

WATER WASTEWATER REUSE

“How are we paying for this?”

A necessity in completing any water, wastewater, or water reuse project is having the ability to pay for it. In this issue of *ARBER NEWS*, we will discuss a number of financial assistance programs that can help you fund your project. While the list of programs is not all-inclusive, it will give a good starting point in your search for financial support.



FINANCIAL ASSISTANCE PROGRAMS

There are numerous funding sources for water, wastewater, and water reuse projects. Below is a list of potential sources:

1. Colorado Water Conservation Board (CWCB) Construction Fund
2. Colorado Water Resources & Power Development Authority (CWRPDA) Small Water Resources Projects Programs and Water Revenue Bonds
3. Community Development Block Grant Program from the Department of Local Affairs (DOLA)
4. Drinking Water Revolving Fund (DWRF) from the Water Quality Control Division (WQCD)
5. Economic Development Administration (EDA) Public Works and Development Facilities Program

6. Energy and Mineral Impact Assistance Program from DOLA
7. United States Department of Agriculture (USDA) Rural Development
8. Water Pollution Control Revolving Fund (WPCRF) from the Water Quality Control Division

There are different guidelines associated with each of these funding sources. For instance, the Water Quality Control Division's DWRF provides loans solely for water projects, while DOLA provides grant and loan money for water & wastewater projects in areas impacted by energy and mineral production. The CWCB Construction Fund provides loans for raw water projects, while the Community Development Block Program distributes grants for both water and wastewater projects. There are many different funding sources available for a wide variety of projects. Table 1, shown on page 2, summarizes the key points of each of the financial assistance programs. Below are brief profiles of two available programs.

WATER POLLUTION CONTROL REVOLVING FUND

The Water Pollution Control Revolving Fund (WPCRF) is a widely used state revolving fund. Through this fund, low-interest loans can be used for wastewater projects, non-point source projects, stormwater control, water conservation, reuse projects, and biosolids projects.

The WPCRF was created by Title VI of the 1987 amendments to the Federal Clean Water Act and the State Legislature, and replaced the Federal Construction Grant

Program. The WPCRF provides leveraged loans of over \$1 million at an interest rate of 80% of the market rate for clean water revenue bonds rated "AAA." The WPCRF also provides direct loans up to \$1 million at low interest rates (currently at 3.5%).

Application packages are distributed by the WQCD to all interested agencies on the eligibility list for the current funding year. Eligible entities include governmental agencies, municipalities, counties, and special districts. Eligible projects are listed on the Project Eligibility List. In order to receive a loan, projects must have an approved Preliminary Engineering Report (PER), a sludge management plan, or a non-point source implementation plan.



The CWRPDA assisted the Town of Eagle in funding this wastewater treatment plant through the Clean Water 1997 Series A bond issue.

The Project Eligibility List is sorted according to three categories:

- *Category 1:* Includes those projects that improve or benefit public health, or that will remediate a public health hazard as defined in the regulation;

