

2018

Executive Summary of Report on Corporate Contributions in Arizona and Colorado

October 2018



IN PARTNERSHIP WITH ANTEA GROUP

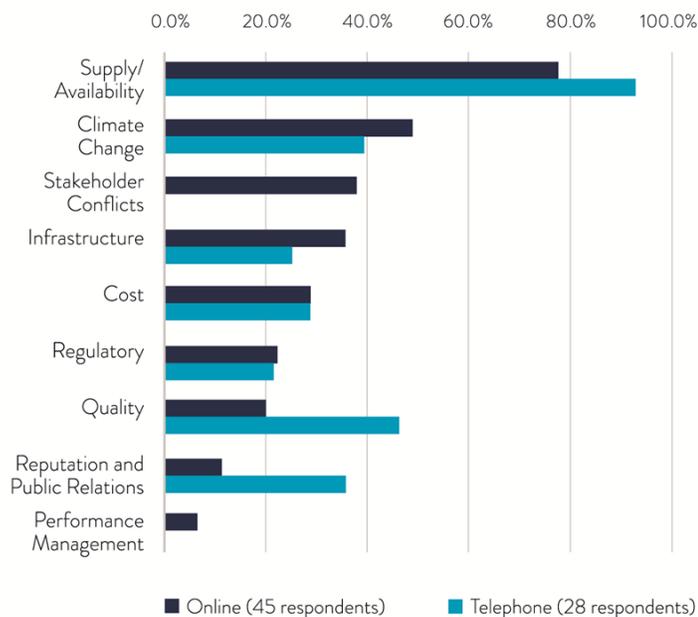


GUIDING OBJECTIVE AND CONTEXT

Business for Water Stewardship (BWS) commissioned research by Antea group to evaluate the water stewardship efforts of companies located or operating in Arizona and Colorado and gain insights on the current and potential contribution of the commercial and industrial (CII) sector to broader water stewardship within in the region.

This research builds upon a previous study conducted on behalf of BWS which found that the #1 water risk faced by businesses in the Southwest is availability/supply.

WHAT WATER-RELATED RISKS DO BUSINESSES FACE?



INSIGHTS & OPPORTUNITIES

Our research uncovered 3 primary insights:



INSIGHT #1: Better water data is needed to assist companies, utilities, policy makers and other stakeholders to manage and restore this valuable resource.

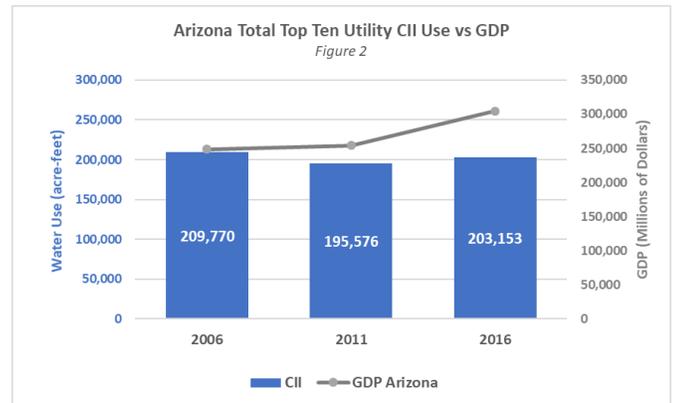
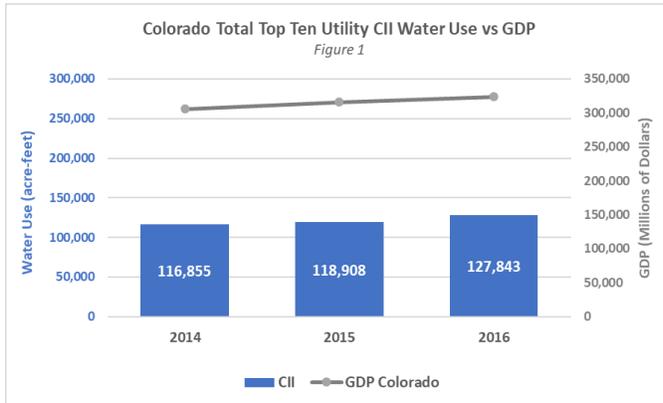
What we know:

The data that is available show:

- ◆ On average the business sector constitutes approximately 25-30% of water use in both states, though this number varies significantly among water districts

- ◆ Water use in the CII sector in Colorado increased slightly over the last few years, and declined slightly in Arizona over the past decade, but is on the rise in recent years
- ◆ When compared with state economic output numbers (Gross State Product), the data show that the Arizona commercial and industrial sector has become more efficient in the last decade, contributing to a 22% increase in Gross State Product while water use declined by 3%

We were unable to obtain any reliable numbers on water recycling or restoration based on publicly available data sets or through our surveys and interviews.



