



COLORADO WATER CONSERVATION BOARD

ALTERNATIVE AGRICULTURAL WATER TRANSFER METHODS ARKANSAS AND SOUTH PLATTE BASINS COMPETITIVE GRANT PROGRAM



GRANT APPLICATION FORM

Alternative Water Transfers in the South Platte Basin using
the Farmers Reservoir and Irrigation Company System

Program/Project Name

River Basin Name

\$225,000

\$25,000 cash
contribution plus
\$50,000 of in-kind
legal analysis

Amount of Funds Requested

Amount of Matching Funds

*** The first deadline for Grant Applications is March 31st for consideration at the May 2008 CWCB meeting. The second deadline for Grant Applications is September 30th for consideration at the November 2008 CWCB meeting. CWCB meetings are posted at www.cwcb.state.co.us and are generally the third week of the month.**

* In completing the application you may attach additional sheets if the form does not provide adequate space. If additional sheets are attached please be sure to reference the section number of the application that you are addressing (i.e., A.1. etc.).

Instructions: This application form must be submitted in electronic format (Microsoft Word or Original PDF). The application can be emailed or a disc can be mailed to the address at the end of the application form. The Alternative Agricultural Water Transfer Methods, Arkansas and South Platte Basins Competitive Grant Program, Criteria and Guidelines can be found at <http://cwcb.state.co.us/IWMD>. **The criteria and guidelines must be reviewed and followed when completing this application.** You may attach additional sheets as necessary to fully answer any question, or to provide additional information that you feel would be helpful in evaluating this application. Include with your application a cover letter summarizing your request for a grant. If you have difficulty with any part of the application, contact Rick Brown of the Intrastate Water Management and Development Section (Colorado Water Conservation Board) for assistance, at (303) 866-3514 or email Rick at rick.brown@state.co.us.

Generally, the applicant is also the prospective owner and sponsor of the proposed program/project. If this is not the case, contact the Rick Brown before completing this application.

Part A. - Description of the Applicant(s) (Program/Project Sponsor)

1.	Applicant Name(s):	Farmers Reservoir and Irrigation Company		
	Mailing address:	80 South 27 th Avenue Brighton, CO		
	Taxpayer ID#:	840200860	Email address:	manuel@farmersres.com
	Phone Numbers: Business:	303-659-7373		
	Cell:	303-944-6761		
	Fax:	303-659-6077		

2. **Person to contact regarding this application if different from above:**

Name:	Manuel Montoya
Position/Title	General Manager

3. **If the Contracting Entity is different then the Applicant, please describe the Contracting Entity here.**

Note: FRICO will be the contracting entity. The FRICO Shareholders have directed the FRICO Board and staff to pursue the development of a master plan for its system. The agricultural Shareholders will commit many hours of their time to this project are as follows:

Alvin Dechant, Dave Dechant, Bill Bailey, Paul Sater, Eric Millage

4. Provide a brief description of your organization.

The Farmers Reservoir and Irrigation Company (FRICO) is a Colorado Corporation, incorporated in 1902. It is operated as a mutual ditch company, diverting and providing water for the benefit of its shareholders, pursuant to C.R.S. Section 7-42-101 et. seq.

FRICO operates a ditch and reservoir system that extends across approximately 3,500 square miles along the Front Range corridor extending from Denver to Kersey, Colorado. The FRICO system presently consists of four major reservoirs, numerous smaller reservoirs, and approximately 400 miles of diversion and delivery canals. FRICO, as a corporate entity, is also the owner of 1,257 out of the 2,111 Burlington Ditch, Reservoir, and Land Company shares allocated for water delivery purposes at or below Barr Lake.

There are 10,000 FRICO shares authorized, 8,054 of which are issued and outstanding. The FRICO system is organized into the four reservoir divisions – Standley Lake and Marshall Lake, which are west of the South Platte River; and Barr Lake and Milton Lake, which are east of the South Platte River. In addition, FRICO operates a municipal division, which is exclusively for providing water to the South Adams County Water and Sanitation District.

There are 2,373 shares issued and outstanding that are allocated for water delivery purposes in the Standley Lake division, 1,273 shares issued and outstanding that are allocated for water delivery purposes in the Marshall Lake division, 2,759 shares issued and outstanding that are allocated for water delivery purposes in the Barr Lake division, and 1,647 shares issued and outstanding that are allocated for water delivery purposes in the Milton Lake division. FRICO shares on the west side of the S. Platte have already been largely changed to M&I use. At this point, about half of FRICO shares are still in agricultural ownership, primarily on the east side of the system, but significant market pressures are mounting to move these shares to M&I ownership. Many producers under the system wish to remain in agriculture but economically feasible alternatives to agricultural dry-up are needed to maintain the productive value of this agricultural land.

FRICO has 33 full-time employees with an annual operating budget of \$3,500,000. The annual budget is funded through income received from several sources including interest on investments, oil and gas revenues, and charges for water and various water development activities.

5. Any relevant Tabor issues relating to the funding request that may affect the Contracting Entity.

FRICO is not subject to any TABOR restrictions.

Part B. - Description of the Alternative Water Transfer Program/Project

1. Purpose of the Program/Project

There are significant pressures to permanently transfer FRICO shares in all of its divisions to M&I use. These pressures will continue to increase and are now being acutely felt in FRICO's divisions east of the South Platte River – the Barr and Milton Divisions. Stricter, more rigid river administration and reservoir winter fill rules and recent legislation on well augmentation requirements are placing additional stresses on Barr and Milton shareholders.

Many Barr and Milton shareholders also have wells and are part of the Central Colorado Water Conservancy

Alternative Agricultural Water Transfer Methods – Grant Application Form

January 2008

District. They have a significant and unfilled need for additional water supplies to augment well pumping.

Many of FRICO's Barr and Milton shareholders desire to continue irrigated agriculture, but are having difficulty reconciling the current returns from irrigated agriculture with the prospect of realizing a higher return on their asset if selling their shares for M&I use.

The overarching objective of this project is to evaluate and illustrate opportunities for FRICO Barr and Milton shareholders to realize economic value from their shares and associated water assets using methods other than a traditional agricultural transfer resulting in permanent dry-up and avoidance of direct and third-party impacts associated with permanent dry-up such as weed and soil management and impacts to the local economy. This objective will be realized through the identification and examination of the various alternative agricultural transfer techniques identified by the SWSI Alternative Agricultural Technical Roundtable and an innovative shared water bank concept that could benefit both agricultural and M&I users without requiring any loss of agricultural irrigated lands or associated economic output. The process will involve active outreach and discussion with both the suppliers – the FRICO Barr and Milton shareholders and the potential customers – the M&I users in the greater Denver metropolitan area of the South Platte Basin. The end result of this process will be a base of both informed customers and suppliers leading to potential agreements under the alternative processes developed in this project. Unlike other proposed schemes, this project will forward the mechanism of water banking to administer, store and market excess M&I and conserved agricultural consumptive use water. In addition, the information developed should have broad transferability elsewhere in Colorado.

FRICO is one of the largest irrigation companies in the state and is also the largest irrigation system closest to Denver metro area. The irrigated lands under the FRICO system have and continue to experience significant urbanization and continued acquisition of shares in all four divisions for transfer to M&I use.

FRICO has a long history of working cooperatively and successfully with M&I users. Some of the relationships it has with M&I users include:

- FRICO and Westminster partnered on the enlargement of Standley Lake in the 1960s.
- FRICO partnered with City of Northglenn in the 1970s on a major alternative agriculture transfer – the FRICO-Northglenn exchange. This program was the recipient of state and national awards.
- The Four Way agreement with the cities of Northglenn, Thornton, and Westminster that led to cooperative arrangements for storage, operations, and canal improvements that led to improved yield and operations for the agricultural shareholders.
- Agreement with Louisville on storage in Marshall Lake.
- Agreement with Lafayette on diversions from South Boulder Creek.
- Agreement with Thornton on the use of the Burlington Canal.
- Agreements with Lochbuie and Brighton on the use of Barr Lake shares and augmentation of Beebe Draw well pumping.
- Agreement with East Cherry Creek Valley and United Water and Sanitation Districts that has led to significantly reducing the South Metro gap identified in SWSI.
- Agreement with South Adams County Water and Sanitation District for the provision of 5,000 AFY of

firm yield that has lead to significantly reducing the metro gap identified in SWSI.

It is important to note a key competitive advantage that makes the use of alternative agricultural transfer techniques feasible for meeting Denver metro area demands. The FRICO system is situated such that it can wheel water to numerous water providers in Adams, Arapahoe, Boulder, Denver, Douglas, Jefferson, and Weld Counties. FRICO infrastructure currently has the capacity to physically provide water to many M&I providers with little or no additional infrastructure. In addition, with the use of exchanges FRICO can provide additional supplies to many other providers in the region.

Another advantage is that FRICO has recently completed a ditch-wide analysis of the Barr Division and is currently adjudicating this change in Water Court. See the attached engineering report for additional information on the FRICO system and the Barr Division ditch-wide change case application. FRICO also has an existing application for a ditch-wide change of the Milton Division and has conducted extensive engineering analyses on water supplies, irrigated acres, cropping, return flows, and water demands in both divisions. FRICO has also developed a groundwater model of the Beebe Draw alluvium. FRICO has invested over \$750,000 in these analyses and model and all are directly relevant to this project. Please see the attached engineering report for additional detail.

