Measurable Objectives

Colorado's Water Plan is a living document.

Colorado's Water Plan and its measurable objectives will be updated as values, conditions, or data warrant. Future iterations of Colorado's Water Plan will evaluate progress made and identify or refine future actions.

Conservation

Colorado's Water Plan sets a measurable objective to achieve 400,000 acre-feet of municipal and industrial water conservation by 2050.

Supply-Demand Gap Colorado's Water Plan sets a measurable objective of

reducing the projected 2050 municipal and industrial gap from as much as 560,000 acre-feet to zero acre-feet by 2030.

Land Use

Colorado's Water Plan sets a measurable objective that by 2025, 75 percent of Coloradans will live in communities that have incorporated water-saving actions into land-use planning

Fundina

Colorado's Water Plan sets an objective to sustainably fund its implementation. In order to support this objective, the State will investigate options to raise additional revenue in the amount of \$100 million annually (\$3 billion by 2050) starting in 2020. Such funds could establish a repayment guarantee fund and green bond program focused on funding environmental and recreational projects. In addition, such funds could further support conservation, agricultural viability, alternative transfer methods, education and outreach, and other plan implementation priorities.

Storage

Colorado's Water Plan sets a measurable objective of attaining 400,000 acre-feet of water storage in order to manage and share conserved water and the yield of PPs by 2050. This objective equates to an 80 percent success rate for these planned projects.

Agriculture

Colorado's Water Plan sets an objective that agricultural economic productivity will keep pace with growing state, national, and global needs, even if some acres go out of production. To achieve this objective, the State will work closely with the agricultural community, in the same collaborative manner that has produced agricultural transfer pilot projects, to share at least 50,000 acre-feet of agricultural water using voluntary alternative transfer methods by 2030.

Watershed Health, Environment, and Recreation

Colorado's Water Plan sets a measurable objective to cover 80 percent of the locally prioritized lists of rivers with stream management plans, and 80 percent of critical vatersheds with watershed protection plans, all by 2030.

Education, Outreach,

and Innovation Colorado's Water Plan sets a measurable objective to significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys. Colorado's Water Plan also sets a measurable objective to engage Coloradans statewide on at least five key water challenges (identified by CWCB) that should be addressed by 2030





COLORADO Colorado Water **Conservation Board** Department of Natural Resources

Questions?

Contact us at cowaterplan@state.co.us and visit us online at www.coloradowaterplan.com. Find Colorado's Water Plan on

Facebook: facebook.com/cowaterplan and follow us on S Twitter:

@COWaterPlan

COLORADO'S WATER PLAN

Colorado's Water Plan Implementation Update

Colorado's Water Plan is our state's solution to our water challenges. It guides future decision-making and sets forth the measurable objectives, goals, and critical actions needed to ensure the state's most valuable resource is protected and available for generations to come. Implementation is critical to Colorado moving forward.

Supply and Demand Gap

Water Supply Reserve Fund (WSRF) Criteria & Gui The Colorado Water Conservation Board (CWCB), Interbasin C Committee (IBCC), and nine basin roundtables collaborated to the Water Supply Reserve Fund (WSRF) criteria and guidelines explicitly link funding requests to the goals and measurable outcomes identified in the Basin Implementation Plans and Co Water Plan. The CWCB Board approved the final criteria and guidelines at its September meeting, with an effective date o September 22, 2016. Access the updated version on the CWCE homepage or Colorado's Water Plan website under Communit

Water Supply Reserve Fund (WSRF) Grants

The CWCB distributed \$7.4M in Water Supply Reserve Fund (W grants from the statewide and basin accounts in FY 2015-2016 September, the Board approved 19 WSRF grants. Some examp projects include a Dust on Snow Monitoring Study in the Color Gunnison, Rio Grande, and Southwest basins; the South Platte Storage Study (HB16-1256) in the South Platte basin and in par with the Metro Roundtable; the Stambaugh Reservoir Outlet I in the North Platte basin; and the Phase 2 of Tailwater Return Study of Fort Lyon Canal in the Arkansas basin. These project with the goals and priorities in Colorado's Water Plan and the Implementation Plans, and help achieve the implementation

Colorado River Development & Curtailment Risk Stu

In March, the CWCB Board awarded a grant to the four Wester basin roundtables, Colorado River District, and Southwestern Conservation District for the Colorado River Development and Curtailment Risk Study. This study aligns with Colorado's Wate by taking actions that seek to identify and minimize the risk of Colorado River Compact curtailment. Phase I laid the groundy for evaluating a number of different state-wide or sub-basin s scenarios dealing with questions of curtailment, demand management, water banking, and risk sensitivity to model var such as demands and hydrology. In Phase I, the South Platte, Metro,



