Where now with Alternative Transfer Methods—ATMs—in Colorado?

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Where now with Alternative Transfer Methods—ATMs—in Colorado?

Colorado's Water Plan states a measurable objective of providing at least 50,000 acre feet of agricultural water to municipal water providers through voluntary, compensated alternative transfer methods (ATMs) by 2030. Three separate meetings in the fall of 2016 addressed this challenge by convening water leaders from across the state, representing the interests of diverse sectors of the water community—agricultural, urban, and environmental.

While the separate discussions included many different points of view and ideas, several key themes, conclusions and recommendations surfaced. This Special Report from the Colorado Water Institute summarizes primary conclusions, puts forth recommendations that emerged, and provides backup materials and discussion points as attachments. Although there was a great degree of overlap and consensus among the three meetings, because each of them had different formats and attendees, not all of the statements in this Report were necessarily reached, discussed, or universally supported at each of the three meetings. In addition, the conclusions and recommendations documented here do not necessarily reflect the individual views of the authors or the positions of their organizations.

The Report is intended to provide a foundation on which further progress toward meeting the Colorado Water Plan's ATM goal can be built.

Three Major Meetings

October 7, 2016—Broomfield. This meeting was convened by John Stulp, water policy advisor to Governor Hickenlooper and chair of the Interbasin Compact Committee (IBCC), and Anne Castle, Senior Fellow with the Getches-Wilkinson Center at the University of Colorado. The stated purpose was a frank discussion about meeting the 50,000 acre feet ATM goal in Colorado's Water Plan. Approximately 25 water leaders from various sectors across the state participated in the discussion.

November 4, 2016—Grand Junction. This event was convened by Colorado Water Institute and funded by the Walton Family Foundation for the purpose of engaging Upper Colorado River Basin stakeholders on strategies to prevent permanent fallowing of agricultural water in light of urban and environmental pressures. These strategies include rotational fallowing, deficit or limited irrigation, crop switching, and irrigation efficiency improvements. Approximately 50 participants represented diverse interests in Colorado and included officials from Wyoming and Utah.

November 29, 2016-Golden. This Colorado Ag Water Summit was jointly convened by the Interbasin Compact Committee and Colorado Ag Water Alliance (CAWA). The purpose of the summit was to bring together Ag producers and other water leaders to learn about successful ATM projects and tools and discuss moving toward the 50,000

acre feet goal of Colorado's Water Plan. Three panels each presented successful ATM projects from different perspectives: Ag producer, M&I, and environmental/recreational. Two additional panels addressed common aspects and obstacles, as well as ongoing activities and legislative issues. The 150 participants met in breakout groups and took a real-time feedback poll to capture their thinking about ATMs.

Primary Conclusions

Below is a listing of the primary conclusions that emerged from the in-depth discussions that took place at the meetings described above.

- Irrigated agriculture is an essential component of Colorado's economy, culture, and ecology.
- While some progress has been made in facilitating ATMs, permanent fallowing of Ag land through land and water rights sales is currently the easiest way for users such as municipalities to obtain new water supplies.
- Permanent fallowing of Ag land weakens Colorado's agricultural and rural economies, as recognized in Colorado's Water Plan.
- Municipalities and Ag producers have expressed interest in exploring ATMs that make financial sense to both parties.
- From the Ag producer perspective, interest in ATMs is heavily influenced by current commodity prices. ATMs are recognized as a potential stabilizing source of farm revenue but many are concerned about missing out on years of high commodity value. ATMs may also provide desirable security for bank loan purposes.
- Some ATMs will be used to provide supplemental urban water supplies, especially for the Front Range. Other ATMs will be used to facilitate Colorado River Compact compliance or reduce the risk of a Compact call. These different types of ATMs often have different goals and requirements and may be better addressed separately.
- For the Front Range/municipal supply type ATM:
    - From the municipal supplier perspective, the ATM needs to be more cost effective than permanent acquisition and some form of permanence is desirable. This could take various forms, such as a permanent conservation easement on the land or a water bank or market that provides a reliable source of water for combined agricultural and municipal/industrial needs. Such approaches could provide opportunities for young farmers to get into agriculture without large capital outlay for land.
    - Infrastructure in the form of storage or distribution facilities are very likely to be needed to make this type of ATM work, but the permitting of such facilities is considered too burdensome and time-consuming. Better and more timely methods could be adopted to allow construction of needed facilities while continuing the protections provided by existing laws.
    - The Super Ditch and Catlin lease-fallowing arrangement are developing in the Arkansas Basin and evolving into a good model for ATMs. In the

South Platte Basin, an ATM-type agreement between the North Sterling Irrigation District, Fort Morgan Reservoir & Irrigation Company, and Xcel Energy provides another model, although this arrangement involved a change of use proceeding in the Water Court.

