



RESHAPING WATER PRACTICES IN IDAHO

Building a Sustainable Future for the Boise Basin

ETHOS CONNECTED

*The First Solution Supporting
the Full Lifecycle of Water*

2023

Case Study

WATER DISTRICT 63

*Serving Boise Basin
Water Users*

Idaho Water District 63 and Ethos Connected have implemented one of the most consequential water conservation projects in the American West. Saving 19,000 acre-feet of water in just one and a half irrigation seasons, this transformative partnership revolutionizes water management as we know it.

19,000

Acre-Feet Water Conserved

13,000

Acre-Feet

Reduction in
Operational Loss

6,000

Acre-Feet

Captured for
Proper Allocation

33%

Efficiency Gained

Introduction

As one of the fastest-growing communities in the United States, Ada County, Idaho, faces extraordinary water challenges. The Treasure Valley, known for its beautiful and productive agricultural landscape, faces a rapidly growing population, unprecedented urban development, and a shortening water supply.

Responsible for delivering water from the Boise basin's headwaters to the Snake River's confluence, Water District 63, along with their vision and commitment to improvement, implemented one of the most consequential water conservation projects in the American West. [Saving 19,000 acre-feet of water in just one and a half irrigation seasons](#), the transformative partnership between Water District 63 and Ethos Connected (Ethos) revolutionizes water management as we know it.

Ethos is dedicated to delivering projects with sustainable value, designing, deploying, and operating the real-time remote monitoring and management solution leveraged by Water District 63. With an expansive wireless network and over 100 sensors deployed on the Boise River, Water District 63 now delivers twenty-four-hour water accounting to the State, keeps more water in storage by leveraging real-time insights, and secures the future of water for the next generation who will call the Treasure Valley home.



We embarked on our automation journey with high hopes for the Boise Basin, but Ethos has taken us beyond our wildest expectations. Our success has been realized faster than we could have ever dreamt, and irrigators are enjoying remarkable results at a fraction of the price compared to larger infrastructure initiatives.

Mike Meyers, Watermaster,
Idaho Water District 63

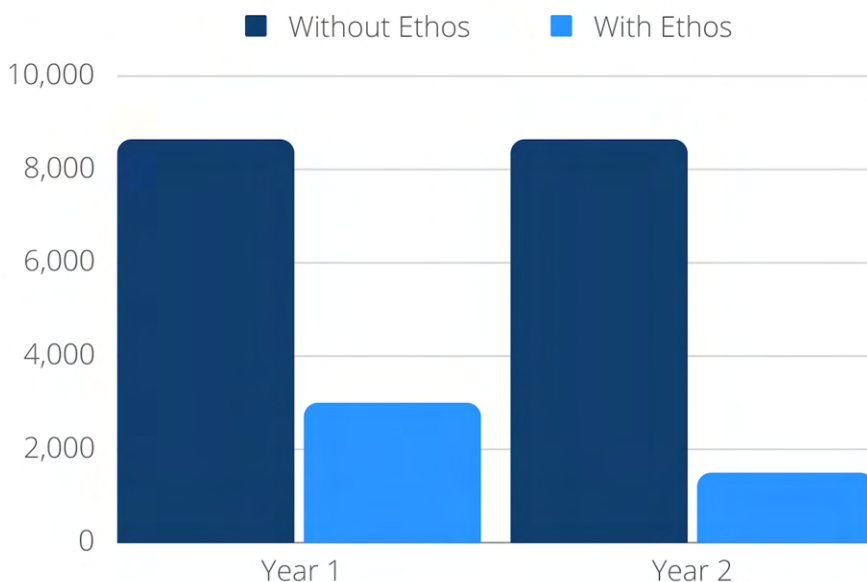


Resiliency:

REDUCTION IN OPERATIONAL LOSS

Ethos' sensors deliver critical real-time data points, allowing WD63 to adjust the river immediately. This real-time decision-making enables the district to proactively manage water flow and water rights allocations. It increases collaboration amongst all stakeholders on the river, reducing operational loss by 13,000 acre-feet or resulting in **13,000 acre-feet of water kept in storage**.

