COLORADO
DEPARTMENT OF NATURAL RESOURCES

COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT
2009-2010 GRANT APPLICATION FORM

FMRICo RECHARGE & WETLANDS PROJECT SOUTH PLATTE BASIN

Name of Water Activity/Project **Approving Basin Roundtable**

$1,100,000	**Amount from Statewide Account**	$850,000
Total Amount of Funds Requested	**Amount from Basin Account**	$250,000

Application Content

Attachments

1. Reference Information
2. Insurance Requirements (Projects Over $100,000)
3. WSRA Standard Contract (Projects Over $100,000)
4. W-9 Form (Required for All Projects)

Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable AND the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration/approval is outlined in Attachment 1.

Once approved by the local Basin Roundtable, the applicant should submit this application, a detailed statement of work, detailed project budget, and project schedule to the CWCB staff by the application deadline.

The application deadlines are:

- Basin Account – 60 days prior to the bi-monthly Board meeting
- Statewide Account – 60 days prior to the March and September Board meeting

Board Meeting Dates	Basin Account Deadlines	Statewide Account Deadlines
3/17 - 3/18/2009	1/16/2009	1/16/2009
5/19 - 5/20/2009	3/19/2009	n/a
7/21 - 7/22/2009	5/21/2009	n/a
9/15 - 9/16/2009	7/15/2009	7/15/2009
11/17 - 11/18/2009	9/17/2009	n/a
January 2010	11/15/2010	n/a
March 2010	1/15/2010	1/15/2010
May 2010	3/15/2010	n/a

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: http://cwcb.state.co.us/IWMD.

The application, statement of work, budget, and schedule must be submitted in electronic format (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Mr. Todd Doherty
Colorado Water Conservation Board
Intrastate Water Management and Development Section
WSRA Application
1580 Logan Street, Suite 600
Denver, CO 80203
Todd.Doherty@state.co.us

If you have questions or need additional assistance, please contact Todd Doherty of the IWMD Section at 303-866-3441 x3210 or todd.doherty@state.co.us.

Part A. - Description of the Applicant (Project Sponsor or Owner);

1. Applicant Name(s): Fort Morgan Reservoir and Irrigation Company (FMRICo)

Mailing address:
FMRICo:
218 East Kiowa Avenue
Post Office Box 38
Fort Morgan, CO 80701

Taxpayer ID#: FM: 84-0205370 Email address: fmrico@twol.com

Phone Numbers: Business: FM: 970-867-7561
Home:
Fax:

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

Name: Cindy Vassios

Position/Title Office Manager

3. Eligible entities that may apply for grants from the WSRA include the following. What type of entity is the Applicant?

[ ] Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.

[ ] Public (Districts) – special, water and sanitation, conservancy, conservation, irrigation, or water activity enterprises.

[x] Private Incorporated – mutual ditch companies, homeowners associations, corporations.

[ ] Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.

[ ] Non-governmental organizations – broadly defined as any organization that is not part of the government.

4. Provide a brief description of your organization

FMRICo is a non-profit mutual ditch and reservoir company that runs an irrigation ditch system that serves surface water to approximately 15,000 acres of irrigated land, and operates a recharge and augmentation plan that provides augmentation water for approximately 90 wells for agricultural irrigation. Additionally, the City of Fort Morgan and the City of Brush are shareholders in FMRICo and they use their pro rata share of augmentation credits yielded by their FMRICo shares to augment their municipal wells under separately decreed augmentation plans. Also, FMRICo and Fort Morgan Water Company, which is made up of FMRICo shareholders that have contracted to provide water yielded by their FMRICo shares, lease excess augmentation credits for augmentation to other users. All of these uses are located in Morgan County. FMRICo has an operational agreement concerning this project with Groves Farms, LLC, which is a family farming corporation located in Morgan County. As part of this operation, Groves owns 9 wells that historically were included in GASP that irrigate approximately 1,000 acres of land. Since 2003, Groves has been developing its own augmentation plan to cover these wells and keep them pumping. This plan has been filed with the Water Court in Case No. 04CW081 and has operated under State Engineer SWSP approvals.

FMRICo has teamed up with Ducks Unlimited (DU) to also participate in this project. While conducting the recharge operations described above, this project aims to provide more than 95 surface acres of wetland habitat on three or more tracts of land located in western Morgan County near the South Platte River. These sites are located between Bijou No. 2 Reservoir and the river, in the midst of the Golden Triangle wetland complex. Wetlands and ponds will be designed to optimize recharge, augmentation supply, and waterfowl habitat. FMRICo's excess augmentation water that will be re-timed by this project will likely be diverted in November - March, which can provide warm water areas for waterfowl during freezing weather. Diversions under junior water rights will likely occur at different times, when there is no call on the river or freezing weather removes the call because senior ditches cannot divert. Initial investigation has led DU to conclude that this project will be very beneficial to wintering and migrating waterfowl in the South Platte watershed. DU wants to participate in project design and delivery.

5. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

Not applicable.

6. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A copy of this standard contract is included in Attachment 3. Please review this contract and check the appropriate box.

[X] The Applicant will be able to contract with the CWCB using the Standard Contract

[ ] The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant

delay between grant approval and the funds being available.

7. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

None.

Part B. - Description of the Water Activity

1. Name of the Water Activity/Project:

FMRICo RECHARGE & WETLANDS PROJECT

2. What is the purpose of this grant application? (Please check all that apply.)

[ ] Environmental compliance and feasibility study

[ ] Technical Assistance regarding permitting, feasibility studies, and environmental compliance

[ ] Studies or analysis of structural, nonstructural, consumptive, nonconsumptive water needs, projects

Study or Analysis of:

- [ ] Structural project or activity
- [ ] Nonstructural project or activity
- [ ] Consumptive project or activity
- [ ] Nonconsumptive project or activity

[X] Structural and/ or nonstructural water project or activity

3. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for.