Barriers:

- ◆ No comprehensive requirements (all users, large and small for all sources of water) or mechanisms for centralized collection and reporting of commercial and industrial water use exist in either Colorado or Arizona
- ◆ Individual utilities have different classifications of “users” that are more aligned with the utility’s rate and billing structures than usage performance, so it is difficult to accurately assess CII water usage across a region or state, or to compare between states
- ◆ Because of the variability of customer bases, tracking mechanisms, definitions, and reporting timeframes across utilities, it is not possible to evaluate aggregate values or water use trends for CII sub-sectors (e.g., food and beverage, technology, etc.)
- ◆ Within individual sub-sectors (e.g., food and beverage) there is significant variability (e.g., craft vs mega brewers, sit down restaurant vs fast food, etc...) which, in addition to the lack of data, makes performance benchmarking difficult

Opportunities:

- ◆ Build on efforts to develop more effective methods and tools to measure and monitor groundwater withdrawals from major aquifer systems such the ADWR Groundwater Site Inventory (GWSI) database in Arizona
- ◆ Emerging technologies that help decision makers analyze and visualize water information that will result in more informed and accelerated water management decisions and general awareness
- ◆ Increased transparency and collaboration between companies and utilities and best practice sharing among companies that will enable development of sector and sub-sector water use and

performance benchmarks by utilities, companies, and trade associations to define what “good” looks like, improve decision making, and facilitate prioritization of water-related investments

- ◆ Update utility billing and metering systems to incorporate water performance evaluation and measurement



INSIGHT #2: The business sector is making positive advances in water stewardship in Arizona and Colorado. Leading companies have voluntarily adopted proactive measures across their operations in Arizona and Colorado, but there is appetite for more sharing of best practices, goal commitments and case studies that could help drive more proactive water stewardship in the private sector.

What we know:

- ◆ Key commercial sectors, from food & beverage, to technology, to mining and power generation, are leading the way on water stewardship in the region
- ◆ Of the 32 Arizona companies across seven major sectors evaluated, 44% have established water use goals, with annual water savings ranging from 2-5%
- ◆ The top water stewardship practices identified across Arizona companies include: 1) Water reuse/recycling; 2) Community engagement/partnerships; 3) Operational modifications; 4) Technology/automation (remote monitoring); and 5) Landscaping
- ◆ Of the 35 Colorado companies across three major sectors evaluated, 49% have established water use goals, with annual water savings ranging from 4-10%
- ◆ The top water stewardship practices identified across Colorado companies include: 1) Technology/automation (remote monitoring); 2) Water reuse/recycling; 3) Community engagement/partnerships; and 4) Operational modifications

Leading Goal Makers
<p>Hilton 2030 goal to reduce water use in managed operations by 50% compared to 2008 baseline</p>
<p>Intel Restore 100% of global water use by 2025 by funding collaborative projects to support local watersheds that restore water in quantities equivalent to the water consumed by Intel</p>
<p>Danone (formerly WhiteWave) 2020 goal to reduce water consumption in factories by 60% versus a 2000 baseline</p>

Barriers

- ◆ Only 8% percent of companies in our 2017 survey stated they have actually been able to document their water savings or restoration in terms of gallons or dollars
- ◆ Regulatory barriers such as difficulty in obtaining permits for water reuse projects and river restoration projects exist for companies
- ◆ Utilities are unable to disclose specific industrial or commercial water users’ data or performance due to privacy regulations¹, unless the customer gives explicit permission to release this data (e.g., to support a collaborative recognition program), which inhibits sharing of best practices and achievements

¹ Privacy regulations: Colorado Rev Stat § 24-72-204 (2016) and Arizona Revised Statutes §30-806 (2005)

- ◆ Companies in the U.S. are not currently required to publicly report facility-level water usage and performance data, and data sensitivity concerns inhibit voluntary disclosure that could lead to other companies embarking on water stewardship efforts

Opportunities

- ◆ Peer learning is one of the top three activities companies say catalyzes greatest action on water by businesses
- ◆ If a majority of companies within the two states followed the water stewardship leaders and were able to reduce water consumption by 10% through best practices alone, we estimate there is potential savings of ~20,000 acre feet in Arizona and ~13,000 acre feet in Colorado
- ◆ Some companies are beginning to report more granular data and information through public sustainability reporting and disclosure frameworks (CDP, Global Reporting Initiative), or through collaborative efforts with utilities or industry associations (the Beverage Industry Environmental Roundtable benchmarking study, Boulder County Partners for a Clean Environment)
- ◆ Support the development of efficiency standards or benchmarks for the commercial and industrial sectors based on new and emerging water efficiency technologies and best practices
- ◆ More aggressively share sector and geography specific water stewardship achievements and best practices to increase the percentage of companies that set and monitor water stewardship goals
- ◆ Increase transparency and disclosure of sector and sub-sector water use and performance data through:
 - Evaluating risks and opportunities for increased public transparency in water use metrics at a regional or facility level
 - Companies breaking from the norm and sharing state-level water use data to challenge other users and make progress towards defining benchmarks
 - Utilities providing greater transparency on sector and sub-sector water use data, including engaging with companies to evaluate performance ranges and benchmarks

