

Wastewater Sampling Results and Recommended Response Strategies

Results Range Cycle Threshold Value (CTV)	Results Range (RNA Copies/L)	Transmission Potential	Occupant Risk Level	Recommended Response Strategy ¹
Above 40 (Negative Test Result)	< 2,000	N/A	No Risk Identified above expected for surrounding area	<ul style="list-style-type: none"> • No action required based on sampling results • Continue to practice social distancing, the use of face coverings, and enhanced hand hygiene and respiratory etiquette • Continue cleaning and disinfection of common touch surfaces
39.99 to 34.68 (High Uncertainty)	2,001 to 20,000	Unlikely Active Transmission	Low	<p>Additional Actions Based on Sampling Results:</p> <ul style="list-style-type: none"> • Increased surveillance • Voluntary testing of building occupants • Isolate building occupants testing positive until negative test results received • Enhanced cleaning and disinfection protocols
34.67 to 31.26 (Moderate Uncertainty)	20,001 to 200,000	Potential Transmission	Moderate	<p>Additional Actions Based on Sampling Results:</p> <ul style="list-style-type: none"> • Increased surveillance • Non-voluntary targeted testing of 50% of building occupants using NJIT's surveillance testing program • Isolate building occupants testing positive until negative test results received • Contact tracing of students testing positive • Enhanced cleaning and disinfection protocols
31.25 to 28.94 (Low Uncertainty)	200,001 to 1,999,999	Likely Transmission	High	<p>Additional Actions Based on Sampling Results:</p> <ul style="list-style-type: none"> • Increased surveillance • Quarantine all building occupants • Non-voluntary testing of all building occupants using St. Michaels student health services • Isolate all building occupants until negative test results received • Contact tracing of students testing positive • Enhanced cleaning and disinfection protocols
28.93 to < 25.07 (Very Low Uncertainty)	2,000,000 to > 20,000,000	High Likelihood of Transmission	Extremely High	<p>Additional Actions Based on Sampling Results:</p> <ul style="list-style-type: none"> • Increased surveillance • Quarantine all building occupants • Non-voluntary testing all building occupants at the beginning and end of isolation period using St. Michaels student health services • Isolate all building occupants until negative test results received • Contact tracing of students testing positive • Enhanced cleaning and disinfection protocols

1. The response strategies instituted will need to consider certain aspects of the building's population including the past, current or ongoing isolation of known positive individuals within a particular residence hall.

Citations:

Ahmed W, Angel N, Edson J, Bibby K, Bivins A, O'Brien JW, Choi PM, Kitajima M, Simpson SL, Li J, Tschärke B, Verhagen R, Smith WJM, Zaugg J, Dierens L, Hugenholtz P, Thomas KV, Mueller JF. First confirmed detection of SARS-CoV-2 in untreated wastewater in Australia: A proof of concept for the wastewater surveillance of COVID-19 in the community. *Sci Total Environ.* 2020 Aug 1;728:138764.

Kumar, Manish; Patel, Arbind Kumar; Shah, Anil V; Raval, Janvi; Rajpara, Neha; Joshi, Madhvi; Joshi, Chaitanya G. First proof of the capability of wastewater surveillance for COVID-19 in India through detection of genetic material of SARS-CoV-2. *Sci Total Environ.* 2020 July 28;746:141326.

<https://www.clemson.edu/covid-19/testing/wastewater-dashboard.html>