# THE SOUTHERN NEVADA HEALTH DISTRICT'S WEEKLY WASTEWATER SURVEILLANCE REPORT

December 22, 2025

Prepared by:
Jeremiah Zablon
Epidemiologist
Office of Epidemiology
Southern Nevada Health District

Contents

## Definitions

**Clade**: A group that includes a common ancestor and all its descendants.
**Dominant Variants**: Versions of a virus, gene, or trait that are currently the most widespread or prevalent in a population.
**Grab Sample**: A single, discrete sample of wastewater collected at a specific time and location.
**Liquid matrices**: Refers to the fluid portion of sewage collected for testing and analysis.
**Solid matrices**: Water refers to the solid material (biosolids or sludge) that is separated from liquid wastewater during the treatment process.
**Wastewater Scan**: An organization focused on sewage, community, and network-based efforts that conducts wastewater surveillance to detect pathogens present in wastewater.
**Variants of Interest (VOI)**: Viral variants with genetic changes that may affect transmissibility, diagnostics, or immune escape and are showing signs of increased spread.
**Variant of Concern (VOC):** A mutated form of a virus that demonstrates one or more of the following characteristics: increased ability to spread, greater severity of illness, reduced effectiveness of treatments, vaccines, or diagnostic tools, and the ability to evade immune protection.
**Variants Under monitoring (VOM)**: KS.1.1, KP.3.3, LP.8.1, NB.1.8.1, KP.3, XFG
**Verily**: A private laboratory vendor contracted by CDC to test wastewater across the country for pathogen markers.
**PMMoV (Pepper Mild Mottle Virus):** It is a plant virus commonly found in human feces due to widespread consumption of pepper-containing foods.
**Concentration levels:** The viral concentration levels classify them into Low, Medium, and High based on tertile cutoffs from the data's distribution. It then identifies the minimum and maximum values within each group to define the range for each concentration level.

**Symbols:** Increasing: ↑ Decreasing: ↓ No change: →

## Purpose

This report highlights the changes in wastewater concentration for selected pathogens within Clark County, Nevada. This report includes data for SARS CoV-2, Influenza (Flu) A, Influenza (Flu) B, Respiratory syncytial virus (RSV), Measles, *Candida Auris,* Rotavirus, Adenovirus group F, Hepatitis A, Parvovirus, Norovirus, and Mpox (clade II). All data was obtained from the Clark County Water Reclamation District, Flamingo Water Resource Center, City of Mesquite, Boulder City, selected Utah wastewater treatment facilities and California wastewater treatment facilities and is analyzed and reported by **Wastewater Scan** (https://www.wastewaterscan.org/en) a collaborative project led by **Stanford University, Emory University[2,3],** and **Verily[1]**, funded through philanthropic support to Stanford. and Verily laboratories (https://verily.com/). The map below visualizes the wastewater treatment facilities in Nevada. A map of wastewater treatment facilities in Nevada is provided in the appendix.

**Note: The Southern Nevada Health District (SNHD) uses PMMoV microbial normalization, while the CDC and the state rely on viral-activity normalization.**

**Executive Summary of December 22, 2025, Report**

This report summarizes the latest wastewater pathogen surveillance results for Clark County, Nevada, and surrounding regions. The analysis focuses on three key facilities, the Flamingo Water Reclamation Facility (FWRF), Mesquite Wastewater Treatment Plant, and Boulder Wastewater Treatment Plant with comparisons to selected sites in Utah and California. Surveillance was carried out by WastewaterSCAN and Verily, targeting a wide range of pathogens, including SARS-CoV-2 and its variants, seasonal respiratory viruses (Influenza A, Influenza B, RSV, Human Metapneumovirus (HMPV)), and gastrointestinal pathogens (Norovirus, Rotavirus, *Enterovirus D68*, Hepatitis A). The study also accounts for site-level differences, noting that variations in sampling and analytical methods may influence results.

**Key Findings (as of December 22, 2025)**
Wastewater surveillance across Nevada, California, and Utah shows mixed pathogen activity with localized increases. SARS-CoV-2 levels remain low to moderate, with Boulder City reporting the highest concentration (632.75 GC/L, ↓), followed by Mesquite (105.48 GC/L, ↑) and Flamingo (85.30 GC/L, ↓). California sites range from (6.02 – 43.48 GC/L), mostly increasing, while Utah sites show moderate upward trends (63.64 – 65.16 GC/L). Sequencing indicates lineage XFG dominated early, with later diversity including JN.1 and XDV.1. Influenza A is rising in Nevada and Utah, led by Boulder City (143.87 GC/L), while California remains low with mixed trends. Influenza B is nearly undetectable except for localized increases in Utah (Central Valley 14.81 GC/L ↑; Provo 37.41 GC/L ↑). RSV activity is low but increasing, notably at Mesquite (16.92 GC/L) and Flamingo (8.18 GC/L).

Gastrointestinal viruses show significant activity. Norovirus is widespread and elevated, peaking at Provo (28,343.99 GC/L ↑) and trending upward in California and Nevada. Rotavirus shows mixed trends, with Riverside highest (110.20 GC/L ↑). Hepatitis A is mostly undetectable except for spikes at Riverside (238.42 GC/L ↑) and RP-1 Ontario (25.11 GC/L ↑). Other pathogens remain minimal: *Candida auris*, Parvovirus, and Human Metapneumovirus show very low levels. Adenovirus Group F remains persistently high, especially RP-1 Ontario (27,513.35 GC/L ↑).

No detections were recorded for Influenza H5, West Nile virus, or Mpox (Clades I & II). Measles was detected only at Provo (Dec 19) and RP-1 Ontario (Dec 22), making them isolated outliers. Overall, high-concern pathogens remain largely absent, but rising trends in Norovirus, Rotavirus, Enterovirus D68, Adenovirus F, and RSV warrant close monitoring, particularly in Utah and California.

**Summary**: High-concern pathogens remain largely absent, except for a measles detection in Provo and RP-1 Ontario. However, rising trends in Norovirus, Rotavirus, Enterovirus D68, Adenovirus F, and RSV particularly in Utah and California.

**Methodological Notes:** Sampling methods varied across sites. FWRF in Nevada, all California facilities (A.K. Warren, Hyperion, RP-1, Riverside, Valley Sanitary District), and Utah facilities (Central Valley and Provo City) collected 24-hour composite solid samples analyzed by WastewaterSCAN. In contrast, Mesquite and Boulder City relied on liquid grab samples analyzed by Verily. These methodological differences likely influenced pathogen measurements.