   This is a structural water project to both divert water under a junior water right when available for recharge and augmentation use, and to re-divert and re-time augmentation credits that result from more senior recharge projects at certain times when these credits are not needed for direct augmentation use. It is estimated that this project will develop and use approximately 500-1,000 acre feet per year of new water and 1,500 acre feet of re-timed augmentation credits. While conducting these water supply operations, this project will be very beneficial to wintering and migrating waterfowl in the South Platte watershed.

   As shown in the attached budget, the WSRA funding will be used along with the CWCB construction fund loan to do final design and construction of the project.

   No WSRA funds will be used to acquire land or water rights or easements. FMRICo already owns the land where the diversion structures and pumping plant will be located. Water rights to be used are already owned by project participants. Easements for the pipeline route have been or will be separately obtained without using grant funds. Recharge pond sites are located on land owned by project participants or on land for which easements have been obtained.

Part C. – Threshold and Evaluation Criteria

1. Describe how the water activity meets these **Threshold Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.[1]

All aspects of this project will fit within and comply with existing Colorado law. FMRICo already has decrees for the augmentation plan that it operates, and is seeking decrees for additional recharge water rights. Groves is seeking a decree for the junior water rights and augmentation plan that it will divert through this project under its operating agreement with FMRICo. The water rights and structures associated with this project will all be operated in accordance with the priority system and the augmentation plans operated by the applicants, and will not diminish, impair, or cause injury to other water rights.

[1] 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRTs evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

The application was presented to the South Platte Basin Roundtable on November 11, 2008. The result from the Roundtable presentation was a unanimous vote approving the request for $250,000 from the Basin Account, and recommending approval by the CWCB of the request of up to $850,000 from the Statewide Account. A separate letter from the Roundtable chair has been provided to supplement this application, and a copy is attached.

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.[2] Specifically describe how the water activity either furthers the Roundtable's basin-wide water needs assessment or meets a consumptive or non-consumptive water supply need identified in the Roundtable's working needs assessment.

This project will assist in meeting the consumptive needs of the South Platte Basin as identified in the needs assessment by developing new junior water rights and increasing the beneficial use of re-timed augmentation credits from existing recharge projects, in amounts of approximately 2,000-2,500 acre feet per year. This water will help to meet the identified water supply gap that SWSI described and that has been further defined by the South Platte Basin Roundtable's consumptive needs assessment, and will contribute to the increased beneficial use of water in the South Platte Basin. At the same time, this project will help meet non-consumptive water supply needs by providing habitat for wintering and migrating waterfowl in the South Platte watershed.

[2] 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a 20 percent (or greater) match of the request from the Statewide Account. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the application was submitted to the CWCB. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in Part D of this application)

As of November, 2008, there had already been at least $21,500 spent for non-reimbursable work on this project. These work items are described in paragraph D.2.below. More money has been spent by the Applicant since that time, but it has not been tallied up at this time.

Applicant plans to provide 50% funding for this project itself, through the CWCB construction fund loan. Approximately 11% of the project cost will come from the Basin Account ($250,000). So, we are asking for only about 38% funding from the Statewide Account, and about 62% will come from local matching funds.

2. For Applications that include a request for funds from the Statewide Account, describe how the water activity meets the **Evaluation Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

A. This project addresses multiple needs and issues:

1. FMRICo serves farmers with augmentation water for their agricultural wells. Additionally, the City of Fort Morgan and the City of Brush are shareholders in FMRICo and they use their pro rata share of augmentation credits yielded by their FMRICo shares to augment their municipal wells under separately decreed augmentation plans. Also, FMRICo and Fort Morgan Water Company, which is made up of FMRICo shareholders that have contracted to provide water yielded by their FMRICo shares, lease excess augmentation credits for augmentation to other users. This project will firm up the ability of FMRICo to provide adequate augmentation supplies, especially in dry years, to these uses. Under the operating agreement with Groves Farms, LLC, water from this project will also be used to augment former GASP wells that would be shut down in the absence of an adequate augmentation plan.

2. As part of the easement agreements for the pipeline route, a portion of the augmentation credits from this project will be assigned to the landowners along the pipeline route. Those credits will likely be used to augment irrigation well depletions that are similar to those of Groves Farms.

3. Applicants are working with Ducks Unlimited to develop the wildlife habitat potential of the recharge ponds that will be used as part of this project to maximize the non-consumptive benefits of this project.

B. This project involves 3 entities that will be directly involved, and at least 5 more that will receive and use water from this project. These entities are described in detail above.

C. This grant is important to the success of the project. Preliminary engineering indicates the projected cost of about $ 2.2 million is a significant price to absorb for the agricultural entities that will construct and operate this project. If they had to pay the full price themselves, they might not be able to afford this project. However, this WSRA grant, and a CWCB loan that will be requested to supplement this WSRA grant, will make the project affordable and practical for the applicant. In this way, the WSRA grant will also make a nice complement to the CWCB loan program.

D. There is some urgency associated with this project. For FMRICo, during the recent drought of 2002, the projections for its augmentation plan showed a possible shortage of adequate replacement supplies, resulting in the FMRICo Board of Directors requiring a shut-down of irrigation wells under the FMRICo augmentation plan so as not to injure other senior water rights. FMRICo hopes to use this project to firm up its augmentation base before another drought hits. For Groves Farms, the development of an adequate augmentation plan to cover its former GASP wells is urgent. The Groves plan has been operated for the past few years by using water from short term leases, and other sources. This project will help provide a permanent source of additional augmentation credits for the Groves plan.