- For the Colorado River Compact compliance/risk reduction type ATM:
    - The definition of "beneficial use" may need to be modified to include Compact compliance and risk reduction.
    - The ability to shepherd conserved water to Lake Powell is essential and needs further dialogue.
    - This type of ATM can be structured to also benefit the environment and/or endangered fish species.
    - The needs of this type of ATM are similar to the periodic need of East Slope municipal suppliers for the refill of reservoirs depleted by drought or other short-term drought-related needs.
    - An Upper Basin Drought Management Cooperative could expand this discussion to the other Colorado River Upper Basin states (Wyoming, Utah, and New Mexico) through the Upper Colorado River Commission.
- Deficit irrigation of forage crops, and rotational fallowing have been used in Colorado as underlying agricultural techniques to support ATMs.
- Crop switching to lower water use crops is in theory feasible, but would be complex to utilize. Its use in the context of ATMs has been limited.
- Irrigation efficiency has been used to increase instream flows and improve water management. Efficiency measures for the most part do not create consumptive use savings and, therefore, do not make more water available for use in an ATM other than for instream flow in a limited stream reach.
- Opinions differ as to whether the existing Water Court and ATM processes are sufficient, with some believing that the Water Court change of use protections are essential to ensure against injury while others are concerned that the process is too burdensome and costly and could be streamlined in ways that continue appropriate protections.
- Common methodologies or presumptive factors for consumptive use and return flow measurement, timing, and accounting could be adopted to reduce the cost of temporary transfers while protecting water rights.
- Transparency in terms of ATM transactions, particularly price terms, benefits all. A database of ATM transactions could be developed and kept up to date.
- In many cases water providers have already purchased agricultural land and water for future use and are leasing that water back to agricultural producers until they need it for future growth or drought. This is typically called "purchase-leaseback." Some of these water providers have shown interest in working with agricultural and environmental stakeholders to create win-win benefits for all three sectors until and as they transition that portfolio of water over time.
- Every basin is different. There is no "one size fits all" solution. Regional entities, such as water conservancy or conservation districts, are logical organizations to administer ATMs.

- Concerns about “use it or lose it” have kept some from considering ATMs or otherwise temporarily altering their historic diversions for conservation purposes. Further education or statutory clarification may be needed.
- The State should continue its leadership role in facilitating and spurring progress on ATMs.
- Funding needs should be further explored and quantified.
- Get going and learn by doing.

Recommendations

Below is a listing of the primary recommendations that emerged from the in-depth discussions that took place at the meetings described above.

- **Establish and support two working groups, one to focus on the Front Range/municipal type of ATM and one to focus on the Colorado River Compact compliance/risk reduction type of ATM.** Some ATMs will be used to provide new or additional urban water supplies, especially for the Front Range. Other ATMs will be used to facilitate Colorado River Compact compliance or reduce the risk of a Compact call. These different types of ATMs have different needs and motivations, different structures, different strategies, and different funding sources. They should be addressed by two separate working groups.

  A Front Range/Municipal work group is emerging, based on the recommendation from the October 7 Meeting. Its first meeting was held on Dec. 12, 2016. The group is exploring whether a Super Ditch-type organization can be established in a receptive and appropriate portion of the South Platte Basin, drawing from recent research conducted comparing costs of ATMs to permanent acquisition of water rights for identified Front Range municipal ATM candidates.

  A Colorado River Compact Compliance/Risk Reduction work group should be established, possibly joining forces with the existing Colorado River Water Bank Work Group and/or the existing System Conservation Pilot Program group. Such a group should address ATMs that can reduce the risk of Lake Powell reaching critically low elevations or a Colorado River Compact call. This is not just a West Slope group, as East Slope entities are major diverters of Colorado River water. In addition, Colorado’s work should be coordinated with that in the other Upper Basin states through the Upper Colorado River Commission to ensure that every state contributes a fair share. Ultimately, this Compact compliance work group could meld into or coordinate with an Upper Basin Drought Management Cooperative.