**Summary of Select Pathogen Concentrations in three wastewater treatment facilities in Neveda**

- Latest data point for Flamingo Water reclamation district plant December 22, 2025
- Latest data point for City of Mesquite Wastewater Treatment Plant is December 18, 2025
- Latest data point for Boulder City Wastewater Treatment Plant December 22, 2025

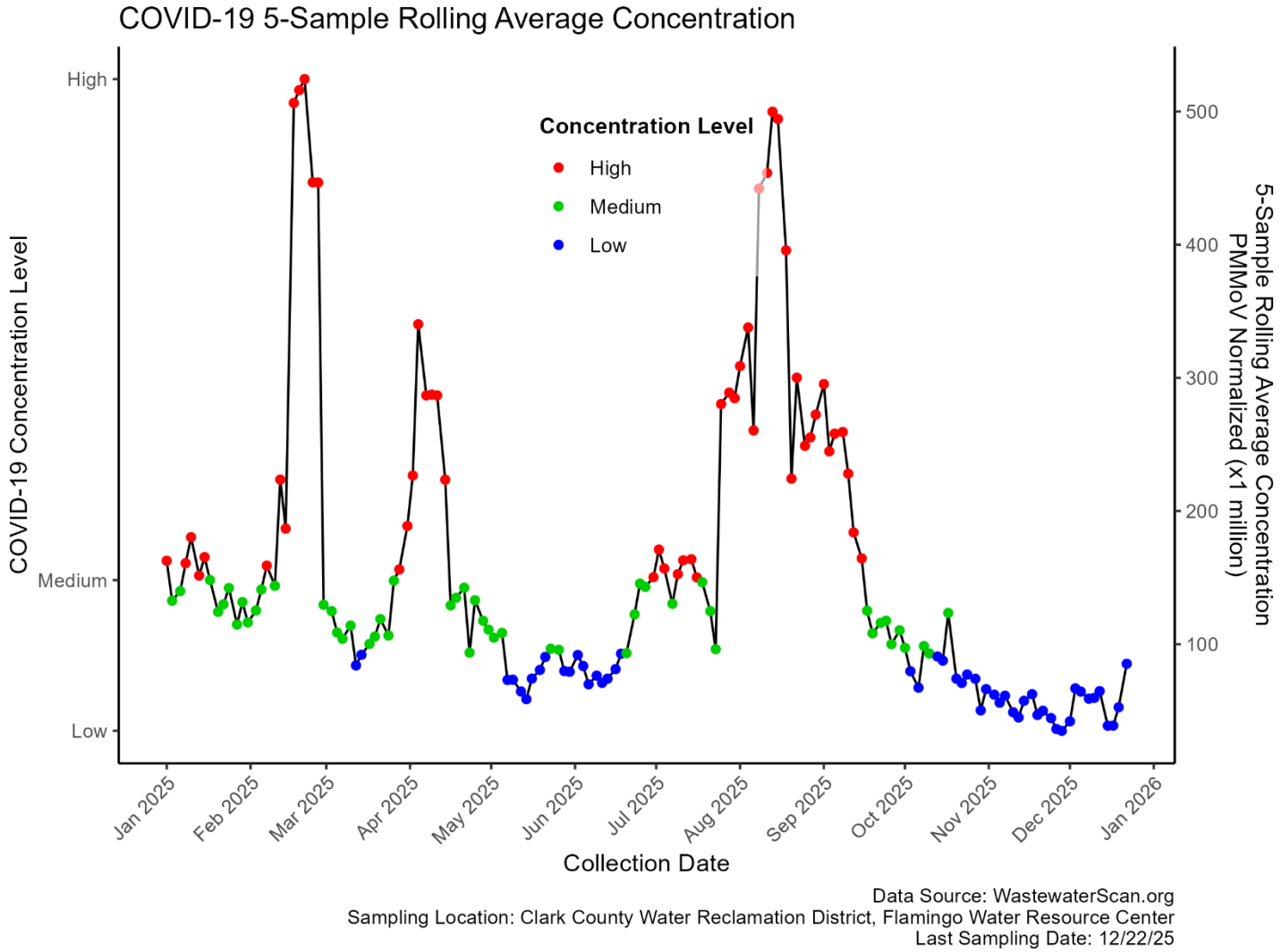
| Pathogen | Concentration Level / Presence- Flamingo | Concentration Level / Presence- Boulder | Concentration Level / Presence - Mesquite |
|---|---|---|---|
| SARS-CoV-2 | Low | Medium | Low |
| Influenza A | High | High | High |
| Influenza B | Low | Low | Low |
| Respiratory Syncytial virus (RSV) | High | High | High |
| Norovirus | Medium | Not Tested | Not Tested |
| Rotavirus | Low | Not Tested | Not Tested |
| *Enterovirus D68* | Low | Not Tested | Not Tested |
| Hepatitis A | Low | Not Tested | Not Tested |
| *Candida Auris* | Medium | Not Tested | Not Tested |
| Adenovirus Group F | Low | Not Tested | Not Tested |
| Parvovirus | Low | Not Tested | Not Tested |
| Metapneumovirus | Low | Not Tested | Not Tested |
| Mpox – Clade I | No Presence | No Presence | No Presence |
| Measles | No Presence | No Presence | No Presence |
| Mpox – Clade II | No Presence | No Presence | No Presence |
| Influenza H5 | No Presence | No Presence | No Presence |

**Note: The wastewater data for Las Vegas were collected from the Flamingo Water Reclamation District Plant, where samples were analyzed on solids and sourced from Wastewater SCAN. In contrast, data for the City of Mesquite and Boulder City were analyzed on liquid samples by Verily and provided by the State Wastewater Epidemiology Team. Due to the differences in sample matrices (solids vs. liquids) and analytical methods, variations in virus concentrations between the three facilities are expected. Mesquite and Boulder sampling is conducted using grab sampling and is not performed over a 24-hour period.**

**SARS–CoV-2 Viral Concentration Trends in Clark County**

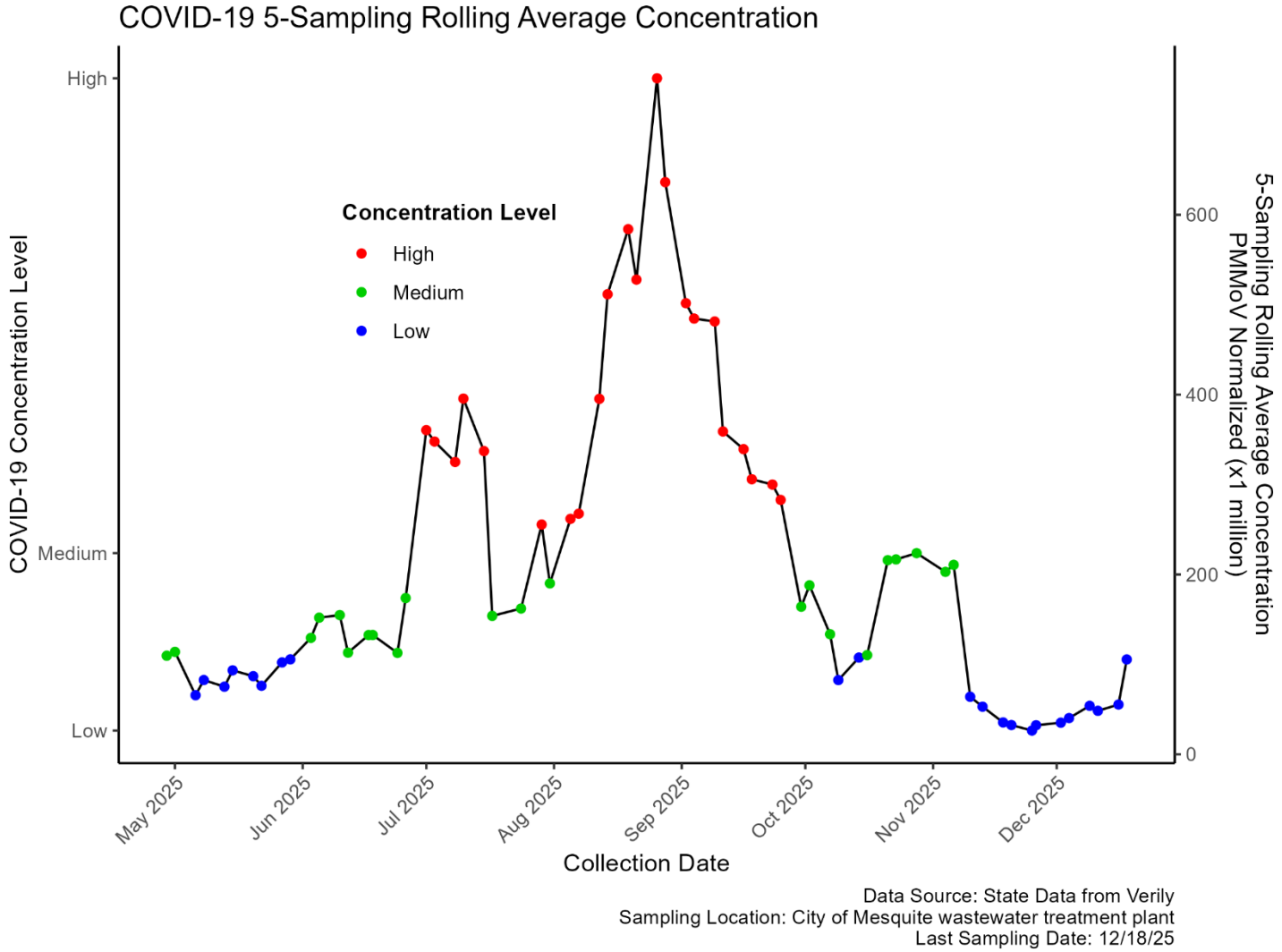
**Flamingo Water Reclamation District Plant**