2. Study Area/Service Area Description

There are four attached documents prepared by Duane Helton on the Barr Division ditch-wide change of use for Case # 02CW403 and for Milton Division and related shares in Case# 02CW404. These provide detailed descriptions of the FRICO Barr and Milton system and water rights, diversions, crop types, consumptive use, and return flow requirements and timing. The attached maps show the service areas of the four FRICO irrigation divisions and the irrigated acres in the Barr and Milton Divisions.

The socio-economic characteristics of the demand area have been identified in the SWSI Report. The location of new use will be within the Denver Metro, South Metro, and Northern sub-basins as listed in the SWSI Report. These three sub-basins have a projected increase in water demand by 2030 of 374,100 AFY including a gap of 81,200 AFY. As noted, infrastructure exists to use the FRICO system to provide water to providers in these three sub-basins including major gap areas identified in SWSI in Adams, Boulder, Douglas, Jefferson, and Weld Counties including the South Metro Water Supply Authority providers and all existing M&I FRICO shareholders – Westminster, Thornton, Northglenn, Broomfield, Louisville, Lafayette, Erie, Brighton, Lochbuie, and South Adams County WSD.

3. Description of the Alternative Water Transfer Method

The project will evaluate the potential market for and feasibility of a variety of alternatives including rotational fallowing, interruptible supply agreements, lease back agreements, and changes in cropping patterns designed to free up consumptive use for purposes of transfer to M&I users. The project sponsors will meet with and survey FRICO agricultural shareholders to determine the acceptance, conditions and willingness to enter into contracts for the movement of irrigation water to other uses through alternative mechanisms. Municipal water suppliers will be separately surveyed to determine their willingness and acceptance of alternative transfer and the business arrangements they are willing to accept. The project will determine the array and intersection of potential

business arrangements that are acceptable to the parties within the study area and will develop a matrix of transfers opportunities and mechanisms. In addition, an innovative “shared” water bank concept shall be tested to optimize the physical, economic, and administrative structure needed to capture, store, and wheel water to purchasers in the Denver Metro area. Previous attempts at water banking in Colorado have failed due, in part, to inadequate attention being paid to the particular institutional, physical, and social constraints existing in Colorado. Despite this, there are numerous examples of successful water banking efforts throughout the Southwest.

The “shared” water bank concept being explored here would utilize existing FRICO infrastructure and recharge capabilities to capture and store, in wet years, otherwise unused or conserved agricultural and M&I consumptive use. The resulting augmentation credits would then be available to be used by agriculture and M&I users. The bank will be managed and administered by FRICO.

Contrary to previous water bank efforts, the shared water bank concept being explored here will allow for both intra and inter year banking opportunities. The potential for such an opportunity exists due to FRICO’s unique infrastructure and recharge capabilities, as well as existence of a wealth of information about the FRICO system. Engineering studies currently underway to identify consumptive use, recharge capabilities, and the timing of return flows will provide much needed technical information not typically available.

We foresee several benefits accruing to both agricultural and M&I users. Because this arrangement centers on utilizing underground storage to capture unused supplies in wet years, M&I users will be given the opportunity to firm existing supplies without additional investments in infrastructure and without having to permanently transfer additional supplies from current agricultural users. In exchange for facilitating the storage of otherwise unused or conserved water, FRICO shareholders would receive a portion of the credits. Moreover, both FRICO and other agricultural users will benefit in terms of having access to low cost augmentation credits that would otherwise not be available absent this arrangement. Additional environmental benefits, in terms of improved stream flow conditions due to lagged return flows and the creation of wetlands at the recharge and discharge sites, are also likely to result. Finally, water users outside the project area will benefit from the systematic study of the legal, financial, and institutional operations of a water bank. Such an analysis, focused on a specific source of water and specific set of market participants, has not yet been done in Colorado. Additionally, analysis of the potential for capture of conserved agricultural consumptive use under alternative transfer arrangements and distribution via the shared water bank will illuminate further opportunities to wheel water using the FRICO system. This project is necessary to move water banking forward in Colorado as it will provide valuable information on opportunities for water banking and the transactions costs and third party impacts associated with water markets.

4. Program/Project Eligibility

- a) A description of how, if implemented, the proposed program/project will protect property and water rights.

All activities under this program will be conducted within existing decrees and historical return flows will be maintained. Water rights under the shared bank concept will be provided by M&I users. These rights will be already transferred and decreed for consumptive and/or multiple uses. In addition, FRICO will have completed its ditch-wide change of Barr Division and will have quantified consumptive use and return flow obligations for its Barr Division and prepared an analysis of the Milton Division. Any water proposed for alternative transfer arrangements identified in this project will be scrutinized within the context of existing decrees and historical return flow patterns.

- b) Identified group(s) of agricultural users that are or may be willing to transfer a portion of their water and identified entity(s), group(s), or area(s) where the transferred water could or would be put to the new use and a description of the new use.

FRICO shareholders are supportive of analyzing potential arrangements for alternative agricultural water transfers to Front Range M&I providers and agree to work with CDM, CSU and Duane Helton to analyze these opportunities. Water under the shared bank would be provided by M&I users and stored and regulated by FRICO and individual shareholders under terms and agreements with M&I users that would provide for a sharing of water banked. The M&I user receives a yield on water that would not be economical to store and FRICO and individual shareholders receive a portion of the additional yield to increase share allocations or provide for well augmentation credits.

In addition, under the ditch-wide change, Barr (and eventually Milton) shareholders can make water available for use by M&I users under the various transfer techniques identified in this project.

There is existing infrastructure and excess capacity in the Standley, Marshall, and Barr systems to allow direct diversion of FRICO water to M&I users. In addition, water would be diverted by exchange or via augmentation plans to other providers not directly connected to the FRICO system. Providers with existing connections to the FRICO system include:

- Standley Division: Westminster, Thornton, and Northglenn have outlets in FRICO's Standley Reservoir.
- Marshall Division: Louisville, Lafayette, and Broomfield have existing agreements with FRICO and infrastructure to allow water to be diverted to those providers for potable and/or nonpotable use. Erie has infrastructure that could allow diversion of Marshall system water via minor exchanges.
- Barr Division: Thornton and South Adams have diversion structures off of the Burlington-O'Brian Canal. Lochbuie, Brighton, and East Cherry Creek Valley WSD have well fields in the Beebe Draw. ECCV has existing infrastructure in place that can divert and deliver Barr Lake water to eastern Adams County and Arapahoe and Douglas County. Excess capacity in this infrastructure capacity is currently being evaluated for acquisition by SMWSA.

Alternative Agricultural Water Transfer Methods – Grant Application Form

January 2008

- c) The program/project must at a minimum conceptually describe the technical, institutional, and legal elements of the water transfer. Grant monies may be used to address one or more of these elements. If grant monies are not requested for all three elements, the grant applicant must describe how the applicant has or intends to address the elements, which are not included in the grant request, through other efforts.

This project will address the technical, institutional, and legal framework to determine the conditions under which a market will support a water bank in Colorado. The transfers may or may not be permanent in nature. We envision that initially, the transfers will be in a form of augmentation water and augmentation credits which will be brokered and administered by FRICO for the benefit of its shareholders and M&I customers. Other water transfer arrangements via the shared water bank will be analyzed for technical and legal feasibility. Given FRICO's proven ability to work with M&I users, location between urban growth and agricultural lands, and its extensive infrastructure, this system has the greatest potential for successful alternative transfer arrangements. The shared water bank will create the institutional mechanism needed to account for and administer these alternative or non-permanent transfers.

In addition to the water bank, the project will independently analyze the market arrangements that will best work for M&I users and agricultural water rights holders. Lease, fallow, and interruptible supply arrangements may offer the best financial deal for a given municipality or FRICO shareholder. This project will analyze those competitive benefits and determine the optimal arrangement to yield maximum water while maintaining working agricultural lands and attendant environmental benefits.

- d) If grant monies are proposed for use for legal assistance, then the use of those funds shall be oriented toward advancing the knowledge of alternative agricultural water transfer methods and techniques; not for preparation of a specific Water Court case. The total requested funds for legal assistance shall not exceed 40 percent of the total grant request. In addition, grant monies proposed for use for legal assistance must be used to collaboratively address issues and concerns related to agricultural water transfer. Funds shall not be used to solely advance the cause of the project proponents.

FRICO will use its own funding to describe and investigate the legal elements of the alternative transfers and shared water bank. This is an in-kind match of \$50,000 in addition to the \$25,000 cash contribution from FRICO.

- e) A minimum of a 10 percent cash match of total project cost (past expenditures and "in kind" can not be counted toward the 10 percent match).

FRICO will contribute \$25,000 cash in addition to the \$50,000 in-kind match for legal analysis.

5. Program/Project Evaluation Criteria

Please describe how the proposed program/project meets the following evaluation criteria. The criteria are aimed at advancing alternative transfer methods from the literature to actual on the ground projects/programs that provide reliable water supply and sustain key elements of the agricultural area from which the water is transferred. The applicant should fully address and explain in detail how, and the extent to which, the proposed project/program meets each of the criteria. However, it should be noted that the project does not have to meet all

Alternative Agricultural Water Transfer Methods – Grant Application Form
January 2008

of the criteria to be eligible to receive funding.

- a) The proposed project/program has the ability/potential to produce a reliable water supply that can be administered by the State of Colorado, Division of Water Resources.

The capacity of the FRICO system to divert, augment, and retime water can result in minimal losses from evaporation and seepage and other non-beneficial CU resulting in maximizing firm yield.