each

iidelines Compact to revise es to Colorado's	and Arkansas basins were invited to participate in webinars and meetings to provide feedback. Three different webinar series were held during the summer of 2016, providing participants opportunities to understand the modeling process and provide feedback on assumptions and results. Upon completion of the model scenario analysis, in-person presentations were made to each of the Western Slope basin roundtables, a group of Front Range participants, and technical committees from the Colorado and Southwestern Districts.
of EB ty. WSRF) 6. In	Statewide Water Supply Initiative (SWSI) Reducing the supply and demand gap requires actions in conservation, storage, land use, and agriculture. Updating the SWSI to provide accurate and current technical information for many of these efforts is fundamental to success. The SWSI update efforts kicked off July 2016.
ple prado, artnership Repair n Flow ts align e Basin of both. tudy ern Slope	George
d ter Plan of a Iwork specific ariables,	Water Supply Permitting Lean Event Earlier this year, state and federal partners and community stakeholders completed a Lean event on the water project permitting process. The Lean team is focused on implementing the recommendations to streamline the permitting process while maintaining rigorous environmental protection. All information is

COLORADO'S

Chatfield Reservoir Reallocation Project

The Chatfield Reservoir Reallocation Project represents a critical component for Front Range storage and is a multi-objective, multi-benefit arrangement that meets the needs of M&I supply, agriculture, the environment, and recreational purposes. It also supports the goals of Colorado's Water Plan, including healthy stream corridors that support environmental and recreational needs. In September, the CWCB Board approved dedicating 600 acre-feet of CWCB owned storage space in the Chatfield Reservoir Reallocation Project for environmental and recreational purposes as part of a larger environmental pool called for in the Fish and Wildlife Mitigation Plan and other agreements among the participants for managing the reservoir. The 600 acre-feet of CWCB space helps satisfy a critical gap in the overall environmental pool requirement of 2,100 acre-feet. The water will be released at the Chatfield Reservoir choke point - a supply equal to what 4,200 households typically use in a year.

South Platte Storage Study

The CWCB is financially supporting a variety of storage efforts and innovations, including studying storage options in the South Platte (required under HB 16-1256), exploring groundwater storage technology, and conducting a spillway analysis to identify existing storage that could be expanded. The CWCB Board approved the WSRF grant request for \$211,168 from the Statewide Account for the HB16-1256 South Platte Storage Study at the September Board meeting. The CWCB is now in the process of hiring the consultant for the study.

Conservation & Land Use

Breaking Down Silos: Integrating Water into Land Use Planning

The CWCB is developing a variety of trainings that will be held over the next couple of years for local governments, utilities, and land use planners to increase water-saving actions and the integration of land use and water planning. The *Breaking Down Silos: Integrating Water into Land Use Planning* training series this fall offered three webinars and one Train-the-Trainer Workshop. The three webinars were targeted at water providers and local government planners. The webinars reached over 100 participants:

 $_{\rm V}~$ Breaking Down Silos: Integrating Water into Land Use Planning: Setting the Stage - September 13

- v Breaking Down Silos: Integrating Water Efficiency into
- Comprehensive Planning October 4
- $_{\rm V}~$ Breaking Down Silos: Integrating Water into the Zoning Code November 1

The Train-the-Trainer Workshop was held on October 24 as part of the American Planning Association's Colorado State Conference. It was designed for local government planners and water providers who want to be trained to provide educational workshops in their community and/or region that explore issues of water and land use planning and explore how to develope effective plans and implementation strategies for water conservation. This workshop reached 35 participants.



Water Efficiency Planning

Since the approval of Colorado's Water Plan in November 2015, the CWCB has granted \$444,825 in water efficiency planning and implementation projects for conservation planning, plan implementation, and public education and outreach. These projects assist in attaining Colorado's Water Plan measurable objective of 400,000 acre-feet of conservation savings by 2050. Some standout projects currently underway include:

V Western Resource Advocates is holding three tap fee workshops in October and November. The workshops will educate communities about how tap fees can be used as a tool for encouraging water efficiency in newly constructed developments, and how to foster dialogue among neighboring communities on the topic of tap fees;

 South Metro Water Supply Authority is developing an implementation plan for a regional landscape professional certification program for all SMWSA members and hopes to export the program to other parts of the state;

v The City of Aspen is updating its municipal code to include a more robust set of landscaping and irrigation system requirements and associated enforcement mechanisms. This concept was also included in the Roaring Fork Watershed Regional Water Efficiency Plan (Regional WEP). Aspen is committed to working with the regional partners, and sharing information gained through the process of designing regulations that work at the local level for Aspen. These concepts may be scalable to a regional program and/or for adopting similar regulations within other local jurisdictions.

Agriculture

Agriculture Water Summit

The CWCB and IBCC are co-hosting an Agriculture Water Summit in partnership with the Colorado Ag Water Alliance (CAWA) on November 29. The meeting will explore successful alternative transfer methods (ATMs) to help alleviate the traditional buy-anddry of irrigated agriculture. Discussion at the meeting will provide a dynamic summary of the most promising ATM projects and tools to help promote further successes in the field that result in measurable water deliveries to meet multiple needs.