The chart shows COVID-19 concentrations at the Flamingo Water Resource Center from January to December 2025 using a 5-sample rolling average. Levels fluctuated significantly throughout the year, with three major peaks: a sharp surge in March, another in late April, and the highest spike in September, all reaching high concentration levels. Between these peaks, concentrations dropped to medium or low, particularly from May through July and again from October onward. By December, levels were consistently low, indicating reduced viral activity.



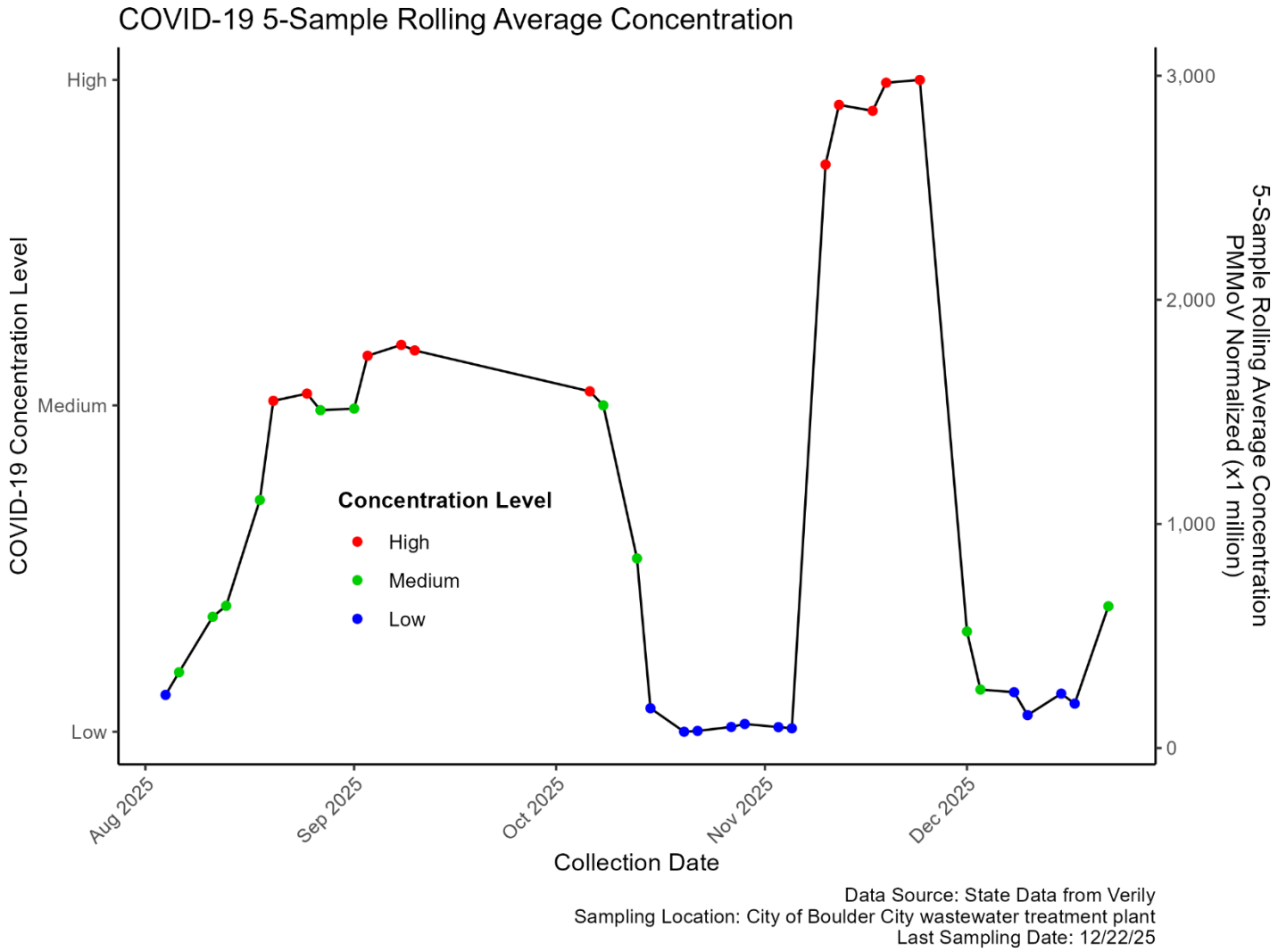
**City of Mesquite Wastewater Treatment Plant**

The chart shows COVID-19 concentrations at the Mesquite wastewater treatment plant from May to December 2025 using a 5-sample rolling average normalized to PMMoV. Levels were low in May and June, then rose to medium in July, followed by a sharp surge to high concentrations in August and early September, peaking above 600 million normalized units. After mid-September, concentrations declined steadily, dropping to medium in October and briefly rising again in November before returning to low levels in December. The last sample, collected on December 18, 2025, indicates minimal recent transmission, reflecting a strong late-summer peak and subsequent decline.



