By Tom Browning, Colorado Water Conservation Board deputy director

AGRICULTURAL FALLOWING-LEASING

COLORADO'S WATER PLAN discusses the role and importance of agriculture in the state, as well as the contributions of the agricultural industry. The goal of the plan, as supported by a wide array of stakeholders, is to maximize options for alternatives to the permanent dry up of agricultural lands (sometimes referred to as "buy and dry"). The plan respects private property rights and the current water rights framework that has been in use for over a century. Agriculture uses the largest amount of water in Colorado and serves as the economic centerpiece for many rural communities. The state estimated that Colorado could lose half a million or more acres of currently irrigated farmland to meet population growth and future municipal needs. The plan asks for a sharing goal of 50,000 acre-feet of water (one acre-foot equals nearly 326,000 gallons), which could serve up to 350,000 people annually.

Various types of options, known as alternative transfer methods, or ATMs, are being used or considered in Colorado, including rotational fallowing, interruptible supply agreements, municipal–agricultural water sharing arrangements, water cooperatives, virtual and physical water banks, and flexible water markets. These options could work collectively to make meaningful reductions in the projected loss of irrigated acres. Each one deserves a separate article in its own right, but the bottom line is that creative solutions are being implemented or discussed to slow buy and dry in river basins. ATMs are agile enough to also assist with protecting higher-value crops for economic benefits.

So far, we have learned that ATM projects can be very challenging to develop and implement, with high price tags and certain legal barriers. However, short-term or long-term temporary water transfers are viable and represent a key element of Colorado's water future. Case studies, on-the-ground applications, and vital data are needed so that measurable results are based on real-world experiences. The water community is interested in learning as much as possible to further refine program constraints and ways to address identified challenges.

One such real-world example is the Catlin Canal Pilot Project that was brought forward in late 2014 by the Lower Arkansas Valley Water Conservancy District and then subsequently approved in January 2015 by the Colorado Water Conservation Board (CWCB). The pilot project involved fallowing-leasing agreements between farmers who use water from the Catlin Canal Company and three municipal water providers: the Town of Fowler, City of Fountain, and Security Water District. Along with the written agreements between participating entities, recharge ponds on two farms are used to meet return flow obligations. New equipment was also installed in strategic locations to satisfy water measuring requirements.

The ability to pursue the project came from legislative authorization contained in Colorado House Bill 13-1248. That bill authorized the CWCB

to administer a statewide pilot program to essentially test the effectiveness of fallowing-leasing as an ATM. The CWCB works in harmony with the Colorado Division of Water Resources, through the Office of the State Engineer, and receives a written determination regarding any material injury to other water rights holders caused by proposed pilot projects. Specific guidance and technical criteria for pilot project applications are contained in a policy document previously approved by the CWCB. More recently, Colorado Senate Bill 15-198 was signed into law. It supplements the previous bill by allowing for additional end uses for the water such as environmental, recreational, industrial, and other agricultural needs.

In any case, the pilot program allows the selection of up to 10 separate pilot projects, each lasting up to 10 years in duration. The main goal is to test the viability of fallowing-leasing by putting into operation, on a limited basis, projects that fallow irrigated lands and lease the associated water rights for temporary municipal or other uses. Pilot project ideas are now being looked at to capitalize on the potential benefits related to the expanded authorities from SB 15-198 in addition to the original purposes.

Not only did the Catlin Pilot Project begin its operations at the start of the 2015 growing season, but it also successfully completed a full year of operations in a smooth and trouble-free manner. So successfully, in fact, that participating farmers and municipal recipients alike appear to be quite pleased with the effort. Along those lines, a large group of individuals gathered in May 2015 for a workshop at the Lower Arkansas Valley Water Conservancy District's office located in Rocky Ford. The workshop included discussions about the pilot program; related technical criteria; roles of the applicant, CWCB, and state engineer; lessons learned from the first year's operation of the Catlin Canal Pilot Project; and ways to possibly improve the program for future years or for new applicants wanting to take advantage of opportunities and benefits afforded by the fallowing-leasing program. Immediately following the workshop, a field tour was conducted so that attendees could view project features such as recharge ponds and fallowed lands.

At this time, year two of the project is now well underway. Further lessons will be learned with additional experiences and more data from this project. Pilot projects are instrumental in providing a glimpse into strengths, weaknesses, opportunities, and threats when considering new methods that alter how we currently do business.

Colorado has approximately 10.6 million acres of cropland, but population growth will cause additional pressure on our food sources. In addition to the obvious needs for food security, agriculture supports our state's cultural identity and complements diverse environmental attributes. Local economies, especially in our rural areas, depend heavily on wholesale, retail, banking, and support services related to production.

With so many benefits and so much riding on the success of agriculture, it is imperative that we keep our sights set on alternative ways to reduce the rate of permanent buy and dry of agricultural lands, while simultaneously respecting our system of water rights in Colorado.

ATMs are not mandatory and do not limit the choice that owners of private water rights have to sell their water, but they do allow for voluntary transfers to take place using a willing buyer/willing seller format. As new tools become available, they will undoubtedly offer farmers and other water users the chance to diverge away from the status quo path of permanent dry-up of agricultural lands.