

FELLOWSHIP BRIEF

Imagining an Agricultural Future: Collective Water Management in the San Luis Valley, Colorado

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The Need.

Across the West, agricultural communities face the acute threat of ongoing drought. Surface water has decreased, aquifer levels have declined, and some years the monsoon season never comes. The San Luis Valley, in southern Colorado, faces a second, more urgent threat as well. The state may shut off the wells on some of the most productive agricultural land if the aquifer hasn't recovered by 2031. And there is no clear path to recovery. In response to declining aquifer levels, the Rio Grande Water Conservation District (RGWCD) developed an unprecedented basin-wide system of collective water management. Lauded for its collaborative model, the district struggles to manage farmers and ranchers with different values and ideologies and, therefore, different responses to drought. The San Luis Valley resembles many agricultural communities across the West. The valley is under resourced, facing limited economic opportunities, and intimately suffering the impacts of a changing climate. Kathleen used the San Luis Valley as a case study to consider how rural communities respond to the loss and disintegration of a viable agricultural future.

The Project.

During the summer of 2023, Kathleen conducted over 100 hours of participant observation, a research methodology wherein the researcher is immersed in the lives of the participants. Kathleen attended basin roundtables, community meetings, political events, conferences, board meetings, workshops, auctions, and fairs. She conducted 30 semi-structured interviews with water users and water managers, each one to five hours long. She spoke with farmers and ranchers, non-profit leaders, elected officials, and government representatives. The interviews happened at kitchen tables and on back porches, in pick-up trucks and in fields, while hauling hay or moving cattle. Following the completion of the field research season, Kathleen transcribed and analyzed each interview to identify dominant themes and patterns.



The Findings.

Kathleen's thesis focuses on (1) the historical, hydrological, and political conditions of agriculture and water development in the San Luis Valley, (2) ranchers' values and motivations despite political and economic challenges, (3) ranchers' projections and hopes for the future. Kathleen developed a piece of public-facing scholarship to share ranchers' experiences. She found that profound commitments to ways of life, responsible resource stewardship, and adaptability outweigh significant political and economic challenges. These values, along with an enduring commitment to place, enabled the development of the collaborative RGWCD system. Kathleen found that several challenges inhibit ranchers' ability to work towards collaborative solutions. A failure to recognize community-wide interdependence hinders participation in progressive solutions. Additionally, differences in ideologies and worldviews create different understandings of the cause of water scarcity. For some, it is easier to blame one's neighbor than to reckon with ideologies incompatible with one's own, including the reality of human-caused climate change. In a complex cultural, political, and hydrological space, individuals grapple with uncertainty around a changing climate, political frustration, and fear for a loss of lifeway.

The Impact.

An estimated 100,000 acres of irrigated agricultural land in the San Luis Valley must be retired to recover the aquifer. Loss will be inherent to this process. This transition must be navigated in a way that supports viable mid-scale operations, rather than expediting already unfolding processes of land consolidation under large-scale agribusinesses, conglomerates, and speculative hedge funds. The challenges facing the San Luis Valley reflect those of many agricultural communities, and the RGWCD can serve as a model for other basins. The San Luis Valley represents a shifting community of practice that has made remarkable progress towards effective collaboration, while still grappling with the challenges of collective action. While agriculture receives much of the blame for consumptive water use across the West, ranchers' stories are largely absent in conversations on water conservation. Kathleen's research supports the development of water management systems that prioritize agricultural viability, conserve agricultural lands, and support rural economies. Robust, socially informed, and culturally appropriate collaborative water management tools are essential to resilient agriculture across the West. Central to their success is the ability to connect to one's neighborhood, understand their values, and imagine paths forward together.



The Student.

Kathleen Voight, Research Assistant and Western Resource Fellow | Kathleen Voight is a Master of Environmental Science candidate focused on the conservation and management of working lands in the Rocky Mountain West. Her research focuses on agricultural viability, resiliency, and drought adaptation in livestock grazing systems in southern Colorado. Prior to matriculating at the Yale School of the Environment, Kathleen worked in agriculture, conservation, and environmental education. Kathleen holds a BA in History of Art from Yale University and she is a former Rocky Mountain Farmers Union Fellow. In her free time, Kathleen likes to bike, hike, and ski as often as possible. [See what Kathleen has been up to.](#) | [Blog](#)