

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet**

Applicant: Colorado River Water Conservancy
District or other – pending resolution of Tabor
Issues as discussed below.

Amount Requested: \$300,000.00

Water Activity Name: Colorado, White, and
Yampa River Basins Energy Development Water
Needs Assessment

Source of Funds: Statewide Account

Matching Funds: No

Water Activity Purpose: Study of consumptive water needs associated with energy development in the Colorado, White and Yampa river basins.

County: Multiple – including Rio Blanco, Moffat, Garfield, Mesa

Drainage Basin: Multiple Colorado, White, and Yampa

Water Source: To be determined

Water Activity Summary:

The proposed study will provide a management and analytical framework, a guide, from which the demands can be estimated, supply sources can be identified, and cooperative management arrangements outlined. The study will not provide a detailed analysis of the total energy development demand/supply picture. However, it will provide a general, flexible and adaptive range of demand and supply possibilities from which additional study may be suggested, from which current government or industry studies can be reviewed for adequacy, and from which future technical, legislative, and financial plans can be developed.

“Energy development” includes the following interrelated activities: extraction and development of oil/natural gas, coal, and oil shale; municipal demands resulting from the socio-economic impacts of direct/indirect industry workers and, subsequent, multiplied impacts; electrical generation to serve these extractive industries and supportive municipal infrastructures. It is recognized that energy development has impacts beyond Northwest, Colorado.

A guidance document is needed now for the State, area water supply agencies, and development review agencies to evaluate the regional hydrologic impacts of energy development.

Work to be accomplished:

- Quantify the direct use of water for extraction and development.
- Quantify the additional municipal demand from direct/indirect worker populations and multiplier impacts from resultant growth.
- Quantification of water demands from off-site electrical generation needed for industrial and municipal development.
- Comparison and integration of these demands with recently-developed SWSI demand and supply data.
- Creation of a “demand and supply range matrix” for near, moderate, and long-term development with modest, moderate and full production scenarios.

Discussion:

The proposed study seeks to address important water demand questions facing the Colorado, White, and Yampa River basins. This is an important project and while the Statewide Water Supply Initiative identified future energy related water needs in these basins and estimated future needs under a high demand scenario there was not readily available estimates to provide strong substantiation for these estimates.

The proposed study adds additional details to be inventoried and identified from the literature and interviews from various regulatory and industry representatives. Staff has some concern that without more detailed information from industry representatives and others regarding water use, rate of development and level of development at each stage (i.e., development stage, research and development, scale-up and confirmation, initial commercial production, production growth) the study may have to really heavily on opinion and a broad range of projections with less than desirable substantiation. In addition, the study does not appear to integrate how energy development fits within the “vision of the basins” and how energy development fits with other consumptive (both in basin and between basins) and non-consumptive water needs. The lack of detailed participation by members of other basins that would be significantly affected by large scale production is a staff concern. In addition, in staff’s opinion it would be desirable to have a commitment of both time and money from the energy companies.

While the proposed study does not address several significant points/obstacles the potential impact to Colorado from energy development is enormous and should be future evaluated and analyzed. Staff suggests that this be done in a manner that does not simply layout the enormous demand that could be placed on our water resources without framing this in terms of what is realistic from a regulatory, social, environmental, and political perspective.

Overall the applicant has met several important criteria for funding. While it appears that others could readily conduct the study it is not apparent that there is a willingness to do so. In light of the impact energy development could have there appears to be a compelling urgency to move forward to more fully understand this potential impact.

Issues/Additional Needs:

There is no letter from the Roundtable chair outlining the roundtable review and approval process

There is no detailed budget for the activity.

CWCB will not be able to make direct payments to the contractor on behalf of an applicant.

The scope of work should be further refined and include:

- More information on source and location of water supply including: existing water rights that are currently being leased or used and quantification, estimates of produced water and source, source and location of exiting and new supplies, supply options, assessments of impacts to state wildlife resources both terrestrial and aquatic (especially endanger species considerations), identification of impacts to other natural resources (i.e., air quality etc.) which may affect basin values and future needs.
- There appear to be no justification for utilizing a 350 gallons/day municipal water use value.
- Rate of implementation in light of discussion points. The current scope seems to focus on a maximum development scenario rather than a likely or desired development scenario.

The Bureau of Land Managements Programmatic Environmental Impact Statement process appears to be a viable means to address the concerns and needs identified in this scope of work. The applicant should have done more to describe why this is not appropriate.

Western Colorado Congress has conducted significant work collection some of the information needed to complete this study. The applicant should utilize this information to the extent possible.

A minor point of clarification is that while SWSI stated that mineral demands could increase by 100,000 acre-feet or more the projection that was used for a reasonable high future demand by 2030 for mineral development was 50,000 acre-feet. Both of these numbers are simply a rough estimate due to the lack of specific development plans.

Staff Recommendation:

Staff recommends funding in the amount of \$300,000.00 for the Colorado, White, Yampa energy provided that the following conditions are met.

1. A letter from the roundtable chair needs to be provided outlining the review and approval process.
2. A detailed budget and schedule be provided prior to contracting.
3. Resolution of Tabor issues and identification of a viable entity that has the expertise and ability to successfully implement the study.
4. Address the items in the discussion and issues/additional needs sections.

Staff strongly urges that the final project sponsor include members from other affected basins including the South Platte, Metro, and Arkansas basins which have a vested interest in the study and depletion issues in the Colorado Drainage. Staff urges the final project applicant to seek matching funds from industry representatives to provide a “buy in” to the process.

All products, data and information developed as a result of this grant must be provided to 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 will help promote the development of a common technical platform.