The FRICO system is the major interface along the metro area/agricultural boundary and has physical interconnections with many Front Range providers. The FRICO system is unique in comparison to other proposed projects in that various providers have physical infrastructure, established relationships and agreements, and interconnects that allow the wheeling of water from the FRICO system to numerous water providers without the construction of expensive new infrastructure. In addition, the project team will work with the Division Engineer to develop transparent and accurate accounting and administration procedures that meet the needs of the Colorado Division of Water Resources.

- b) The proposed project/program produces information that is transferable and transparent to other users and other areas of the state (i.e., would provide an example "template" or roadmap to others wishing to explore alternate transfer methods).

The purpose of Task 7 is to develop synthesis information that will be published and shared with other water organizations across Colorado. In addition, the project will periodically communicate with CWCB staff and the Metro and South Platte Basin Roundtables.

This project is designed to advance the recommendations of the South Platte Task Force to establish water banks in the South Platte Basin.

- c) The proposed project/program addresses key water needs identified in SWSI or as identified in a basin's needs assessment.

The location of potential customers is within the Denver Metro, South Metro, and Northern sub-basins as listed in the SWSI Report. These three sub-basins have a projected increase in water demand by 2030 of 374,100 AFY including a gap of 81,200 AFY. The South Platte Basin is projected to have a decrease in irrigated acres of 133,000 to 226,000 by 2030. The alternative methods identified in this project could reduce the number of irrigated acres lost by 2030 and beyond within the FRICO system and elsewhere by applying the information developed in this project.

- d) The proposed project/program advances the preservation of high value agricultural lands. Value can be viewed as: the value of crops produced, the value the agriculture provides to the local community, and the value the agricultural area provides for open space and wildlife habitat.

Lands currently irrigated under the Barr and Milton system include some of the most valuable agricultural lands in the South Platte Basin. They are under significant market pressure to sell for transfer to M&I use. Weld County is one of the highest producing agricultural counties and is also among the fastest growing counties in the country. The economic base of Weld County has traditionally been highly reliant on the agricultural economy and agriculture remains important to its economic base. In addition, the crop mix in

Alternative Agricultural Water Transfer Methods – Grant Application Form
January 2008

the Barr and Milton system includes some high value crops and the potential for more acreage of high value crops. These lands are in the path of growth and water acquisition and therefore providing opportunities for alternatives to permanent dry-up will help maintain ecological and aesthetic amenities.

- e) The proposed project/program addresses water quality, or provides other environmental benefits to rivers, streams, and wetlands.

Recharge of water under the proposed water banking will result in lagged returns to local surface waters providing for supplemental streamflows and resulting riparian habitat.

- f) The proposed project/program increases our understanding of and quantifies program costs. This could include: institutional, legal, technical, and third party impacts.

The project is specifically designed (see Tasks 1, 2, and 7) to understand the transaction costs associated with specific alternatives to permanent transfer. Deliverables will include a table of willing seller/willing buyer criteria for these alternatives based on actual interviews with potential sellers and buyers. Knowledge provided to sellers and buyers developed through the process of inclusion of all stakeholders within this project provide for informed decisionmaking. Feedback loops from M&I providers and FRICO shareholders will be used throughout the project to continually refine the best array of alternative transfers or business arrangements. The unique aspect of this project is that the simultaneous evaluation of multiple alternatives for a given buyer-seller negotiation will provide actual data on the best combination of economic and administrative arrangements to benefit buyers, sellers, and water administrators.

Task 5 is designed to include input and discussion with the Division Engineer and water commissioners to understand the administrative and third-party issues related to alternative transfer arrangements studied in the project.

- g) The proposed project/program does not adversely affect access to other sources of water (not subject to/participating in the program) where owners of these water rights may wish to pursue traditional transfer of their rights to other users.

Task 6, paid for by the applicant in addition to a cash contribution, will ensure that vested water rights will not be harmed nor will it foreclose opportunities for traditional transfers within the Barr and Milton Divisions.

- h) The proposed project/program provides a perpetual water supply for the new and/or alternate use and preserves agricultural production and/or helps sustain the area's economy from which the transfer is occurring (it should be noted that for this criterion the term perpetual means provides a permanent and reliable source of water that is not subject to future negotiations/terms or conditions to sustain the new use).

The infrastructure to convey water from the FRICO system to numerous M&I providers currently exists, as well as the infrastructure to operate a shared water bank. Significant resources are also present on both sides (supplier and customer). It will never be cost-effective for an M&I user to develop storage to capture every last drop of legally available water. The water banking concept allows the capture and

recharge of water that would otherwise not be economically feasible for an M&I user to capture and carryover for future years. The development of the shared water bank contemplated under this project would capture infrequent excess M&I water supplies that cannot be economically stored by M&I users can be diverted and recharged providing retimed credits available in future years without evaporation or seepage rates experienced with surface water storage. In addition, the shared water bank provides the institutional capacity to wheel water obtained through lease fallow arrangements, interruptible supply contracts and reduced Ag consumptive use. We anticipate that this pilot project will uncover other mechanisms and opportunities for transfers not previously identified that will help maintain irrigated agriculture on high value crop lands.

- i) The quantity of water produced by the proposed project/program. Preference will be given to programs that can address larger water supply needs.

The exact volume of water that might be produced under this program will be determined as part of this effort. Total annual diversions at FRICO's Burlington-O'Brian headworks for all water rights average 104,000 AFY. This canal has a capacity of 950 cfs. Barr Lake has a capacity of 30,000 AF and the Beebe Draw/Box Elder alluvium under the FRICO system has an estimated capacity of 300,000 AF. In addition, Milton Reservoir has a capacity of 26,000 AF and is filled by the Platte Valley Canal with a capacity of 350 cfs. These capacities indicate that there is a significant volume of water that could potentially result from this program.

6. Please provide the proposed scope of work. On the following page there is an example format for the Scope of Work. You can use the example format or your own format, provided that comparable information is included.

The scope of work should outline by task how the proposed program/project will be accomplished. It is important that the scope of work detail the specific steps, activities/procedures that will be followed to accomplish each individual task and the overall program/project and the specific products/deliverables that will be accomplished.

The scope of work must include but not be limited to: task description, key personnel, budget, schedule and deliverables, and the final report/project documentation upon completion of the water activity.

I. Task 1 - Survey of FRICO Barr and Milton Shareholders

Description of Task:

Prepare and complete a survey of FRICO Barr and Milton Shareholders representing potential suppliers of water for the alternative agricultural transfer methods. In addition, the shareholders will be surveyed to determine if they have the interest and physical infrastructure to participate in a shared water bank with M&I users.

Method or Procedure that will be Used or Followed to Accomplish the Task:

Design the survey instrument and the methodology for implementing the survey.

Alternative Agricultural Water Transfer Methods – Grant Application Form

January 2008

Shareholders in Barr and Milton divisions will be interviewed to determine optimal business/financial arrangements and willingness to participate in various alternative agricultural transfer concepts. One joint Barr and Milton shareholder meeting will be held to describe the project and provide feedback from shareholders to the project team and provide an opportunity to fill out the survey. A follow-up mail survey will be sent to Barr and Milton agricultural shareholders.

Identify who will Undertake the Task:

Christopher Goemans and graduate researchers at Colorado State University and the Water Resources Research Institute supported by FRICO staff, CDM, and Duane Helton.

Description of the Major Deliverables/Products that will be Produced upon Successful Completion of the Task:

Survey and written summary of survey results delivered in electronic format.

Task 2 - Survey of M&I Providers

Description of Task:

Prepare and complete a survey of M&I providers in the Denver metro area representing potential customers of water from the alternative agricultural transfer methods identified in the FRICO Barr and Milton shareholder surveys. In addition, the M&I providers will be surveyed to determine if they have the interest and surplus water supplies to participate in a shared water bank with agricultural users.

Method or Procedure that will be Used or Followed to Accomplish the Task:

Design the survey instrument and the methodology for implementing the survey.

Interview and/or survey M&I water providers that represent potential customers for water produced in the Barr and Milton Divisions under alternative agricultural transfer mechanisms as well as those that might have spot surplus water available for a shared water bank. Potential providers include: South Metro Water Supply Authority members, Brighton, Lochbuie, Westminster, Thornton, Northglenn, Denver Water, Aurora, Lafayette, Louisville, Erie, Arvada, Con Mutual, South Adams, Commerce City, Bennett, and Watkins. Phone and onsite visits will be conducted as needed with water resources managers and public works or utilities directors or other water policy makers.

Identify who will Undertake the Task:

CDM supported by Christopher Goemans and graduate researchers at Colorado State University and the Water Resources Research Institute, FRICO staff, and Duane Helton.

Description of the Major Deliverables/Products that will be Produced upon Successful Completion of the Task:

Survey and written summary of survey results delivered in electronic format.

Task 3 – Shared Water Bank Structure

Description of Task:

Analysis will be made of the mechanics of a shared water bank that could provide benefits for FRICO, Barr and Milton shareholders, and M&I providers. The shared water bank will initially take “deposits” of surplus water from M&I users that cannot be efficiently stored by these M&I users. The benefits of any water deposited will accrue to the M&I providers, FRICO and individual shareholders on a negotiated sharing basis. This task will evaluate sharing arrangements based on the results of the surveys in Tasks 1 and 2 and will develop the mechanics of how a shared bank will operate and the likelihood of water deposits based on a historical streamflow analysis. Once the accounting and administrative structure of the shared water bank is established, opportunities to bank and market water obtained through alternative transfer mechanisms will be piloted with willing agricultural shareholders within the FRICO system.

Method or Procedure that will be Used or Followed to Accomplish the Task:

Analysis will be made of water that could be made available on a spot basis by M&I providers based on surveys. Also, an evaluation will be made of the frequency and capacity of various components of the FRICO system that could be made available to capture and recharge surplus M&I water.

