

Water Sharing Agreements Along Colorado's Front Range

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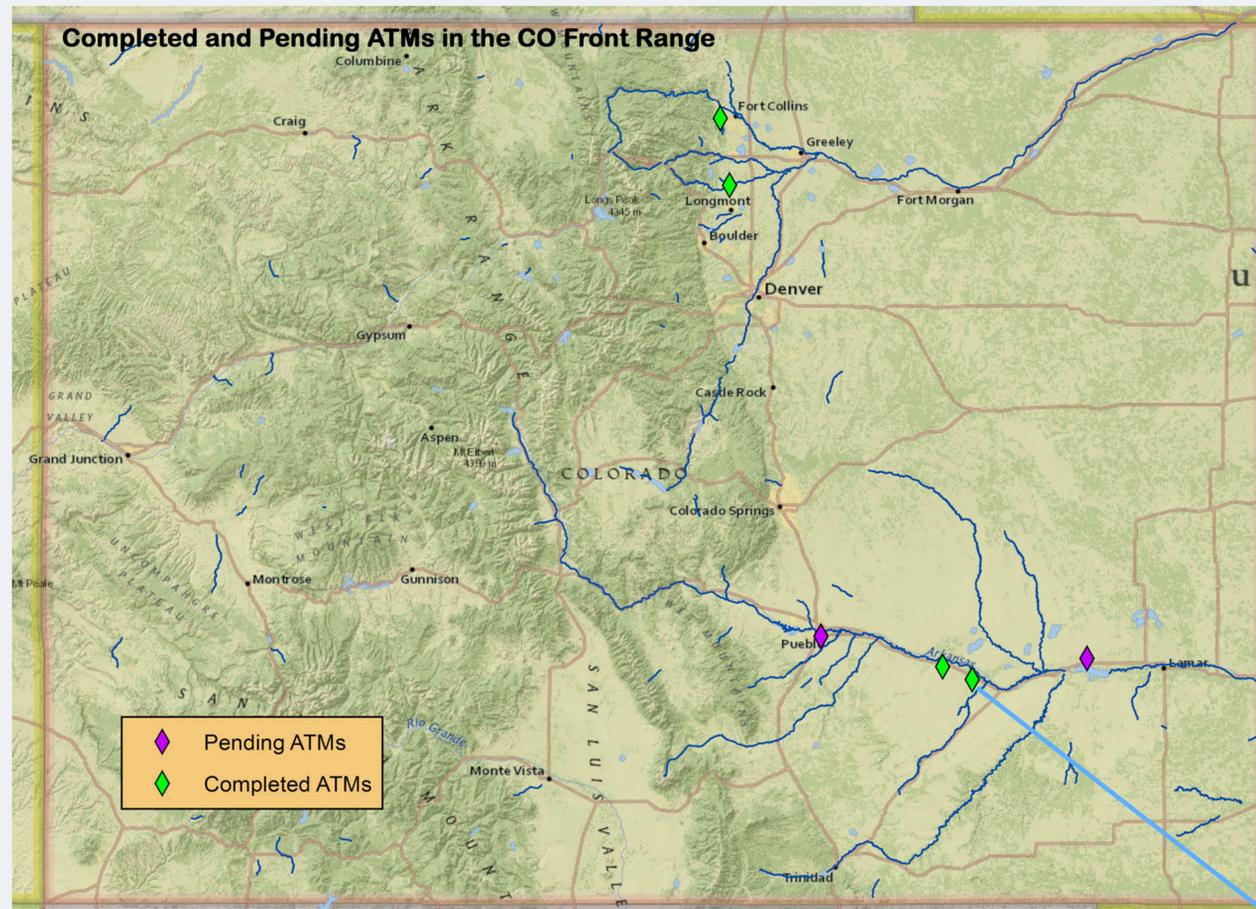
Abstract

Buy and dry, or the permanent transfer of water rights from agricultural to municipal use, has resulted in the economic ruin and environmental degradation of rural communities in order to fuel the water demands of growing urban populations. Alternative transfer methods (ATMs) and similar water sharing agreements are upheld by the Colorado Water Plan (Colorado's, 2015) as a pathway to avoid buy and dry and to mutually benefit both agricultural communities and urban water users. This investigation highlights the perceptions of water utility employees; regional entities, such as water conservancy districts; and third-party entities, such as land trusts, toward water leasing agreements. The current trajectory of ATMs highlights the need for long-term and reliable agreements through methods such as conservation easements, rotational fallowing, or formalized water swapping; third party investment, and education and outreach to water providers and the general public to shift socio-normative barriers to ATM implementation. These findings offer insight into how emerging agreements are building upon the traditional definition of ATMs, leading to innovative and pioneering water agreements that significantly mitigate the effects of buy and dry.

Methodology

18 confidential interviews were conducted using a standardized set of questions. Interview subjects were selected due to their interest and past engagement in ATMs across both the Arkansas River Basin and South Platte River Basin. The following table illustrates the breakdown of subjects interviewed 1) water utilities; 2) third party entities and 3) regional entities.

Water Utilities (water resource managers, project managers, project engineers)	Third Party Entities (directors, project specialists)	Regional Entities (general managers and program coordinators)
Arkansas River Basin: The Cities of Colorado Springs, Fountain, and Aurora	Nonprofit Land Trusts – Palmer Land Trust and Colorado Open Lands Program	Water Districts – Lower Arkansas Water Conservancy District (Arkansas River Basin) and Northern Water Conservancy District (South Platte River Basin)
South Platte River Basin: The Cities of Fort Collins and Broomfield	For-profit entities – Western Water Partnerships and WaterNow Alliance	Irrigation ditch companies – Northern Poudre Irrigation Company and Lower Arkansas Management Association
	Government land management agency - Larimer County Department of Natural Resources	Statewide water management agency – Colorado Water Conservation Board



RESULTS

Through the review of interviews, these themes have become apparent:

- 1) ATMs can be structured in a way to retroactively mitigate the impacts of buy and dry
- 2) ATMs are scalable and replicable, dependent on the specific needs of the utility, ditch company, and individual farmers involved
- 3) The distribution of responsibility in bearing transaction costs to these agreements could be more evenly distributed.
- 4) Marketing the public benefits of ATMs, such as providing an alternate option to buy and dry, increasing local food security, conserving scenic and community buffers, and preserving Colorado's agricultural heritage, would increase their likelihood of adoption.
- 5) Conservation easements and ATMs in perpetuity can be a way to create security and reliability of water supply sources for utilities.

HOW THE THE CATLIN CANAL ATM WORKS:



1) Water is diverted from the Arkansas River to the irrigation ditch. This is known as the head gate.



2) Ditch water is monitored for its flow rate and quantity in the pilot project.



3) Depending on whether a utility decides to take water, the box divider channels water either to the irrigator's field, or the utility's water treatment facility ("2017 Annual Report", 2018).

Agricultural producers in the Lower Arkansas Valley Water Conservancy District have temporarily leased water to the City of Fountain through the Super Ditch, a third party entity between agricultural producers and cities ("Alternative Water Transfers", 2016). Authorized in 2015, the Catlin Canal pilot project is the first successful pilot project with six total participating farms and serves as a model for future rotational fallowing ATMs (EDF, 2016). Colorado Springs Utilities is expected to sign onto this agreement in 2020 and will have the ability to temporarily lease water up to 3 out of 10 years (CSU Senior Project Manager, 2019).

WORKS CITED

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