**Boulder City Wastewater Treatment Plant**

The chart shows COVID-19 concentrations at Boulder City wastewater plant rose from low in August to medium in September, peaking at high in late September. Levels dropped to low in November, then surged to high in early December before declining again. The last sample on December 22, 2025, shows low levels, indicating reduced recent transmission



**SARS-CoV-2 Concentrations Interpretation**

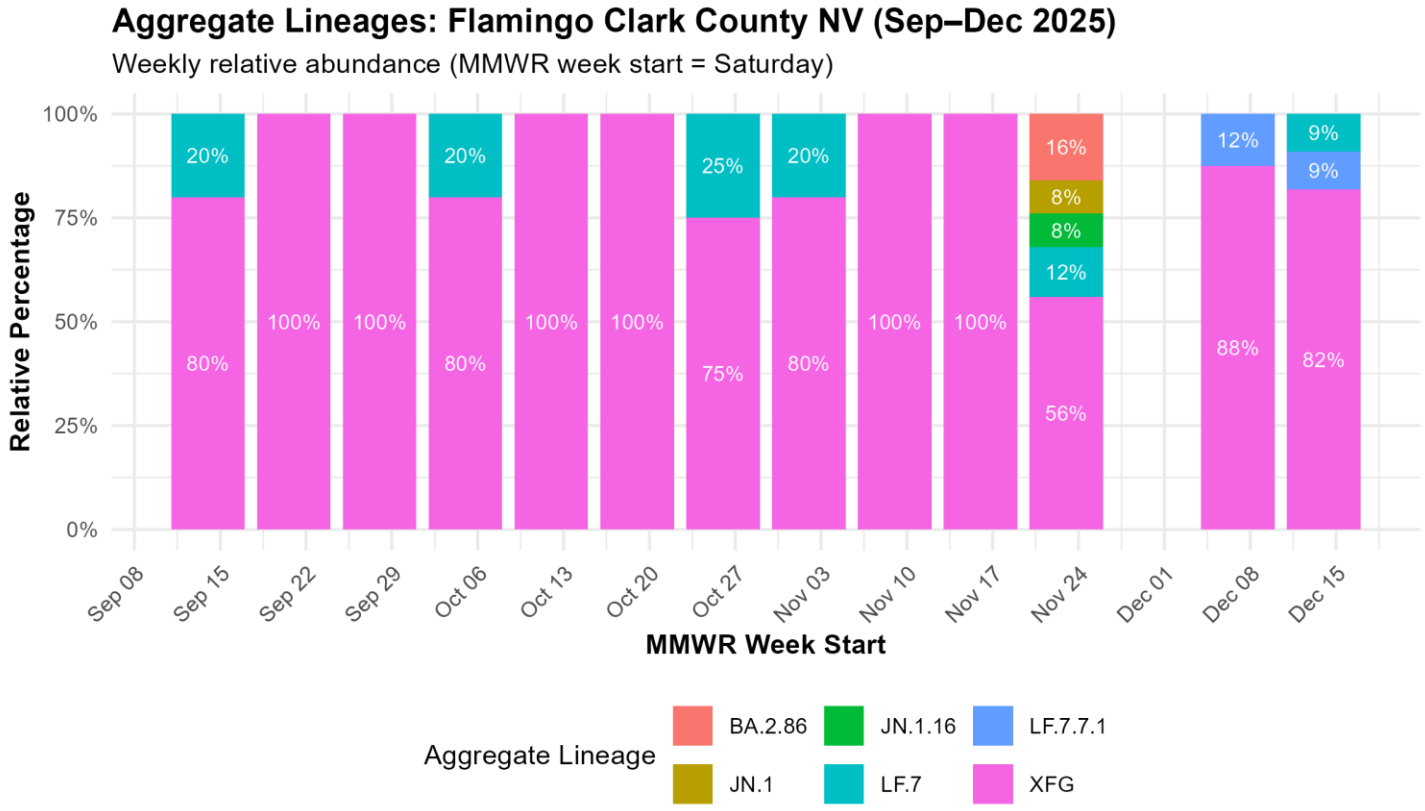
As of December 22, 2025, SARS-CoV-2 wastewater levels show mixed trends across Nevada, California, and Utah. Boulder City reports the highest concentration (632.75 GC/L, ↓), followed by Mesquite (105.48 GC/L, ↑) and Flamingo (85.30 GC/L, ↓). California sites range from 6.02 to 43.48 GC/L, mostly increasing, while Utah sites show moderate upward trends (63.64–65.16 GC/L).

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 85.30 | ↓ | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | 105.48 | ↑ | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | 632.75 | ↓ | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 15.17 | ↑ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 17.85 | ↑ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 63.64 | ↑ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 65.16 | ↑ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 16.30 | ↑ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 43.48 | ↑ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 6.02 | ↓ | December 22 2025 |

## SARS-CoV-2 Variants Circulating

**Flamingo Water Reclamation District Plant**

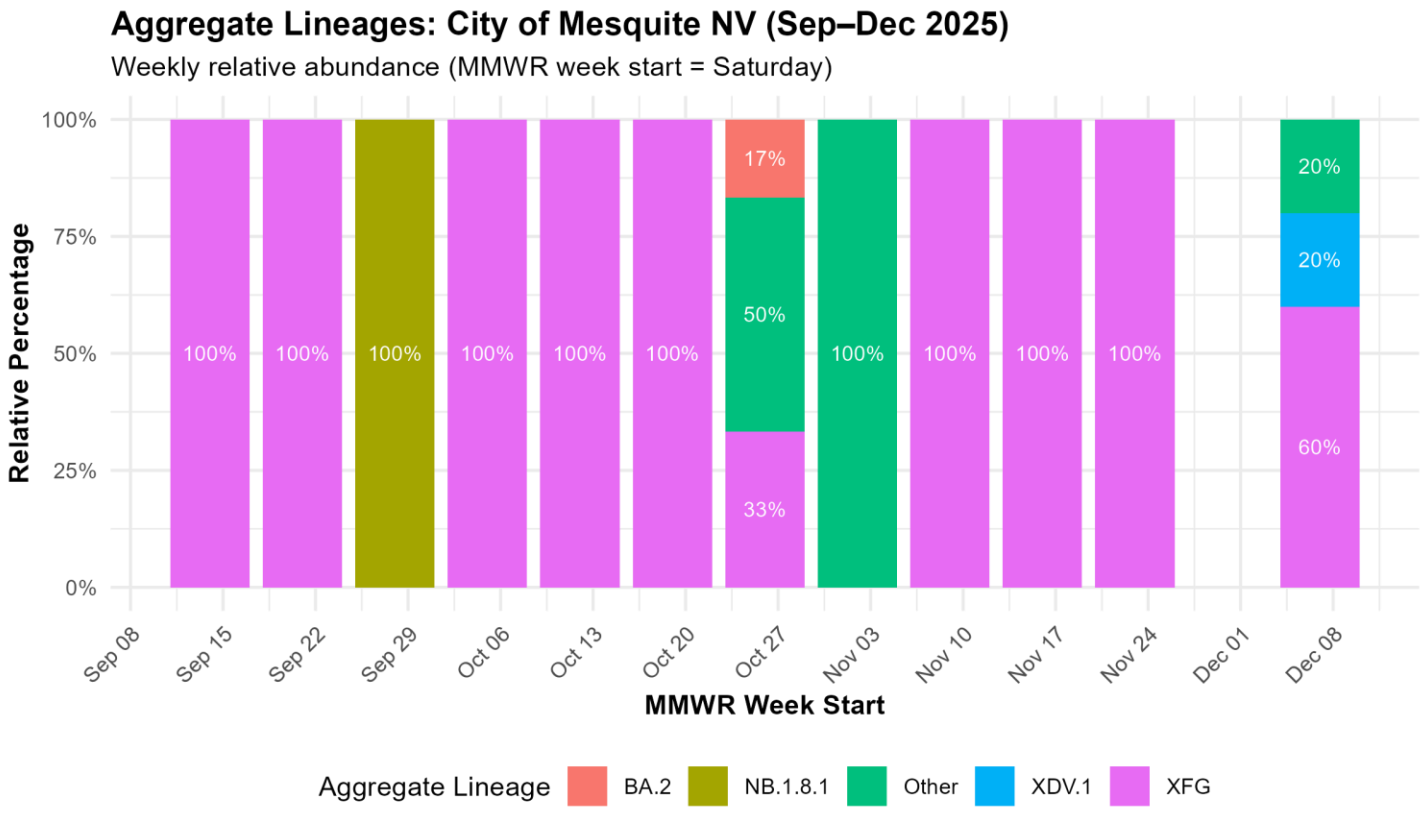
The chart illustrates weekly changes in SARS-CoV-2 lineage composition at the Flamingo Water Reclamation District from September through early December 2025. Lineage XFG dominated most weeks, accounting for approximately 80–100% of detections. Lineage LF.7 appeared intermittently, reaching 20–25% in mid-September and late October. During the week starting November 24, lineage diversity increased: XFG declined to 56%, while BA.2.86 rose to 16%, LF.7 to 12%, and JN.1 and JN.1.16 each represented 8%. In December, LF.7 showed minor fluctuations, with proportions of 7%, 12%, and 9% on successive sampling dates, including December 15. Overall, lineage diversity remained limited, with XFG prevailing most weeks and only brief introductions of minor lineages in late November.




