

## **Statement of Work**

**WATER ACTIVITY NAME** - Appraisal & Feasibility Studies Required for Federal Assistance Under the Rural Water Supply Act in the Douglas County Region.

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

**FUNDING SOURCE** - Metro Roundtable, Water Supply Reserve Account (WSRA), S. Metro Water Supply Authority, DCWRA member agencies, and individual government members.

### **INTRODUCTION AND BACKGROUND**

In 2006 the President signed the Rural Water Supply Act into law. The Bureau of Reclamation has issued a Title I rule for the Act. The Appraisal and Feasibility studies will determine if and how the Rural Water Supply Act may be applied to the Douglas County/S. Arapahoe County areas that are currently dependent upon Denver Basin groundwater. The Act is limited to infrastructure and does not include consideration of water rights. The study will illustrate how to connect communities in the area and include additional rural communities in a regional watershed based water supply effort. If successful, the next step will be construction of connecting infrastructure. Federal assistance in the form of loan guarantees may be included, and is a target of the applicant. The effort will benefit from a planning relationship with the Bureau of Reclamation. The grant funding will be specifically used to complete any studies, public outreach, and consultation activities required by the Bureau of Reclamation in the Appraisal study phase, and primarily or the engineering study, public outreach, and consultation tasks required in the Feasibility study phase. The deliverable is a Federal Feasibility study of a watershed based regional water supply infrastructure project. The next step after Feasibility is the actual construction of the infrastructure project. The needs of the region have been demonstrated by multiple studies, including the South Metro Water Supply Study, SWSI, the South Metro Water Supply Authority Regional Master Plan, and other documents. The studies point to this need being one of the greatest in the State, to both the needs of a growing community as well as the need to replace existing assets for existing residents, that several alternatives have been examined, and that the best direction is to move forward forthwith on shared infrastructure in the region.

## OBJECTIVES

- 1) Move effectively through the Appraisal study phase of the Rural Water Supply Act to the Feasibility study phase.
- 2) Move effectively through the Feasibility study phase to construction.

### Scope of Work

#### Overview of Phases and Tasks of Project

#### Phase One: Preparation for Appraisal Study

##### **Phase One, Task One:** Form IGA, appoint Cooperating Committee

Form intergovernmental agreement (IGA) between Douglas County Water Resource Authority (grant recipient), South Metro Water Supply Authority, and the Rural Water Authority of Douglas County. IGA members shall meet monthly to serve as the Cooperating Committee for the Appraisal phase. Cost of this Task is \$7,500. \$2,000 is for administration (26.6 hours @ \$75 per hour) and \$5,500 is for legal expense (31.4 hours @ \$175 per hour). Duration of the task is six weeks, beginning July 2009, ending August 2009. This task furthers IBCC goals by Promoting Collaboration and Cooperation. This project is an opportunity to bring together large water providers, small water providers, municipalities, County Government, and individual well users to pursue a regional watershed based solution. The IGA represents the legal framework for this collaboration and cooperation. The deliverable is the IGA. It is estimated that local cash and in-kind contribution will fund Tasks 1 through 8.

##### **Phase One, Task Two:** Hire Project Manager, Consulting Engineering Firm

Define scope of work, hire a project manager and an engineering consulting firm. (Environmental consulting and Federal lobbying activities may not be needed at this time in the process.) Cost of this task is \$5,000. All \$5,000 is for administration (26.6 hours @ \$75 per hour). Duration is three weeks, beginning in July 2009 and ending in August 2009. This task furthers IBCC goals by hiring the vendors who will Facilitate Implementation of this planning project, pursue Implementation of the planning project in the Least Amount of Time, provide Expertise and Ability to Implement the planning project, and further Collaboration and Cooperation of participants in the watershed. The deliverable is the contract. Local cash and in-kind contribution will fund Task 2.

##### **Phase One, Task Three:** Review of Draft Appraisal Application by Cooperating Committee

The Cooperating Committee will perform an internal review of the draft Appraisal application for conformity with the Rural Water Supply Act and the Title I rule. Cost of this task is \$7,500. \$1,500 is for the Project Manager (8.5 hours @ \$175 per hour, \$4,000 is for the engineering consultant (17.7 hours @ \$225 per hour), and \$2,000 is for administration ( 26.6 hours @ \$75 per hour). Duration is

three weeks, beginning in July 2009 and ending in July 2009. This review task will allow members of the cooperating committee to uncover any holes we see in our methodology at an early phase in order to make sure our efforts are on target. This review furthers IBCC goals by moving this study project forward in the Least Amount of Time, and enhancing Collaboration and Cooperation in the watershed. The deliverable is the internal review document. Local cash and in-kind contribution will fund Task 3.

