
9. Alignment of State Resources and Policies (previously Chapter 7)

9.1. Economics & Funding

Introduction

Investing in water, and the long-term sustainable supply and delivery of that water, are critical to Colorado's future. Even in robust economic times, the difficulties of financing long-term sustainable large water projects can create community apprehension, political controversy, and significant financial uncertainty.

The financing of long-term sustainable water supplies and infrastructure cannot fall solely on government or a few large water providers; it requires a collaborative effort involving all water users and providers, as well as federal, state, and local resources. Colorado will need to find a way to fund its long-term water needs through a combination of constructive legislation, partnerships, and utilization of state and federal grant and loan programs.

This section provides 1) a description of existing financial need, 2) an overview of financial assistance programs, and 3) provides recommendations and suggestions on approaches for developing an integrated water infrastructure financing model that could assist in addressing Colorado's short- and long-term water needs.

9.1.1 Statewide Water Infrastructure Financing Need

One of the critical components of Colorado's Water Plan is the Basin Roundtables' development of separate Basin Implementation Plans (BIPs) for the major river basins within the State. In general, each BIP looked at balancing long-term municipal, industrial, agricultural, environmental, and recreational needs within the respective basins. From this comprehensive overview, the Basin Roundtables identified a list of projects that, from the perspective of the basin, address the long-term needs of the basin. In addition to these projects, other types of activities which require financial support include education, outreach, conservation programs, flow agreements, alternative agricultural transfer methods, important legal investigations, and programs that manage various risks and vulnerabilities throughout the state.

It is estimated that between \$17 and \$19 billion for municipal and industrial water infrastructure improvements will be needed by 2050 (CWCB, 2011).¹ In addition, approximately \$150,000 is needed per mile of stream for smaller scale river restoration work, but could cost \$240,000 or even \$500,000 per mile for significant structural changes or channel reconfiguration (Colorado Parks and Wildlife, 2014). To better determine how much river restoration work and other similar types

¹ This number is based on an estimated \$14-16 billion of identified M&I needs calculated in the Portfolio and Trade-off tool (CWCB, 2011), plus an additional \$3 billion estimated need for maintaining existing M&I infrastructure. However, the numbers are being refined based off the BIPs.

of work may be needed, up to 90 watershed level master plans are needed at an estimated cost of \$18 million statewide (CWCB, 2014). As basins and stakeholders identify recreational and agricultural needs, further projects and methods will need to be developed and funded to meet those needs.