E. This project is a straight-forward pipeline project that has already been studied and partially designed. It can be finally designed and built in approximately 12-18 months from the time final authorization of the funding is in place. Applicants are farmers who want to build and operate this project with all due speed. They have built and operated similar projects in the past and are

committed to making this project a success.

F. This project will directly help sustain approximately 16,000 acres of irrigated agriculture in Morgan County, an area that has been hard hit by augmentation shortages. It will provide wildlife habitat benefits through water access at the recharge ponds while they have water in them. The ponds are located in the "golden triangle" between Riverside Reservoir, Empire Reservoir, and Jackson Lake, which is a well known area of importance for waterfowl and related wildlife.

Part D. – Required Supporting Material

1. Water Rights, Availability, and Sustainability

This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights and the name/location of water bodies affected by the water activity.

A. FMRICo has decreed water rights from the South Platte River, as well as pending applications for conditional water rights, that will provide the sources for its share of this project. These rights are all decreed for augmentation use and have been diverted at times in the past when in priority to generate augmentation credits for the augmentation plan. These rights, and the structures that they utilize, include:

1. Water Rights Decreed in Case No. W-2692, Water Division 1. The W-2692 Decree allows FMRICo to use recharge credit in excess of the depletions attributable to the operation of the wells included in the augmentation plan decreed therein. The water rights identified in the W-2692 Decree that can be used for augmentation purposes are generally described as follows:

WATER RIGHT NAME	AMOUNT	DECREE	LOCATION
Fort Morgan Canal Water Right	323 cfs, of which 258 cfs is now decreed absolute	W-2692, 89CW18, 96CW116, 05CW150	The Fort Morgan Canal headgate is located on the South Bank of the South Platte River at a point 23 chains north and 5 chains west of the Southeast Corner of Section 31, Township 5 North, Range 59 West of the 6th P.M., Morgan County, Colorado

Jackson Lake Reservoir and Irrigation Company Water Rights	Reservoir Priority No. 20, Amount 30,992.00 acre-feet; Reservoir Priority No. 20, Amount 4,637.00 acre-feet; Reservoir Priority No. 20R, Amount 8,269.92	Case No. 2142; CA No. 16704; W-2692; 85CW450	The headgate of the Jackson Lake Inlet Canal is located at a point on the north bank of the South Platte River 900 feet south and 200 feet west of the center of the Southeast Quarter (SE1/4) of Section 18, Township 4 North, Range 61 West of the 6th P.M., Morgan County, Colorado. Jackson Lake Reservoir is located in Sections 10, 13, 14 15, 16, 21, 22, 23, 24, 26 and 27, Township 5 North, Range 61 West of the 6th P.M., Morgan County, Colorado.

The above-described water rights may be diverted to the following recharge sites decreed in Case No. W-2692:

Pond Name	Surface Area	Location
Canal Reach 1	17.5	SE SW 36-4-58 to Center 20-3-57
Canal Reach 2	19.9	Center 20-3-57 to SW NW 18-3-56
Badger Creek Reach 1	5.9	SW SW 21-3-57 to NW NW 22-3-57
Badger Creek Reach 2	5.4	NW NW 22-3-57 to SW NE 11-3-57
Lundock West Pond	3.3	NW SE 14-3-57
Lundock East Pond	3.5	NE SE 14-3-57
Keith Bath Pond	4.0	NW SE 13-3-57
Public Service Pond	27.7	NW 20-3-56
Bolinger Recharge Area	36.4	Beginning at SE NW 20-3-56

2. Additional Recharge Sites Decreed In Case Nos. 92CW081, 94CW185 and 00CW261 and Pending Applications in 02CW345 and 03CW399

Pursuant to paragraph 30.B of the W-2692 Decree, additional recharge sites have been or will be added to the augmentation plan approved in the W-2692 Decree. The following additional recharge sites were decreed or are subject to pending applications.

POND	CASE	LOCATION
Siphon Recharge Site	92CW081	Parcel A: A parcel of land in the SW1/4SW1/4 of Section 28, Parcel B: A parcel of land in the NW1/4SW1/4 of Section 27; SE1/4 and the SE1/4SW1/4 of Section 28; NE1/4 of Section 32 lying south of the Morgan Ditch; and the NW1/4 of Section 33, Parcel C: A parcel of land in the SW1/4, NW1/4SE1/4, SW1/4NE1/4 of Section 33 all in Township 4 North, Range 58 West of the 6th P.M., Morgan County, Colorado
Fort Morgan Recharge Site	92CW081	NE1/4SW1/4 and the NW1/4 SE1/4 of Section 8, Township 3 North, Range 57 West of the 6th P.M., Morgan County, Colorado
Additional Bolinger Recharge Area	94CW185	E1/2 of Section 20, and in Sections 21 and 22, Township 3 North, Range 56 West of the 6th P.M.
Charlie Henry Ponds	94CW185	Section 23, Township 3 North, Range 56 West of the 6th P.M.
Public Service Company Pond No. 2	94CW185	Section 18, Township 3 North, Range 56 West of the 6th P.M.
Western Sugar Pond	94CW185	SW 1/4 of Section 31, Township 4 North, Range 57 West of the 6th P.M. and the NW 1/4 of Section 6, Township 3 North, Range 57 West of the 6th P.M.
Southside Ditch	94CW185	Sections 2, 3, 4, 7, 8, 9 and 10, Township 3 North, Range 57 West of the 6th P.M.
Lauck Pond	94CW185	E ½ of Section 10, Township 3 North, Range 57 West of the 6th P.M.
Bath Recharge Pond	00CW261	N1/2 of Section 4, Township 3 North, Range 57 West of the 69th P.M.
Kennedy Recharge Sites	Case No. 02W345 (Pending)	N1/2SW1/4 and the N1/2S1/2SW1/4 of Section 27, Township 3 North, Range 57 West of the 6th P.M. as more particularly described in the application filed in Case No. 2002CW345, and all of Section 22, NW1/4 of Section 23, and NW1/4 of Section 27, all in Township 3 North, Range 57 West of the 6th P.M.

