

COVID-19 Wastewater Monitoring Report

September 13, 2022

COVID-19 Wastewater Monitoring

The New Mexico Department of Health (NMDOH) is currently monitoring for SARS-CoV-2 (the virus that causes COVID-19) in wastewater collected at municipal wastewater treatment plants across the state. Symptomatic and asymptomatic individuals who are infected with SARS-CoV-2 shed the virus in their feces. This creates an opportunity to monitor for the presence of the virus in sewage. These data provide valuable information to decision makers, that along with a variety of other data and can help inform public health actions to reduce the spread of COVID-19.

There are currently 11 wastewater treatment plants participating in the voluntary program with NMDOH. Four additional facilities are participating in a similar program with the Centers for Disease Control and Prevention (CDC). At each utility, 24-hour composite samples are collected twice weekly and shipped to the agency's Scientific Laboratories Division (SLD) for analysis of gene markers that are unique to the SARS-CoV-2 virus. Specifically, SLD is using a nucleic acid-based polymerase chain reaction assay to identify N1 and N2 genes, which the CDC have recommended as targets for identifying SARS-CoV-2.

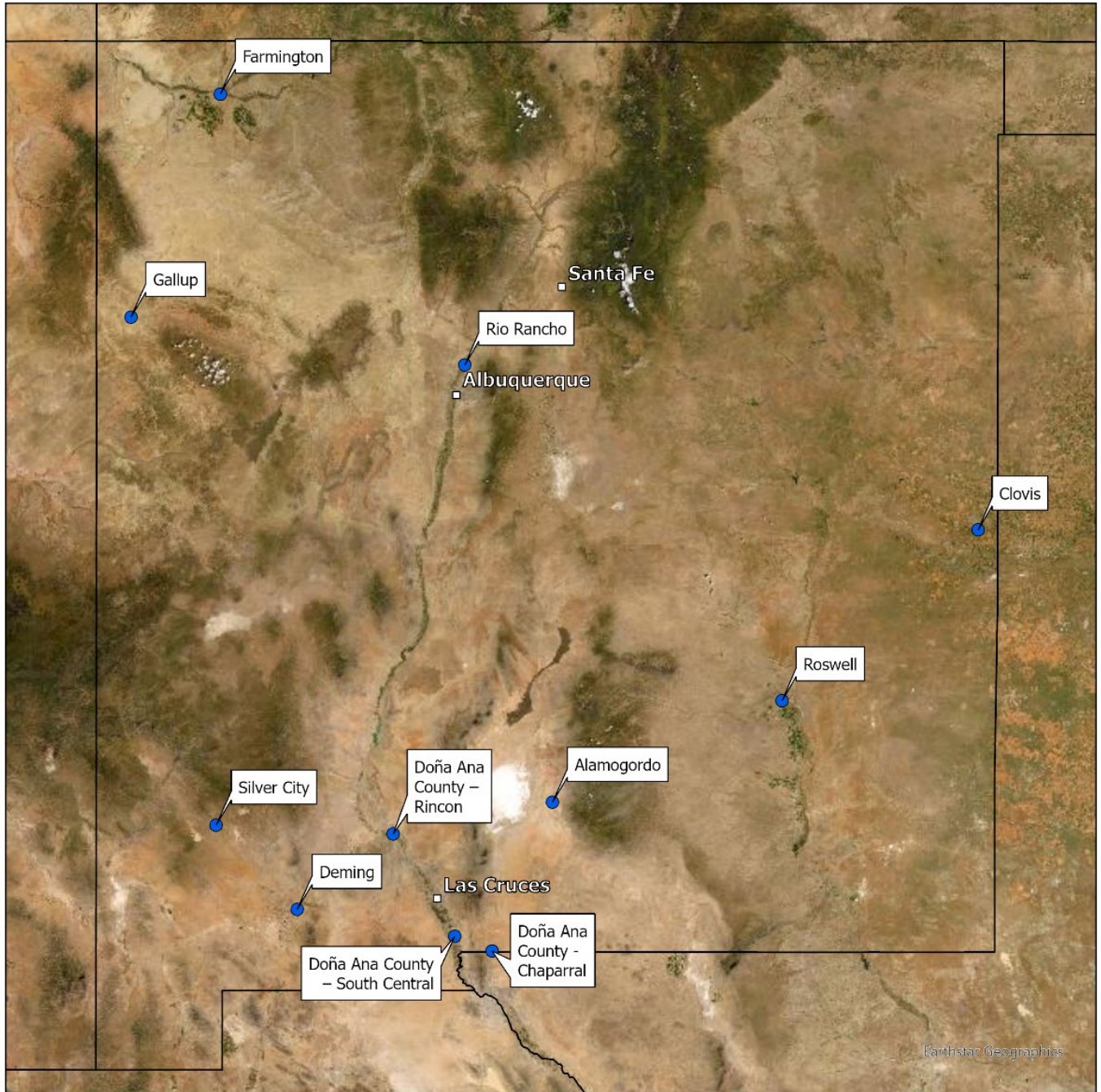
This report summarizes wastewater monitoring results for the utilities participating in the program with NMDOH. For each utility, a graph is provided that shows the wastewater results reported through time in units of virus copies per liter. The graphs also present the 7-day rolling average of new case counts for the county where the utility is located, as reported in the NMDOH's COVID-19 testing and case dashboard. These data are provided for all dates that wastewater samples were collected. Note that the y-axis for the wastewater data uses a logarithmic (log) scale. Moving up the graph, each tick mark on the vertical axis represents a 10-fold increase in the virus concentration. Since SARS-CoV-2 levels in wastewater can range from hundreds to millions of copies per liter, the log scale offers an easy way to evaluate trends. Also note that the utilities included in this summary started sampling at different times (between May and August); as such, utility results cover varying time periods.

