Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 13d

Applicant: Colorado Water Innovation Cluster

Water Activity Name: Lake Canal Alternative Agricultural Practices and In-stream Flow Demonstration Project

Water Activity Purpose: Nonstructural Activity

Drainage Basin: South Platte

Water Source: Cache la Poudre/South Platte

Amount Requested: $135,105

Matching Funds: $95,000

Staff Recommendation
Staff recommends approval of up to $135,105 from the Alternative Agricultural Water Transfer Methods Program to help complete the Lake Canal Alternative Agricultural Practices and In-stream Flow Demonstration Project.

Water Activity Summary:
The Colorado Water Innovation Cluster (CWIC) is an organization of public, academic, and private entities with an interest in water resources issues. CWIC was formed in early 2010 with the purpose of leveraging the capabilities of member organizations to collaborate to produce project-driven, innovative solutions to global water issues. CWIC is seeking 501(c)(3) status from the Internal Revenue Service.

This project seeks to provide a demonstration of techniques and technologies useful in addressing the municipal, industrial, and environmental water "gap" identified by the SWSI reports. Willing shareholders of the Lake Canal will implement fallowing, deficit irrigation, and/or other alternative agricultural practices. The saved portion of their direct flow consumptive use will then be leased for in-stream flows in the Cache La Poudre River between the Lake Canal diversion and the Greeley No. 3 diversion, west of Greeley. This transfer will be facilitated by an Interruptible Water Supply Agreement (IWSA) between the Lake Canal Company, The Nature Conservancy, and the Fort Collins Natural Areas program. As specified by the IWSA statutory rules, the term of the agreement will be 10-years with the ability to exercise the option during 3 years of the term. The first option year will be exercised during the 2011 irrigation season, while the second and third years will be at the option of the participants. Lake Canal will accomplish the demonstration using a packaged software/field instrumentation solution, developed by Regenesis Management Group, in concert with research and development agreements with Colorado State University (CSU) and the U.S. Department of Agriculture (USDA).

The project will explore how a package of software and field instrumentation can help in administering and verifying that alternative agricultural practices deliver proportional consumptive use water outside the ditch service area while maintaining return flows to prevent injury. The project seeks to show the technical ability of these systems for planning, transferring, monitoring, and reporting to meet the administrative requirements of the State Engineer's Office and applicable law.

In addition, the project will explore the use of an IWSA. An IWSA is a temporary water transfer mechanism allowable under Colorado Statute (CRS 37-92-309), but which has not been exercised to date (though the Super Ditch has announced an IWSA for a transfer to Aurora in the Lower Arkansas basin).

The IWSA is proposed as an ideal vehicle for the project due to the flexibility of a short duration, administrative approval by the State Engineer's Office, and no required Water Court application. Therefore, though the IWSA mechanism was created for drought recovery, it could be used for a trial period of new technologies without the permanency, high transaction cost, and risk associated with more traditional transfer mechanisms.

Water from the proposed project would be leased to augment in-stream flows in the Cache La Poudre River, demonstrating a viable alternative to CWCB ownership of dedicated water rights. As a partner, the City of Fort Collins recognizes the increasing interest in understanding, evaluating, and augmenting in-stream flows in the Cache La Poudre River.

This project seeks to demonstrate how municipal, environmental, and agricultural interests can partner to address difficult issues, while preserving or enhancing the viability of agriculture. More importantly, this project seeks to serve as a demonstration of the key components necessary to implement new, more complicated forms of water transfers in the future, which will be of statewide benefit.

Discussion:
The proposed project builds upon previously-completed/ongoing CWCB projects including: Lower Arkansas River Rotational-Fallowing (Super Ditch), Parker Water and Sanitation District Lower South Platte Project, and the Colorado Corn Growers Project. Many of these projects have identified alternative agricultural practices which may be considered here, as well as legal and institutional mechanisms to support their application.

Transaction costs have been cited as a hurdle to implementation of these approaches. Though small, this project proposes a limited-transaction cost approach to demonstrating the utility of some of these alternative agricultural practices at low risk to the project participants and third-parties in the basin. This allows the Division Engineer, the State Engineer, Opposers, and potential future users of these technologies to see them enacted in real-time.

This project should inform future efforts with the technical, administrative, and institutional processes that will be tried and established, thus improving the level of certainty for others. Verification and administration issues are directly addressed by the software under development by Regenesis, through support of its research partners (USDA/CSU). This software and the accompanying instrumentation is intended to collect administrative data in near-real time, which should support this and future alternative transfer efforts, while reducing the cost and effort of collecting and analyzing these data. It is envisioned that the software should assist both project proponents and Division Engineer staff in operating and administering these complex transfers, and the utility of this software will be demonstrated as a part of this project.

Issues/Additional Needs: Staff recommends working closely with CWCB's Stream and Lake Protection Section to follow the appropriate procedures for temporary water leases to the CWCB in-stream flow program. This program allows approval of temporary leases for in-stream flows via administrative review by the State Engineer without the need to seek judicial approval.

Staff Recommendation:
Staff recommends approval of up to $135,105 from the Alternative Agricultural Water Transfer Methods Program to help complete the Lake Canal Alternative Agricultural Practices and In-stream Flow Demonstration Project.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.