#### **Phase One, Task Four:** Reclamation Comparison of Draft to Conform to Federal Regulation

Solicit feedback from Reclamation as to fulfillment of draft with Rural Water Supply Act and the Title I rule requirements. Cost of this task is \$5,000. \$1,000 is for the Project Manager (5.7 hours @ \$175 per hour, \$3,000 is for the engineering consultant (13.3 hours @ \$225 per hour), and \$1,000 is for administration ( 13.3 hours @ \$75 per hour). Duration is 3 weeks, beginning in August 2009 and ending in August 2009. This review task furthers IBCC goals of moving this study project along in the Least Amount of Time by interfacing with Reclamation both to ensure that they understand proposed direction of the scope of the study is in fact on course with Reclamation's study process for this effort, and furthers Collaboration and Cooperation between local entities and Reclamation. The deliverable is the comment from Reclamation. Local cash and in-kind contribution will fund Task 4.

#### **Phase One, Task Five:** Revise Appraisal Draft to Conform to Federal Regulation

Revise draft Appraisal application in wake of feedback from Reclamation. Cost of this task is \$10,000. \$2,000 is for the Project Manager (11.4 hours @ \$175 per hour, \$6,000 is for the engineering consultant (26.6 hours @ \$225 per hour), and \$2,000 is for administration ( 26.6 hours @ \$75 per hour). Duration is 3 weeks, beginning in August 2009 and ending in September 2009. This review task furthers IBCC goals by incorporating Reclamation's Expertise and Ability to Implement this study project early in our efforts. The deliverable is the revised draft. Local cash and in-kind contribution will fund Task 5.

#### **Phase One, Task Six:** Federal Stakeholder Outreach in DC

Conduct Federal Stakeholder outreach, including efforts to meet with House Subcommittee staff on Water & Power, Colorado Congressional delegation members, staff, Interior Secretary Salazar, Reclamation Commissioner Conner, and OMB. Federal authorization for construction, and financial assistance in the way of Federal loan guarantees, will likely be needed at the completion of Phase 3 of this project, so it is appropriate to communicate with the authorizing committees in the Congress to update progress and make them aware of our project and our pending desire for construction and financial assistance. Cost of this task is \$10,000. \$10,000 is for project management (57.1 hours @ \$175 per hour). Duration is one week, beginning in September 2009 and ending in September 2009. This task furthers IBCC goals by Promotion Collaboration and Cooperation between the local water participants, the Roundtable process, and the Federal Government, Communicates the project's Urgency, and the Window of Opportunity that exists to address the region's problems while this task is still readily manageable. These contacts may also be valuable in the consultation process (Task 11). The deliverable is these meetings. Local cash and in-kind contribution will fund Task 6.

### Phase One, Task Seven: Attend Reclamation's Regional Directives & Standards Meeting

Attend regional meeting with Reclamation on directives and standards for program Cost of this task is \$7,500. \$7,500 is for project management (42.8 hours @ \$ 175 per hour). Duration is one week, beginning in 200 and ending in 200. This task furthers IBCC goals by Facilitating Implementation of the project. Directives and Standards will give further detail to interested participants as to how the program will be administered by Reclamation. The deliverable is attendance at the meeting. Local cash and in-kind contribution will fund Task 7.

### Phase One, Task Eight: Formally Submit Appraisal Study Application to Reclamation

Submit Appraisal application to Reclamation Cost of this task is \$7,500. \$2,500 is for project management (14.29 hours @ \$175 per hour, \$2,500 is for consulting engineering (11.1 hours @ \$225 per hour, and \$2,500 is for administration (33.3 hours @ \$75 per hour). Duration is one week, beginning in October 2009 and ending in October 2009. Submission of this application furthers IBCC goals by formally requesting Reclamation's Expertise and Ability to Implement a project that furthers SWSI goals by creating the foundational infrastructure to implement future water supply plans in an area of 325,000 residents, including rural areas, to address the gap identified in SWSI. The deliverable is the application. Local cash and in-kind contribution will fund Task 8.

