

## The New Colorado Water Plan and What it Means for Colorado Agriculture Producers

By Phil Brink, CEP  
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One week before Thanksgiving, 2015, the Colorado Water Plan (<https://www.colorado.gov/cowaterplan>) was released by the Colorado Water Conservation Board. The water plan was two years in the making and involved stakeholders from around the state as well as citizen input from several thousand residents.

The events leading to the development of the state's first water plan started in 2004, when a Statewide Water Supply Initiative (SWSI) was prepared at the direction of the Colorado General Assembly. The SWSI established "basin roundtables" - which brought diverse stakeholders together from each basin to discuss water supply issues and develop basin implementation plans which describe how each basin will meet future water needs. In 2005, the Water for the 21st Century Act was passed by the Colorado Legislature, creating an Inter-basin Compact Committee to facilitate conversations between the basin roundtables, and aggregate information for statewide planning purposes (source 2010 SWSI).

In 2010, an updated Statewide Water Supply Initiative report was released, which estimated Colorado's population could swell to as much as 10 million people by 2050, nearly doubling our current population of 5.3 million. The demand for water driven by the increasing population could result in a municipal and industrial water supply gap of between 310,000 and 560,000 acre-feet.

The 2010 SWSI report was an eye-opener. It indicated that as much as 700,000 irrigated acres could be dried-up statewide by 2050 through the purchase and transfer of water rights from irrigated agriculture to urban areas. The projected reduction in irrigated acreage in the South Platte River Basin was estimated at 30% of agricultural land under production. Such large-scale dry-up of irrigated agriculture would have adverse economic, environmental and food security impacts.



Irrigation in Route County; 1908. NPS, Journal of Heritage Stewardship, V.3, N.2. 2006.

In 2013, the Governor issued an executive order directing the CWCB to develop the Colorado Water Plan to address the projected gap. The newly finished document emphasizes water conservation, increased storage, and alternative agricultural transfer methods (ATMs) as the primary means for closing the projected water gap.

The water plan recognizes the economic, environmental and cultural value of Colorado's agriculture industry. It promotes alternatives to "buy and dry" water transfers, where cities purchase agricultural water rights and transfer them to supply new housing developments. Instead, the water plan encourages sustainable approaches that enable irrigated land to stay in production while helping supply water for other uses. Rotational fallowing, deficit irrigation, and planting lower consumptive use crops are the main practices being looked at for "creating"

consumptive use water that would otherwise have been used by crops. Consumptive use water is water retained by the growing plant plus the amount lost through evapotranspiration.

Rotational fallowing involves fallowing irrigated land for at least one growing season. Deficit irrigation may include reduced irrigation throughout the season or ceasing irrigation part way through the season. Crops like alfalfa, which typically produces the greatest yield from the first cutting, may be well suited for deficit irrigation. Planting lower consumptive use crops, such as substituting sorghum for corn, is also a way to realize consumptive use savings. The 'saved water' can be leased to municipal, industrial, recreational, environmental or agricultural interests. All alternative ag transfers, or "ag water sharing" agreements would be voluntary, temporary and compensated. A variety of state laws have been passed over the last decade to ensure that a participating landowner's water right(s) would not be negatively impacted.

The state water plan puts forth a goal of 50,000 acre-feet per year to come from alternative ag water transfer mechanisms (ATMs). This objective appears viable, however, while the concept of ATMs is simple, the implementation is likely to be challenging as the myriad details are worked out. Saved consumptive use water must be delivered or credited to the lessor. Delivery to a distant, upstream user requires cooperation from other parties, and it must not injure other water rights, including junior water rights that may, for example, rely on the lessor's irrigation return flows. The quantity must also be accurately measured and verified.

It is unlikely that any one method will be universally accepted statewide (SWP, 6-116). Alternative ag water transfers will have to be tailored to conditions specific to each basin and will require collaboration among farmers, land owners, ditch companies, lessees and state agencies.

A few ATMs already exist. One example is the North Sterling Irrigation Company, which for the last decade has been guaranteeing water for the Xcel power plant near Brush. Xcel pays the irrigation company an annual base fee plus a delivery fee if water is actually needed and delivered. So far, no water has been needed, so the irrigation company has simply received the annual base fee. In ten years, the irrigation company has received over \$1.6 Million in payments from Xcel, much of which is passed on to the participating landowners.

The Colorado Cattlemen's Association has created the Ag Water Network with the goal of helping keep agricultural water connected to agricultural land. The Ag Water Network is currently looking for agricultural irrigators or irrigation companies that are interested in implementing Alternative Ag Water Transfer (ATM) pilot projects. A pilot project could involve creating and executing an ATM with a lessee, or a component of an ATM, such as analyzing the ability of an irrigation company to fulfill a lease agreement in times of drought. The general idea of the ATM is to enable agricultural water right holders to diversify revenue from their water rights and keep their land in agricultural production now and in the future.

Implementation of ag water transfers will require collaboration with industry, municipalities and others that are interested in leasing water from irrigated agricultural producers. Contact Phil Brink, Ag Water Network Coordinator or Terry Fankhauser, EVP or Colorado Cattlemen's Association to discuss your interests.

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