Identify who will Undertake the Task:

CDM supported by FRICO staff and Duane Helton.

Description of the Major Deliverables/Products that will be Produced upon Successful Completion of the Task:

Table of surplus water supplies available for banking delivered in electronic format (Excel).

Table summarizing surplus capacities in key FRICO structures under historical conditions delivered in electronic format (Excel).

Task 4 – Engineering Analysis of Alternative Transfer Mechanics

Description of Task:

Engineering analysis will be made of the feasibility and mechanics of alternative agricultural transfer methods that could provide benefits for FRICO, Barr and Milton shareholders, and M&I providers. The various alternative agricultural transfer methods identified by the SWSI Alternative Agricultural Transfer Round Table will be tested, in addition to other concepts developed as a result of the Task 1 and 2 survey results. Engineering reality checks will be made including the volume and location of water potentially made available, physical infrastructure to wheel the water, recharge capacities and underground and surface storage locations and volumes and compliance with Colorado water law to prevent injury to other users.

Method or Procedure that will be Used or Followed to Accomplish the Task:

Building on existing FRICO engineering studies and models an analysis of water that could be made available by Barr and Milton shareholders through alternative transfers and through the recharge of excess M&I supplies. This would include locating recharge sites, underground storage capacity, timing, and location of returns and methods to beneficially use these supplies.

Identify who will Undertake the Task:

CDM supported by FRICO staff and Duane Helton.

Description of the Major Deliverables/Products that will be Produced upon Successful Completion of the Task:

Tables and maps showing volumes of water potentially available, diversion points, recharge sites, and return locations, amounts, and timing and retiming delivered in electronic format (GIS and Excel) and four color oversized paper copies of maps.

Task 5 – Water Administration Challenges

Description of Task:

Consult with the Division Engineer on logistics of administration of proposed alternatives. Meetings will be held with the Division Engineer and other Division of Water Resources staff to discuss and evaluate the administration and water rights issues associated with the alternative agricultural transfer methods and shared water bank remaining after the analysis in Tasks 1 – 4.

Method or Procedure that will be Used or Followed to Accomplish the Task:

An Interview will be held with the Division 1 Engineer to review various alternative transfer methods and shared water bank and challenges and logistics of administration of proposed alternatives. Follow-up interviews with Division 1 staff and the State Engineer will be conducted as needed.

Identify who will Undertake the Task:

Hal Simpson, Duane Helton and CDM supported by Akolt and Akolt and FRICO staff.

Description of the Major Deliverables/Products that will be Produced upon Successful Completion of the Task:

Results will be incorporated in the Task 7 deliverable.

Task 6 – Legal Analysis

Description of Task:

Legal analysis will be made of the implementation issues associated with implementing the viable alternative

Alternative Agricultural Water Transfer Methods – Grant Application Form
January 2008

agricultural transfer methods and shared water bank.

Method or Procedure that will be Used or Followed to Accomplish the Task:

FRICO legal team will analyze requirements to adjudicate the proposed transfers including proposed terms and conditions including protection of vested water rights and administrability. Draft agreements will be prepared if appropriate.

Identify who will Undertake the Task:

Akolt and Akolt, legal counsel for FRICO supported by Duane Helton, CDM and CSU/WRRI.

Description of the Major Deliverables/Products that will be Produced upon Successful Completion of the Task:

Results will be incorporated in Task 7 deliverable.

Task 7 – Summary Report

Description of Task:

Report summarizing project findings.

Method or Procedure that will be Used or Followed to Accomplish the Task:

Using results from surveys, engineering and legal analyses, the potential effectiveness/activity level of various transfer methods will be estimated, as will the specific demographics of FRICO shareholders compared to other agricultural areas in the South Platte and Arkansas basins. An evaluation will be made of opportunities for alternative uses of formerly irrigated land if agricultural transfers are/are not successful; i.e., if land is permanently dried up. This will ensure transferability to other users and basins. The feasibility of a South Platte water bank for administering and marketing water made available through alternative ag transfers will be analyzed within the context of business arrangements deemed acceptable both to M&I providers and agricultural shareholders to determine where the intersection of interests may lie and if a water bank is the optimum mechanism for brokering these deals.

Identify who will Undertake the Task:

Entire project team.

Description of the Major Deliverables/Products that will be Produced upon Successful Completion of the Task:

Final summary report and briefing to CWCB. Report to be delivered in electronic format (PDF) and 20 total paper copies to be distributed between FRICO and CWCB.

II. Personnel

Alternative Agricultural Water Transfer Methods – Grant Application Form
January 2008

See attached project schedule and task budget for a listing of key staff. Resumes of key investigators: DiNatale, Helton, Simpson, and Goemans are attached.

III. Budget

A detailed budget by task, which includes level of effort (hours), and rates. Any unit costs or other direct costs must be specified (i.e., mileage, number of miles, dollars per mile). (For an example budget format – see Attachment 1 at the end of this application.)

If applicable, the budget should also detail the source and amount of matching funds and/or in-kind contributions, if any. If applicable, the budget should also include any other outstanding or previously applied for funding that also supports the water activity:

See attached project schedule and task budget.

IV. Schedule

A detailed project schedule including key milestones and the dates these are expected to be completed.

NOTE: Costs incurred prior to execution of a contract or purchase order are not subject to reimbursement.

Alternative Agricultural Water Transfer Methods – Grant Application Form
January 2008

- 7. Additional Information – If you would like to add any additional pertinent information please feel free to do so here.**

The above statements are true to the best of my knowledge:

Signature of Applicant:

Print Applicant's Name: Manuel Montoya

Project Title: General Manager

Return this application to:

Mr. Rick Brown
Intrastate Water Management and Development Section
COLORADO WATER CONSERVATION BOARD
1580 Logan Street, Suite 600
Denver, CO 80203

To submit applications by Email, send to: rick.brown@state.co.us

Reference Information

The following information is available via the internet. The reference information provides additional detail and background information regarding these criteria and guidelines and water policy issues affecting our state.

Alternative Agricultural Water Transfer Methods, Arkansas and South Platte Basins, Criteria and Guidelines for the Competitive Grant Program - <http://www.cwcb.state.co.us/TWMD/>

Alternative Agricultural Water Transfer Methods – Grant Application Form
January 2008

Statewide Water Supply Initiative –

Phase 2 Report – Provides detailed information on agricultural transfer methods, information on water conservation and efficiency, environmental and recreation needs, and methods and strategies to address Colorado's future water needs -

<http://cwcb.state.co.us/IWMD/SWSITechnicalResources/SWSIPhaseIIReport/>

Phase 1 Report – provides detailed basin by basin information regarding water resources, demographics, land use and resources, current and future needs and supplies -

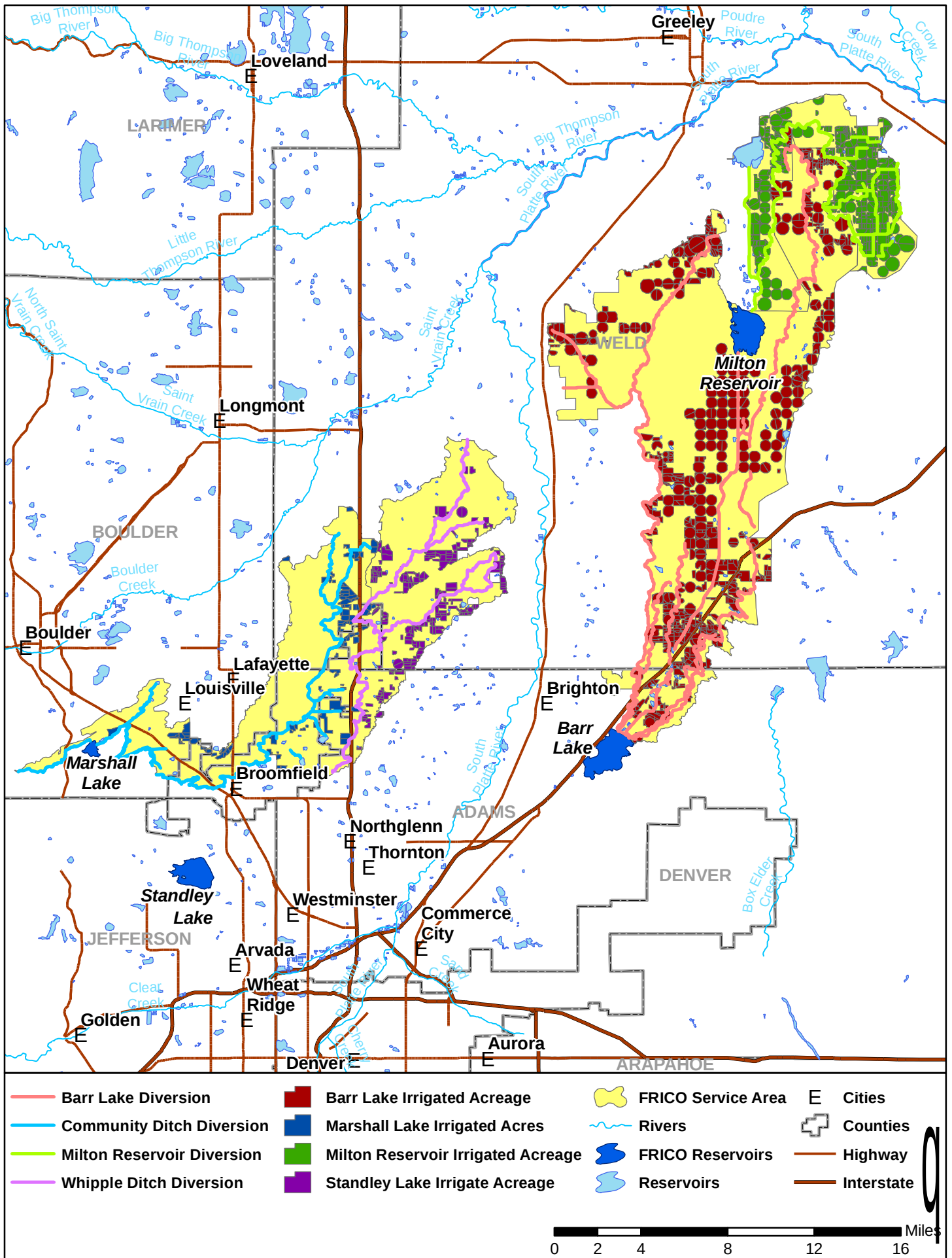
<http://cwcb.state.co.us/IWMD/SWSITechnicalResources/SWSIPhaseIReport/>