**Note: Data for the week of December 1, is missing and not represented in the dataset.**

**Mesquite Wastewater Treatment Plant**

The chart illustrates SARS-CoV-2 lineage composition in Mesquite wastewater from September through December 2025. Lineage XFG was predominant throughout most of this period, maintaining 100% prevalence during several weeks. NB.1.8.1 briefly reached 100% on September 29. On October 27, lineage diversity increased: XFG dropped to 33%, other minor lineages (<5%) collectively accounted for 50%, and BA.2 appeared at 17%. From November 3 through November 24, XFG returned to full dominance at 100%. By December 8, XFG accounted for 60%, XDV for 20%, and other lineages made up the remaining 20%. Later in December, XFG remained at 60%, while XDV.1 and other lineages each represented about 20%. Overall, lineage variation was minimal, with only brief shifts in late October before XFG reasserted predominance.

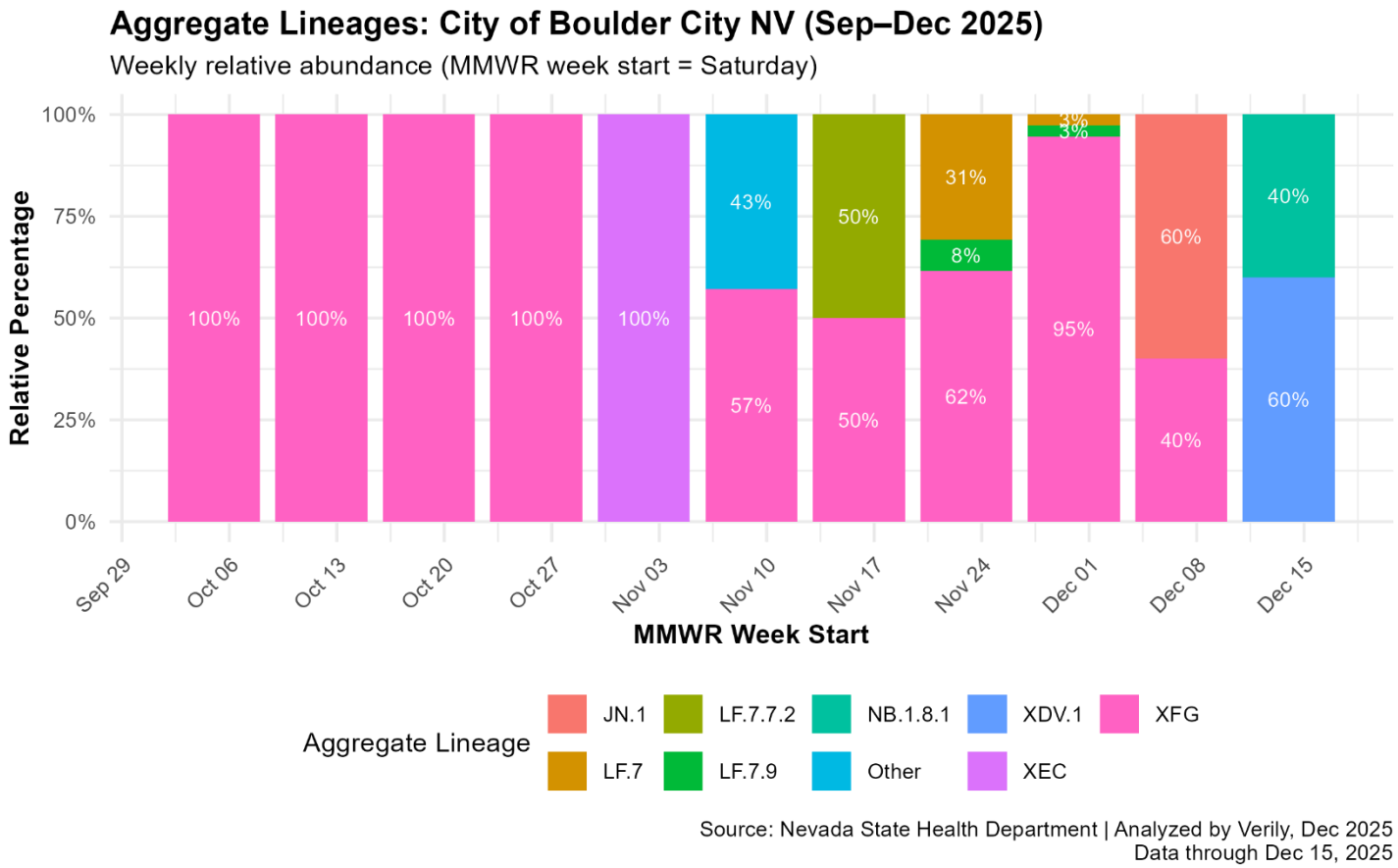



Source: Nevada State Health Department | Analyzed by Verily, Dec 2025
Data through Dec 15, 2025

**Note: Data for the week of December 1, is missing and not represented in the dataset.**

**Boulder City Wastewater Treatment Plant**

The chart illustrates SARS-CoV-2 lineage composition in Boulder City wastewater from October 6 to December 8, 2025. Lineage XFG dominated early in the period, maintaining 100% prevalence from October 5–26. XEC briefly reached 100% on November 2. Subsequent weeks showed increased diversity: on November 9, XFG dropped to 57%, with 43% classified as “Others” (lineages present at <5%). On November 16, XFG and LF.7.7.2 each accounted for 50%. By December 8, JN.1 rose to 60% while XFG fell to 40%. Later in December, NB.1.8.1 represented 40% and XDV.1 60%. Minor contributions from LF.7, LF.7.9, and JN.1 appeared intermittently, with XFG returning to 40% by December 7 as JN.1 increased to 60%. Overall, lineage variation was limited and transient.

