



Water Issues Driven by COVID
Colorado Water Congress Member Responses
April 2020 Survey

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Infrastructure Funding

Concerns

Water Infrastructure Deficiencies – American Society of Civil Engineers identified:

- a \$84 Billion gap between what is needed and what is spent on water supply and wastewater treatment facilities,
- a \$45 Billion repair need for aging high hazard dams,
- a \$80 Billion need for maintaining and improving the nations levee systems.

Additionally, according to the National Academy of Sciences, the Association of State Floodplain Managers, and several universities, aging and inadequate stormwater infrastructure is contributing to a growing urban flood risk.

These infrastructure deficiencies cost the nation hundreds of billions every year and present social, environmental, and economic risks that can be mitigated with new ways of ensuring adequate resources are available to catch up and not fall behind again.

Flooding – According to FEMA this is the #1 natural hazard. According to NOAA, in the decade from 2009 to 2019 flooding caused over \$393 Billion in damage.

Deterioration of watersheds and natural systems due to public inattention and ineffective regulation.

Continuation of larger construction projects.

Mitigation

What is needed are improvements to how we (government/tribes, private sector, academia, others) work together to manage this risk in watersheds across jurisdictional boundaries both before and after disasters strike.

Provide reasonable flexibility in achieving regulatory compliance for essential construction projects.

Clear and consistent path to comply with environmental regulations – so that emergency funds can be efficiently applied to shovel ready projects. Look to existing regulations and guidance to provide a road map to quick and certain compliance.

Sufficient public funds to keep projects moving on a speedy, predictable timeline

Regulatory consistency as we prepare to receive infrastructure funds from DC

Regulatory certainty regarding the new navigable waters rule and its status

Support, resources, and reduced red tape from federal agencies to permit large water projects

Financial Impact on Water Utilities

Concerns

Financial viability of the utility is at risk – both operations and longer-term capital project needs.

Water utilities are dependent upon customer payments. If customers cannot afford to pay their bills, it sets off a chain of financial constraints. We have learned that the remedy of turning off water service is a non-starter in almost every community in the country. Where the utility operates as a municipal department, the pressure will be on local officials to divert cash out of the water utility to subsidize other municipal services. Diverting revenues will exacerbate the financial stability of the water utility.

How does a utility compassionately and respectfully begin to collect outstanding utility bills?

Water demand (water sales) may decrease due to unemployment, loss of tourism, reduction in lawn watering, decline of commercial/industrial customer base.

Tap fees decline due to economic disruptions/recession.

Declining revenue generation will decrease the ability to implement major capital projects.

Pressure to reduce near-term critical maintenance will cause long-term problems.

Liability from both employees and customers due to alleged safeguards in the work environment.

Mitigation

Utilities will need a number of financial strategies.

Budget scenario planning focused on scenario planning to understand potential range of disruption to both operations and revenues. Will evaluate potential mitigation strategies over the next 3 to 18 months

Look at the debt of the municipal utilities and consider major refinancing and consolidation of debt in order to lower payments. US Government could buy the debt and place it in retirement portfolios,

package it and sell it to large pension and other funds and so on. These utility debt instruments should be good investments for such purposes.

Lowering debt service would help cash flow.

Additional funding sources may be needed, especially federal funding assistance for delinquent accounts

New safeguards for walk-in customers and upgrade revenue processing systems for online payments.

Look at rate structures – fixed v. variable rates.

Utility Operations Impacts

Concerns

Supply costs may rise – for example, if chemical manufacturers go out of business resulting in lower supply

Maintaining system pressure.

Responding and addressing worsening and changing water quality

What happens if there is a natural disaster on top of the COVID situation?

Mitigation

Federal government ensures we have the infrastructure to respond earlier and more comprehensively so that this doesn't happen again.

Is there a risk of depending too much on the federal government?

Have federal or state response team if insufficient personnel.

Supply chain interruptions of necessary treatment chemicals.

Electrical system interruptions.

Require utilities and water providers to have a crisis response, Emergency Operations Center, or Continuity of Operations Plans that takes into account the loss of personnel.

Build new, robust treatment plants and increase replacement of distribution system pipelines and pump stations.

Operational technologies, enhanced and secure systems that allow remote operation (cyber secure).

Protect and secure watersheds, augment with additional water supplies and interconnections for reliability and redundancy.

Transition Board meetings to Zoom for public meetings.

Wastewater Collection and Treatment

Concerns

Strongly supporting the supply chain is critical. We cannot treat water and wastewater without the proper treatment agents, disinfection chemicals, etc.. We need to make sure those products are both available and also delivered without delay.

Wastewater treatment is at risk due to the increase use of anti-bacterial products and additional cleaners. We have seen our bug population (bacteria used to treat wastewater) die off or become stunted. These bacteria are essential to wastewater treatment. The more people use cleaners and anti-bacterial type products, the more this stuff flows down the sewer and kills the “good” bacteria. both the physical clogging and the toxicity to biologic treatment processes caused by the anti-bacterial fluid they are soaked in.