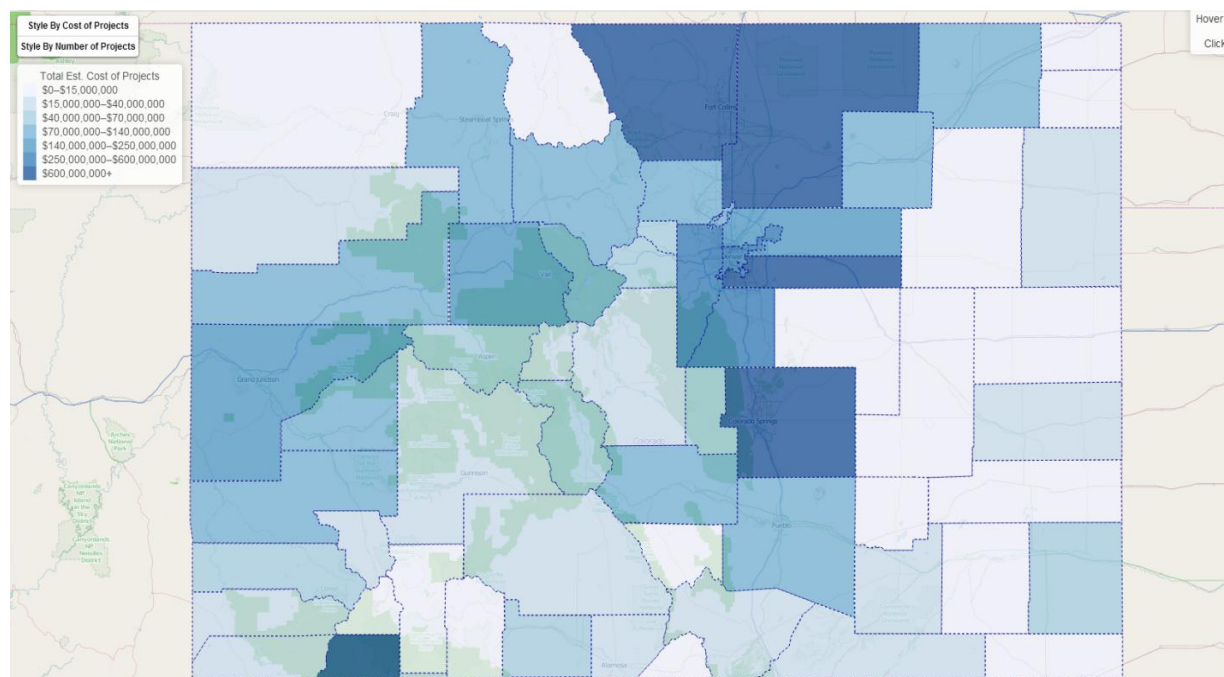


Figure 9.1.1-1: Estimated near-term infrastructure need (Water Information Network of Colorado, 2014)

From the information provided within each BIP, estimated overall statewide water infrastructure and corresponding supporting financial need is approximately \$[to be completed after further analysis].

9.1.2 Economic Impact

When Colorado's land, labor, and capital combine with water, the result is economic prosperity and opportunity. The economic impact of Colorado's many water uses, be they municipal, industrial, agricultural, environmental, or recreational, are well described in other sections of Colorado's Water Plan.

The following table illustrates the potential impact of investment in water-related infrastructure. In this range of sample states, including two other western states, the effect of investment is apparent. Every \$1 billion spent on water infrastructure results in \$1.7 to \$2.6 billion in total economic output within the state of investment (Table 9.1.2-1). This in-state benefit is part of the \$2.7 to \$3.5 billion potentially generated nationwide as a result of that in-state investment. Investing in water and the storage and delivery of that water not only creates jobs, but also creates a solid economic foundation upon which nearly everything produced depends. Additional analyses specific to Colorado will need to be completed in order to further estimate the potential economic

benefits related to meeting Colorado's needs, and the potential economic impact of not meeting stated needs.

	U.S.	State Range (CA, GA, MN, NM, PA)
Total Economic Output	\$2.7 - \$3.5 B	\$1.7 - \$2.6 B
Personal Income	\$1.0 B	\$600 - \$800 M
State and Local Tax Revenue	\$82.4 M	\$39.4 - \$47.5 M
Employment	20,003 - 26,669 Jobs	12,390 - 22,254 Jobs
Average Earnings	\$50,396	\$44,260 - \$68,099

Table 9.1.2-1: Economic impact per \$1 billion spent on water projects (Clean Water Council, 2009)

9.1.3. State Funding Resources and Other Funding Opportunities

Current Funding Opportunities

There are a number of existing State funding sources or programs that can assist in meeting the State's long-term water infrastructure needs. Though these programs cannot solely meet the financial water needs of the State, they can assist in bridging funding gaps when combined with other available funding sources. The State recognizes that water providers are in control of their own short- and long-term capital investments, operation and maintenance, and customer base. Water providers currently have the capability to pursue private funding through the bond market and are cognizant of their short- and long-term water supply and infrastructure needs.

Within the State there are three main funds or programs that have the resources and continue to provide funding for water projects. They are the Colorado Water Conservation Board (CWCB) Water Project Loan Program, CWCB's Water Supply Reserve Fund, and the Water Resources and Power Development Authority's (Authority) Water Revenue Bond Program.

CWCB Water Project Loan Program

Recognizing the importance of funding raw water projects, the Colorado General Assembly created the Water Project Loan Program, which is comprised of two funds, the Construction Fund and the Severance Tax Trust Fund, in 1971: codified at section 37-60-120 in the Colorado Revised Statutes. Annual revenues to the Construction Fund come from principal and interest (P&I) on existing loans and a portion of Federal Mineral Lease revenues that paid to the State. There is approximately \$18 to \$20 million annually available for water project loans from this fund.

In addition to the Construction Fund, in 1995, the Severance Tax Trust Fund was created under section 39-29-109, which directs 25% of the State's severance tax revenues into this Fund. The Fund is currently capped at \$50 million annually. Severance tax annual revenues to the CWCB range from \$20 to \$50 million.