Colorado Water Conservation Board Policies

Loan and Grant policies and information are available at - <http://cwcb.state.co.us/Finance/>

Water Supply Reserve Account Criteria and Guidelines –

<http://cwcb.state.co.us/IWMD/RelatedInformation/ToolsResources/>



FRICO Irrigated Acreage by Company Division

Division	Irrigated Acreage by Crop Type									Total
	Grass/Pasture	Sod	Alfalfa	Corn	Sugar Beets	Orchard	Small Grains	Vegetables	Dry Beans	
FRICO/Standley Lake	1,629	24	1,546	790	55	15	907	15	0	4,981
FRICO/Marshall Lake	1,524	0	299	537	0	0	610	69	0	3,039
FRICO/ Barr Lake	3,891	483	16,815	5,503	298	232	1,696	1,210	315	30,444
FRICO/Milton	968	145	6,548	3,494	1,470	0	422	246	120	13,412
Total	8,011	652	25,209	10,324	1,823	247	3,635	1,540	435	51,877

Budget for Alternative Water Transfers in the South Platte Basin using the Farmers Reservoir and Irrigation Company System

	CDM							CSU - Water Resources Research Institute			Hal Simpson	Duane Helton	Subconsultant Total		Akolt and Akolt In-Kind Match			
Tasks	Principal/ Associate	Senior Professional	Professional II	Professional I	Support	Clerical/ Admin		Senior Researcher	Graduate Researcher	CSU/WRRRI Subtotal	Senior Consultant	Senior Consultant			Senior Attorney	Attorney		
	DiNatale, Rehring	McCluskey	Peppler, Bliss	Dimick, Look	Epson, Thompson		CDM	Goemans				Helton		Grant Request Total*	John Akolt III	John C, Akolt	In-Kind Total	Project Total including In-Kind
	\$195	\$140	\$120	\$105	\$85	\$65	SUBTOTAL	\$110	\$30		\$150	\$150			\$200	\$150		
Task 1 - Survey of FRICO Barr and Milton Shareholders	10				20	10	40	100	220	320		20	340	380	20		20	400
Task 2 - Survey of M&I Providers	140		80		20	10	250	40	40	80			80	330			-	330
Task 3 - Shared Water Bank Structure	24	20	80	40	20		184			-	10	40	50	234	20		20	254
Task 4 - Engineering Analysis of Alternative Transfer Mechanics	100	40	140	100	40		420			-	20	120	140	560			-	560
Task 5 - Water Administration Challenges	16					20	36			-	20	10	30	66	20		20	86
Task 6 - Legal Analysis - FRICO In-Kind							-			-			-	-	115	100	215	215
Task 7 - Summary Report	60		80		60	30	230	80	80	160		40	200	430			-	430
Subtotal Hours	350	60	380	140	160	70	1160	220	340	560	50	230	840	2,000	175	100	275	2,275
Subtotal Labor	\$68,250	\$8,400	\$45,600	\$14,700	\$13,600	\$4,550	\$155,100	\$24,200	\$10,200	\$ 34,400	\$7,500	\$34,500	\$76,400	239,140	\$35,000	\$15,000	\$ 50,000	\$ 289,140
Reimbursable Expenses							\$6,020			\$ 3,800	\$150	\$450	\$4,400	\$10,860	\$0	\$0	\$0	\$10,860
Total							\$ 161,120	\$ 24,200	\$ 10,200	\$ 38,200	\$ 7,650	\$ 34,950	\$ 80,800	\$ 250,000	\$ 35,000	\$ 15,000	\$ 50,000	\$ 300,000

* includes 10% subconsultant administration fee

Other Direct Costs							Total
Item:	Copies (Black & White)	Copies (Color)	Materials	Equipment/ Supplies	Mileage		
Units:	No.	No	Lump Sum	Lump Sum	Miles		
Unit Cost:	\$ 0.10	\$ 1.00			\$ 0.505		
Task 1 - Survey of FRICO Barr and Milton Shareholders	1,000	500		3,000	2,513		
Task 2 - Survey of M&I Providers	1,000	500		1,000	1,500		
Task 3 - Shared Water Bank Structure	300	100	500		500		
Task 4 - Engineering Analysis of Alternative Transfer Mechanics	300	100	500		1,200		
Task 5 - Water Administration Challenges					600		
Task 6 - Legal Analysis - FRICO In-Kind							
Task 7 - Summary Report	1,200	1,500			300		
Total Units:	3,800	2,700	1,000	4,000	6,613		
Total Cost:	\$380	\$2,700	\$0	\$4,000	\$3,340		\$10,420

Project Schedule

Alternative Water Transfers in the South Platte Basin using the Farmers Reservoir and Irrigation Company System

[illegible]

(November 4, 1982)

RESOLVED, That the existing By-Laws of THE FARMERS RESERVOIR AND IRRIGATION COMPANY, and all amendments thereto be, and the same are, hereby rescinded and annulled, and that the following be, and the same are, hereby adopted as the By-Laws of THE FARMERS RESERVOIR AND IRRIGATION COMPANY:

SCANNED TO MM BY MH

SEP 15 2005

BY - LAWS

OF

THE FARMERS RESERVOIR AND IRRIGATION COMPANY

* * * * *

ARTICLE I.

Officers

Section 1. The officers of the Company shall consist of a President, a First Vice President, a Second Vice President, a Third Vice President, Secretary and Treasurer. They shall hold office for one year and until their successors are duly elected and qualified.

The offices of any Vice President and Treasurer and of Assistant Secretary and Assistant Treasurer or Secretary and Assistant Treasurer or Treasurer and Assistant Secretary may be held by the same person. The Board of Directors may appoint an Assistant Secretary and an Assistant Treasurer or an Assistant Secretary and a Treasurer. The President shall be selected from the Board of Directors. The other officers of the Company need not be members of the Board of Directors.

Section 2. The President, Vice President, Secretary and Treasurer shall be elected by the Board of Directors at the first meeting of the Board following the annual meeting of the stockholders in each year, a majority of all of the Directors being necessary to a choice. An Assistant Secretary or an Assistant Treasurer or an Assistant Secretary and Treasurer may be appointed by the Board of Directors at any regular or special meeting of the Board.

ARTICLE II.

Duties of Officers

Section 1. The President shall preside at the meetings of the Board of Directors and Stockholders. He shall sign certificates of stock, notes, bonds, agreements, deeds, and other instruments of writing made and entered into by the Company. He may call special meetings of the Board of Directors at such time or times as he may deem necessary. He shall have general charge and supervision of the conduct of the Company's business and shall perform such other duties as are usually incident to the office.

Section 2. In case of the death, disability or absence of the President, the First Vice President shall have and exercise all of the powers and perform all of the duties of the President. In case of the death, disability or absence of the President and the First Vice President, then the Second Vice President shall have and exercise all of the powers and perform all of the duties of the President; and in case of the death, disability or absence of the President, the First Vice President and the Second Vice President, then the Third Vice President shall have and exercise all of the powers and perform all of the duties of the President.

Section 3. The Treasurer shall be custodian of the funds of the Company and shall keep or cause to be kept true and accurate accounts of all receipts and disbursements. He may be required to give bond for the faithful performance of his duties in the discretion of the Board of Directors, and in such amount as it may determine. He shall from time to time deposit the funds of the Company in such banking institutions or depositories as may be designated by the Board of Directors, and whenever requested by the Board of Directors, the Treasurer shall submit a complete statement of his accounts accompanied by vouchers.

Section 4. The Secretary shall keep a record of the meetings of the Board of Directors and Stockholders and such other records as are required to be kept by the Board of Directors. He shall be the custodian of the corporate seal and affix the same to all certificates of stock and to other contracts or documents when such attestation is required or desired. He shall give notice of the meetings of the Stockholders and Directors, and perform such other duties as the Board of Directors or President may require.

Section 5. The Assistant Secretary, if any, shall perform the duties of the Secretary in case of his absence, death, disability, or inability to act. He shall also perform such other duties as the Board of Directors or Secretary may require.

Section 6. The Assistant Treasurer, if any, shall perform the duties of the Treasurer, in case of his absence, death, disability, or inability to act, and shall also perform such other duties as the Board of Directors or Treasurer may require.

Section 7. The officers of the Company shall receive such compensation as may be fixed by the Board of Directors.

ARTICLE III.

Vacancies.

Section 1. All vacancies in the offices and among the Directors of the Company whether occurring by death, disability, resignation or otherwise, may be filled by the Board of Directors at any regular or special meeting. In the event of a vacancy among the Directors of the Company, the successor shall be selected from among the Stockholders of the Company whose stock is allocated to the Division theretofore represented by the deceased or retiring member of the Board.