## Phase 2 - Appraisal Study

### Phase Two, Task Nine: Public Involvement Process

Upon acceptance of Appraisal application by Reclamation, perform public engagement program. Cost of this task is \$22,500. \$22,500 is for administration (300 hours @ \$75 per hour). Duration is ongoing through the process, but will focus intently on the five week period beginning in January 2010 and ending in February 2010. This task furthers IBCC goals by engaging the public in a discussion of the window of opportunity that exists to address the water issues in the region, address part of the SWSI gap, and contribute to the future success of a region of the State that has important economic implications for much of the job growth in the Metro area. The public engagement process can promote a sense of Collaboration and Cooperation in the region to address these issues. The deliverable is holding the public engagement program meetings, as well as the PowerPoints or literature created for the meetings. IBCC grant funding is anticipated to be applied to Tasks 9 through 15. The IBCC grant will fund Task 9.

### Phase Two, Task Ten: Consultation Process

Perform required consultation work with elected officials, state, and Federal agencies. Cost of this task is \$17,500. \$15,000 is for project management (85.7 hours @ \$175 per hour), and \$2,500 is for administration (33.3 hours @ \$75 per hour). Duration is six weeks, beginning in January 2010 and ending in March 2010. This task furthers IBCC goals by promoting Collaboration and Cooperation

amongst State agencies, Federal agencies, and local elected officials. This consultation will Facilitate Implementation of the project in the Least Amount of Time by demonstrating the Urgency of the situation and the Window of Opportunity that exists to address the issue, and show how the inclusion of Reclamation in the project incorporates the Expertise and Ability to Implement a solution, as well as the need for financial assistance that may be met in the form of Federal Loan Guarantees. The deliverable is the consultation meetings. The IBCC grant will fund Task 10.

#### **Phase Two, Task Eleven:** Formally Submit Appraisal Study Document, Request Feasibility

Collate public comment and consultation efforts, assemble with Appraisal draft, submit final study document to Reclamation. (*Further description of the Appraisal tasks is found on page 19 and 20 of this Grant application.*) Cost of this task is \$25,000. \$5,000 is for project management (28.5 hours @ \$175 per hour), \$15,000 is for consulting engineering (66.6 hours @ \$225 per hour), and \$5,000 is for administration (66.6 hours @ \$75 per hour). Duration is three weeks, beginning in May 2010 and ending in May 2010. Submission of this draft furthers IBCC goals by Facilitating Implementation of the project, requesting that the process proceed to the Feasibility phase. The deliverable is the completed submitted Appraisal document. The IBCC grant will fund Task 10.

#### **Phase Two, Task Twelve:** Cure Deficiencies in Appraisal Study

Revision to cure any deficiencies in the Appraisal documentation, make request for Feasibility study with proposed scope of study attached, including intentions with regards to FONSI, EA, or EIS pursuit. (The time and cost of subsequent work during Feasibility depends to a large extent upon this environmental work determination.) Cost of this task is \$40,000. \$5,000 is for Project Management (28.5 hours @ \$175 per hour), \$40,000 is for consulting engineering (177.7 hours @ \$225 per hour), \$10,000 is for Environmental Study (44.4 hours @ \$225 per hour), and \$5,000 is for administration (66.6 hours @ \$75 per hour). Duration is three weeks, beginning in May 2010 and ending in May 2010. This task furthers IBCC goals by Facilitating Implementation of the project study process in the Least Amount of Time possible. The deliverable is the revised Appraisal submission document. The IBCC grant will fund Task 11.

### Phase 3 - Feasibility Study

#### **Phase Three, Task Thirteen:** Hire Project Manager, Identify Sponsor, Hire Consultants

If and when Appraisal study is accepted by Reclamation and permission is given to proceed to the Feasibility study process, the local non-Federal sponsor will be identified, a Project Manager and an engineering consulting firm will be hired for the study. A team of project cooperators will be assembled from the list of consultation effort contacts. Work will also be needed for environmental consulting, and Federal stakeholder outreach activities. Cost of this task is \$25,000. \$20,000 is for outreach (160 hours @ 125 per hour), and \$5,000 is for administration (66.6 hours @ \$75 per hour). Duration is three weeks, beginning in July 2010 and ending in August 2010. This task furthers IBCC goals by Facilitating Implementation of the project and promoting Collaboration and Cooperation. The

deliverable is the contract with the Project Manager and consulting firm. Federal matching funds are anticipated to be applied to Tasks 13 through 17. In Task 13, \$12,000 of the total cost of \$25,000 is Federal matching funds and \$13,000 is IBCC grant funding.