Best Practice
<p>Hilton properties are required to have one community water replenishment, engagement or restoration initiative active at all times.</p> <p>In Arizona and Colorado, individual Hilton hotels have taken on a wide range of water stewardship projects, for example:</p> <ul style="list-style-type: none"> ◆ <i>DoubleTree Colorado Springs, Colorado:</i> Black Forest Regional Park Restoration ◆ <i>DoubleTree Durango, Colorado:</i> Hotel staff taught all La Plata County second graders about clean water and conservation ◆ <i>Hampton Tucson North, Arizona:</i> Ensure water overflow from parking goes to city reservoir ◆ <i>Hampton Phoenix – Scottsdale, Arizona:</i> Coordinate with city to have all leaky gaskets and old rusted pipe replaced to prevent thousands of gallons of water lost each year ◆ <i>Homewood Suites Greeley, Colorado:</i> The south area of the hotel has a detention pond to hold rainwater and release slowly into the city system



INSIGHT #3: A supportive operating environment in terms of policy, regulations, recognition programs, and economic incentives is needed to accelerate water stewardship efforts in the private sector that will benefit other water users and all stakeholders. Companies will need to engage in policy conversations to advance smart water policy and management.

What We Know

- ◆ The number one issue preventing companies from getting more engaged in water management reform is a lack of information/understanding of the issues
- ◆ Two thirds of companies we surveyed say that connecting with decision makers and stakeholders catalyzes business action on water

Barriers

- ◆ The business case for water investments remains challenging due to perceived low cost of water from an operational perspective, and insufficient business value (e.g., recognition, competitive advantage, revenue growth) compared to other investment options
- ◆ Until water stewardship is sufficiently monetized, demonstrable progress will be impeded. This phenomenon impacts both water users (i.e. industry, domestic, and agricultural users) and water providers (i.e., utilities). Users often only consider the direct cost they pay for water, which in the case of groundwater can sometimes be perceived as free

Opportunities

- ◆ External incentives (e.g., recognition, awards, cost savings) that will trigger a second tier of companies to accelerate actions, which could serve as the tipping point and catalyst for more and more companies to act
- ◆ More companies incorporating in their business models the value to nature and society of the water they use, by implementing a “shadow” price for water internally, similar to an internal “carbon tax”
- ◆ Collaboration on water awareness campaigns that leverage the influence of companies, brands, and consumer reach with emphasis on the need for all stakeholders to work together - both public and private
- ◆ Companies, business associations and other decision makers can support a number of programs and policy efforts such as:
 - Drought contingency plans such as the one being considered by the Arizona legislature that call for conservation and allow for flexibility in water storage
 - Funding to implement water plans such as the Colorado Water Plan
 - Support incentives such as tax credits, low-interest loans, and financing for installation of water reuse and recycling technologies and systems by commercial and industrial water users such as funding and incentives for water recycling contained in the State of Colorado’s Water Plan
 - Adequate federal financing of effective water conservation programs such as WaterSMART and the Regional Conservation Partnership Program and ensuring those programs include criteria that prioritize projects with multiple benefits that include habitat, rivers, and outdoor recreation
 - Removal of administrative barriers and streamlining of regulations and permitting processes for water reuse/ recycling projects—especially for direct, potable reuse and

graywater—and for projects that will allow more water to stay in rivers to benefit nature, recreation and quality of life

- Expand and encourage both public and private funding of and participation in water banks, exchanges, and creative water transfers and sharing mechanisms. Promote jurisdiction-specific demonstration projects
- Support efforts to streamline and refine water transfer, leasing and banking programs, provide certainty in the regulatory process to minimize the costs of water transfers, protect environmental and community benefits, and reduce adverse effects to rural communities, and improve interagency coordination
- Incentivize and encourage, particularly at the state level, the donation or voluntary lease or sale of water rights to benefit instream flows, recreation, and protection of environmental values while retaining certainty of private water rights and mitigating issues associated with outdated “use it or lose it” provisions that can discourage conservation and preclude the use of water to sustain recreation and environmental values

CONCLUSION

There is ample opportunity to advance corporate water stewardship in Arizona and Colorado through better capturing and sharing of data and best practices. Our research documents that companies have the potential to reduce water consumption between 3-10% annually by using existing technologies and practices. Companies could also do much more to recycle and reuse water and restore depleted watersheds and river systems.

A strengthened policy and management environment will be the tipping point needed to incentivize more companies to engage in water stewardship and to catapult water conservation, reuse and restoration by the private sector to a higher level that will benefit all stakeholders and the environment.

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