Good Recharge Pond	Case No. 03CW399 (Pending)	North of the center line of the Baker-Ott Lateral in the N1/2 NE1/4 and N1/2S1/2NE1/4 of Section 11, Township 3 North, Range 57 West of the 6th P.M., and in the NW1/4 of Section 11, Township 3 North, Range 57 West of the 6th P.M. and more particularly described in the application filed in Case No. 2003CW399

3. New Augmentation Water Right and Substitution and Exchange. In addition, Case No. 00CW261 decrees a new "Fort Morgan Company Augmentation Water Right," at a rate of 50 c.f.s. (10.9 absolute), with an appropriation date of December 29, 2000. It further decrees an appropriative right of substitution and exchange at a rate of 100 cfs. Excess recharge credits may be exchanged from a downstream point of the confluence of the South Platte River and Beaver Creek to an upstream point of the Fort Morgan Canal headgate. The water diverted at the headgate of the Fort Morgan Canal may be used for augmentation and recharge purposes and delivered to any groundwater recharge site identified in a final decree or substitute supply plan approved pursuant to C.R.S. § 37-92-308.

B. Groves Farms has pending applications in the Water Court for Water Division 1 that include the conditional water rights from the South Platte River that will be used in this project.

1. The application was filed in Case No. 04CW81. The original application seeks approval of a plan for augmentation and change in water rights. The structures for which the change in water rights is sought are shares in the Weldon Valley Ditch Company, Riverside Reservoir and Land Company, and Jackson Lake Reservoir Company. The South Platte River is the source of water for these shares. The augmentation plan includes the following structures:

Well Name	Well Permit No.	Decree	Location
Groves No. 1	10372	W-4950, 99CW151	SW 1/4 SW 1/4 Sec. 6, T4N, R60W
Groves No. 3	55602	W-4950, 99CW151	SW 1/4 NW 1/4 Sec. 6, T4N, R60W
Woodworth No. 1	12466	W-5533	SW 1/4 SW 1/4 Sec. 18, T4N, R59W
Woodworth No. 2	12467	W-5533	NW 1/4 NE 1/4 Sec. 19, T4N, R59W
Woodworth No. 3	12468	W-5533	NW 1/4 NE 1/4 Sec. 19, T4N, R59W
Kula Well	11344-F	W-2919 A34	SW 1/4 NW 1/4 Sec. 7, T4N, R60W
Kammerer Aug Well No. 1	60301-F (aka 03237-F)	W-2354	NW 1/4 SE 1/4 Sec. 25, T5N, R60W
Groves Aug Well No. 1	Pending		SE 1/4 SE 1/4 Sec. 18, T5N, R59W
Riverview Well	9393-F (aka 048559-F)	W-2919-34, 89CW29	NW 1/4 NW 1/4 Sec. 13, T4N, R61W

The amendment to the application in Case No. 04CW81 seeks new surface water rights for the pipeline and recharge ponds at a flow rate of 7,000 gpm. In addition, Groves plans to develop underground water rights associated with augmentation wells identified in the original application. The pipeline will divert from the south side of the South Platte River near the headgate of the Fort Morgan Canal, which is located in the SE corner of Section 31, Township 5 North, Range 59 West of the 6th P.M., in Morgan County. Water diverted from the South Platte River will be delivered through the pipeline to several ground water recharge ponds as listed below.

POND	CAPACITY	SURFACE AREA	DAM HEIGHT	LOCATION
Groves	32 acre ft.	4 acres	None	SE1/4 SE1/4, Sec. 18, T4N, R59W, 6th P.M.
Groves 2	100 acre-feet	10 acres	8 feet	W1/2 W1/2 SW1/4 Sec. 18 T4N, R59W, 6th P.M.
Groves 3	90 acre-feet	5 acres	8 feet	SE1/4 SW1/4 Sec. 18 T4N, R59W, 6th P.M.
Morrison	200 acre-ft.	20 acres	8 feet	NE1/4 SE1/4, Sec. 18, T4N, R59W, 6th P.M.
Morrison 2	200 acre-ft.	20 acres	8 feet	NW1/4 SE1/4, Sec. 18, T4N, R59W, 6th P.M.
Morrison 3	200 acre-ft.	20 acres	8 feet	NE1/4 SW1/4 Sec. 18, T4N, R59W, 6th P.M.
Geseck	200 acre-ft.	20 acres	8 feet	SE1/4 NE1/4, Sec. 6, T4N, R59W, 6th P.M.

Additional recharge ponds may be constructed in Sections 18 and 19 of Township 5 North, Range 59 West of the 6th P.M.

Additionally, the amended application seeks an appropriative right of exchange at a diversion rate of 7,000 gpm. When the replacement water delivered to the South Platte River in the augmentation plan exceeds Groves' replacement requirements, the excess water may be diverted by exchange at the pipeline and delivered to recharge ponds.

C. Although these are all relatively junior water rights, many of them have already yielded water in past years, or would have yielded water had they been built. Additionally, applicants have had TZA Water Engineers evaluate water availability issues, and they have concluded that sufficient water will be available to make this project feasible and effective.