Wastewater results are being shared through these weekly reports while the agency's NMDOH's Information Technology Services Division is simultaneously developing an interactive public facing dashboard. The dashboard will provide additional information on the wastewater monitoring program and results collected to date.

NM COVID-19 Wastewater Monitoring Locations

NMDOH is currently monitoring SARS-CoV-2 in wastewater samples collected at 11 municipal wastewater treatment plants. These plants, combined with the four other utilities (Albuquerque Bernalillo County Water Utility Authority, City of Santa Fe, White Rock Wastewater Treatment plant and City of Los Alamos) in the state that are analyzing wastewater samples for SARS-CoV-2 with support of the CDC, serve 71% of the sewered population in New Mexico.

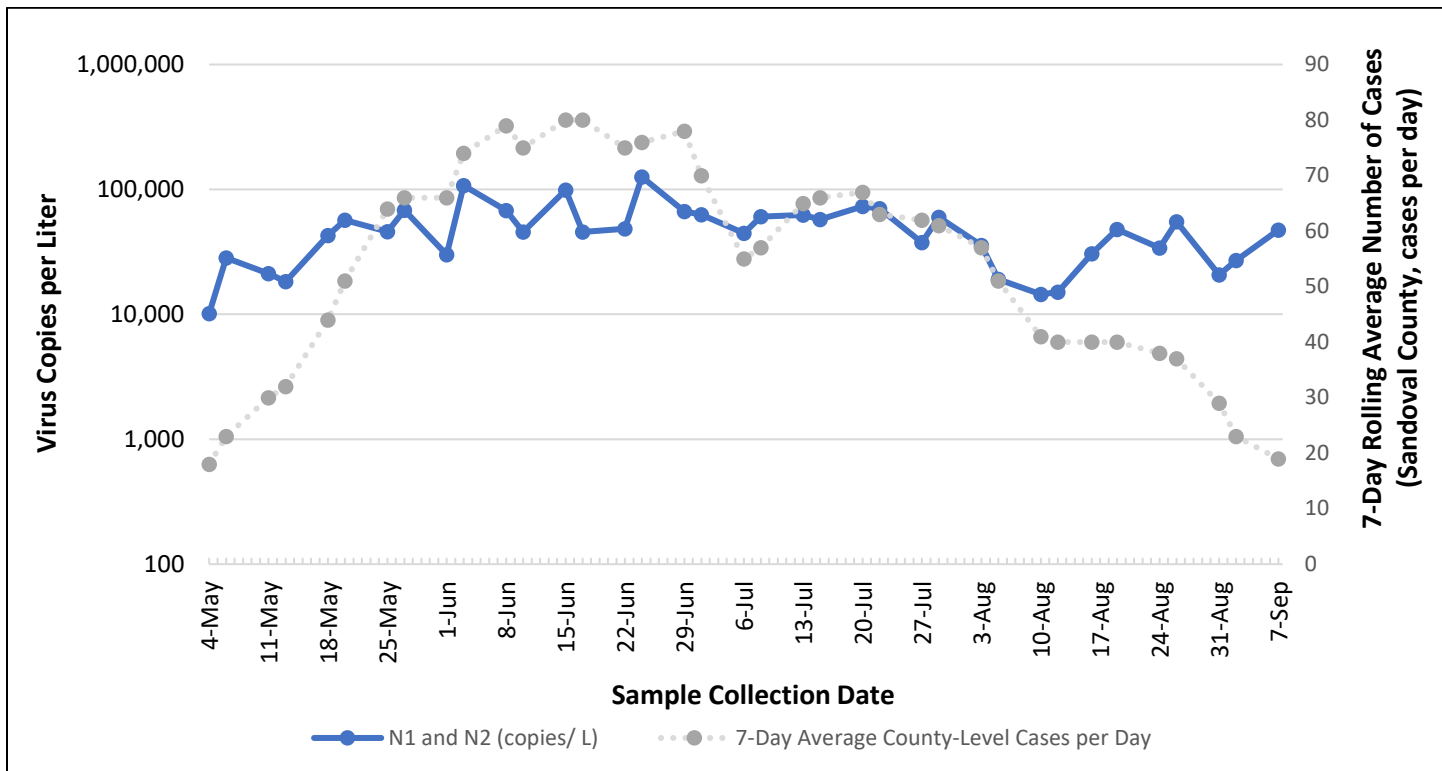
NMDOH is actively recruiting additional utilities.



