reduce the risk of curtailment under the Colorado River compact and how to operate the reservoirs to help meet the municipal supply gap.
- New East Slope storage
  - Continue state funding of practical research and pilot projects for use of deep aquifer storage and alluvial aquifer storage on the east slope.
  - Political and legislative support for enlargement of existing reservoirs and building off-river storage as outlined in the recommendations for planned supply projects.

## **BRT Consultant Responsibilities**

### **Task E: Implementation Strategies**

- **E.1:** Facilitated meetings to further develop how the recommendations may be implemented
  - **E.2:** Technical support to further develop how the recommendations may be implemented
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## **Section 6: How the Plan Meets the Roundtables' Goals and Measurable Outcomes**

This section describes how the projects and methods identified in the plan meet the gaps and water supply shortages, in relation to the goals and measurable outcomes. This work will be further refined in SWSI as demands are updated, but it provides an initial benchmark to measurably determine how well the plan would meet the basins' needs. This will inform SWSI and the State Water Plan on how we are meeting our municipal, industrial, agricultural, environmental and recreational gaps in a meaningful way.

### **BRT Responsibilities**

The BRTs will work with CWCB to complete this section.

### **CWCB Responsibilities**

The CWCB will provide the initial draft to the Metro and South Platte Roundtables and work with them to further refine this section.

### **BRT Consultant Responsibilities**

#### **Task F: Measurable Evaluation**

- **F.1:** Facilitated meetings to further develop how well the plan meets the measurable outcomes
  - **F.2:** Technical support to further develop how well the plan meets measurable outcomes
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### **Coordination and Reporting**

The contractor will coordinate with the CWCB and its technical team during the duration of this study and will provide a final Basin Implementation Plan report for inclusion in the State Water Plan.

### **BRT Consultant Responsibilities**

#### **Task G: Coordination with CWCB and Technical Team and Reporting**

- **G.1:** Coordination with BRTs, CWCB and technical team
- **G.2:** Prepare final Basin Implementation Plan

<u>Budget/Costs</u>	
Admin	\$2,000
Task A	\$50,000
Task B	\$5,000
Task C	\$100,000
Task D	\$100,000
Task E	\$100,000
Task F	\$25,000
Task G	\$30,000
Total	\$412,000