2. Please provide a brief narrative of any related or relevant previous studies.

A. Civil Design Group, Inc. of Denver did a feasibility study and preliminary cost estimate for the project dated April, 2008. The conclusion was that the project is feasible from an engineering standpoint, and the construction cost estimate at that time was $1,788,000, but this estimate did not include pumps and some of the other items that are listed in the budget attached to this request. The cost of this study was $10,000, which has already been paid. A copy of the text of this report is attached at the end of this application. This work has been updated as part of the companion loan application submitted to the CWCB staff contemporaneously with this grant application.

B. TZA Water Engineers did a conceptual study and preliminary design of the project in early 2008. The conclusion was that the project is feasible from an engineering standpoint and that construction of the project would firm up water supplies needed by Groves for augmentation purposes. The cost of this work has been approximately $6,500, which has already been paid.

C. JB Wright and Associates, Inc. did a survey for the preliminary pipeline routing. The cost of this survey was $5,000, which has already been paid.

3. Statement of Work, Detailed Budget, and Project Schedule

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement.

Please provide a detailed statement of work using the following template. Additional sections or modifications may be included as necessary. Please define all acronyms. If a grant is awarded an

independent statement of work document will be required with correct page numbers.

Statement of Work

I. Task 1 - Pipeline

- Pipeline – Install pipeline and related appurtenances from the South Platte River south to the Groves pond location to deliver water to the Groves Ponds and additional Ponds along the pipeline route.

- Civil Design Group (CDG) will finalize design for pipeline and related appurtenances, receive and evaluate proposals, and provide construction oversight during construction.

- Major deliverables will include pipeline, intake structure, metering devices, valves and appurtenances to make the pipeline 100% operational.

Task 2 - Pumps

- Pumps – Install pumps (2), electrical controls, and related appurtenances to pump water from the South Platte River to the Groves Ponds and additional Ponds along the pipeline route.
- Civil Design Group (CDG) will finalize design for pumping equipment, electrical controls and related appurtenances, receive and evaluate proposals, and provide construction oversight during installation and testing of pump equipment.
- Major deliverables will include pumps and electrical controls.

Task 3 – Well and Well Pump

- Well & Well Pump – Install one water well and pumping equipment near the Groves Ponds, electrical controls, flow meter, and related appurtenances to pump ground water from the South Platte alluvium near the Groves Ponds through the pipeline to the South Platte River.
- TZA Water Engineers, Inc. (TZA) will design the well and pumping equipment, electrical controls and related appurtenances, receive and evaluate proposals, and provide construction oversight during installation and testing of the water well and associated pump equipment.
- Major deliverables will include a water well, pump equipment, and electrical controls.

Task 4 – Wetlands and Ponds

- Wetlands and Ponds – Install / rehabilitate seven (7) pond structures that will be designed to optimize recharge, augmentation supply, and waterfowl habitat.
- TZA Water Engineers, Inc. (TZA) will design the pond structures and oversee construction activities.
- Major deliverables will include 7 pond structures with a total surface area of approximately 95 acres.

II. Personnel

Civil Design Group – Leroy Tobler, P.E. – Pipeline and pump equipment design.
TZA Water Engineers – Bruce Kroeker P.E. and Tom Dea, P.E. – Water well, well pump, and pond design.
JB Wright and Associates – James Wright, P.E. - Final Survey.
Ducks Unlimited - wetland consultation and assistance.

III. Budget

A detailed budget by task, which includes the level of effort (hours) and rates – See Attachment 5 at the end of this application.

IV. Schedule

After the date of final approval of both the grant and loan financing, we anticipate the schedule to be as follows:

Final design to be completed within 90 days
Pipeline Construction - 150-200 days
Pump Equipment Installation and Testing - 90 days
Well and Pump Installation - 60 days
Wetlands and Pond Construction - 100 days
Final Survey – 220 days

Some of these items would be done simultaneously. The bottom line is a total construction period of approximately 220 days, plus 90 days for final design. So, the project can be completed within the next 12-18 months.

WATER ACTIVITY NAME -

GRANT RECIPIENT –

FUNDING SOURCE -

INTRODUCTION AND BACKGROUND
Provide a brief description of the project. (Please limit to no more than 200 words; this will be used to inform reviewers and the public about your proposal)

OBJECTIVES
List the objectives of the project

TASKS
Provide a detailed description of each task using the following format

TASK 1 – [Name]

Description of Task

Method/Procedure

Deliverable

TASK 2 – [Name]

Description of Task

Method/Procedure

Deliverable

REPEAT FOR TASK 3, TASK 4, TAKE 5, ETC.

REPORTING AND FINAL DELIVERABLE

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, $/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

Total Costs				
	Labor	Other Direct Costs	Matching Funds (If Applicable)	Total Project Costs
Task 1 - (Specify name of task)				
Task 2 -				
In-Kind Contributions				
Total Costs:				

Example Titles

Example Project Personnel: Hourly Rate:	Project Manager	Project Engineer	Geologist	Scientist	Graphics/ Designer	Clerical		Total Costs
Task 1 -								
Task 2 -								
Total Hours:								
Cost:								

Other Direct Costs						
Item:	Copies	Materials	Equipment/ Supplies	Mileage		Total
Units:	No.			Miles		
Unit Cost:						
Task 1 -						
Task 2 -						
Total Units:						
Total Cost:						

In-Kind Contributions (If Applicable)				
Project Personnel: Hourly Rate:				Total
Task 1 -				
Task 2 -				
Total Hours:				
Total Cost:				

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

Example 1

Task	Start Date	Finish Date
1	Upon NTP	NTP + 90 days
2	Upon NTP	NTP + 180 days
3	Upon NTP	NTP + 180 days
4	Upon NTP	12/31/11
5	NTP + 60 days	12/31/11
6	NTP + 60 days	12/31/11
7	NTP + 60 days	12/31/11