**Phase Three, Task Fourteen:** Supervise Work in Conjunction with Coordinating Committee. This represents the largest task undertaken by this process. **Please see additional detail for this task, attached as an Excel file,** and the following description:

Supervise engineering and consulting work, hold monthly update sessions with Reclamation, consulting engineers, and project cooperators through Feasibility study phase, including permitting. A determination will be made as to how underlying entities will contract to repay constructions costs of the project to the local non-Federal entity who will construct the project, and demonstrate the benefits of Federal loan guarantees. This task will see most of the money and time expended to define exactly what project should be constructed. *(Additional description of this task is found attached as an Excel file.)* Cost of this task is \$1,357,500.00. \$150,000 is for project management (857.1 hours @ \$175 per hour), \$975,000 is for consulting engineering (4,333.33 hours @ \$225 per hour), \$140,000 is for environmental studies (622.2 hours @ \$225 per hour), \$70,000 is for outreach (560 hours @ \$125 per hour) and \$22,500 is for administration (300 hours @ \$75 per hour). Duration is twenty-six weeks, beginning in August 2010 and ending in February 2011. This task furthers IBCC goals by Facilitating Implementation of a study to define the infrastructure that will deliver a regional water solution to address part of the gap detailed in SWSI in the most water short region of the State, as determined by SWSI. The deliverable is the ten topic "chapters" of the Feasibility study, detailed separately, including Purpose and Need, Study Background, Feasibility Study Process, Affected Environment, Alternatives, Evaluation of Alternatives, Comparison of Alternatives, Recommended Plan, and Consultation and Coordination. Of the total cost of \$1,357,500, \$552,000 is IBCC grant funds, \$625,000 is Federal matching funds, and \$180,500 is local match.

**Phase Three, Task Fifteen:** Formally Submit Feasibility Study, Request Construction

Submit Feasibility study to Reclamation. Cost of this task is \$50,000. \$10,000 is for project management (57.1 hours @ \$175 per hour), \$20,000 is for consulting engineering (88.8 hours @ \$225 per hour), \$10,000 is for Environmental Study (44.4 hours @ \$225 per hour), and \$10,000 is for administration (133.3 hours @ \$75 per hour). Duration is three weeks, beginning in February 2011 and ending in March 2011. This task furthers IBCC goals by Facilitating Implementation of the project study process. The deliverable is submission of the study document to Reclamation. Of the total cost of \$50,000, \$5,000 is covered by the IBCC grant, \$5,000 is Federal match, and \$40,000 is local match.

**Phase Three, Task Sixteen:** Cure Deficiencies in Feasibility Study

Cure deficiencies in study to satisfaction of Reclamation. Cost of this task is \$110,000. \$7,500 is for project management (42.8 hours @ \$175 per hour), \$80,000 is for consulting engineering (355.5 hours @ \$225 per hour), \$10,000 is for Environmental Study (44.4 hours @ \$225 per hour), \$5,000 is for Outreach (40 hours @ \$125 per hour), and \$7,500 is for administration (100 hours @ \$75 per hour).



Duration is six weeks, beginning in May 2011 and ending in June 2011. This task furthers IBCC goals by Promoting Collaboration and Cooperation between the local non-Federal sponsor, the Bureau of Reclamation, and Congress. Curing deficiencies will illustrate the need for financial assistance in the form of Federal loan guarantees, and identifies regional opportunities for efficiency, reuse, and water conservation. The deliverable is the revised feasibility document. Of the \$110,000 cost, \$25,000 is Federal match and \$85,000 is Local match.

### **Phase Three, Task Seventeen:** Resubmit Feasibility Study to Reclamation, Request Construction

Resubmit Feasibility study to Reclamation. Perform stakeholder outreach at the local, State, and Federal levels. Cost of this task is \$50,000. \$10,000 is for project management (57.1 hours @ \$175 per hour), \$25,000 is for consulting engineering (111.1 hours @ \$225 per hour), \$5,000 is for Environmental Study (22.2 hours @ \$225 per hour), \$7,500 is for Outreach (60 hours @ \$125 per hour), and \$2,500 is for administration (20 hours @ \$75 per hour). Duration is three weeks, beginning in August 2011 and ending in September 2011. This task furthers IBCC goals by Facilitating Implementation of the process. The deliverable is submission of the study with supporting letters. Of the total cost of \$50,000, \$8,000 is Federal match, and \$42,000 is local match.

