Pease Wastewater Treatment Facility SARS-CoV-2 Biomarker Results Summary

Report Date: July 22, 2022; Sampled by: DE, July 20, 2022
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Dates Sampled for this Monitoring Period:

Wednesday, July 20, 2022*
Wednesday, July 13, 2022
Wednesday, July 6, 2022
Wednesday, June 29, 2022
Wednesday, June 22, 2022
Wednesday, June 15, 2022

*New samples since last report

Method: A 24-hour composite sample was taken from July 19-20, 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 N1 and N2 viral biomarkers were detected in the composite sample taken July 19-20, 2022 (Table 1). The viral biomarker signal picked up from last week, but is on the lower side of values measured across the state this week (Figure 1).

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

	SARS-CoV-2 Biomarkers	
Sample Date	N1 copies/100mL	N2 copies/100mL
07/20/2022*	652	711
07/13/2022	BDL	201
07/06/2022	214	205
06/29/2022	1,049	1,045
06/22/2022	238	295
06/15/2022	2,031	2,199

*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.

Since June 6, 2022, the minimum values for SARS-CoV-2 measured in New Hampshire were below analytical detection limits (BDL) while the maximum reported N1 and N2 values across 13 reporting facilities have been 4,651 and 4,939 copies/100 ml wastewater, respectively. For the

week of July 18, the maximum values measured in the monitoring program were 2,919 and 3,103 copies/100 ml wastewater for N1 and N2, respectively. See Figure 1 for temporal trends.

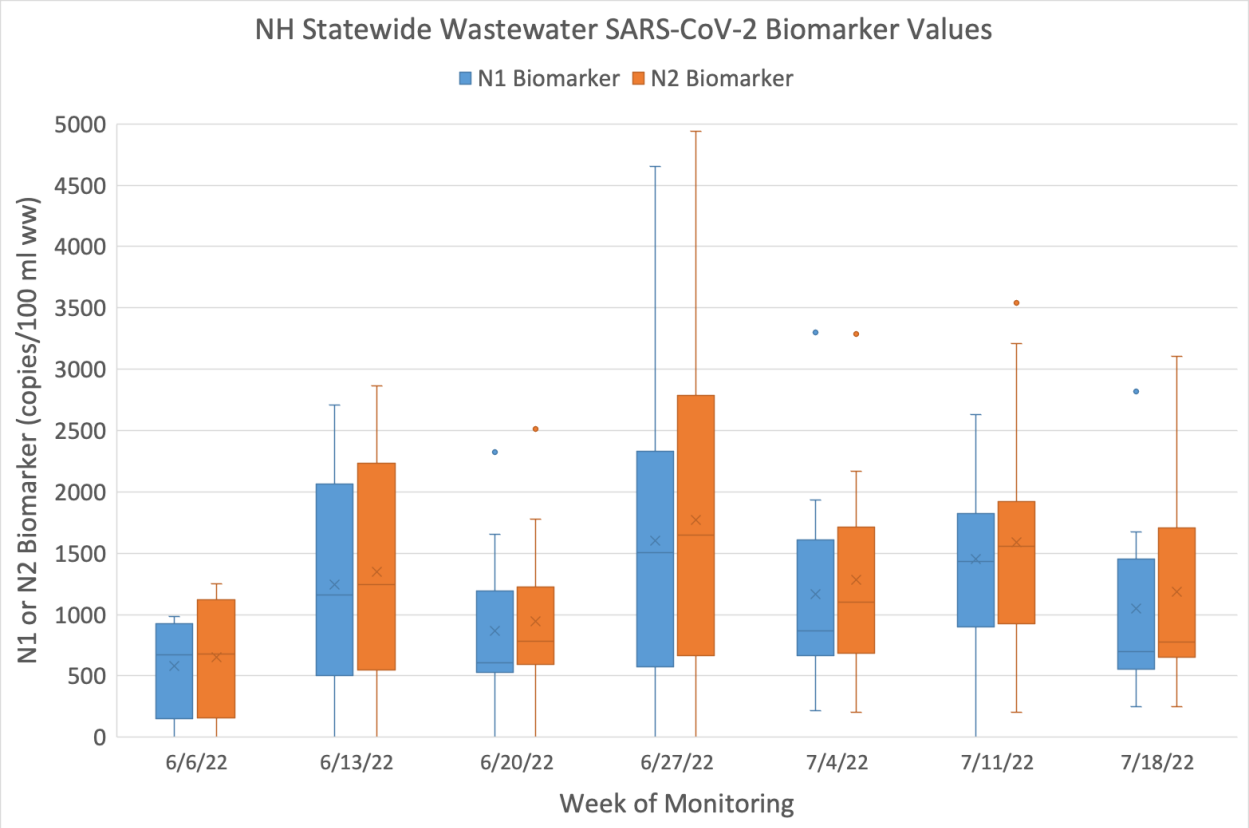

Figure 1. Range of SARS-CoV-2 biomarker values measured at up to 13 wastewater facilities since the NH wastewater surveillance program began in early June 2022.