The Water Project Loan Program on average has \$50 to \$60 million available annually for loans for various water projects throughout the State. The combined fund equity from the Construction Fund and Severance Tax Trust Fund is in excess of \$700 million.

Water Supply Reserve Fund

This state grant program provides funding at the local basin level to address a variety of short- and long-term water needs. Current funding level is capped at \$10M annually, which is split between the Statewide and Basin Accounts. Funding comes from annual severance tax revenues to the State, and has varied from \$5-\$10 million annually. This Program has distributed over \$40 million in grant funds to date for a variety of water related studies and projects.

Water Resources and Power and Development Authority

The Authority is a quasi-governmental organization created by section 37-95-101 in the Colorado Revised Statutes to provide low-cost financing for water and wastewater related infrastructure projects to municipalities and special districts. The Authority has four main financing programs: the Drinking Water Revolving Fund (DWRF); the Water Pollution Control Revolving Fund (WPCRF); the Small Hydropower Loan Program (SHLP); and the Water Revenue Bond Program (WRBP).

The WRBP provides funds up to \$500 million for (Placeholder1) individual projects, without legislative review, to public entities for water and wastewater projects. The Authority's WRBP rates are consistent with private municipal bond market rates, but with the distinct difference of providing bond issuance subsidies, up to a total of \$250,000, for each of up to four projects in any given year.

The DWRF and WPCRF are both part of the State Revolving Funds, which are operated in every state. These funds are primarily used for water quality projects, and are capitalized by state and federal funds: states contribute 20 cents for every federal dollar. These funds are often used to leverage other funds through the issuance of municipal bonds.

The SHLP is a joint program operated in coordination with the CWCB. Loans from this program are limited to up to \$2 million per governmental agency, for eligible projects, five megawatts or less. Agencies seeking more than the first \$2 million available through the Authority can apply through the CWCB.

Grant Programs

CWCB also offers a number of grant programs for various water related efforts, such as water efficiency, alternatives to agricultural transfers, emergency drought response, phreatophyte control, and others. Annual combined funding for these various grant programs is in excess of \$4 million. A list of these various grant programs can be found at CWCB's website at <http://cwcb.state.co.us/Pages/CWCBHome.aspx>.

A list of Federal, State and private funding opportunities for Federal, State and private environmental and recreational needs can be found in the Nonconsumptive Toolbox, appendix E (CWCB, 2011). The total amount of funds available from state resources that are dedicated to these efforts on an annual basis is approximately \$11 million. However, some of these funds are extremely competitive, while others are hard to qualify for, and are not fully utilized.

There are currently very few funding sources available for education, outreach, and other important water related activities that do not involve construction of projects. Environmental and recreational projects and methods are at a disadvantage in competitive funding programs. Though they have strong support from non-governmental organizations, many of these groups are funded

through charitable donations, as opposed to tax revenue. Much of this type of work is funded through the Water Supply Reserve Account program, which requires approval by the Basin Roundtables and the CWCB.

Potential Future Funding Opportunities

Initial estimates suggest that municipalities will primarily need state, federal, or bond market loans to fund their projects. Over the next 35 years, based on current funding levels, the state currently expects to have nearly \$2 billion available in CWCB loans for municipal, industrial and agricultural projects. Compared to the statewide water infrastructure financing need discussed above, this amount suggests a potential public financing gap. In order to support innovative water projects, such as multi-use, alternative agricultural transfers, or a new transmountain diversion with a sufficient back-up supply on the East Slope alongside significant environmental and recreational support that meet the criteria of the IBCC consensus and additional state funds may be necessary. Environment and recreational projects primarily rely on grants to support them, since those efforts are not typically ratepayer supported. Current capacity to fund environmental and recreational projects and methods over the next 35 years is \$385 million, based on current funding levels. Compared to the potential financial need as discussed, this amount also suggests that there may be a shortfall in being able to build environmental resiliency and vibrant recreational based economies. Beyond the CWCB loan programs, there are an additional \$490 million available from Water Supply Reserve Account and another grant programs for meeting future needs.