Clogging Wastewater Pipes from “flushable” wipes.

Mitigation

Legislation on labeling of wipes ie they are NOT flushable.

Cyber Security Risks

Concerns

IT security risks due to opening up systems so that staff can work remotely.

Mitigation

Federal assistance with cybersecurity.

Management/Staffing

Concerns

Availability of certified/trained/experienced workforce to substitute for absent personnel.

Employee attrition due to sickness/quarantine - especially water/wastewater treatment operators and field crews. Effectiveness of the remaining crew members.

Ability of field employees to get into the field to do their work.

Ability to respond to emergencies in the distribution or collection systems.

Stability of work schedules.

Organizations are interconnected – if one area is impacted, all areas are impacted.

Transmission of COVID-19 between office personnel who work with customers and the public.

Health care costs are likely to rise, increasing the utility's contribution to this benefit. In addition, expectation that there will be an uptick in FMLA claims for healthy staff struggling with childcare.

Unqualified folks making decisions and taking action that could damage the delivery systems.

Because water is undervalued, we have a hard time recruiting people to work in the industry.

Managing ever sophisticated treatment processes and expanding distribution systems requiring higher skills

Mitigation

Utilities might help each other out regionally with staffing. Regional pool to compensate utilities for helping each other.

Put State resources toward rural economies/workforce development – especially rural economies dependent on tourism and recreation.

Employee Health & Safety

Concerns

Uncertainty if crews have been exposed to COVID-19.

Keeping key staff healthy – especially water/wastewater treatment operators, field operations staff, and management team.

Emergency staffing protocols to avoid infections - availability of PPE and N95 face masks.

Employee mental health including potential for burnout and stress.

Employees out for sick leave may increase workload or pressure on other employees.

Setting up administrative codes for employee absences – sick, childcare, tending to family to protect Paid Time Off Balances.

Mitigation

Nationwide testing program for return to work and isolation.

Limit the amount of contact with the public and encouraging everyone to stay safe.

Fast-track routine and reliable COVID-19 prophylactic measures and treatment.

Developing staggered shifts to reduce the number of essential staff needed at any given time in the field or at treatment plants.

Develop a strategic stockpile of masks, hand sanitizer, PPE for field and treatment plant personnel.

Customers Paying Water Bills

Concerns

Many customers, especially low income, may accrue significant utility bills and be unable to repay them more people are at home using more water.

Customers are going to need financial support when the stimulus money runs out - that money needs to come directly to the utility to support operational costs. If it is given to the customer, the customer will spend it on what is deemed the highest priority for that customers. That may not be treated water.

Mitigation

Encouraging customers to pay as much as they can, so they do not fall too far behind.

Financial support for our customers so they can pay their bills.

Communications

Mitigation

We believe the pandemic will change the way we work in the future. We are setting up a national outreach program including free online training to be offered to anyone interested. The purpose is to help communities and the industry stay connected – with no undertone of business development. We all strive for the betterment of mankind so in reality we are one joined to focus on this common vision.

Better public health awareness in the water sector, especially public water utilities.

Making the connection between long-term water security and long-term food security

Improve public understanding of water and wastewater treatment processes and how they protect public health.

Rural/Agriculture

Concerns

Forest/watershed health is one of the top risks to water security.

One of the greatest risks for ag water users and uses will be lack of funding sources to maintain infrastructure. With Colorado Water Conservation Board's budget likely being revised, some sources of funding will have be suspended. The problem I see is that if we cannot improve efficiencies with our water we will struggle to remain creative in how we address upcoming issues.

Currently J Bar M controls and has influence over the Cow Creek drainages and its flows into the Uncompahgre, our main issue at moment which is caused by COVID-19 is that we don't want to use too many subs to get things operational and running due to lack of information available regarding how to stay safe in terms of the viruses life span on differing things (ie: steel, plastic , cardboard etc.). So to avoid crossing any of those things, it's easier to just allow ourselves to handle head gates and equipment required to get streams and ditches up and running which is concurrently being hindered by the current

stance of telling those not working to be outside in open spaces to get fresh air. At the moment, my crew is only able to operate at half or one third efficiency as we have to spend a great deal of time watching for or dealing with people trespassing and playing with things like head gates. By encouraging open spaces as a place to get fresh air and exercise, but shutting down parks and local places that local people normally go they are forced to venture into ranching and agricultural areas that they don't really know which is slowing our production. Things may be marked but more often than not people tend to assume if they don't see a person, there is no harm in crossing a fence or opening a gate to stretch their legs, and are often aggressive when confronted and told not to be where they are. Sadly our State, like most, don't have enough law enforcement to handle trespassing calls on the scale we are beginning to deal with, but need to find a solution as too many agriculture places are spending more time looking over their shoulders and less time getting ditches open, fields irrigated and cows tended. I know this isn't likely what you were looking for, but it is the only effect I'm seeing so far from COVID-19 and would be much easier to just be able to focus on our normal work and get supplies going rather than having to have routinely check or confront people that are far out of their element.