Alternative Transfer Methods (ATMs) Discussion

Representatives from the State, basin roundtables, and community organizations participated in a workshop in October at the Colorado Department of Agriculture on meeting the Alternative Transfer Methods (ATM) goal in Colorado's Water Plan. The discussions addressed the incentives and barriers to ATMs and the work needed to support and facilitate ATM projects. The proposed next steps include forming working groups to further develop structures for the different types of ATMs thought to be needed.

Watershed Health, Environment & Recreation

Watershed Restoration Program

The CWCB is looking to provide an additional \$5 million to the Watershed Restoration Program for roundtables and stakeholder groups to develop watershed restoration and stream management plans and projects for the priority streams identified in Basin Implementation Plans (BIPs) and other watershed planning documents. This \$5 million is dependent on the approval of the proposed CWCB funding plan.

Instream Flow (ISF) Program

The CWCB's Instream Flow (ISF) Program helps meet one of the primary values in Colorado's Water Plan: ensuring a strong environment that includes healthy watersheds, rivers, streams, and wildlife. Ongoing efforts to manage existing ISFs and implement new permanent and temporary ISFs directly assist with meeting a number of critical goals in the plan including:

- v recovering imperiled species;
- $_{\rm V}~$ enhancing environmental and recreational economic values;
- v protecting healthy environments; and
- v protecting and restoring critical watersheds.

Since November 2015, the CWCB has initiated the appropriation of 18 new ISF water rights, while continuing to move forward on several temporary leases and permanent acquisitions to assist with stream flows in critical reaches during critical periods.

Education, Outreach & Public Engagement

Public Education, Participation, and Outreach (PEPO) Workgroup

The Public Education, Participation, and Outreach (PEPO) Workgroup met for a workshop in October to discuss the goals of the group and to share ideas, resources, successes, and challenges in education and outreach across the basins to foster more collaboration statewide.

The CWCB Confluence Newsletter

The CWCB created an e-newsletter, the CWCB Confluence, to update stakeholders on Colorado's Water Plan implementation and the work of the CWCB Board and staff, IBCC, basin roundtables, and local communities. The CWCB Confluence is published after each CWCB Board meetings. Sign up on Colorado's Water Plan website.

Innovation

The CWCB is working to connect with and create partnerships with the innovation community, including the Colorado Innovation Network (COIN), to create pathways for the business and innovation sectors and the water community to work together to tackle the state's water challenges. The focus is to bring creativity into the ways we approach the challenges and craft the solutions and to use water data.



Additional Critical Goals

Climate Change

The CWCB is working across state agencies to increase resilience to extreme events and variability as a result of climate change. This includes incorporating climate change mitigation and adaptation into long term planning both within the realm of water and other sectors. Two specific examples include the CWCB working with the Colorado Department of Transportation (CDOT) to look at how climate change can be integrated into long term planning, which included a full-day workshop as well as a joint presentation to the Transportation Environmental Resource Council. Second, the CWCB and the Colorado Department of Public Health and Environment (CDPHE) are working with the Governor's Office on how to address climate change in the public health realm.

Funding

Proposed CWCB Funding Plan

Funding is critical to many of the implementation efforts. The CWCB will continue to align funding decisions with Colorado's Water Plan. The CWCB developed a 3-5 year funding plan, which will seek approvals from the CWCB Board and the Colorado legislature through the annual Projects Bill. If approved, the funding plan will create a repayment guarantee fund. This fund will be used to financially support regional projects with multiple sponsors. The loan guarantee fund will provide financial support for the project by homogenizing the project sponsors' credit ratings and effectively reducing the cost of the project by lowering the borrowing rates. The funding plan would also bolster the WSRF program and support several education, conservation, reuse, and agricultural viability actions called for in the plan. The plan includes:

- $v_{\rm }$ a one-time investment of up to \$30 million (as available) into a repayment guarantee fund;
- v an annual transfer of \$10 million for the WSRF;
- $_{\rm V}~$ an annual transfer of \$5 million for the Watershed Restoration Program;

 $v_{\rm }$ and an annual transfer of \$10 million for additional non-reimbursable CWCB programming to implement Colorado's Water Plan.

Use of \$5 million from 2016 Projects Bill

Of the \$5 million transferred in the 2016 Projects Bill to assist in the implementation of Colorado's Water Plan, staff is recommending the following approximate amounts to the Board and legislature for appropriation in 2017:

- v \$1 million will support efforts with watershed-level flood and drought planning and response;
- v \$.5 million for grants to provide technical assistance to irrigators for assistance with federal cost-sharing improvement programs;
- v \$1.2 million for water forecasting and measuring efforts;
- \$1.3 million to update reuse regulations as well as to fund a training program for local water providers to better understand AWWA's methodology for water loss control; and
- $_{\rm V}$ \$1 million to support the Alternative Agricultural Water Transfer Methods Grant Program.