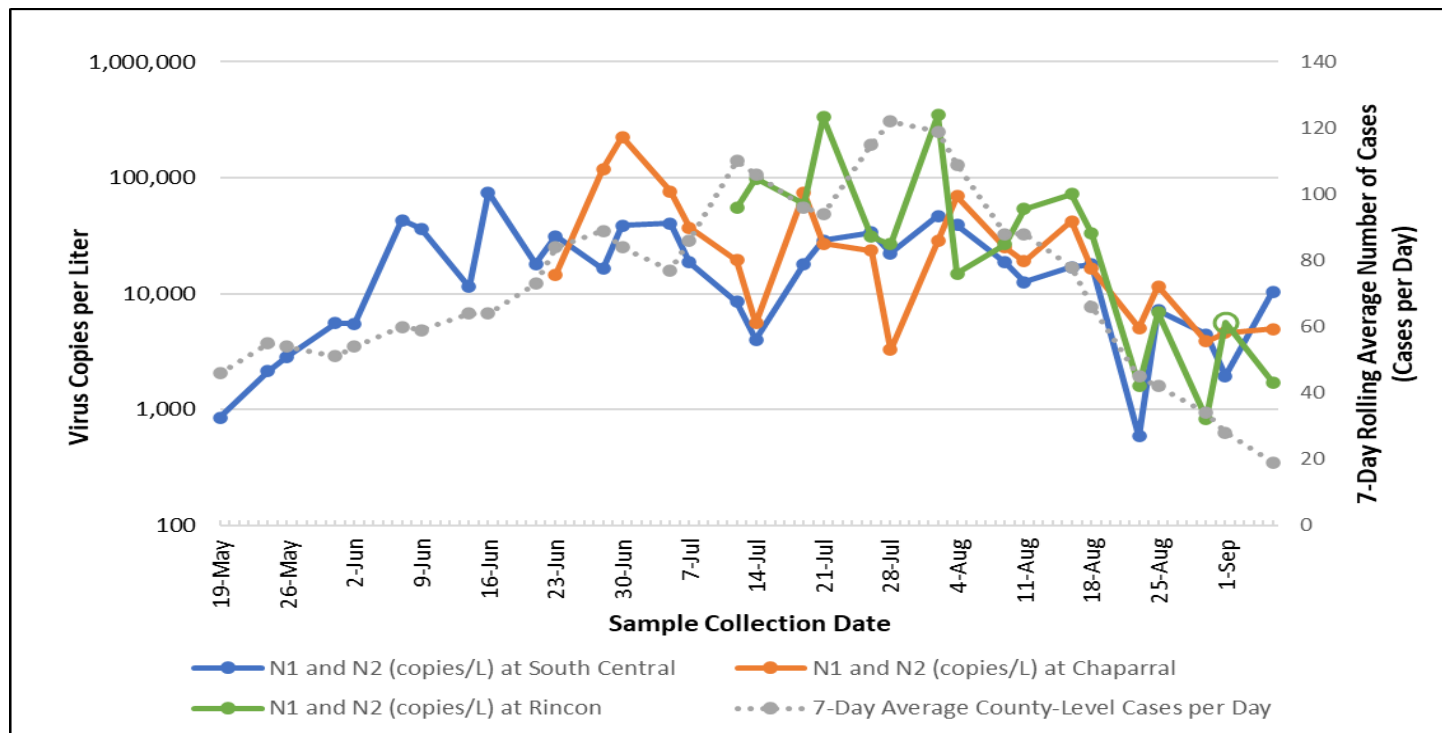
● Sampling location

0 20 40 80 120 160 Miles

Rio Rancho

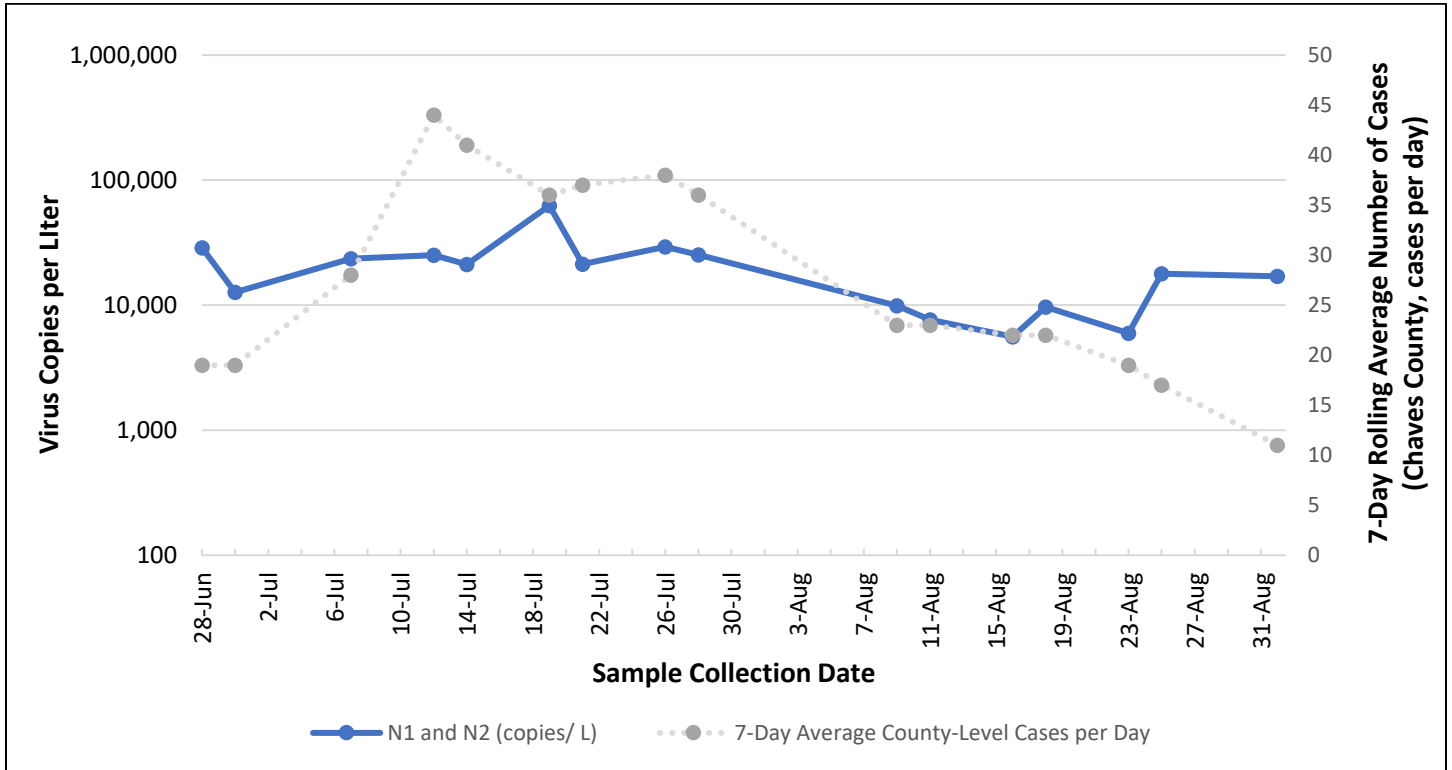


Doña Ana County

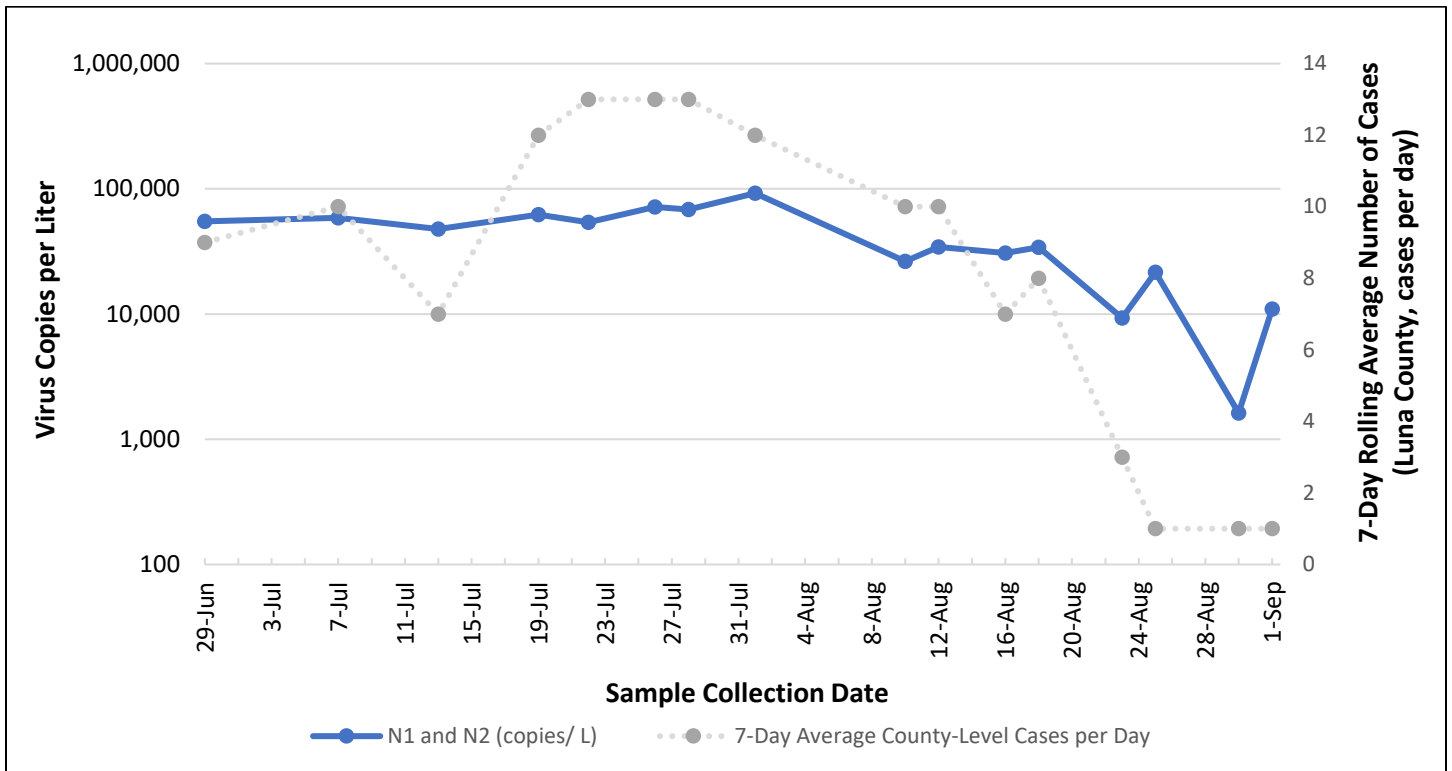


On September 1st, 2022, SARS-CoV-2 was not detected in sample collected at the Rincon location. On the graph, this is represented as an open circle set to the value of the laboratory detection limit (5,650 copies per liter). Filled dots represent detected results.