NTP = Notice to Proceed

Example 2

Task	First 6 Months						Second 6 Months					
	1/10 – 3/10			4/10 – 6/10			7/10 – 9/10			10/10 - 12/10		
A – Economic Analysis												
B – Storage Analysis												
C – TA for Ditch Cos												
D – Injury Analysis												
Final Reports												

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

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

Signature of Applicant: Harold Griffith

Print Applicant's Name: HAROLD GRIFFITH, PRESIDENT
FORT MORGAN RESERVOIR AND IRRIGATION COMPANY

Project Title: FMRICo RECHARGE & WETLANDS PROJECT SOUTH PLATTE BASIN

Date: July 14, 2009

Return this application to:

Mr. Todd Doherty
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: todd.doherty@state.co.us
To submit applications by Fax, send to: (303) 894-2578
For questions, call Telephone No.: (303) 866-3426

Attachment 1
Reference Information

The following information is available via the internet. The reference information provides additional detail and background information.

Colorado Water Conservation Board (http://cwcb.state.co.us/)

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

Interbasin Compact Committee and Basin Roundtables (http://ibcc.state.co.us/)

Interbasin Compact Committee By-laws and Charter (under Helpful Links section) –

http://ibcc.state.co.us/Basins/IBCC/

Legislation

House Bill 05-1177 - Also known as the Water for the 21st Century Act –

http://cwcbweblink.state.co.us/DocView.aspx?id=105662&searchhandle=28318

House Bill 06-1400 – Adopted the Interbasin Compact Committee Charter –

http://cwcbweblink.state.co.us/DocView.aspx?id=21291&searchhandle=12911

Senate Bill 06-179 – Created the Water Supply Reserve Account –

http://cwcbweblink.state.co.us/DocView.aspx?id=21379&searchhandle=12911

Statewide Water Supply Initiative

General Information – http://cwcb.state.co.us/IWMD/

Phase 1 Report – http://cwcb.state.co.us/IWMD/SWSITechnicalResources/SWSIPhaseIReport/

ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID DB JACKS-1

DATE (MM/DD/YYYY) 01/14/09

PRODUCER

Hix Insurance Associates, Inc.
3005 Center Green Dr. Ste 120
Boulder CO 80301
Phone: 303-444-4666 Fax: 303-444-8481

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

Jackson Lake Reservoir & Irrig
Co. and Fort Morgan Reservoir
Irrigation Company
Cindy Vassios
PO Box 38
Ft. Morgan CO 80701

INSURERS AFFORDING COVERAGE		NAIC #
INSURER A:	American Alternative Insurance	
INSURER B:	Pinnacol Assurance	41190
INSURER C:		
INSURER D:		
INSURER E:		

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	X	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR [X] PD&O/EPLI/EBL GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC	SDISSP91510951	02/01/09	02/01/10	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG Emp Ben.	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 3,000,000 $ 3,000,000 INCLUDED
		AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $
		GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
		EXCESS/UMBRELLA LIABILITY [ ] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [ ] RETENTION $				EACH OCCURRENCE AGGREGATE	$ $
B		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	1824932	03/01/09	03/01/10	[X] WC STATUTORY LIMITS [ ] OTHER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 500000 $ 500000 $ 500000
		OTHER					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Colorado Water Conservation Board is listed as an Additional Insured.

CERTIFICATE HOLDER

COLO013

CWCB-Water Supply Planning and
Finance Section
Attn: Rob Viehl
1580 Logan St Ste 750
Denver CO 80203

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Attachment 2

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

Attachment 3
Water Supply Reserve Account Standard Contract

NOTE: The following contract is required for WSRA projects that exceed $100,000. (Projects under this amount will normally be funded through a purchase order process.) Applicants are encouraged to review the standard contract to understand the terms and conditions required by the State in the event a WSRA grant is awarded. Significant changes to the standard contract require approval of the State Controller's Office and often prolong the contracting process.

It should also be noted that grant funds to be used for the purchase of real property (e.g. water rights, land, conservation easements, etc.) will require additional review and approval. In such cases applicants should expect the grant contracting process to take approximately 3 to 6 months from the date of CWCB approval.

Form **W-9**
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
Fort Morgan Reservoir & Irrigation Company

Business name, if different from above

Check appropriate box: ☐ Individual/Sole proprietor ☑ Corporation ☐ Partnership
☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ _____
☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)
218 East Kiowa Avenue

Requester's name and address (optional)

City, state, and ZIP code
Fort Morgan CO 80701

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

or

Employer identification number
84:0205370

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person ▶ Cynthia Vassios Date ▶ July 14, 2009

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Attachment 4

Water Supply Reserve Account – Grant Application Form
Form Revised May 2007

Attachment 5

Total Costs

Task	Labor	Other Direct Costs	Matching Funds	Total Project Costs
1 - Pipe Line	$ 735,300.00	$ 898,700.00		$ 1,634,000.00
2 - Pumps	$ 36,000.00	$ 72,000.00		$ 108,000.00
3 - Well & Well Pump	$ 55,000.00	$ 29,500.00		$ 84,500.00
4 - Pond Construction	$ 200,000.00	$ 10,000.00		$ 210,000.00
Total Costs	$ 1,026,300.00	$ 1,010,200.00		$ 2,036,500.00
	Total Request:			

Project Personnel Costs

Personnel:	Project Manager	Project Engineer	Geologist	Field Crew	Graphics / Designer	Clerical	Total
Tasks 1 & 2 - hourly	$170.00	$108.00	$108.00	$165.00	$108.00	$80.00	
Project Design	$17,000.00	$32,400.00			$24,840.00	$7,760.00	$82,000.00
Construction	$6,000.00	$9,720.00	$2,048.00	$6,600.00	$37,392.00	$240.00	$62,000.00

