

**Portsmouth, NH Peirce Island Wastewater Treatment Facility  
SARS-CoV-2 Biomarker Results Summary**

Report Date: July 14, 2022; Sampled by: KS, July 12, 2022  
Prepared by Kellen Sawyer, Reviewed by Paula Mouser, P.E., PhD

**Dates Sampled for this Monitoring Period:**

Tuesday, July 12, 2022*
Tuesday, July 5, 2022
Tuesday, June 28, 2022
Tuesday, June 21, 2022
Tuesday, June 14, 2022
Tuesday, June 7, 2022

\*New samples since last report

**Method:** A 24-hour flow weighted composite sample was taken from July 11-12, 2022. This sample was preprocessed and extracted using a solids separation, Ceres Nanoscience viral concentration, and Kingfisher extraction approach. Two viral markers (N1 and N2) were quantified via Bio-Rad QX200 ddPCR.

**Results:** Both the SARS-CoV-2 N1 and N2 viral biomarkers were detected in the composite sample taken July 11-12, 2022. Biomarkers increased about 2-fold over the previous sample, but levels have fluctuated considerably over the past 4 weeks (relative to other facilities that we monitor), so it is not immediately clear whether biomarker trends are indicative of increasing or decreasing prevalence of COVID-19 in the sewershed.

**Table 1:** Sample date and biomarker results. "BDL" represents values below the quantified limits of instrument detection of 172 copies/100 mL wastewater.

Sample Date	SARS-CoV-2 Biomarkers	
	N1 copies/100mL	N2 copies/100mL
07/12/2022*	1,465	1,555
07/05/2022	668	896
06/28/2022	2,572	2,712
06/21/2022	523	644
06/14/2022	BDL	BDL
06/07/2022	598	633

\*New samples since last report

For more detailed information regarding local, county, and statewide COVID-19 infections, please refer to the data reported through the New Hampshire Division of Health and Human Services website <https://www.covid19.nh.gov/dashboard>.