- **The State should work with regional entities to facilitate and administer ATMs.** With state leadership, existing water conservation or conservancy districts, or other regional entities can be supported to provide a

neutral brokering role for conceptualizing and enabling ATM transactions that can be scaled to greater quantities. The regional entity can identify storage or other infrastructure needs and work to identify multiple use opportunities and find funding if needed. A database of ATM transactions should be maintained to allow transparency, market pricing, and refinement based on lessons learned.

- **Adopt a common technical platform for measurement, accounting, and verification.** A common technical platform (or "presumptive factors" or "accepted methodologies"), similar to the Arkansas River Basin's Lease-Fallowing Tool (LFT), is needed to standardize such factors as consumptive use and return flow quantity and timing. Such standardization will facilitate temporary transfers, and reduce the cost to acceptable levels while protecting private property rights. Conservative assumptions should be used to ensure that no injury occurs to other water users. Appropriate sideboards, opt-out provisions, and means of objection should be included. The State Engineer's office is working on adapting the LFT for the South Platte Basin.

- **Identify storage and other infrastructure needs and find ways to meet those needs.** Infrastructure in the form of storage or distribution facilities is very likely to be needed to make some ATMs work, particularly the Front Range/municipal supply type. The particular regional needs should be ascertained, opportunities for multiple use of existing facilities identified, and funding sources explored.

- **Provide professional support and network building for agriculture to cooperatively take advantage of ATMs.** Reach out to agricultural producers and their water managers through groups with which they associate, to give them the information and tools needed to consider ATMs. Such outreach could help producers and water managers conceptualize how they might form networks through which ATMs could be accomplished at a larger scale for increased benefit and profitability. In addition, it can give them access to research about the economic and agronomic opportunities and challenges of such activities as rotational fallowing, deficit irrigation, crop switching and irrigation efficiency improvements. Finally, outreach could give opportunities for discussion and understanding of how ATMs can be set up to maintain or increase the security of their water rights.

- **Provide professional support to encourage network building among smaller domestic water providers to cooperatively take advantage of ATMs.** The needs and planning resources of smaller municipalities and special districts differ from those of large municipalities. Professional support is needed to help them conceptualize means by which they might work together to transact regional water deals with agricultural water rights owners to satisfy their need for reliable water supplies for specified purposes such as future growth or drought protection.

- **Identify the administrative or legislative changes that may be needed to allow the Compact compliance type of ATM.** Existing Colorado law may not be adequate to support use of ATMs to provide water to Lake Powell to facilitate Colorado River Compact compliance or reduce the risk of a Compact call. The barriers to be addressed include recognizing Compact compliance or risk reduction as a beneficial use, authorizing shepherding of water for these purposes, and improving the ability to utilize federal water project facilities to assist with system conservation, among others. Involvement with and following the lead of the Upper Colorado River Commission and the Colorado Water Conservation Board are essential to protect Colorado's long-term interstate water interests.

- **Identify secure funding to facilitate the ATM volume needed to meet Colorado's Water Plan goal.** To generate and sustain enough ATM activity to meet the goal specified in Colorado's Water Plan, a steady and reliable source of funding will be required. While the majority of funding for ATMs will come from the ATM lessee, there may be infrastructure or programs required that cannot be funded through a market-based transaction between lessor and lessee. Funding external to given transactions could help pay for the statewide and community benefits of preserving irrigated agriculture in view of the need for additional water supplies for urban, environmental, other agricultural, and system reliability purposes.

Additional Resources

Summary of Input from the Three 2016 Meetings on ATMs, http://www.cwi.colostate.edu/files/Input_from_three_meetings.pdf

2016 Ag Water Right Holder Survey Results Summary - Ag Water NetWORK, Colorado Cattlemen's Association, Partners for Western Conservation, https://www.coloradocattle.org/CMDocs/ColoradoCattlemen/2016%20Ag%20Water%20Survey%20Results%20Report.pdf

Alternative Water Transfers in Colorado: A Review of Alternative Transfer Mechanisms for Front Range Municipalities - Environmental Defense Fund, WestWater Research, https://www.edf.org/sites/default/files/alternative-water-transfers-colorado.pdf

How Diversion and Beneficial Use of Water Affect the Value and Measure of a Colorado Water Institute,
Special Report No. 25, Feb. 2016,
http://www.cwi.colostate.edu/publications/SR/25.pdf

Alternatives to Permanent Fallowing: Chapter Summaries, Agricultural Water Conservation Strategies to Find Water for Municipal and Environmental Purposes, Colorado Water Institute, Oct. 20, 2016,
https://drive.google.com/drive/folders/0B_DulpnMk7M_T1d5bWFJbVdCQk0