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TABLE 1: SUMMARY OF KEY POINTS OF FINANCIAL ASSISTANCE PROGRAMS

FUNDING SOURCE	ELIGIBLE PROJECTS	TYPE & TERM	INTEREST RATES	MAXIMUM AMOUNT	CONTACT
Colorado Water Conservation Board (CWCB) Construction Fund	Raw water projects	Loans (up to 30-year term); Up to 75% of total engineering and construction	Interest rates for 30-year loan: 2.5% for Agricultural, 3.5, 4.0, 4.25% for Municipal, and 5.25% for Commercial (Rates drop by 0.25% for 20-year and 0.50% for 10-year	Up to \$1 Million	Kirk Russell, P.E., CWCB, (303) 866-3449
Colorado Water Resources & Power Development Authority Small Water Resources Projects Program (SWRPP)	Water, wastewater, and raw water projects	Loans (up to 20-year term); Costs of issuance, excluding general counsel and bond counsel opinion costs, are paid by the Authority	Interest rates based on market rate for AAA-insured revenue bonds	Up to \$500 Million (dependent upon borrower categories)	Michael Brod, CWR & PDA (303) 830-1550
"Small Cities" Community Development Block Grant Program (CDBG)	Water and wastewater projects	Grants; Only eligible entities are non-entitlement municipalities and counties	---	Up to \$300,000	Teri Davis, DOLA, (303) 866-4462
Domestic Wastewater Treatment (DWWT) Grant Program	Wastewater projects	Grants; project must serve population of less than 5,000	---	Subject to State appropriation	WQCD, (303) 692-3500
Drinking Water Grant Program	Water projects	Grants; project must serve population of less than 5,000	---	Subject to State appropriation	WQCD, (303) 692-3500
Drinking Water Revolving Fund (DWRF)	Water projects	Loans (up to 20-year term; direct and leveraged)	Direct loans have fixed rate of 3.5%; leveraged loans have a rate of 80% of Authority's municipal bond rate	Up to \$500,000 for direct loans; unlimited for leveraged loans	Michael Brod, CWR & PDA, (303) 830-1550
Economic Development Administration (EDA) Public Works and Development Facilities Program	Water and wastewater projects	Grants; on average they cover 50% of project costs; project must promote economic growth	---	Subject to Federal availability of funds	Robert E. Olson; EDA; (303) 844-4715
Energy and Mineral Impact Assistance Program	Water and wastewater projects	Grants and Loans (up to 20-year term)	Minimum interest rate for loans is 5.0%	\$300,000 for projects indirectly related to energy/mineral development; \$600,000 for those directly related	Clay Brown, DOLA, (303) 273-1787
Hardship Grants Program for Rural Communities	Water and wastewater projects	Grants; project must serve population of less than 3,000	---	\$50 Million funding pool open to US, Puerto Rico, and US territories	US EPA, (202) 260-2268
United States Department of Agriculture (USDA) Rural Development	Water, wastewater, storm drainage, and solid waste systems in rural areas	Grants and Loans (up to 40-year term); projects must serve population of less than 10,000	Poverty rate, market rate, or intermediate rate (depends on the project)	Subject to Federal availability of funds	State Director, USDA Rural Development, (720) 544-2906
Water Pollution Control Revolving Fund (WPCRF)	Wastewater, non-point source, stormwater control, water conservation, reuse, biosolids	Loans (up to 20-year term; direct and leveraged)	Direct loans have fixed rate of 3.0%; leveraged loans have a rate of 80% of clean water revenue bond rate (AAA)	Up to \$1 Million for direct loans; unlimited for leveraged loans	Michael Brod, CWR & PDA, (303) 830-1550
Colorado Water Resources and Power Development Authority (CWRPDA) Water Revenue Bonds Program	Water and wastewater projects that are not eligible under DWRF, SWRPP, and WPCRF	Loans; Costs of issuance, excluding general counsel and bond counsel opinion costs, are paid by the Authority	---	Up to \$500 Million	Michael Brod, CWR & PDA, (303) 830-1550

Funding (continued from Page 1)

- *Category 2:* Includes those systems that are in significant non-compliance. This category also includes projects that will utilize proactive and long range planning of water quality approaches and/or pollution prevention methods (e.g., capacity and growth issues, water reuse, water conservation, and Best Management Practices (BMP) for nonpoint sources);
- *Category 3:* Includes the remainder of projects listed that will improve or benefit water quality (e.g., stormwater).

Once the Project Eligibility List has been adopted by the Water Quality Control Commission (WQCC) and the State legislature and an application has been approved by the WQCD, the DOLA will perform a financial analysis of the governmental agency proposing the project. This analysis will result in a classification of investment grade, non-investment grade, or poor loan risk. The type of loans available for a project depends on this classification. For instance, those projects classified as investment grade are eligible for a loan from the leveraged pool of funds, while a project classified as a poor loan risk may become a candidate for potential grant assistance under programs other than the WPCRF.