Federal funding options are also a potential source for meeting financial needs. For science and research projects, the Bureau of Reclamation's WaterSMART program, managed through Landscape Conservation Cooperatives, has funded several programs throughout the region. For certain agricultural efficiency projects, the Colorado River Basin Salinity Control Forum has brought a significant amount of federal funding to Colorado, aimed at improving the water quality of the Colorado River.

Other avenues of funding have been explored to meet Colorado's future water needs. The Interbasin Compact Committee explored several financial options in the No and Low Regrets Action Plan (IBCC, 2013). In addition, The Nature Conservancy, Colorado Chapter and the Tamarisk Coalition also assessed funding sources for environmental needs (TNC, 2010; Tamarisk Coalition, 2011). When additional funding sources are needed, some examples of potential investment opportunities are:

- Constructive Legislation – Provide funding to work with water providers, elected officials and community leaders to develop productive legislation to assist in creating effective and efficient funding processes that will help maximize the use of water within the state. Some specific examples that could be considered include:
 - Removal of Federal Mineral Lease and Severance Tax Fund cap limits,
 - Increasing funding levels to Water Supply Reserve Account Grant Program (WSRA) account,
 - Investigation of instream flow tax credits, directing previously transferred Severance Tax funds back to CWCB,
 - Expansion of State Engineer dewatering statutes to assist with fluctuation in groundwater levels, and

- Expansion of CWCB's authority to enable better management and distribution of existing funds.
- Public-Private Partnerships – Provide funding to research the pros and cons of private-public partnerships (P3s) and develop a preliminary model of what a water infrastructure P3 could look like. P3s can reduce capital investment and risk, while drawing from the strengths of both the public and private sector, but care needs to be taken to draw an appropriate balance between public and private resources, cost, control, and long-term revenue streams. Lessons learned in the transportation sector, for example the implementation of public-private funding for a toll road, can provide examples of the challenges and opportunities faced by a similar undertaking. Social perception, the interaction of state and private contracting policies, ratepayer concerns, and long-term sustainability of the partnership are all factors to be considered.
- State Referendum –Any taxpayer-supported effort and accompanying long-term debt needs to be approached with care and consideration. There should be a clear and concise reason for the need, a comprehensive plan of how and where the funds will be expended and defined oversight and accountability, accompanied by a plan that addresses the problem long-term.

9.1.4. Next Steps

Several financial “next steps” have been identified as part of the process for developing Colorado's Water Plan. These include the following:

- Assess funding needs across multiple sectors using the Basin Implementation Plans and other resources as a guide (e.g., municipal, environmental, industrial, recreational, agricultural, education and outreach, conservation, other needed incentives)
- Better assess economic benefits and impacts of meeting or not meeting Colorado's future water needs.
- Align state funding policies and coordinate state agencies to strategically support the values identified throughout Colorado's Water Plan, such as for multi-purpose and multi-partner projects and methods. Options to consider may include:
 - For environmental and recreational project proponents, develop a common grant inquiry process coordinated across funding agencies.
 - For projects that are multi-purpose, multi-partner, or which incorporate public-public partnerships, investigate the potential of becoming a project beneficiary through an arranged partnership. A few specific examples where the State has already undertaken such an effort are the Rio Grande Cooperative Project, the Chatfield Reallocation Project, and the Animas-La Plata Project, involving over \$100 million in State funding.
- Explore near-term opportunities to increase funding resources:
 - Reassess the Instream Flow Tax Credit program to determine how to make it more usable.
 - Assess whether more funds are needed to support the Water Efficiency Grant Program, to provide financial incentives for implementing conservation programs and planning for conservation and drought.

- Assess whether there are additional loan opportunities for municipal conservation practices.
- Assess whether there is an opportunity to establish a water education and outreach grant program.
- Water Supply Reserve Fund – Additional capital could be directed into this Fund to provide funding at the local basin level to address a variety of short- and long-term water needs. Current funding level is capped at \$10M annually, which is split between the Statewide and Basin Accounts. Current guidelines and accounts could be revisited to provide financial incentives for certain types of water activities.
- Assess the funding opportunity from the Water Infrastructure Finance and Innovation Authority (WIFIA) and the Rural Infrastructure Fund for loans to rebuilding aging water infrastructure.
- Assess larger scale long-term funding opportunities to determine the best potential options. Work with stakeholders to determine how to move forward.