



# Wisconsin State Laboratory of Hygiene

UNIVERSITY OF WISCONSIN-MADISON

## Invitation to participate in a new study evaluating the presence of SARS-CoV-2 in wastewater.

Dear Facility Operator,

The Wisconsin State Laboratory of Hygiene (WSLH) in partnership with UW-Milwaukee School of Freshwater Sciences, is embarking on an exciting new study funded by the Wisconsin Department of Health Services, to determine whether, and to what extent, the SARS-CoV-2 virus (the virus causing COVID-19) is circulating within communities in Wisconsin. We propose to accomplish this by **routinely monitoring the amount of genetic material of SARS-CoV-2 present in wastewater**. SARS-CoV-2 is shed from humans in several ways, including the fecal matter. Many people infected by the virus have very mild or no symptoms, which makes them less likely to be tested in a clinical setting and identified as possible carriers of COVID-19. Sanitary sewer systems collect and aggregate wastewater to a central location, so that by the time it reaches the wastewater treatment facility (WWTF) it is a well-mixed sample of many households and businesses; thus by sampling the **influent** at the WWTF a representative snapshot of the **whole community** served by WWTF can be obtained. This approach will not replace existing public health monitoring systems, but will supplement them.

**We would very much value your participation in this program** – you will be providing invaluable information to your community that will inform if public health actions are working (or needed), and assist the state in reducing the spread and presence of the novel corona virus in Wisconsin. More specifically, the program will tell us if:

- **Virus transmission is increasing or decreasing in the community.** In communities where cases are already present, trends in virus concentrations in wastewater over time will inform whether the spread is increasing or decreasing. These changes are important, because they can inform policy makers if the pandemic prevention measures are working and measures can be relaxed, or whether areas that have been re-opened are experiencing a rebound of infections. It has been reported that sewage monitoring can detect changes in community viral level potentially days or weeks ahead of health outcomes.
- **COVID-19 is circulating in a community – early-warning potential.** Detection of the virus in wastewater from an area where cases have not been reported may be an early indication of spread to and within that area. Alternatively, wastewater monitoring may be able to confirm areas with low levels of infections.



**General Approach.** Our goal is to recruit two WWTFs from the most populated 23 counties (46 WWTFs) for weekly (or twice-weekly) sampling and ~50 smaller and/or rural WWTFs for monthly (or twice-monthly) sampling. We hope to complete recruitment in July and have the program up-and-running soon thereafter to be able to inform on current virus levels. The WLSH will quantify the genetic material of the virus – the presence of characteristic viral RNA (we do not assess the infectivity/viability of the virus) in the INFLUENT wastewater.

**What we will ask you to do.** Collect a sample from your standard 24-hour INFLUENT composite, fill out the lab slip and ship to the WSLH for SARS-CoV-2 quantification. Basically that's it! The frequency of sampling (once or twice per week, or once or twice per month) will be appropriate for the size of the community served by your facility and the goals of the sampling (see above). Frequency may be adjusted depending upon your site-specific results. We request that you participate in the program for a 12-month period. To minimize impacts to your facility we will provide all needed sampling and sample shipping supplies. We will also provide pre-paid overnight shipping labels (UPS) or make other arrangements, when necessary. We do not want or expect this to be a burden to your facility/operator.

If you are interested in participating, please complete the Participation Survey that is required prior to enrollment. If you have any questions please do not hesitate to contact the WSLH at [CovidSewageTeam@slh.wisc.edu](mailto:CovidSewageTeam@slh.wisc.edu) or call the Covid Sewage Hotline (608) 263-2444. Please see our [Frequently Asked Questions](#), or download a copy of this Recruitment Letter.

**Follow the link provided via email to take the Survey. Or complete the [Participation Survey](#) via Word document and return to email listed.**

We hope that you will decide to participate in the program and we look forward to your reply as soon as possible.

Sincerely,

COVID Sewage Surveillance Team  
Wisconsin State Laboratory of Hygiene  
2601 Agriculture Dr.  
Madison, WI 53718