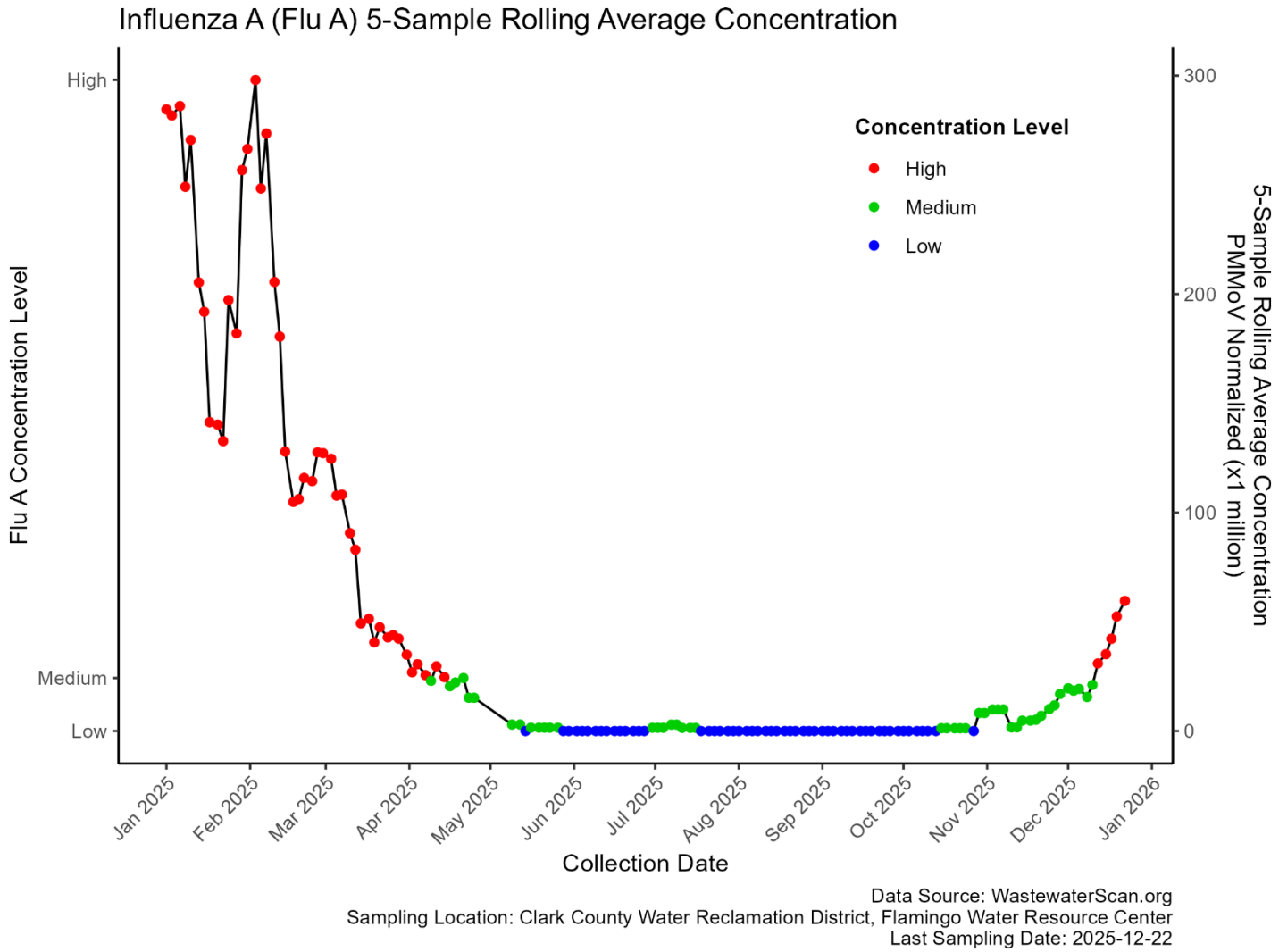



Source: Nevada State Health Department | Analyzed by Verily, Dec 2025
Data through Dec 15, 2025

## Influenza A Viral Concentration Trends in Clark County

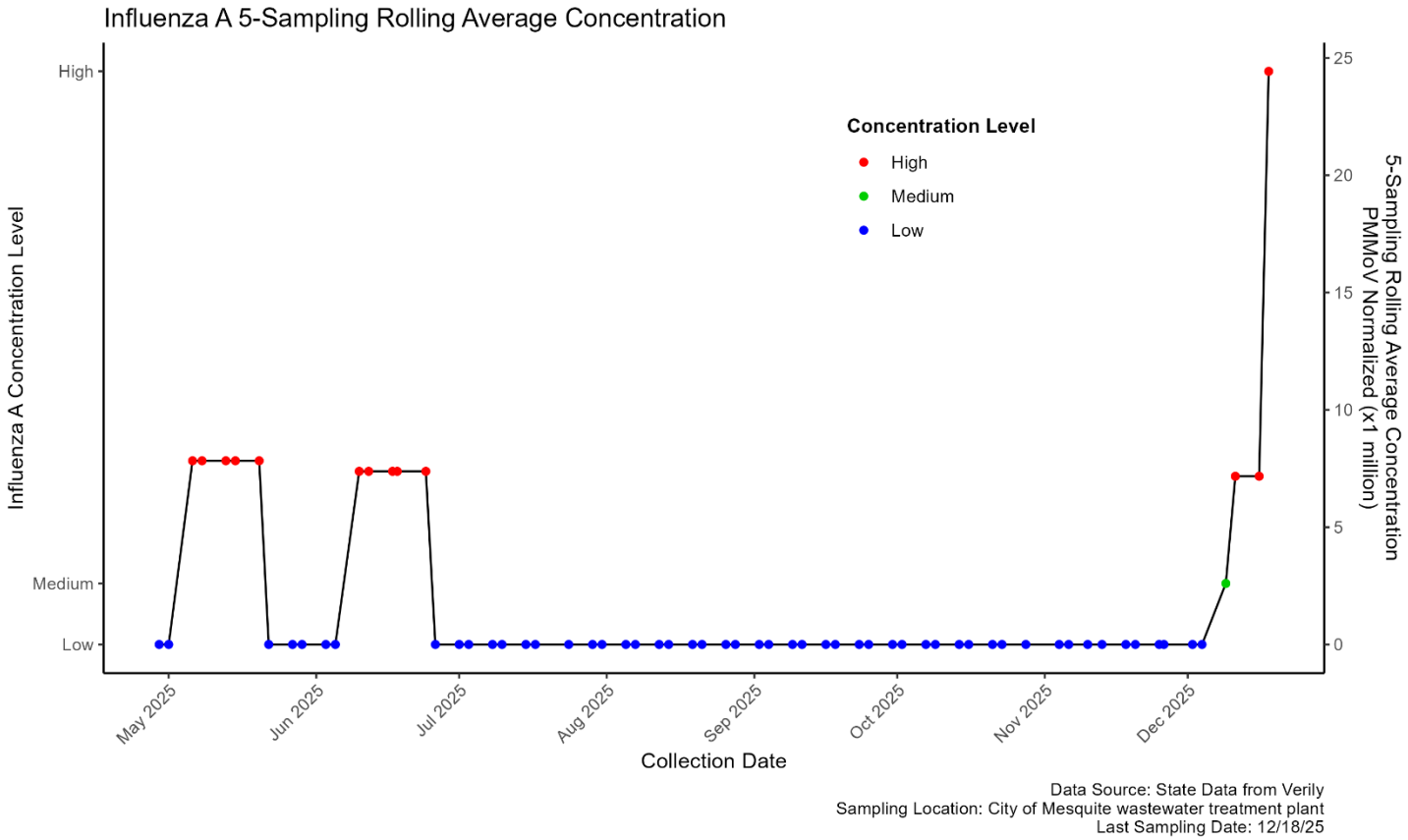
**Flamingo Water Reclamation District Plant**

The chart shows Influenza A concentrations in Clark County wastewater were high from January to early March 2025, then steadily declined through April. By May, levels dropped to low, remaining near zero from June to October. A slight increase occurred in November, reaching medium levels, followed by a small uptick in December. Overall, the trend shows a sharp early-year peak, prolonged low levels during summer, and minor resurgence late in the year. Data source: WastewaterScan.org; last sample collected December 22, 2025.