While WD63 previously provided an exemplary seven-day accounting to the State and its water users, the Ethos' solution provides twenty-four-hour accounting. In critical irrigation seasons, when every drop counts, Ethos' solution can effectively manage water right dates in near real-time.



By working with Ethos Connected, Idaho WD63 has reduced operational loss by 13,000 acre-feet of water

Conservation:

WATER SAVINGS THROUGH REAL-TIME MONITORING



For Water District 63, Ethos' solution acts as constant eyes on each diversion in the District. Prior to this project, WD63 spent nearly 240 hours of drive time per season, manually checking diversions and flow measurements.

Once back to the office and after five hours of manual input of their readings, conditions on the river had changed yet decisions had to be made.

Moving from post-mortem data management to real-time decision making, **WD63 captured over 6,000 acre-feet of water that was previously not accounted** for due to changes on the river not previously known.

The solution now deployed along the Boise River has allowed the District to account for each drop of water and capture **nearly 25% water savings** at a number of their diversions.

Efficiency:

IMPROVEMENT IN IRRIGATION PRACTICES



Recognizing the value of real-time monitoring to the District, WD63 made the decision to share these insights with individual water users.

Proving the Ethos' adage, "you can't manage what you don't measure," water users showed a significant irrigation efficiency gain when armed with the District's daily data insights.

In one such case, an irrigator that consistently over-diverted water and depleted their storage early in the season, **managed their way to 70 acre-feet of water savings.**

Compounded over every diversion, a total of **33% irrigation efficiency gains were recognized** and a remarkable change of behavior was realized by individual stakeholders.

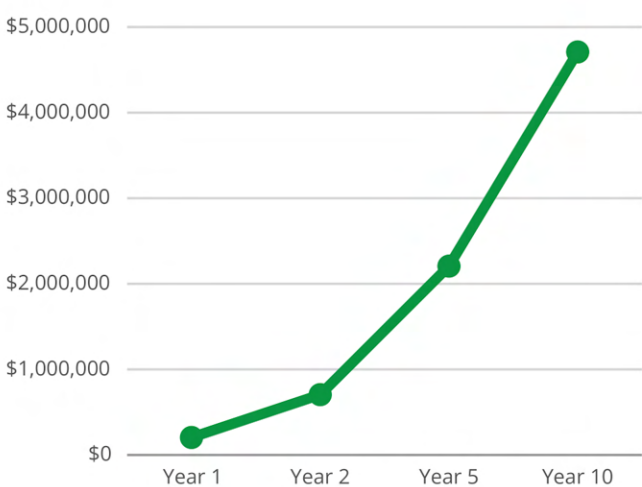
Sustainability:

REVOLUTIONIZING WATER MANAGEMENT

Water District 63's low-cost investment of \$133,000 in Ethos' sustainable water management initiatives is a cornerstone of the project's viability, demonstrating that effective conservation and resource management need not come at an exorbitant price.

This partnership reflects a strategic utilization of low-cost yet sophisticated sensors, data analytics, and automation systems, keeping water costs affordable for both agricultural and residential users.

By minimizing the financial barriers to entry, the project fosters widespread adoption, encouraging a collective commitment to sustainable water practices.



WD63 can generate over \$4.7 million in savings in less than 10 years through real-time management and 24-hour accounting

This democratization of access to advanced water management technologies contributes to the overall resilience of the community, particularly during critical drought years.

Moreover, the project embraces sustainability by capturing invaluable knowledge from water managers, alleviating hiring strains on districts, and guaranteeing continual knowledge transfer.

The project equips the next generation of water managers with essential tools for effective and efficient resource management, fostering resilience in the face of evolving environmental challenges.

The economic benefits extend to Boise and Ada County, safeguarding water resources while maintaining the cost of water within reasonable bounds, promoting a strategic balance between environmental stewardship and economic sustainability.