### **Phase Three, Task Eighteen:** Reclamation Submits Feasibility Report, with Ask for Construction

Reclamation prepares and submits the Feasibility report to Congress, requesting Congressional authorization for construction of project, including financial assistance in the form of Federal loan guarantees. Cost of this task is \$42,500, and local match funds this task. \$10,000 is for project management (57.1 hours @ \$175 per hour), \$25,000 is for consulting engineering (111.1 hours @ \$225 per hour), \$5,000 is for outreach (40 hours @ \$125 per hour), and \$2,500 is for administration (33.3 hours @ \$75 per hour). While duration is one week, beginning and ending in November 2011, much of the outreach task is ongoing through the process, and culminates at with this submission task. This task furthers IBCC goals by Promoting Collaboration and Cooperation between State agencies, Federal agencies, Congress, the Administration, elected officials, and local water entities. Moving the process to construction Facilitates Implementation of the project. The report will demonstrate the Urgency of the need for the project, and the window of opportunity that exists to address the issues of the region. The report will show how the project can be constructed in the Least Amount of Time, and how the Expertise and Ability to Implement exists within Reclamation and the Cooperating partners. The report will make the case for how matching funds produced this work, with participation from Federal, State, and local interests. The report will outline the Need for Financial Assistance in the construction of the project in the form of Federal Loan Guarantees. The report will show how SWSI objectives are met by creating the infrastructure foundation for implementation of future water supply plans in an area of 325,000 residents, including rural areas where there are no identified plans, to meet future needs and address the gap identified by SWSI in the most water short region of the State. The report will identify opportunities for conservation, efficiency, and reuse. Conservation will not be sacrificed for infrastructure. Conservation is an integral part of a solution, but infrastructure will ultimately be needed. The report will show that Issues of Statewide Importance will be addressed by this project, and that there is a high level of benefit in relation to the amount of funds requested. The cost of the ultimate water supply solution for the

region is pegged at \$3.5 billion, which will be funded by local resident water users in the region. This planning effort complements other CWCB programs because when implemented, instream flows from the reuse components will provide base flows for environmental benefits in Cherry Creek and Plum Creek. There is the potential for future demand for CWCB loans to finance water projects. This efforts supports the State's economic vitality and competitiveness in national and international markets because the S. Metro area is the epicenter of one of the major economic and job creation engines. Reliability of water supply is a critical component of the region's economic success. Is it critical to provide a stable water supply for existing populations. In as much as the region is now inside the traditional planning horizon for water projects, the report and request for construction will show that it is critical that this process move along at this time to the construction phase. The deliverable is the acceptance by Reclamation of the completed Feasibility document. The task of outreach is ongoing.

#### Phase 4 (not part of this effort) - Construction of Project

**Phase Four, Task Nineteen:** Project Construction begins January 2012

Work contemplated under this grant has ended. A successor entity incurs debt, constructs project, and assumes responsibility for repayment of the debt associated with construction of the project identified in the Feasibility report from Reclamation.

### **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**

**Please See Budget Detail, attached to this document**

### **SCHEDULE**

Task	Start Date	Finish Date
1 Enter Appraisal	Upon NTP	NTP + 90 days
2 Complete Appraisal	Upon NTP	NTP + 180 days
3 Enter	Upon NTP	NTP + 180 days



Feasibility		
4 Complete Feasibility	Upon NTP	12/31/11
5 Submit Final Report	NTP + 60 days	2/28/12
NTP = Notice to	Proceed	

## **APPRAISAL STUDY PROCESS - (Phases 1 and 2)**

### Summary

#### Introduction

- Purpose of Study and Scope
- Study Authority
- Setting
- Public Involvement
- Related Studies/Current Studies and Activities

#### Problems and Needs

- Planning Objectives and Constraints

#### Resources and Opportunities

- Existing Conditions
- Inventory and Forecast
  - Surface and Groundwater Supply
  - Surface and Groundwater Quality
  - Land Resources
  - Biological Resources
  - Cultural and Historic Resources

#### Alternatives

- Measures to Address Objectives
- Alternative Formulation
- Description of Alternatives
  - Future-Without-the-Project Condition
  - Alternatives
  - Alternatives Considered, Eliminated from Further Study

#### Potential Effects of the Alternatives

- Evaluation
  - Benefit/Cost Ratio
  - Degree alternative accounts for costs and actions

Degree alternative meets needs, solves problems  
Environmental and social acceptability  
Comparison

Consultation and Coordination  
Public Involvement  
Coordination with Other Agencies

Conclusions and Recommendations  
Risks and Uncertainties  
Recommendations

Appendix 1 - Draft study plan for Feasibility

Appendix 2 - Letter of intent to share costs of Feasibility

**FEASIBILITY Study - Phase 3**  
**(Please see attached Excel file detail of this phase, which carries most of the costs.)**

**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.