

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

Report Date: September 30, 2022
Prepared by Nathan Ramsdell

Dates Sampled for this Monitoring Period:

| |
|------------------------------|
| Tuesday, September 27, 2022* |
| Tuesday, September 20, 2022 |
| Tuesday, September 13, 2022 |
| Tuesday, September 6, 2022 |
| Tuesday, August 30, 2022 |
| Tuesday, August 23, 2022 |
| Tuesday, August 16, 2022 |
| Tuesday, August 9, 2022 |
| Tuesday, August 2, 2022 |
| Tuesday, July 26, 2022 |
| Tuesday, July 19, 2022 |
| Tuesday, July 12, 2022 |
| Tuesday, July 5, 2022 |

*New samples since last report

Method: A 24-hour composite sample was taken on the date shown above. 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 SARS-CoV-2 N1 and N2 viral biomarkers were detected (LOD=172 copies/100 ml) for this sample at the levels reported in Table 1. The range of SARS-CoV-2 viral biomarker values for all wastewater facilities participating in the NH surveillance program this week are shown in 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.

| Sample Date | SARS-CoV-2 Biomarkers | |
|-------------|-----------------------|-----------------|
| | N1 copies/100mL | N2 copies/100mL |
| 09/27/2022* | 1,083 | 1,291 |
| 09/20/2022 | 3,001 | 3,242 |
| 09/13/2022 | 406 | 450 |
| 09/06/2022 | 581 | 554 |
| 08/30/2022 | 3,752 | 3,867 |

| | | |
|------------|-------|-------|
| 08/23/2022 | 1,227 | 1,408 |
| 08/16/2022 | 784 | 894 |
| 08/09/2022 | 2,165 | 2,408 |
| 08/02/2022 | 343 | 501 |
| 07/26/2022 | 348 | 450 |
| 07/19/2022 | 1,395 | 1,715 |
| 07/12/2022 | 1,465 | 1,555 |
| 07/05/2022 | 668 | 896 |

*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 reporting facilities have been 12,332 and 12,703 copies/100 ml wastewater, respectively. For the 15 participating facilities the week of August 29, the maximum values measured are 12,332 and 12,703 copies/100 ml wastewater for N1 and N2, respectively.

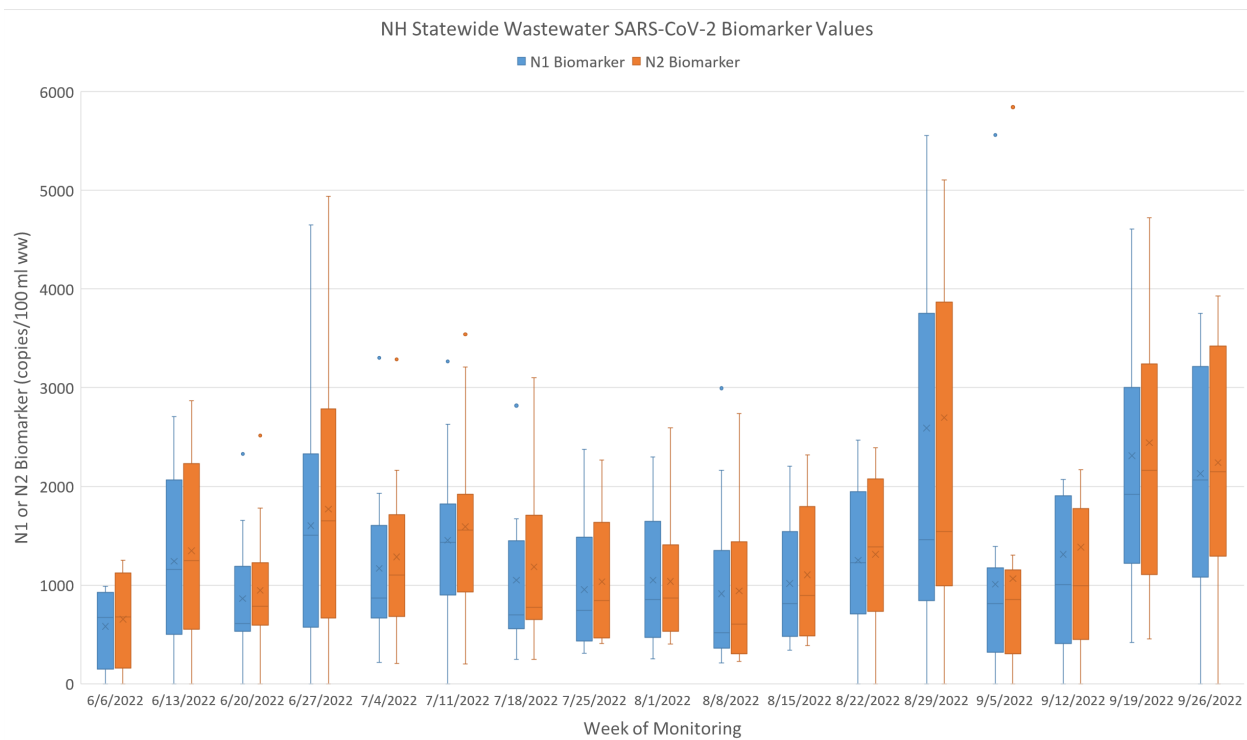


Figure 1. Range of SARS-CoV-2 biomarker values measured at participating wastewater facilities since the NH wastewater surveillance program began in early June 2022.