ARTICLE IV.

Directors - Qualifications -

Meetings - Powers

Section 1. Only persons who are Stockholders of record at the time of election shall be qualified to hold the office of Director of this Company. Proof of qualification to be a Director shall be submitted at the time of nomination and prior to election. The name of the nominee for the directorship appearing on the Stockholder's List prepared by the Secretary of the Company prior to the Stockholders meeting shall conclusively establish qualification. If a Director during his term shall cease to be a Stockholder of this Company, his office as a Director shall become vacant. All Stockholders (including nominees or representatives, i.e., persons having a qualifying share) involved adversely to this Company in litigation pending at the time of election of Directors which involves a change in the use of water as decreed to this Company's canals and reservoirs to any other use inconsistent therewith shall be deemed to have a conflict of interest prejudicial to this Company and therefore ineligible to be elected as a Director.

Section 2. The corporate powers of the Company shall be exercised by the Board of Directors, which shall have general control and supervision over the property, affairs and management of the Company and its officers. It shall pass upon and may require reports from the officers of the Company at any time, and in addition to its general powers, shall have all the specific rights, powers and authority mentioned, conferred or implied in or under the statutes of the State of Colorado, the Articles of Incorporation of the Company, and these By-Laws. The meetings of the Board of Directors shall be held at the office of the Company and may be called at any time by the President or by four (4) Directors upon three (3) days notice by mail or twenty-four (24) hours notice in person or by telephone or telegraph. Four (4) Directors shall constitute a quorum. When all of the Directors shall be present at any meeting, however called or notified, or shall sign a written consent thereto on the records of such meeting, or shall sign an approval of the minutes of any such meeting, all the acts of such meeting shall be valid as if such meeting had been duly and regularly called and held, and each of the Directors actually present at any meeting or who shall sign such written consent to or approval of the minutes of such meeting shall be bound by the acts and proceedings thereof.

ARTICLE V.

Stockholders' Meetings.

Section 1. The annual meeting of the stockholders shall be held at the office of the Company or such other location as may be designated by the Board of Directors during the month of November each year, on a specific date as determined by the Board of Directors within each year, the date to be established in sufficient time to provide sufficient notice.

At the annual meeting seven (7) Directors shall be elected by the Stockholders. The election shall be by ballot and a majority of all the stock issued and outstanding shall constitute a quorum for the transaction of business at any and all meetings of the Stockholders, but a less amount may adjourn the meeting from time to time. At the annual meeting, in addition to the election of Directors, such other business as may come before the meeting will be transacted.

Section 2. A special meeting of the Stockholders may be called at any time by the Board of Directors of the Company and the Board of Directors shall call such special meeting upon the written request of the record owners of one-third (1/3) of the outstanding capital stock. Any such special meeting of the Stockholders shall be held either at the office of the Company or at such other place within any county in which the Company may have property or do business as may be designated in the Notice, and Notice of such special Stockholders' meeting shall be given as required by law with respect to the annual meeting of the Stockholders, unless a different character of Notice is required by statute. No business shall be transacted at any special meeting except that mentioned and referred to in the notice thereof.

Section 3. Stockholders may be represented by proxies at all Stockholders' meetings, which proxies shall be in writing. Cumulative voting shall be permitted at all meetings of the Stockholders.

Section 4. The transfer books of the Company shall be closed ten (10) days before any annual or special meeting of the Stockholders, and only those Stockholders shall be allowed to vote at any such meeting whose names shall appear upon the books of the Company when the books are so closed.

ARTICLE VI.

Stock - Transfer - Allocation

Section 1. Certificates of stock in this Company shall be transferable only upon the books of the Company upon surrender of such certificates properly endorsed, and no transfer of stock shall be made or recognized by this Company unless and until all past due assessments, together with interest thereon, and any other indebtedness due from such Stockholder to the Company have been fully paid. No stock transfer request shall be granted until the same is authorized by the Board of Directors.

Section 1 a. No certificate of stock in this Company shall be issued for a fractional part of a single share nor shall any water be delivered based upon the ownership of a fractional part of a single share. In the event any owner of stock does transfer his stock in a manner which results in a division of such stock among several persons in fractional parts of a single share, the deliveries of water based upon such fractional ownerships shall only be made through a single headgate and only when the total of the calls from such owners of fractional parts is at least equal to the call which would be made if based upon at least one share of stock.

Section 2. For the purpose of equitably pro rating the entire water supply of the Company, the Board of Directors is hereby authorized to divide the ditches, canals, reservoirs or works now or at any time hereafter comprising the irrigation system of the Company into Divisions and to allocate to each of said Divisions a fixed number of shares of stock of the Company. The entire available water supply for each of the Divisions into which the irrigation system of the Company is divided as aforesaid, shall be pro rated among the number of shares allocated thereto and the allocation of said stock and the Divisions of the system to which the same is applicable as first fixed by the Board of Directors, shall not be changed except by affirmative action by the Board of Directors of the Company, assented to by not less than four-fifths (4/5) of all the Directors. No stock allocated and to be supplied from the ditches, reservoirs and works of the Company east of the South Platte River shall be entitled to demand or receive the transfer of any water from any of the Company's existing reservoirs or ditches situated west of the South Platte River.

Section 3. Stock of this Company, upon which water was delivered during the irrigation season of 1921 or prior thereto, shall be deemed allocated to the land upon which and to the Division from which said water was used during the season of 1921, or, if not used during that season, to the land upon which and the Division from which said water was delivered in the last irrigation season prior to 1921, and any stock of this Company upon which no water was delivered during or prior to 1921 shall be deemed allocated to the land upon which and the Division from which it is first used. No stock of the Company shall be transferred for use from the tract of land to which the same is allocated, as aforesaid, without the consent of the Board of Directors of this Company, and in no event shall any stock of this Company be transferred to or entitled to demand water from any Division of the Company's irrigation system, if the total number of shares then allocated to such division is already in use or entitled to demand water from the reservoirs and ditches comprised within such Division.

ARTICLE VII.

Distribution of Water.

Section 1. Each share of stock of this Company shall be entitled to its pro rata share, not exceeding Ten (10) acre feet per annum of the entire water supply available from the particular Division of the system to which said stock may be allocated, subject to these By-Laws and any rules and regulations which the Board of Directors may adopt, and provided any assessment or other indebtedness due from the Stockholder to the Company is not delinquent. Provided, however, this Company shall be under no obligation to deliver water to any Stockholder or lateral in excess of the amount which can be applied to beneficial use, and the management may at any time decline to deliver water if the same is being wasted, or if the management has good reason to believe that the same will be wasted.

Section 2. All water delivered to Stockholders shall be measured at the headgates in the ditches and canals of this Company through which said deliveries are made, but the Company reserves the right to decline to deliver or turn water into any lateral if, in its judgment, the land traversed by such lateral will be unnecessarily damaged, due to the negligent or improper construction, maintenance or operation of such lateral, either because of the absence of necessary drops, flumes, chutes, banks, rip rap, or otherwise, and in no event shall this Company be responsible or liable for the maintenance, operation, repair of or distribution of water from any private laterals connected with the Company's system.

Section 3. In the event the Company is able to deliver during any season more than ten (10) acre feet per share from any Division of the system, such excess water for the current year only may be sold and delivered to Stockholders in the order of their application therefor, for such price and upon such terms as the Board of Directors may prescribe, but any Stockholder so purchasing or receiving such excess water shall not thereby become entitled to any right to purchase excess water in any succeeding year, except as herein provided.

Section 4. The President or the Board of Directors of the Company for purposes of distribution may divide the Company's ditches or any of them into sections and rotate or pro rate the available water carried through said ditch in such manner and at such times as shall seem best calculated to insure to each Stockholder his pro rata share of that part of the Company's water supply available from that particular Division of the system to which said stock may be allocated.

Section 5. No new headgates shall be installed in the Company's ditches or canals without prior approval of the Board of Directors. All headgates in the Company's canals shall be operated and maintained by and under the exclusive control of this Company and no stockholder or any other person shall have the right to interfere with, reconstruct, repair, change or alter, open or close said headgates or any of them in any manner whatsoever.

Section 6. This Company shall not be liable for shortages of water from any cause whatsoever, and shall have the right at all times, when in the judgment of the Board of Directors it may be reasonably necessary, to cease the running and delivery of water, in order to make repairs, changes or alterations, or for any other purpose.

Section 7. No stock of the Company shall be transferred from one tract of land to another without the consent of the Board of Directors, but nothing herein contained shall preclude either the Henrylyn Irrigation District or Chicago Title and Trust Company, as Trustee, in accordance with the Stock Retirement Agreement of September 1, 1921, from selling any Farmers Company stock under any Division of the system if as a result of such sale the total number of shares allocated to such Division is not thereby increased beyond the number of shares allocated thereto at the times of such sale, but any such stock when sold and once applied to the irrigation of a particular tract of land shall not thereafter be transferred to other land without the consent of the Board of Directors of this Company.

Section 8. No water shall be delivered to any Stockholder if said Stockholder is in default in the payment of any assessment or other debt due this Company. All assessments must be paid in cash (except as otherwise provided in said Stock Retirement Contract of September 1, 1921), and this Company shall be under no obligation to accept any warrants from Irrigation Districts in payment of assessments or other debts unless such warrants can be immediately cashed on presentation to the proper County Treasurer.

