

Coronavirus: Protecting Water and Wastewater Workers

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In a nutshell...

Properly treated and disinfected drinking water and wastewater are essential to public health. This article highlights efforts to protect the nation's water sector workers during the coronavirus pandemic.

While the nation struggles to keep coronavirus (COVID-19 virus) in check, safe running water is essential. Drinking water chlorination inactivates coronavirus, [making it safe](#) for cooking and frequent handwashing. It takes a lot of science and engineering to make drinking water safe every day at the turn of the tap. It also takes a lot of *skilled workers*.

A large workforce is also needed to treat and safely release household sewage. Although still under investigation, well-managed wastewater treatment should inactivate the novel coronavirus. Drinking water and wastewater systems and workers have been designated as a [critical U.S. infrastructure sector](#) during the pandemic.



What are the risks to water workers, what protections are recommended, and what can happen if coronavirus infects these essential employees?

Protecting the Drinking Water Workforce

According to the U.S. Centers for Disease Control and Prevention ([CDC](#)) and the U.S. Environmental Protection Agency ([EPA](#)), we can continue to use disinfected tap water as usual. There are currently no additional water treatment steps nor any specific worker protections recommended for drinking water employees. However, utilities around the nation have put in place many daily measures to help keep coronavirus out. These include increased social distancing (e.g., extended shift work, workstation isolation), surface disinfection, and use of personal protective equipment (PPE).

Protecting the Wastewater Workforce

The Occupational Safety and Health Administration ([OSHA](#)) has provided general guidance for solid waste and wastewater workforces. Notably, “management of waste that is suspected or known to contain or be contaminated with COVID-19 does not require special precautions beyond those already used.” These workers are already exposed to water droplets (aerosols) and untreated sewage that can contain pathogens. Thus, exposure to coronavirus is not expected to increase their risk. However, activities like shredding waste should be avoided. [CDC has emphasized](#) that wastewater workers should “follow routine practices to prevent exposure to wastewater. These include using engineering and administrative controls, safe work practices, and [PPE](#).”

[New research](#) shows that persons infected with coronavirus, whether they have symptoms or not, shed the virus in their feces. Therefore, there is increased interest in the fate of the COVID-19 virus in household sewage that goes to local wastewater treatment plants. To help address these concerns, an [international task force](#) was just formed (chaired by *JR*) to assess and communicate about the public health consequences of coronavirus in water systems. Their work will

include COVID-19 virus inactivation during wastewater treatment, risk to workers, and examining wastewater as a means to assess community levels of infection. One area that was discussed in a recent [webinar](#) is the use of specialized PPE (e.g., respirators and face shields) for higher-risk tasks such as entering sewer lines.

Surveys Say

Two recent [surveys](#) of the water sector by the American Water Works Association have revealed a high level of concern about the pandemic. Top utility concerns include anticipated workforce staffing impacts on operations and expected [revenue challenges](#) as the pandemic affects [millions of Americans](#). Nearly three in four of surveyed water and wastewater facilities are worried about running out of PPE within a month for their workers, including masks, gowns, and gloves. However, the availability of treatment chemicals such as sodium hypochlorite (chlorine bleach) for disinfection does not appear to be an issue for most utilities.

What Can Happen When a Water Sector Employee Tests Positive

An article in [Water Online](#) highlighted what happened in one wastewater utility when a custodian tested positive for the COVID-19 virus. The San Jose-Santa Clara Regional Wastewater Facility in California treats wastewater for 1.5 million people in eight cities. “Following the positive test, 17 other employees entered self-quarantine. This left the essential facility operating with about 70 percent of its usual staffing, but attempting to conduct its operations as normally as possible. Though the health of employees is a priority, municipal wastewater treatment is such an essential service that operations like San Jose’s plant must find ways to continue, even if an employee tests positive.” In this case, the utility called for backup labor, including recent retirees and staff from the drinking water department. And this is just one example from a large utility. Most U.S. drinking water and wastewater utilities are much smaller, making worker contact with even a single person testing positive a potential nightmare scenario.

Final Thoughts

Safe drinking water and properly managed wastewater are vital for preventing disease and protecting the environment. Together they form a critical sector of the U.S. infrastructure that often share staff and resources, particularly in smaller utilities. As stated in a recent [EPA press release](#): “Having fully operational drinking water and wastewater services is critical to containing COVID-19 and protecting Americans from other public health risks. Our nation’s water and wastewater employees are everyday heroes.”

We agree. As the nation strives to get back to work safely, we hope our readers have gained a better appreciation for our water sector workers and efforts to keep them coronavirus-free and on the job. Remember to give a “shout out” for the water heroes in your community.

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