

ROI ANALYSIS: MODERNIZING WATER ORDER MANAGEMENT IN IRRIGATION DISTRICTS

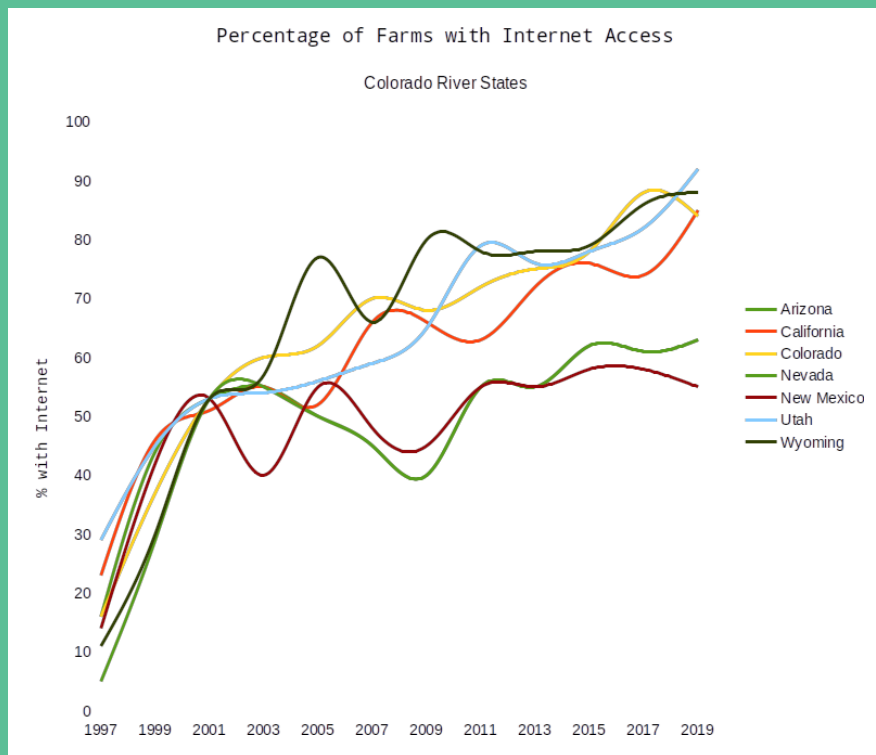


FARMS WITH INTERNET ACCESS

Internet availability on farms within the seven Colorado River states has rapidly increased over the past two decades.

Among these states, an average of over 75% of farms have access to the Internet.¹

1. Farm Computer Usage and Ownership, USDA Economics, Statistics and Market Information System, 2017



HARD & SOFT ROI

When determining Return on Investment (ROI) for new technology solutions for order processing and management, good solutions should provide value in two major ROI categories:

Hard ROI - Does it increase revenue or drive bottom-line performance?

- Increased revenue with same or decreased net cost of goods or services
- Increased revenue per existing client
- Static revenue with reduced costs
- Reducing the cost of transacting business through process automation
- Reduced office supplies

Soft ROI - Does it improve the experience for customers and staff?

- Provides 24/7 access to services and information
- Mobile access (customers and staff are more frequently using smart devices and tablets)
- Reduced impact on environment due to less printing
- Decrease in time required to process orders
- Increase in overall staff and customer awareness of order status
- Reduction in errors and missing information
- Increased job satisfaction due to reduction in menial tasks and wasted time

While soft ROI is difficult to measure and analyze, technologies which help to predict water usage, reduce the number of calculations that staff and customers must make, or which better serve the needs of customers through availability of timely, responsive information, can be valued as having a multiplier effect on productivity and performance within the district.

ACCOUNT FOR HARD ROI

While it is important to account for both hard and soft ROI when determining whether a new technology solution makes sense for your district, here we will focus on hard ROI, which we can calculate relatively easily.

Yearly Hard ROI is typically measured using a formula like:

$$\frac{\text{Time} \times \text{Customers} \times \text{Frequency} \times \text{Cost} \times 12}{\text{Price for Proposed Technology}}$$

Here, **Time** is the total amount of time your district personnel save when they no longer need to manually take and process a water order. To simplify calculations it can be approximated to about 5 minutes saved per order. This translates to 0.0833 hours, so we plug that value in for Time.

Customers is the number of customers within the district, and **Frequency** is how many water orders the average customer tends to place with your district in a month.

Last, **Cost** is the per-hour pay of the ditch rider or other staff members receiving, calculating, and processing water orders. If your staff is salaried, divide the salary by 2080 to get an approximate per-hour value for Cost.



CASE STUDY

In order to simplify our calculations for the table below, we estimate that each order placed with the new system saves approximately 5 minutes of your staff's time.

This includes time spent receiving the order information from a customer and writing it down on paper or in Excel, determining whether the information is accurate, calculating changes to canal water flow based on the new order, and logging the actual start and stop times of the order.

Additional time may be required for providing updates to the customer, correcting errors, finding the order information at a later date, and answering any questions the customer may have about the order. Depending on your district's typical workflow, 5 minutes may be a very low estimate.

100% ROI means that for every dollar spent on Watervize, your district saves one dollar. Essentially 100% ROI means you break even. A 200% ROI means that for every dollar spent on Watervize, your district saves two dollars. The higher the ROI a solution provides, the better for your district's budget, and the more it makes sense to pursue the new solution.

More information on features and pricing for Watervize Irrigation District Tools can be found at our website, www.watervize.com

ROI FOR WATERVIZE IN A MEDIUM SIZED DISTRICT

This table assumes a medium sized irrigation district with 250 customers and ditch riders earning between \$12 and \$22 per hour (\$25k to \$45k per year). Each water order placed by a customer is estimated to save 5 minutes of the district staff's time versus manual processing.

	Ditch Rider Hourly Pay	\$12/hr	\$17/hr	\$22/hr
Cost to manually process orders per year				
5 orders per customer per month		\$15,000	\$21,250	\$27,500
10 orders per customer per month		\$30,000	\$42,500	\$55,000
Typical 1st Year cost for Watervize *		\$15,000	\$15,000	\$15,000
Typical 2nd Year cost for Watervize		\$6,500	\$6,500	\$6,500
Average ROI over 2 Years				
5 orders per customer per month		140%	198%	256%
10 orders per customer per month		279%	395%	512%

* including set-up