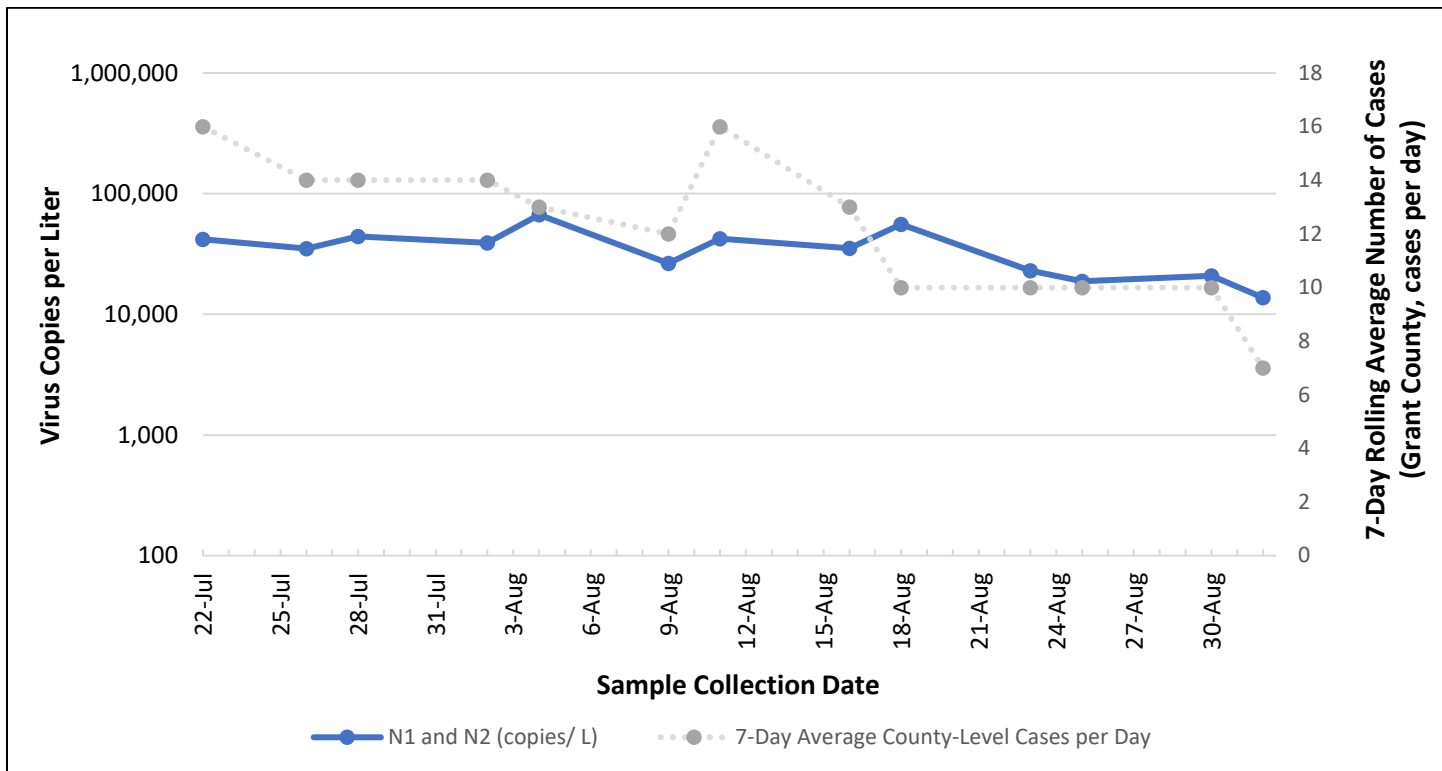
Roswell



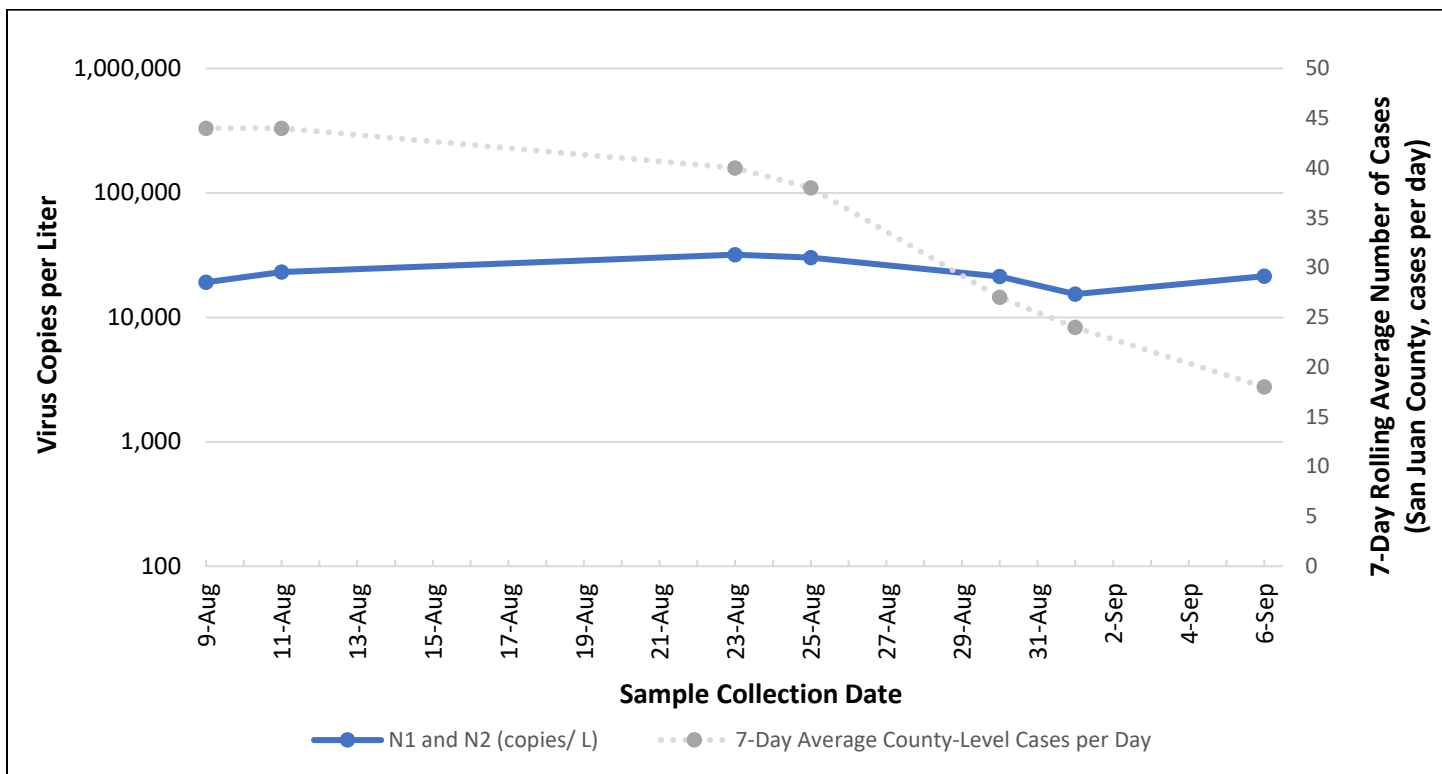
Deming



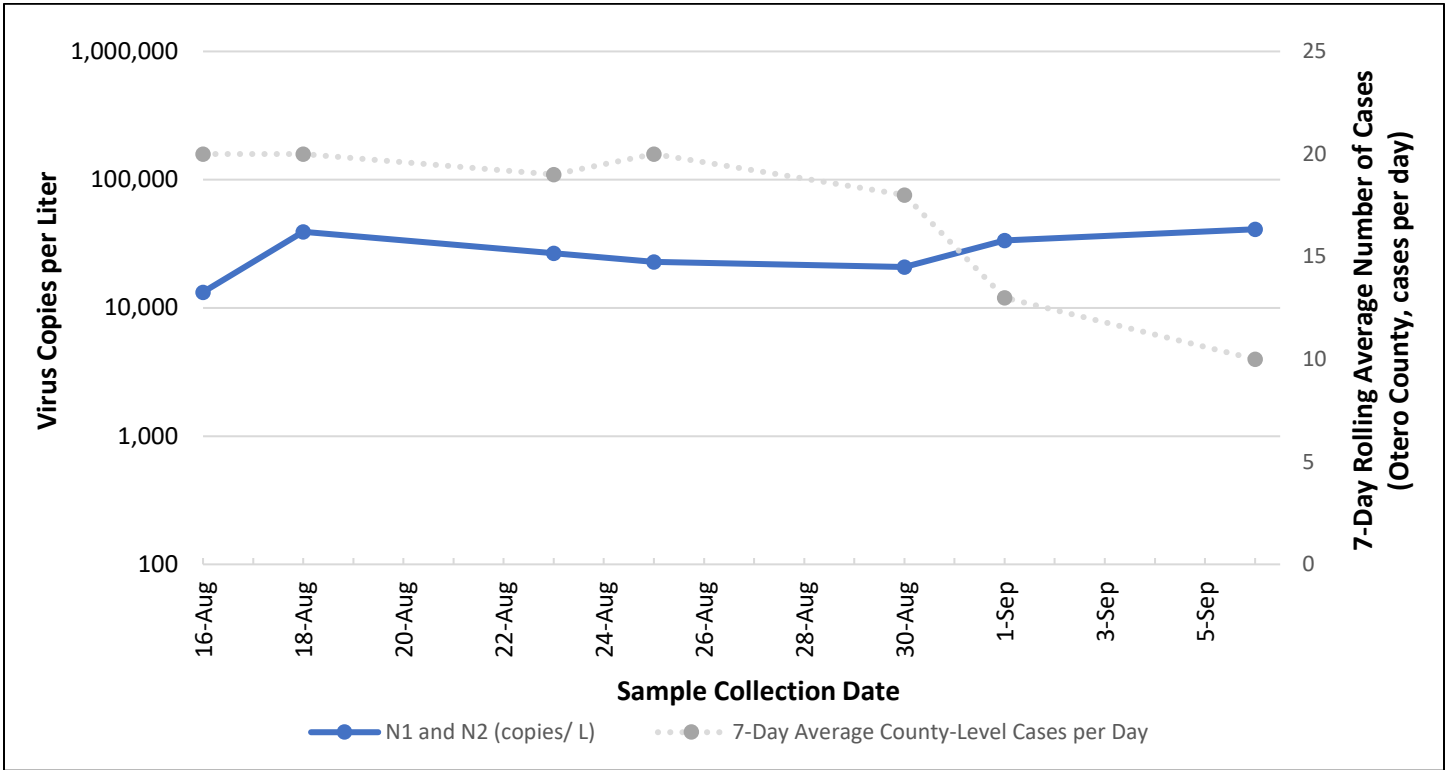
Silver City



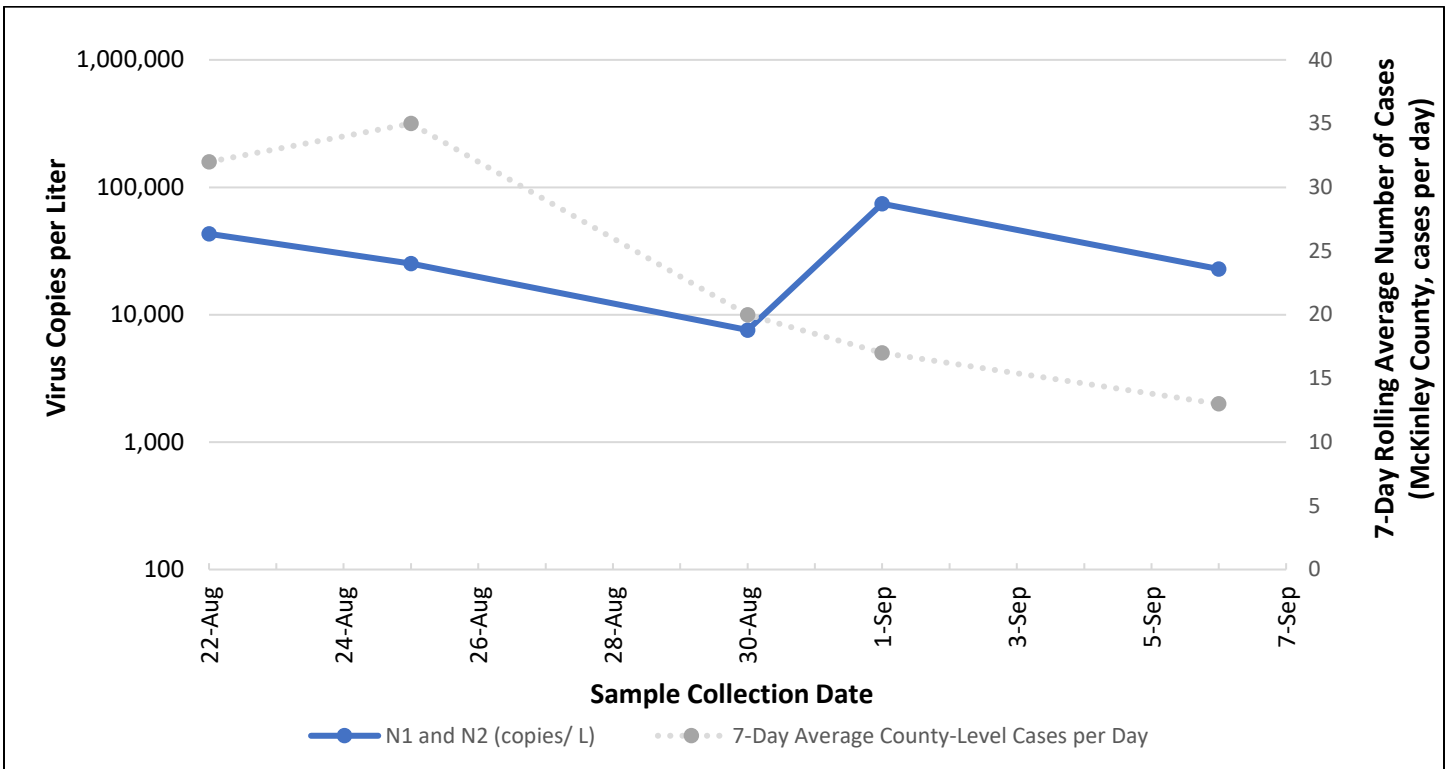
Farmington



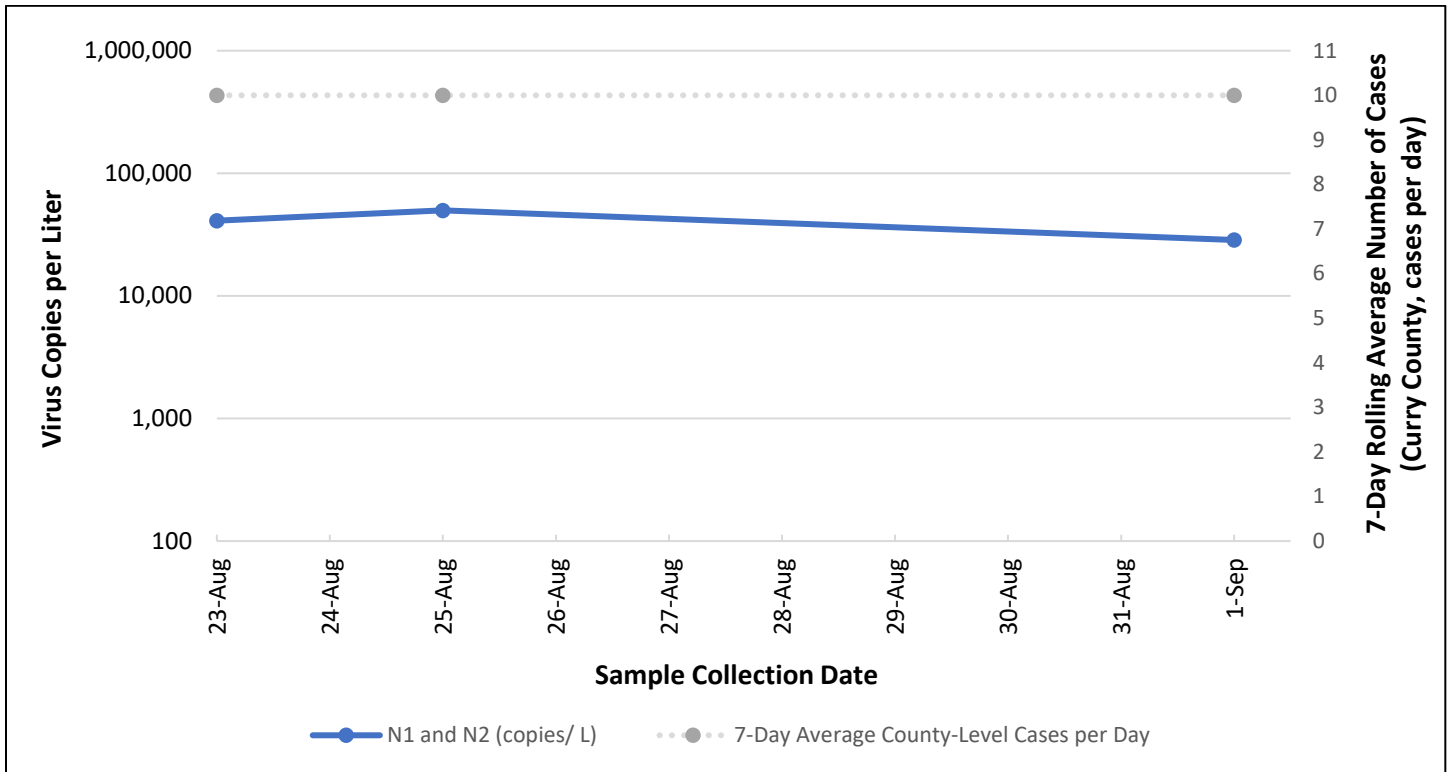
Alamogordo



Gallup



Clovis



Data Sources

- **COVID-19 wastewater data**

- The results reported here were provided by the NMDOH SLD, located in Albuquerque. The SLD is the sole public health, environmental, and drug laboratory for the state.

- **COVID-19 case data**

- The case data reported here were extracted from the NMDOH's public-facing COVID-19 dashboard. Note