

## WHAT WE'RE LEARNING ABOUT WASTEWATER AND COVID-19

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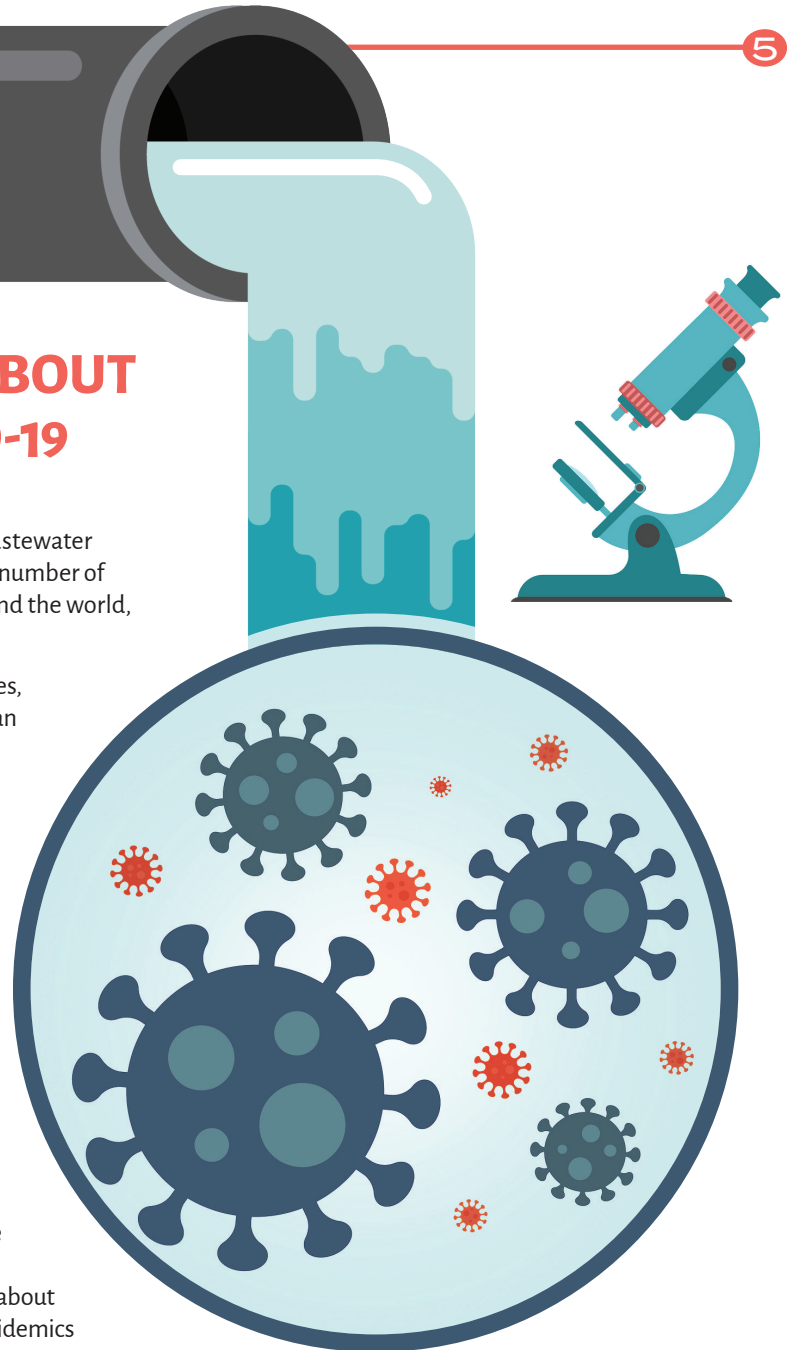
The pandemic has raised a lot of questions about wastewater and SARS-CoV-2, the virus that causes COVID-19. A number of research bodies, in partnership with agencies around the world, are busy trying to answer these questions.

Some answers we already know, and some are more uncertain. Yes, the virus can be detected in water/wastewater. This does not mean the virus is infective, only that virus RNA is present. (RNA, or ribonucleic acid, is the genetic material of the virus.) A separate cell culture test is needed to determine virus infectivity, and few laboratories can perform that test. However, industry experts and the CDC believe the risk of SARS-CoV-2 transmission from wastewater is low. There are no confirmed cases of COVID-19 caused by exposure to wastewater.

There is limited research on the survival and removal of SARS-CoV-2 through the collection system and wastewater treatment process. Initial research has not detected the virus in effluent or recycled water. Researchers believe conventional disinfection methods like sodium hypochlorite and UV are effective against the virus, as they are against other coronaviruses.

Along with learning more about SARS-CoV-2 in wastewater, we're also learning more about what wastewater can tell us about the virus in a community. Wastewater is a rich source of information about the health of the population it comes from. For example, polio epidemics around the world have been detected in sewage long before any clinics reported cases. This emerging field of wastewater-based epidemiology can be a powerful tool to inform community health questions, since in any given community, only some people visit the hospital, but everyone uses the sewer system. Wastewater could provide a means to track trends and measure impact of the coronavirus within a given community and region. There is a lot of excitement surrounding this opportunity, and researchers are working hard to develop best practices for generating information that is useful, consistent, and reliable.

Central San continues to monitor emerging science on COVID-19 in wastewater. Senior Engineer **Dan Frost** and Associate Engineer **Amanda Cauble** have been reviewing and compiling the research to help guide our response, with help from Senior Chemist **Blake Brown**, Laboratory Superintendent **Mary Lou Esparza**, and others. Much of this information is accessible on a new COVID-19 research page on our San Central intranet site: [sancentral.org/covid-19-research](https://sancentral.org/covid-19-research). There you can find FAQs, resources, and links, which we will continue to update as new information becomes available.



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