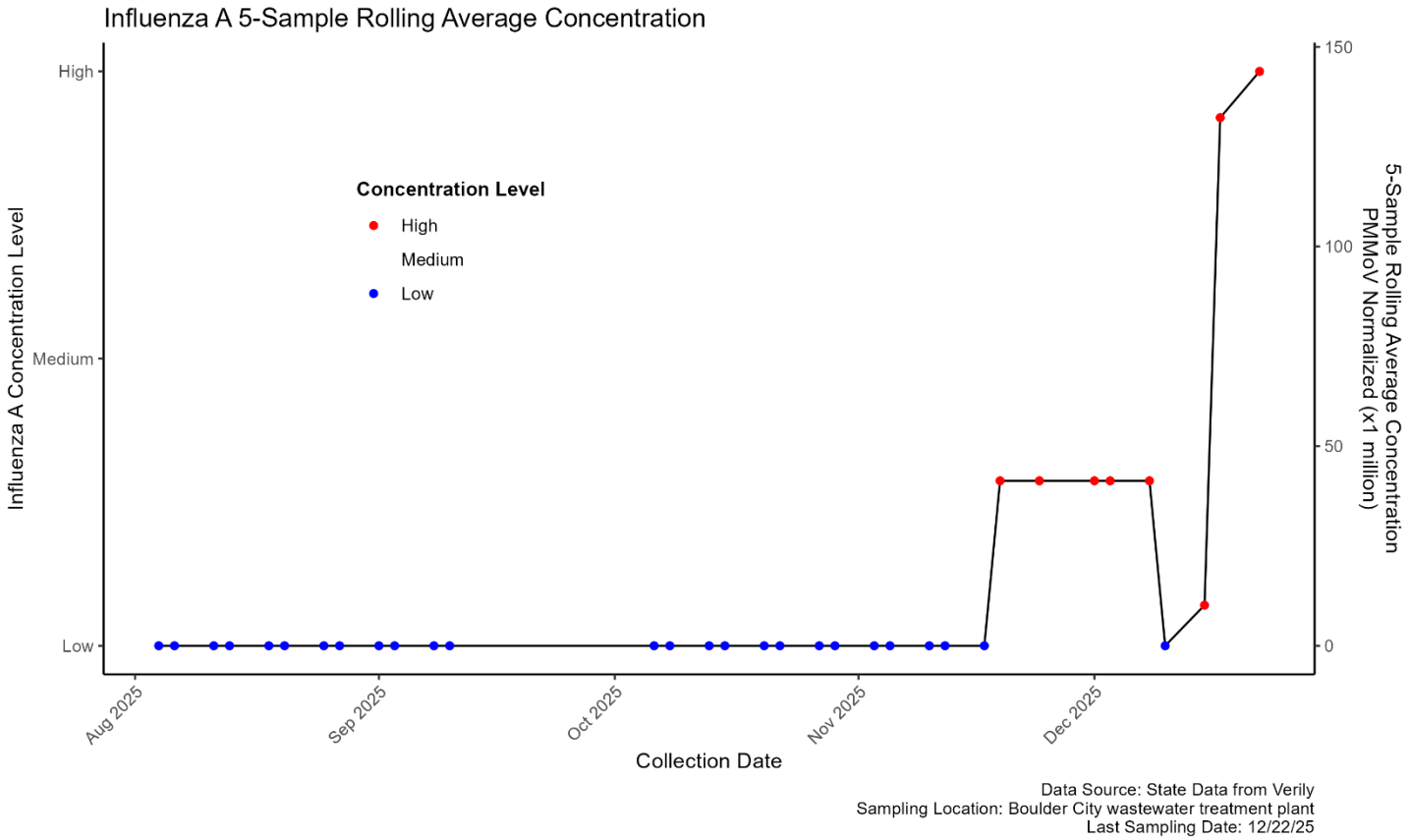
**City of Mesquite Wastewater Treatment Plant**

The chart shows Influenza A concentrations at the Mesquite wastewater treatment plant from May to December 2025 using a 5-sample rolling average normalized to PMMoV. Levels were low in early May, then surged to high in late May and June, followed by a return to low levels in July. After July, concentrations remained consistently low through November, indicating minimal activity. In December, levels rose slightly to medium before spiking to high in the latest sample collected on December 18, 2025



**Boulder City Wastewater Treatment Plant**

The chart shows Influenza A concentrations in Mesquite wastewater remained low from August through late November 2025. In early December, levels rose sharply to high and stayed elevated for several days before briefly dropping, then spiking again mid-December. This indicates a sudden surge in influenza activity late in the year after months of minimal detection. Overall, the trend shows prolonged low levels followed by a rapid increase in December. Data source: State Data from Verily; last sample collected December 22, 2025.



