V40 #1 JANUARY 2021

LATERAL CONNECTION

COVID TRACKING

CENTRAL SAN PARTICIPATES IN AN EXCITING NEW RESEARCH PROJECT IN THE FIGHT AGAINST THE VIRUS

PAGE 3

NEW MONITORING PROJECT COULD TELL US MORE ABOUT COVID IN OUR COMMUNITY

Across the country, researchers are looking to wastewater as a means to help track and combat SARS-CoV-2, the virus that causes COVID-19. Central San continues to actively support and participate in these efforts. In November, we began collecting samples at our treatment plant influent 3x per week. We also began weekly sampling at one of our Concord metering stations to investigate how monitoring upstream in our service area could provide a more focused picture of virus levels in one sub-region.

The monitoring and research are part of a regional collaboration led by the University of California, Berkeley (UCB), which has launched a new laboratory to provide rapid detection of SARS-CoV-2 RNA in wastewater. UCB also is coordinating with Bay Area public health departments, including Contra Costa Health Services, to identify what data would be most helpful.

"We're still in the early stages, but it's an exciting opportunity," says Associate Engineer **Amanda Cauble**, who, along with Senior Engineer **Dan Frost**, Laboratory Superintendent **Mary Lou Esparza**, Senior Chemist **Blake Brown**, and others have been spearheading Central San's COVID research efforts. Already UCB has detected variation from one week to the next in our samples, which bodes well for tracking trends over time.

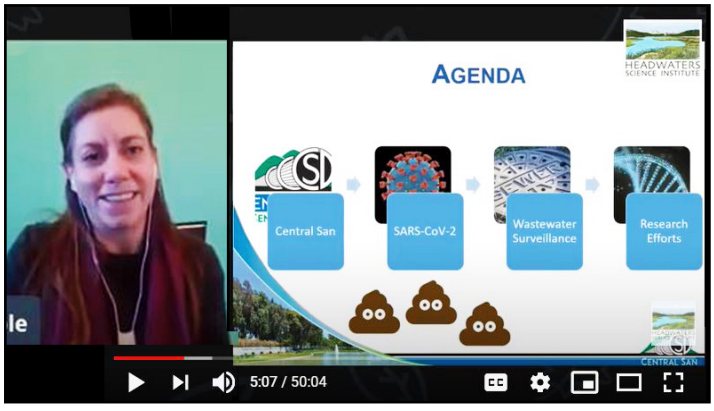
*Chemists **Jesse McDermott** and **Sal Rosales** take samples at one of our Concord metering stations.*

Along with wastewater samples, Central San is supplying metadata about when, where, and how each sample was collected, as well as flow rates, water quality data, population size, and other information. This metadata will help UCB and the health departments normalize and correlate our wastewater data with clinical data and results from other wastewater utilities. **"It's a big team effort, both within and external to Central San,"** says Dan.

In addition to the collaboration with UCB, since early summer Central San has been collecting samples at our treatment plant as part of a Stanford University study looking at how concentrations of the virus RNA vary throughout the treatment process.

"We're trying help where we can and support the science," says Blake. Beyond the fight against COVID, the current research also lays the foundation for responding to potential disease outbreaks in the future. **"We're learning a lot about wastewater-based epidemiology as a tool,"** she adds, **"and that will make it easier for us to mobilize next time."**

ENGAGING STUDENTS IN THE SCIENCE



With wastewater-based epidemiology in the national headlines this year, we've seen a lot of community interest in this topic—including from our younger customers. In November, **Amanda Cauble** shared some of the latest research on "Lunch with a Scientist," a virtual event hosted by Headwaters Science Institute. The Institute strives to engage students' natural curiosity and foster interest in science and in STEM careers. (Watch the video at: **https://youtu.be/KaabsKJvawI**) For our school education programs, **Ben Lavender** is developing new distance learning resources on wastewater-based epidemiology, incorporating excerpts from Amanda's presentation.