Section 9. The Board of Directors of the Company reserves the right at any time, either in cases of emergency or otherwise, to adopt such further rules and regulations with respect to the distribution of the Company's water supply as may seem to it advisable.

ARTICLE VIII.

Assessment of Stock.

Section 1. This corporation shall make an assessment on the capital stock annually in such an amount as will raise funds sufficient to keep its ditches, canals, reservoirs and other property in good repair, to pay the costs of maintenance and operation of said system, to pay any indebtedness and all interest thereon, including any amounts to be paid into a sinking fund or otherwise for the retirement of funded or other debts, and for any other necessary corporate purpose. The question of making such assessment shall first be submitted to the Stockholders at the annual meeting, or at a special meeting called for that purpose, and such assessment shall be authorized and made effective by a majority of the stock issued and outstanding, represented either by the owners in person or by proxy and voting thereon, voting in favor of making such assessment, but in case said Stockholders fail to hold any such meeting, or fail to make or authorize by the first of April in any year any such assessment or an assessment in amount sufficient to provide for the repair of its ditches, canals, reservoirs and other property, for the payment of the cost of maintenance and operation of said system and for the payment of any indebtedness and all interest thereon, including any amounts to be paid into a sinking fund or otherwise for the retirement of funded or other debts, and for any other necessary corporate purpose, then the Board of Directors of this Company shall forthwith make an assessment in such amount as may be necessary in order to fulfill the requirements of this section at any regular meeting or at a special meeting called for that purpose. An action may be maintained to recover any assessment against any delinquent shareholder or said delinquent stock may be sold or forfeited for the failure to pay such assessments, as by law and these By-Laws provided, and the Company reserves the right to recover such assessments either by action or sale and forfeiture, or both, and this Company shall have a perpetual lien upon such shares of stock and the water rights represented by the same for any and all such assessments and all parts thereof, until the same are fully paid.

Section 2. All assessments levied or made under the provisions of these By-Laws or the laws of the State of Colorado shall be due and payable at such time or times and in such installments as the Stockholders or Board may determine, or the Stockholders may make the assessment and fix the amount thereof, leaving the time or times of payment and the installments in which the same shall be paid to be determined by the Board of Directors. All such assessments shall be and remain a lien upon each share of stock until the assessment against such share shall be fully paid, and if such assessment or any part thereof shall not be paid when due, interest shall be charged thereon from the date the same becomes due at one (1) per cent, for each and every month or fraction thereof, provided, however, that if any annual assessment or installment thereof shall be paid within fifteen (15) days from the due date thereof as determined by the Board of Directors, no interest shall be charged, but if such payment shall not be made within said fifteen (15) day period, interest at the rate provided above shall be charged from the due date of such assessment or installment thereof, and provided, further, that interest on any delinquent assessment for the month in which the payment thereof shall be made shall not be charged if such payment shall be made on or before the fifteenth (15) day of such month, but if not so paid before the fifteenth (15) day of such month, shall be charged from the beginning of such month, but the right to charge such interest shall not in any manner impair the right to sell and forfeit said delinquent stock as hereinafter provided, or to maintain an action for the recovery of said delinquent assessments and enforce the lien thereof against such delinquent stock.

Section 3. An action may be maintained in the name of this corporation to recover any installment of any assessment which shall remain due and unpaid for the period of twenty (20) days after personal demand therefor, or in case personal demand is not made, within thirty (30) days after a written or printed demand has been deposited in the post office properly addressed to the post office address of such delinquent Stockholder, but such remedy shall be cumulative only and shall not affect or impair the right of this Company to sell and forfeit such delinquent stock as hereinafter provided.

Section 4. All shares of stock upon which any assessment or any installment thereof so made and levied shall not have been fully paid when due shall be considered delinquent, and the Secretary of this Company shall, as soon as conveniently possible after the last installment of such assessment becomes due, make demand upon the delinquent Stockholders so in default for the amount due on all the shares of stock upon which said assessment, together with interest as aforesaid, has not been fully paid, which said demand shall be made either in person or by written or printed Notice and duly mailed to the last known address of each such delinquent Stockholder, at least thirty (30) days prior to the time when said delinquent stock shall be forfeited and sold, which said Notice shall also state the time when and place where such delinquent stock will be sold unless the amount due thereon, including interest and the cost of advertising, is not paid before the time fixed for such sale. The Secretary shall also, as soon as conveniently possible after the last installment of said assessment is due, make a list of all the shares of stock on which the assessments have not been fully paid, together with interest, giving the names of the delinquent Stockholders as shown upon the books of the Company, the numbers of the delinquent certificates, the number of shares and the amount of such assessment remaining unpaid, and shall, if directed by the Board of Directors, have the same advertised by publication at least once each week for four (4) consecutive weeks in a daily or weekly newspaper published in the county wherein the principal office of the Company is located, the first publication thereof to be at least thirty (30) days prior to the date fixed in such Notice for such sale, which said Notice shall also state the time and place at which such shares of stock shall be forfeited and sold unless payment of the amount due thereon shall have been made prior to the time of sale. If the owner or owners of such stock shall fail to pay the amount due upon such shares, together with the accrued interest thereon and the cost of advertising before the time fixed in such Notice for such sale, said delinquent stock shall be forfeited and the Secretary shall proceed to sell at public auction at the time and place designated in said Notice, to the highest bidder for cash in hand, the said delinquent stock, or so many shares of the stock belonging to each such delinquent Stockholder as may be necessary to pay the amount of his delinquent assessments, together with interest and the cost of advertising as aforesaid. If the price for which the necessary share or shares shall be sold shall exceed the amount due with interest and costs of advertising, such excess shall be paid to the delinquent Stockholder, and no sale of delinquent stock shall take place within less than sixty (60) days from the date the assessment was made.

Section 5. The Company may become the purchaser of any stock forfeited and sold as aforesaid for the failure to pay assessments, and if at any such sale there shall be no bids made for such delinquent stock, the Secretary of this Company shall bid the same in the name of the Company for the amount due thereon, including interest and cost of advertising.

Section 6. The remedies herein provided for the collection of such assessments are cumulative and shall be in addition to every other remedy now or hereafter existing or provided by law.

Section 7. Each and every share of the capital stock of the Company, except stock in the treasury of the Company, shall be subject to annual assessments, which said assessments or any other assessments, shall be payable without reference to the quantity of water desired by or deliverable to any Stockholder in any particular season. Water shall not be delivered on any stock of the Company until all assessments thereon and any indebtedness of the holders of said stock to the Company, then due and payable, shall be paid in full, and the failure to pay any such assessments at the time or times and in the manner provided, shall subject such delinquent stock to sale or forfeiture in accordance with the statutes of the State of Colorado and the By-Laws of the Company. No Stockholder shall have any right to any future credit or deduction for the failure to demand or receive any particular quantity of water.

ARTICLE IX.

Seal of the Company.

The seal of the Company shall contain the words "The Farmers Reservoir and Irrigation Company" around the margin of the circle containing the word "SEAL" within the circle.

ARTICLE XI.

By-Laws.

These By-Laws and any rules and regulations from time to time adopted by the Board of Directors of the Company may be altered, revised, amended, supplemented, or repealed at any meeting of the Board of Directors called for that purpose, by a majority vote of the entire Board, provided said amendments or additions are not inconsistent with the laws of the State of Colorado or of the United States or the Articles of Incorporation of the Company or any contractual or other obligations assumed by the Company.

ARTICLE XII.

Procedures

In the event of any parliamentary question at any meetings of the Company, including Board of Directors or Shareholders meetings, the Provisions of Robert's Rules of Order, most recent addition, will apply.

February 20, 1980

Copy of the present Articles of Incorporation after giving effect to the amendments from time to time:

ARTICLES OF INCORPORATION
OF
THE FARMERS RESERVOIR AND IRRIGATION COMPANY

KNOW ALL MEN BY THESE PRESENTS, That we, JOSEPH STANDLEY, MILTON SMITH, and THOMAS B. CROKE, residents of the State of Colorado, have associated ourselves together as a corporation under the name and style of THE FARMERS RESERVOIR AND IRRIGATION COMPANY, for the purpose of becoming a body corporate and politic, under and by virtue of the laws of the State of Colorado, and in accordance with the provisions of the laws of said State, we do hereby make, execute and acknowledge IN TRIPLICATE this certificate in writing of our intention so to become a body corporate under and by virtue of said laws.

FIRST. The corporate name and style of our said corporation shall be THE FARMERS RESERVOIR AND IRRIGATION COMPANY.

SECOND. The objects for which said Company is incorporated are:

(To acquire, construct, maintain and operate a very long list of canals, reservoirs and other property necessary for the purposes of the Irrigation Company, this description covering forty-eight closely written typewritten pages, which we are not copying here, but which we will furnish you if you desire.)

THIRD:

Section 1. The capital stock of said Company shall be divided into Ten Thousand Five Hundred (10,500) shares of the par value of One Hundred (\$100.00) Dollars each and each share of said stock, subject to the provisions of these Articles, shall be of the same class or series and of equal rank and right and shall entitle the holder thereof to an equal pro rata share of the available water supply of the Company, not exceeding Ten (10) acre feet per annum, subject to such rules, regulations and by-laws as may from time to time be adopted and made effective by the Board of Directors of the Company; provided, however, that said Board of Directors shall have the power to administer from time to time any stock of the Company in the treasury of the Company in such manner as in the judgment of said Board shall be for the best interest of the Company.

