#### **ENGINEERING**

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## TRACKING SARS-CoV-2 IN WASTEWATER SYSTEMS

SAMPLE COLLECTION, GAP ANALYSIS SURVEY, AND FOCUS GROUP DISCUSSIONS ACROSS MUNICIPAL AND NON-MUNICPAL SYSTEMS

Sampling Program Across Ontario

n September, 2020, the COVID-19 **Wastewater Consortium of** Ontario (CWCO) started an 8-week wastewater sampling program across Ontario with the support of its partners. In the past two months, the province has seen a spike in the number of clinical COVID-19 cases, bringing the challenge of a second wave of COVID-19. The collection of wastewater samples from sewershed networks at this time is crucial, as these samples act as reference points in our study. The analysis of this wastewater allows us to pinpoint specific hotspots within a region. This tracking strategy gives public health officials the data which they need to make informed decisions. For instance, if a particular region's wastewater suggests a spike in COVID-19 cases, public health officials can better allocate resources to the needs of their communities.

#### McMaster University to Employ COVID-19 Wastewater Tracking as Part of its Campus Re-Opening Plans

McMaster is among the first Canadian universities to employ COVID-19 wastewater tracking as part of its campus re-opening plans. Testing of wastewater is being carried out at various locations within its campus (such as McMaster University Children's Hospital, dorms, and academic buildings). This is an effective technique in conjunction with clinical testing to serve as an early warning sign for the COVID-19 outbreak on campus.

Samples are being collected in 13 different locations across campus. This will allow us to assess the presence of SARS-CoV-2 to both react to and prevent a sizeable outbreak on campus. If wastewater samples come back positive from a dorm, the University can isolate that dorm, take immediate public health clinical testing, and deploy remedial measures to avoid the broader spread of COVID-19 on campus. In reality, this represents a very effective, practical, and non-invasive tool for continuous campus monitoring for any potential outbreak.

## **CWCO Partners Have Commenced Wastewater Sampling**









**Showcasing Wastewater Collection & Storage From CWCO Partners** 

### Focus Group Discussions: Co-Creating Solutions Together

Our focus group discussions aim to identify local realities, risks, and opportunities in building local infrastructure capacity within the existing framework of wastewater testing across municipal and non-municipal systems. As the science behind Covid-19 wastewater tracking is continuously being refined, we are utilizing a bottomup approach. The first step is to gather feedback from our municipal partners on implications or challenges with wastewater sampling and testing. The CWCO will continue to hold focus group discussions to support the progression of this project. Throughout October, various focus group meetings contributed

**Complete the** 

**GAP Survey!** 



Click here to contact our Principal Researchers for the opportunity to join our focus group discussions.

#### **Student Team Spotlight**

to the progression of better Ontario's COVID-19 response.

#### Sasha Vonison & Avani Mehta

Sasha and Avani are both members of the CWCO student team. They are responsible for the preparation and development of the gap analysis survey. The gap analysis is an essential part of this project. The findings and conclusions will help us identify current gaps existing in Ontario's municipal and non-municipal wastewater system's capacity to track for SARS-CoV-2.

This is the first step in our bottom-up approach in collecting data across Ontario. We greatly appreciate and highly encourage Ontario's municipalities to complete the survey to support our research in building local infrastructure capacity to track and fight against the community spread of SARS-CoV-2.

**The Responses We Have** 

Jay Patel

Help Us Achieve The Number of Responses We Need!

#### The CWCO Student Team



The COVID-19 Wastewater Consortium of Ontario is an initiative of



# **Please Click Here To Complete Our GAP Analysis Survey**

The GAP Analysis survey is a chance to share information about your municipality's current infrastructure so that we can collaborate on a tailored approach to monitoring wastewater system(s) in your region(s).

#### **Principal Researchers**



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#### **Our Growing List of Partners**

















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On The News