that case counts represent raw data based on information that the state has received. All data shown in the graphs have not yet necessarily been scrutinized by state epidemiologists to identify potential duplicates or late-arriving positives or negatives.

The data included in this report were extracted from the dashboard on September 13, 2022. More information is available at: <https://cvprovider.nmhealth.org/public-dashboard.html>.

Note that the case data are reported at the county level, while wastewater treatment plants serve a subset of residents within a given county. The populations represented by the wastewater data and the case data are not exactly the same.

Additional information on wastewater monitoring for SARS-CoV-2 can be found at CDC's National Wastewater Surveillance System website: <https://www.cdc.gov/healthywater/surveillance/wastewater-surveillance/wastewater-surveillance.html>.

Data Notes

- The case data reported in this weekly update may not match the numbers that are reported in NMDOH's press releases and/or the NMDOH COVID-19 data dashboard. This is due to variation in the date and time of data extraction.
- Wastewater results from NMDOH SLD are reported in gene copies per liter of wastewater. The lab method limit of detection is 5,650 copies/L; occasionally results lower than this value will be reported, which should be interpreted cautiously as COVID-19 detected but not quantifiable.
- Wastewater monitoring data are most useful when results are compared over time within the same community and combined with other sources COVID-19 surveillance data. Each wastewater treatment plan serves a different number of people and collects wastewater from a unique segment of the population. Because of this, comparing the number of virus copies per liter between communities without adjusting for these differences does not yield useful information.