Personnel:	Principal Engineer	Senior Engineer	Project Engineer	Engineer	Assistant Engineer	Clerical	Total
Tasks 3 & 4 - hourly	$171.00	$132.00	$121.00	$108.00	$90.00	$51.00	
Project Design	$1,710.00	$5,280.00	$605.00	$1,080.00	$900.00	$765.00	$10,340.00
Construction		$2,640.00	$1,089.00	$2,160.00	$450.00	$255.00	$6,594.00

Other Direct Expenses

TASKS	ITEMS	DESCRIPT.	EST. QUANT.	UNIT	UNIT PRICE	TOTAL
Project Design	Final Survey		1	L.S.	$ 7,500.00	$ 7,500.00
	Mileage		2600	mi	$ 0.50	$ 1,300.00
Water Engineering	2 Water Engineering		1	L.S.	$ 5,000.00	$ 5,000.00
					Total Cost	$ 13,800.00

Match Contributions

Project Task	Sources	Grant $$	Match $$	In-kind $$	Total
		$0.00	$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00	$0.00

Total Project Cost Estimate	$ 2,211,234.00

Fort Morgan Reservoir & Irrigation Co.

SOUTH PLATTE RIVER DIVERSION AND PIPE LINE REPORT

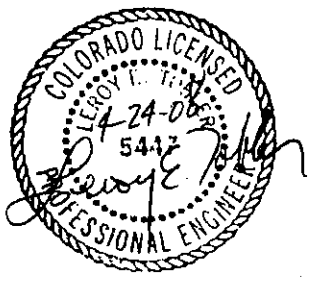
April 2008

Prepared for:

Fort Morgan Reservoir & Irrigation Co.
218 E Kiowa Avenue
Fort Morgan, CO 80701
(970) 867-7561 ph
(970) 768-0705 fx

Prepared by:

Civil Design Group, Inc.
2300 15th Street
Suite #400
Denver, Colorado 80202
(303) 431-0505



Attachment 6

SOUTH PLATTE RIVER DIVERSION AND PIPELINE

Civil Design Group was engaged to evaluate options for a diversion facility and transmission line at the Fort Morgan Canal head gate on the South Platte River. The diverted water will be delivered to a pond approximately three miles south in the south east corner of Section 18, T4N R59W of the 6th P.M. The system will include a diversion intake, wet well and pumps, and approximately 3 miles of piping to the pond described above. The options have been evaluated based on an 8,000 gallon per minute flow rate.

This report addresses the following elements:

- Pipe Size
- Pump Size
- Booster Pumps
- Diversion Facility

PIPE SIZE:

The selection of the pipe size must consider several items that affect the initial and long term costs of the project. Initial costs include material cost for the piping and pumps, and installation. Long term costs are effected by maintenance requirements and life expectancy of the facilities.

Smaller diameter pipe requires larger pumps and higher monthly electrical costs. The smaller diameter increases water velocity and abrasion in the pipe. This results in a reduced life expectancy of the pipe and an increase in maintenance frequency and cost.

Industry standards for velocity in pipes transporting river water suggest velocities of five (5) feet per second (fps). California State University studies for abrasion indicate river water with a pH of 7 in PVC pipe material would not experience major pipe material loss.

Based on this recommended velocity and the given flow rate we evaluated several pipe diameters. We suggest the following two options to maintain the appropriate velocity. The first option would be two sixteen (16) inch PVC AWWA DR 41 pipes. The resulting velocity would be 5.9 feet per second (fps). The second option would be one twenty four (24) inch PVC AWWA DR 41 pipe. The velocity in the twenty four inch pipe would be 5.4 fps.

Pipe prices are based on PVC C-905, DR 41, CI with a 100 psi pressure rating. This pipe meets the American Water Works Association potable water cast iron pipe standards. We have evaluated cost associated for materials and installation of two types of the above PVC pipe. The first type of PVC is the typical bell and spigot with rubber gaskets installed in 10 or 20 foot sections into a trench.

The second type of pipe is a Fusion Weld PVC. This pipe can be assembled in long sections on the surface and placed in the trench. The pipe can also be installed with directional boring technology which reduces the trenching to several boring pits. The fusion welded pipe does not require mechanical joint restraints like the typical bell and spigot. Exhibit I is an article on the City and County of Broomfield's recent installation of fusion weld pipe.

The material costs for two sixteen inch pipes installed in place is $100 per foot. The cost for one twenty four inch pipe installed in place is $75 per foot. Of the two options above we suggest the 24" fusion welded pipe. However when taking into account long term maintenance costs and initial cost for pumps we recommend considering the installation of a thirty (30) inch pipe. The larger pipe has lower velocities and pressures in the pipe. This means the pumps required are smaller and annual electrical costs would be less than the twenty four inch pipe. Exhibit A evaluates pipe, pump and electrical cost related to various velocities.

PUMP SIZE:

The pump sizes required are directly related to the velocity and total dynamic head (TDH) that are influenced by the choice of pipe size. This report evaluates the option to install four (4) 2,000 gallon per minute (gpm) pumps or two (2) 4,000 gpm pumps. The wet well for four pumps would be nearly twice as large as the wet well required for two pumps. The larger wet well installation cost would be double. Comparing initial cost for pumps in either option depends again on the pipe selection. In conjunction with our choice for a twenty four inch pipe selection, we suggest the option with two (2) 4,000 gpm pumps. Please refer to Exhibit A for cost comparisons of the 4 pump and 2 pump options related to pipe sizes.

Variable speed pumps have soft starts that reduce the electrical costs. Variable speed pumps provide a large range of pumping volumes. The range can be from less than 2,000 gpm to 8,000 gpm when both pumps are operating. For these reasons we recommend the pumps chosen be variable speed pumps.