To date, the WPCRF has funded in excess of \$589 million in loans. The WPCRF is administered through a partnership between the Colorado Department of Local Affairs, the Colorado Department of Public Health & Environment through the Water Quality Control Division, and the Colorado Water Resources and Power Development Authority. Additional information regarding the WPCRF can be obtained through these entities, or at www.cwrpda.com. A link to the complete article is on www.arber.com.

A similar fund exists for drinking water projects called the Drinking Water Revolving Fund (DWRF). Information regarding the DWRF can also be found at www.cwrpda.com.

EXAMPLE

*Sand Creek Wastewater Reuse Facility
Aurora, CO*

Richard P. Arber Associates, Inc. completed

design for the expansion of the Sand Creek Wastewater Reuse Facility in 2001. The project is an important part of the City's water resource plan and is an economical means of extending the City's available water resources. Reclaimed wastewater, which would have been otherwise wasted, is reused to irrigate 550 acres and ultimately 2,000 acres of golf courses, parks, and other greenbelt areas throughout the City. Funding for the plant and pipeline was \$24 million obtained through the WPCRF.



Funding for the Sand Creek Wastewater Reuse Facility was obtained through the Water Pollution Control Revolving Fund.

"SMALL CITIES" COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

The "Small Cities" Community Development Block Grant Program (CDBG) is set up through DOLA and is available to non-entitlement jurisdictions. This includes both municipalities and unincorporated areas.

Non-entitlement communities are cities with a metropolitan area population less than 50,000 or counties with a combined population less than 200,000 in unincorporated areas and non-entitlement municipalities.

Both water and wastewater project funding is available under this grant program. The goal is to fund projects that benefit people of low to moderate income or aid in prevention or elimination of slums or blight within these small communities. The state anticipated the allocation of approximately \$13 million for the CDBG program in 2004.

This program is a source of grant money only, but also may be used in conjunction with loans through the Energy and Mineral Impact Assistance Program or other sources. Income limits and other additional information about these programs can be found at www.dola.state.co.us. ♦

ARBER TOP 50

Richard P. Arber Associates was ranked as one of the **Top 50 Best Civil Engineering Firms to Work For** in October 2003 by CE News Magazine. ♦

FIRM NEWS

Richard P. Arber Associates was featured in the May 2004 issue of CE News in a two page business profile. The article titled "Education and Communication Help Build the Water Works" focused on the firm's ability to develop young engineers. A link to the complete article is on www.arber.com. ♦

RMSAWWA/RMWEA GRAND JUNCTION CONFERENCE

Richard Arber, P.E., DEE and Mark Beebe, P.E. will be giving presentations at RMSAWWA/RMWEA conference in Grand Junction on September 12-15.

- Monday, September 13 at 3:30 p.m.
- LaJunta Water Treatment Plant Project
- Mark Beebe.
- Wednesday, September 15 at 11:30 a.m.
- Past, Present and Future of Water Reuse
- Richard Arber.
- Wednesday, September 15 at 1:30 p.m. -
CO-Star Project - Mark Beebe will present with CDPHE staff. ♦

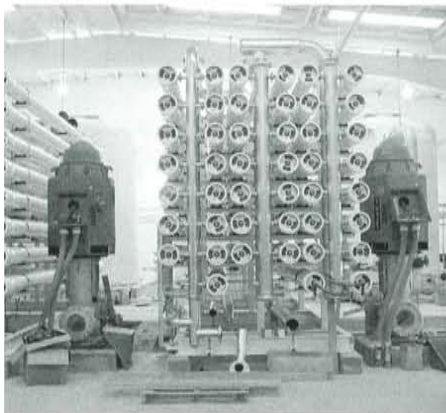
ARBER PROJECTS

ACWWA and Cottonwood W&S District

Arapahoe County Water and Wastewater Authority (ACWWA) and Cottonwood Water and Sanitation District hired Arber Associates to complete preliminary and final design for Colorado's first indirect potable water reuse system. Recharge of the alluvium with effluent from the wastewater plant will increase water supply for the agencies. The joint system will use the Cherry Creek alluvium to supply potable drinking water. The treatment system includes reverse osmosis and advanced oxidation processes.

