

Applicant & Fiscal Agent:	Box Springs Canal and Reservoir Company						
Water Activity Name:	Agricultural Improvements and Sustainable Water Supply Using Horizontal Wells						
Water Activity Purpose:	Structural Project						
County:	Crowley						
Drainage Basin:	Arkansas						
Water Source:	Horse Creek						
Amount Requested/Source of Funds:	<table border="0"> <tr> <td>\$50,000</td> <td>Arkansas Basin Account</td> </tr> <tr> <td><u>\$150,000</u></td> <td><u>Statewide Account</u></td> </tr> <tr> <td>\$200,000</td> <td>Total Grant Request</td> </tr> </table>	\$50,000	Arkansas Basin Account	<u>\$150,000</u>	<u>Statewide Account</u>	\$200,000	Total Grant Request
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\$200,000	Total Grant Request						
Matching Funds:	<p>Basin Account Match (\$50,000) = 25% of total grant request (meets 5% min); Basin Account & Applicant Match (\$150,000) = 75% of total grant request (meets 25% min); Applicant/3rd Party Match (\$100,000) = 33.3% of total project costs (\$300,000) (refer to <i>Funding Summary/Matching Funds</i> section)</p>						

Staff recommends approval of up to \$50,000 from the Arkansas Basin Account and \$150,000 from the Statewide Account to help fund the project titled: Box Springs Canal and Reservoir Company: Agricultural Improvements and Sustainable Water Supply Using Horizontal Wells.

Water Activity Summary: WSRA funds will be expended to complete agricultural improvements, as well as securing a sustainable water supply for farming practices in the Box Springs Canal and Reservoir Company (BSCRC) area. BSCRC will install horizontal wells to cover the period of irrigation between underground spring flows and flood events to minimize crop stress, maximize yield, and allow for consisting cropping management. This horizontal well technology is relatively new, and has proven successful in other states. This type of well drilling maximizes the ability to extract water from the alluvium with only one point of withdrawal for an entire bank of wells. If pumped at full decree, the wells could produce approximately 900 AF of water per year.

Discussion: These installations will allow for efficient farming practices, increasing production from 240 acres to 350 acres. The BSCRC began these improvements in 2013 and this grant will assist in the final stages of well rehabilitation and the implementation of this horizontal well drilling technology. This project demonstrates new technology associated with irrigation and groundwater management, which could be transferable across the state. Additionally, the project provides environmental benefits for the land as well as wildlife.

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Threshold and Evaluation Criteria: The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

This project has undergone review and evaluation per the Supplemental Scoring Matrix and staff has determined that this request satisfies the Evaluation Criteria. Further analysis of the project, and how the project will meet Tiered Evaluation Criteria, is provided by the applicant in the WSRA Application.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA Arkansas Basin Account	\$50,000	n/a	\$50,000
WSRA Statewide Account	\$150,000	n/a	\$150,000
Box Springs Canal and Reservoir Co	<u>\$100,000</u>	<u>n/a</u>	<u>\$100,000</u>
Total Project Costs	\$300,000	n/a	\$300,000

CWCB Project Manager: Brent Newman

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 will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

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 scope 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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.