The Irrigation Company indicated that a pump could be out of service during repairs. Therefore a standby pump has not been included in the opinion of probable.

The top of the wet well and the location for the pumps and electrical controls will be at elevation 4370, which is the 100 year water surface elevation. See Exhibit B for a Flood Insurance Rate Map showing flood plain limits in the area. The pumps and electrical control will not be enclosed in a building. This means the pumps must be weather resistant and the electrical will be enclosed in an all weather controls box. In either option, the pumps will have a below surface discharge at a point below the frost line. The bottom elevation of the wet well will be 4345, an elevation approximately six feet below the eastern edge of the concrete shelf (elevation 4351) of the diversion dam. The length of the vertical turbine pump shafts will be approximately twenty five feet. The diameter of the column pipe would be twelve inches if the two pump option is chosen and

ten inches if the four pump option is chosen. See the attached Exhibits C and D depicting a proposed layout of pumping facilities.

BOOSTER PUMP:

Upon your request we have evaluated the option for a booster pump station. The purpose of a booster pump station would be to reduce the total dynamic head (TDH) that the initial pumps at the wet well will pump against. Reducing the TDH could allow for these pumps to run at lower horse power rates. However, the majority of the TDH occurs in the first 1,500 feet south of the wet well and the remaining dynamic head produced after this section is minimal. The TDH in the whole system is relatively low and effects of a second pumping facility would not significantly reduce the size of the intake pumps. When considering the additional costs and maintenance of an additional pump facility it is our opinion it is not economically feasible.

DIVERSION INTAKE:

The design considerations for the diversion intake are ice, sand, and method of measuring the diverted water. Two points of diversion with alternative intake options were considered.

The first point of diversion considered was above the Fort Morgan Canal headgate. A diversion headwall would be installed in the south bank of the river. The diversion would be controlled by a slide gate on the headwall. Water would then be carried in a pipe to the existing slough south of the river. The slough would be made deeper and enlarged to provide adequate volumes for the pumps to provide 8,000 gpm. The slough would also be used as a sand trap where the sand could be periodically removed. The disadvantage of this diversion would be the freezing of the slide gate in the winter thus limiting the amount of water that could be diverted. Also, additional water loss to the stream and evaporation may occur before the pumps could deliver the water to the pipe line. Due to these disadvantages we do not recommend this option.

The second, and recommended point of diversion, is at the eastern edge of the concrete shelf on the down stream side of the Fort Morgan Canal flash board dam. Refer to Exhibit F for the approximate location of the intake relative to the dam. This point has been selected because the river velocity can be controlled and freezing should not be a problem since it is our understanding this area does not usually freeze over with ice. The intake would be a slotted screen similar to a well screen (See Exhibit G). The screen would be approximately three (3) foot in diameter and five (5) feet long. The screen is proposed to be constructed six inches below the top of the concrete shelf. To avoid sand problems the screen would have slot openings of 0.12 inches and remove most debris from the diverted water. However periodic removal of fine sediment in the wet well may be required. To reduce clogging on the screen it would be designed with an Airburst backwash system. The arrangement of the flash boards can be used to flush sand down river away from the intake screen and also be used to control the height of the water

above the intake screen to provide adequate intake volumes and assure 8,000 gpm flow rates.

Either option for a diversion intake must have a twenty four hour totalizing mag-meter installed on the pump discharge line. The options for data recording and retrieval will vary with the choice of mag-meters.

CONCULSION AND RECOMENDATION:

Based on the options evaluated we recommend one 24" pipe and two 250 horse power, 4,000 gpm, variable speed pumps, and a diversion at the eastern edge of the concrete shelf on the downstream side of the Fort Morgan Canal dam, and a slotted intake screen attached to the 30" intake pipe. The opinion of probable cost for the this option is $1,788,000. Refer to Exhibit H for a detailed opinion of costs.

The South Platte Basin Roundtable

P.O. Box 103 - 112 North 8th Avenue
STERLING, COLORADO 80751

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January 22, 2009

Mr. Todd Doherty
Colorado Water Conservation Board
721 State Centennial Building
1313 Sherman Street
Denver, Colorado 80203

Re: Roundtable Approval Letter — FMRICO Recharge and Wetlands Project — WSRA Grant Application

Dear Todd:

This letter is submitted on behalf of the South Platte Basin Roundtable to indicate our approval of this grant application and meet the new requirements of the criteria and guidelines. First, I want to confirm that this grant application was considered at the South Platte Basin Roundtable's regular meeting on November 11, 2008. The result was a unanimous vote of approval for the request of $250,000 from the basin account and a recommendation that the CWCB approve an amount of up to $850,000 from the statewide account.

This project furthers the roundtable's basin-wide water needs assessment because it will assist in meeting the consumptive needs by developing new junior water rights and increasing the beneficial use of retimed augmentation credits from existing recharge projects. The project will make approximately 2,000 - 2,500 acre-feet of additional water available for beneficial use in the South Platte Basin each year. This water will help to meet the water supply gap for agricultural purposes that were identified in SWSI.

Additionally, although the Basin's non-consumptive water supply needs assessment has not been finished, the Roundtable believes that this project will help meet non-consumptive water supply needs by providing habitat for wintering and migrating water fowl in the South Platte Watershed.

At the November Roundtable meeting, this application received thorough discussion. The majority of that discussion strongly favored approval of this project as exactly the kind of structural water supply project that should be assisted by the WSRA. Following that discussion, there was a unanimous approval vote. Therefore, the CWCB should understand that this project has been heartily endorsed by the South Platte Roundtable.

Sincerely,
The South Platte Basin Roundtable

Jim Yahn

Jim Yahn, Chairman