City of LaJunta

Construction is now complete on the City's new \$6.9 million water treatment plant. The new plant is capable of producing 6.6 million gallons of treated water per day, and is designed to be expanded to 8.8 mgd, which is one of the largest reverse osmosis (RO) systems in the state of Colorado. The Membrane Water Treatment Plant uses RO membranes to reduce the concentration of hardness, sulfates, and other dissolved minerals in the City's water.



La Junta's Membrane Water Treatment Plant - Skid Construction

CO-STAR - CDPHE

Richard P. Arber Associates was hired by the Colorado Department of Public Health and Environment to complete detailed analyses of several public water systems to help them comply with the new, stricter standard for arsenic in drinking water.

The work was performed for nine systems. The best options for each community were identified. The public water systems

participating in the CO-STAR program were Agri-Health International, Curecanti National Recreation Area, East Alamosa, High Valley Mobile Home Park, Town of Eckley, Town of Telluride, Rock at Ute Trail Ranch, Pinebrook Hills, and the Town of Akron.

City of Brighton

The City of Brighton has experienced significant growth in recent years, resulting in increased water demands. The City is interested in pursuing non-potable irrigation as a method for reducing demands on the water treatment facilities. Arber Associates was contracted to evaluate the feasibility of a potential non-potable irrigation system and to develop a master plan for the system. ♦

CONGRATULATIONS



Matthew Noteboom, P.E. has recently received his professional engineering license from the state of Colorado. He graduated from Colorado State University's Civil/Environmental Engineering Masters Program. He holds a B.S. in Civil Engineering from South Dakota State University. His thesis work included an in-depth study of pH effects on coagulation mechanics and dosage optimization for the City of Loveland, CO. He is currently working on the Cortez Sanitation District project as an on-site project engineer.

Hsyi-Ming Jean, P.E. and **Marie Abu-Okal** will be celebrating 17 years with Arber Associates this fall. Mr. Jean has designed water and wastewater projects throughout the Western US for the firm and Ms. Abu-Okal is the firm's Administrative Assistant.



Rodney Fredericks celebrates 11 years with the firm. Mr. Fredericks is the CADD Department's Supervisor and has 15 years of experience as a Designer/Drafter.



William Veydovec, P.E. will be celebrating 10 years with Arber Associates. Mr. Veydovec is a project manager in charge of the ACWWA project and many National Park Service projects. ♦

PEOPLE



Matthew Hirschbeck - Design Engineer, E.I.T. has joined the firm. Mr. Hirschbeck has a B.S. in Civil Engineering from Bucknell University and a Masters degree from Yale University in Environmental Engineering. Mr. Hirschbeck has experience in water and wastewater treatment design and hydraulic design. Currently he is working on the Brighton Non-Potable Irrigation Project as well as the Metro Wastewater Reclamation District's Brantner Gulch Project.



Kevin Greer - Design Engineer, E.I.T. has recently joined Arber Associates. Mr. Greer is a graduate from the University of Colorado with dual Bachelors degrees in Civil and Environmental Engineering. Mr. Greer also completed a University sponsored work program at the City of Boulder Treatment Plant. He is working on projects for Arapahoe County Water and Wastewater Authority, Sequoia-Kings Canyon National Park and the Cortez Sanitation District.

Due to the firm's increasing growth and workload, the firm has expanded our CADD Department. **Curt W. Confer** joined the firm as an engineering designer/drafter with 23 years of technical experience. **Ron Field** recently joined the firm as a CADD drafter with 15 years of AutoCAD experience. ♦

NEW WEBSITE ONLINE

Richard P. Arber Associates developed a new website entitled www.reclaimedwater.com to help educate municipalities on water reuse issues. The site gives the visitor a general understanding of water reuse. ♦

Arber

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