Section 2. The system of this Company, for purposes of water distribution, shall be and is hereby divided into five divisions to be more particularly defined by the Board of Directors of the Company from time to time as follows:

Division No. 1 - Marshall Lake Division,
which shall include Marshall Lake;

Division No. 2 - Standley Lake Division,
which shall include Standley Lake;

Division No. 3 - Westminster Pipe Line
Division, which shall include Westminster
Pipe Line;

Division No. 4 - Barr Lake Division,
which shall include Barr Lake;

Division No. 5 - Milton Lake Division,
which shall include Milton Lake.

In addition to the works specifically included in each division,
as above stated, the Board of Directors of the Company shall
have the right from time to time to define which other works of
the system shall be included within each division.

Section 3. Subject to change as hereinafter provided,
the Ten Thousand Five Hundred (10,500) shares of the capital
stock of the Company are hereby allocated to and among each of
the divisions of this Company's system and the entire water
supply available for each such division shall hereafter be pro-
rated among the number of shares allocated thereto as follows:

Division No. 1 - Marshall Lake
Division1439 shares,

Division No. 2 - Standley Lake
Division2735 shares,

Division No. 3 - Westminster
Pipe Line Division 164 shares,

Division No. 4 - Barr Lake Division ...4252 shares,

Division No. 5 - Milton Lake
Division1910 shares.

Provided, however, (and also subject to change as hereinafter
provided) that as soon as a ditch by way of cut off shall be
constructed by the Company from the Bull Canal to the Community
Canal, then, forthwith, One Hundred Forty (140) shares of the
stock of the Company, by this section allocated to Marshall Lake
Division, shall thereby and thereupon become allocated to the
Standley Lake Division of the Company's system and thereafter
the entire water supply available for each division of the Com-
pany's system shall be pro-rated among the number of shares
allocated thereto as follows:

Division No. 1 - Marshall Lake
Division1299 shares,

Division No.2 - Standley Lake
Division2875 shares,

Division No. 3 - Westminster
Pipe Line Division 164 shares,

Division No. 4 - Barr Lake Division....4252 shares,

Division No. 5 - Milton Lake
Division1910 shares.

Nothing in these Articles contained shall be construed as limiting
the place of use of water delivered on the stock of this Company.

Section 4. Said allocation of stock of this Company to and among each of the Divisions of this Company's system herein made shall be changed only in the following manner, to-wit:

(a). By unanimous consent of the Board of Directors of the Company,

or,

(b). By the affirmative vote of not less than Sixty (60%) per cent. of the outstanding capital stock of the Company cast at a general or special meeting of the stockholders, the call of either of which shall give notice of such proposed vote; provided, however, that the Board of Directors of the Company may by majority vote thereof permanently or temporarily, from time to time, change and vary the allocation of stock set forth in Section 3 of this Article if by so doing the total stock allocated to any particular division shall not at any time be increased or decreased more than Twenty-five (25) shares from that in said Section 3 stated.

Section 5. Any stock of this Company in the treasury of the Company shall only be sold pursuant to affirmative action of the Board of Directors of the Company assented to by not less than Four-fifths (4/5) of all the Directors.

Section 6. None of the stock of this Company allocated and to be supplied from the ditches, reservoirs and works of this Company situate east of the South Platte River shall be entitled to demand or receive the transfer of any water from existing reservoirs or ditches of the Company situate west of the South Platte River.

Section 7. Each and every share of the capital stock of the Company, except stock in the treasury of the Company, shall be subject to annual assessments, which said assessments or any other assessments shall be payable without reference to the quantity of water desired by or deliverable to any stockholder in any particular season. Water shall not be delivered on any stock of the Company until all assessments thereon and any indebtedness of the holders of said stock to the Company, then due and payable, shall be paid in full, and the failure to pay any such assessments at the time or times and in the manner provided, shall subject such delinquent stock to sale or forfeiture in accordance with the statutes of the State of Colorado and the by-laws of the Company. No stockholder shall have any right to any future credit or deduction for the failure to demand or receive any particular quantity of water.

Section 8. Cumulative voting shall be permitted at all meetings of the stockholders of this Company.

FOURTH: The said Company shall have perpetual existence.

FIFTH: The affairs and management of this corporation are to be under the control of a Board of seven (7) directors.

SIXTH: The principal business of said Company shall be carried on within the Counties of Adams, Arapahoe, City and County of Denver, Jefferson, Boulder, Gilpin, Grand, Park and Weld, in the State of Colorado, and the principal office and place of business of the Company shall be kept in the City of

Denver and State of Colorado.

SEVENTH: The Board of Directors of said Company shall have power to make such prudential by-laws as they may deem proper for the management of the affairs of the Company, and to change, alter, amend, modify or annul the same at pleasure, provided said by-laws are not inconsistent with the laws of the State of Colorado, or of the United States of America.

**ARTICLES OF AMENDMENT TO
ARTICLES OF INCORPORATION (PROFIT) Form 002**

Filing fee: **\$25.00** revised 12/28/2001

Deliver 2 copies to: Colorado Secretary of State

Business Division

1560 Broadway, Suite 200

Denver, CO 80202-5169

This document must be typed or machine printed

Please include a self-address envelope

ABOVE SPACE FOR OFFICE
USE ONLY

The undersigned corporation, pursuant to § 7-110-106, Colorado Revised Statutes (C.R.S.), delivers these Articles of Amendment to its Articles of Incorporation to the Colorado Secretary of State for filing, and states as follows:

1. The name of the corporation is: **THE FARMERS RESERVOIR AND IRRIGATION COMPANY.**
2. The date the following amendment(s) to the Articles of Incorporation was adopted:
NOVEMBER 13, 2001
3. The text of each amendment adopted:

That Article Third of the Articles of Incorporation be and hereby are amended to read, in their entirety, as follows:

Section 1. The capital stock of said Company shall be divided into Ten Thousand Five Hundred (10,500) shares of the par value of One Hundred (\$100.00) Dollars each, and each share of said stock, subject to the provisions of these Articles shall be of the same class or series and of equal rank and right. Each share shall entitle the holder thereof to an equal pro rata share of the available water supply of the company within each division as provided herein, subject to such rules, regulations and by-laws as may from time to time be adopted and made effective by the Board of Directors of the Company. The Board of Directors shall have the power, from time to time, to administer any stock of the Company in the treasury of the Company in such manner as in the judgment of said Board shall be for the best interest of the Company, subject, however, to the limitation that no such administration of the stock in the treasury of the Company shall result in any reduction or diminution of the pro-rata delivery of water to the stockholders of the Company within each division as provided herein.

Section 2. The system of this Company, for purposes of water distribution, shall be and is hereby divided into five divisions as follows:

Division No. 1--Marshall Lake Division, which shall include Marshall Lake and all decrees of the Community Ditch;

Division No. 2--Standley Lake Division, which shall include Standley Lake and all decrees of the Croke Canal;

Division No. 3--Barr Lake Division, which shall include Barr Lake; the 1908 direct flow decree of the Burlington O'Brian Canal and the stock interests held by the Company in the Burlington Ditch, Reservoir and Land Company adjudicated to the Burlington Canal and the Oasis Reservoir [Barr Lake];

Division No. 4--Milton Lake Division, which shall include Milton Lake and all the decrees of the Evans No. 2 Ditch (Milton Fill Ditch) and the stock interests held by the Company in the Platte Valley Irrigation Company.

Division No. 5--Municipal Division, O'Brian Canal, which shall include the decrees of change and exchange contemplated to be obtained pursuant to that certain agreement with the South Adams Water and Sanitation District dated December 5, 2001, together with the right to designate water obtained from the City and County of Denver acting by and through its Board of Water Commissioners dated August 31, 1999.

In addition to the works and decrees included in each division as provided herein, the Board of Directors of the Company shall have the right from time to time to define which other works or decrees, whether presently in existence or subsequently decreed, contract rights to receive water, water received on stock interests in other companies or which is obtained from any other source for the benefit of the companies shall be included within each division.

Section 3. Subject to change as hereinafter provided, the Ten thousand Five Hundred (10,500) shares of the capital stock of the Company are hereby allocated to and among each of the divisions of this Company's system and the entire water supply available for each such division shall hereafter be pro-rated among the number of shares allocated thereto as follows:

Division No. 1. Marshall Lake Division	1,273.929 shares;
Division No. 2. Standley Lake Division	2,373.525 shares;
Division No. 3. Barr Lake Division	2,759.147 shares;
Division No. 4. Milton Lake Division	1,647.837 shares;
Division No. 5. Municipal Division, O'Brian Canal ...	100.000 shares.

Section 4. The allocation of shares to the specific divisions as provided herein shall not be altered except by an amendment to these articles of incorporation. In no event shall any amendment to these articles of incorporation relating to the allocation of shares within each division result in any reduction or diminution of the pro-rata delivery of water to the stockholders of the Company within each division as provided herein.

The rest and remainder of the Articles of Incorporation of The Farmers Reservoir and Irrigation Company, as the same presently exist are hereby ratified and confirmed.

Indicate manner in which amendment(s) was adopted (mark only one):

XXX The number of votes cast for the amendment(s) by each voting group entitled to vote separately on the amendment(s) was sufficient for approval by that voting group – Adopted by the shareholders. 5,930.403 votes in favor, No votes against.. 8,053.433 shares authorized and outstanding.

7. Effective date: November 13, 2001.

8. The address to which the Secretary of State may send a copy of this document upon completion of filing (or to which the Secretary of State may return this document if filing is refused) is:

The Farmers Reservoir and Irrigation Company

360 South 27th Avenue

Brighton, Colorado 80601

Signer's Name, printed Mary E. Hanssen

CORPORATE
SEAL

Mary E. Hanssen

Signer's Title: Secretary of the Corporation