**Interpretation of Influenza A Concentrations**

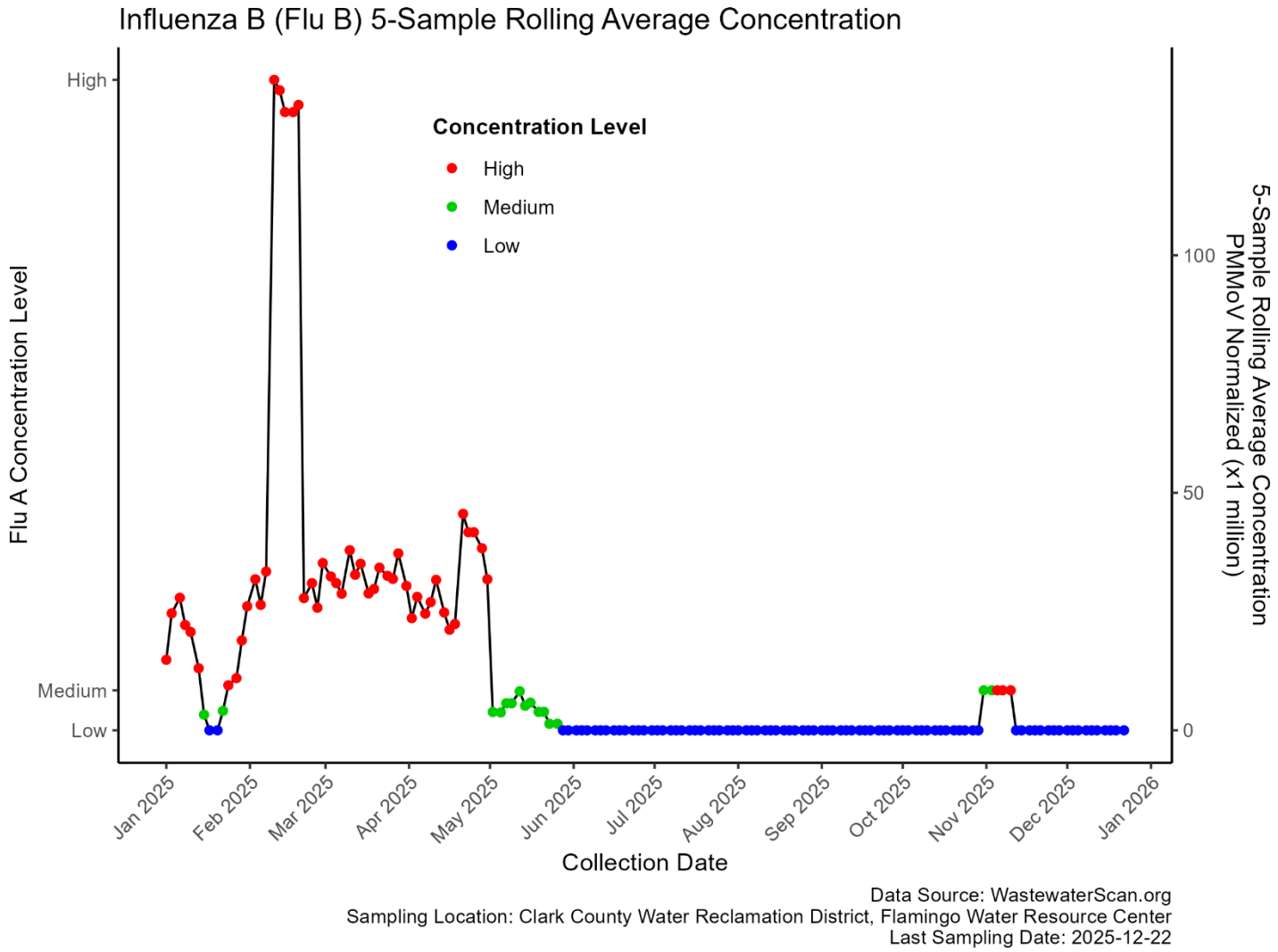
Influenza A wastewater levels are rising in Nevada and Utah, with Boulder City highest at 143.87 GC/L, followed by Flamingo (59.54 GC/L) and Mesquite (24.43 GC/L). Utah sites show strong increases: Provo (71.03 GC/L) and Central Valley (58.57 GC/L). California remains low, ranging from 4.43 to 20.51 GC/L, with mixed trends.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 59.54 | ↑ | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | 24.43 | ↑ | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | 143.87 | ↑ | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 5.52 | ↑ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 20.51 | ↓ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 58.57 | ↑ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 71.03 | ↑ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 7.52 | ↑ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 17.91 | ↑ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 4.43 | → | December 22 2025 |

## Influenza B Viral Concentration Trends in Clark County

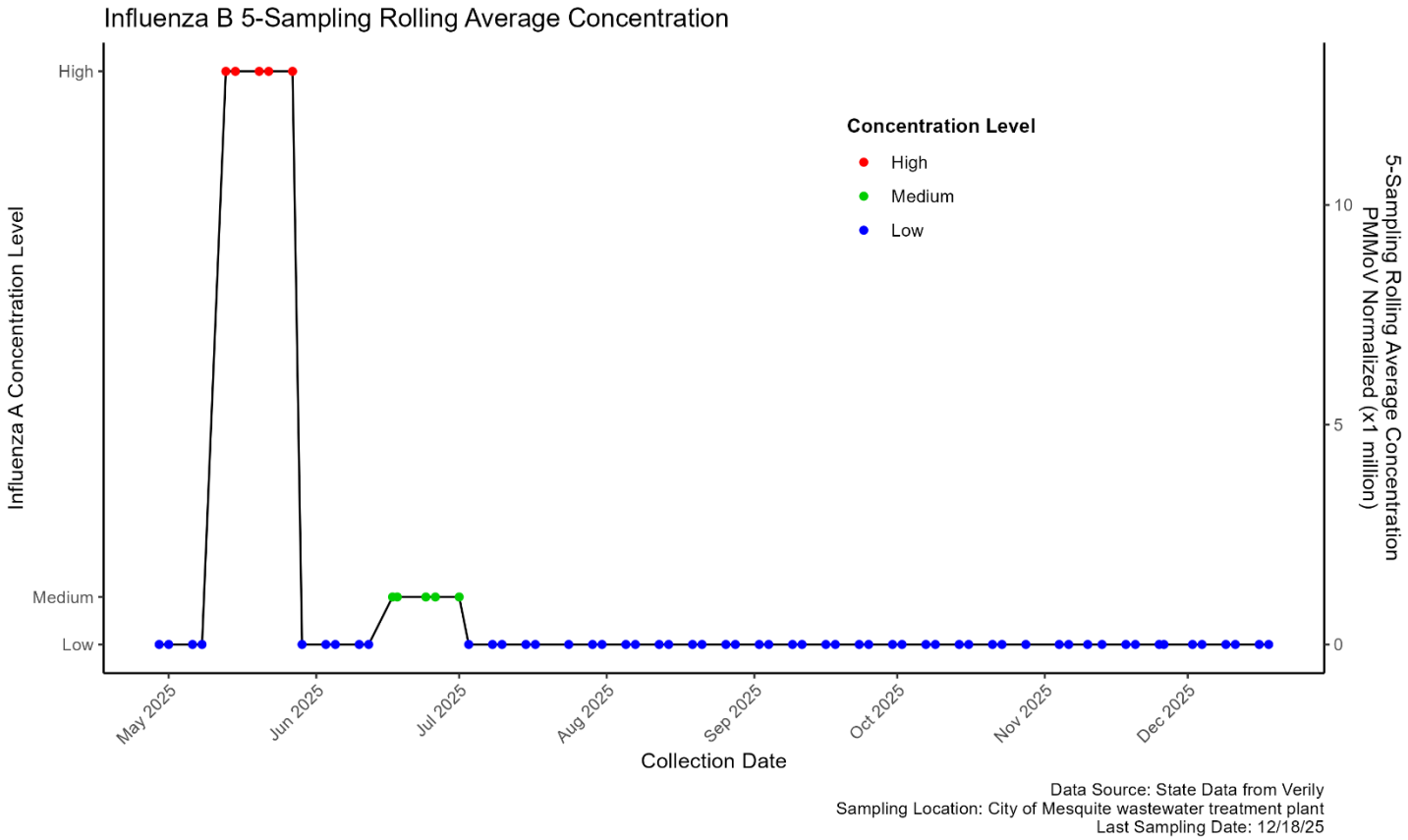
### Flamingo Water Reclamation District Plant

The chart shows Influenza B concentrations in wastewater at the Flamingo Water Reclamation District from January to December 2025 using a 5-sample rolling average. Levels were high in February and March, peaking sharply before declining to medium in April and May. After May, concentrations dropped to low and remained consistently minimal through summer and fall, with only a slight uptick to medium in late November. Overall, the data indicates a strong early-year surge followed by prolonged low activity, suggesting limited recent transmission. The last sample was collected on December 22, 2025, confirming continued low levels at the end of the year.



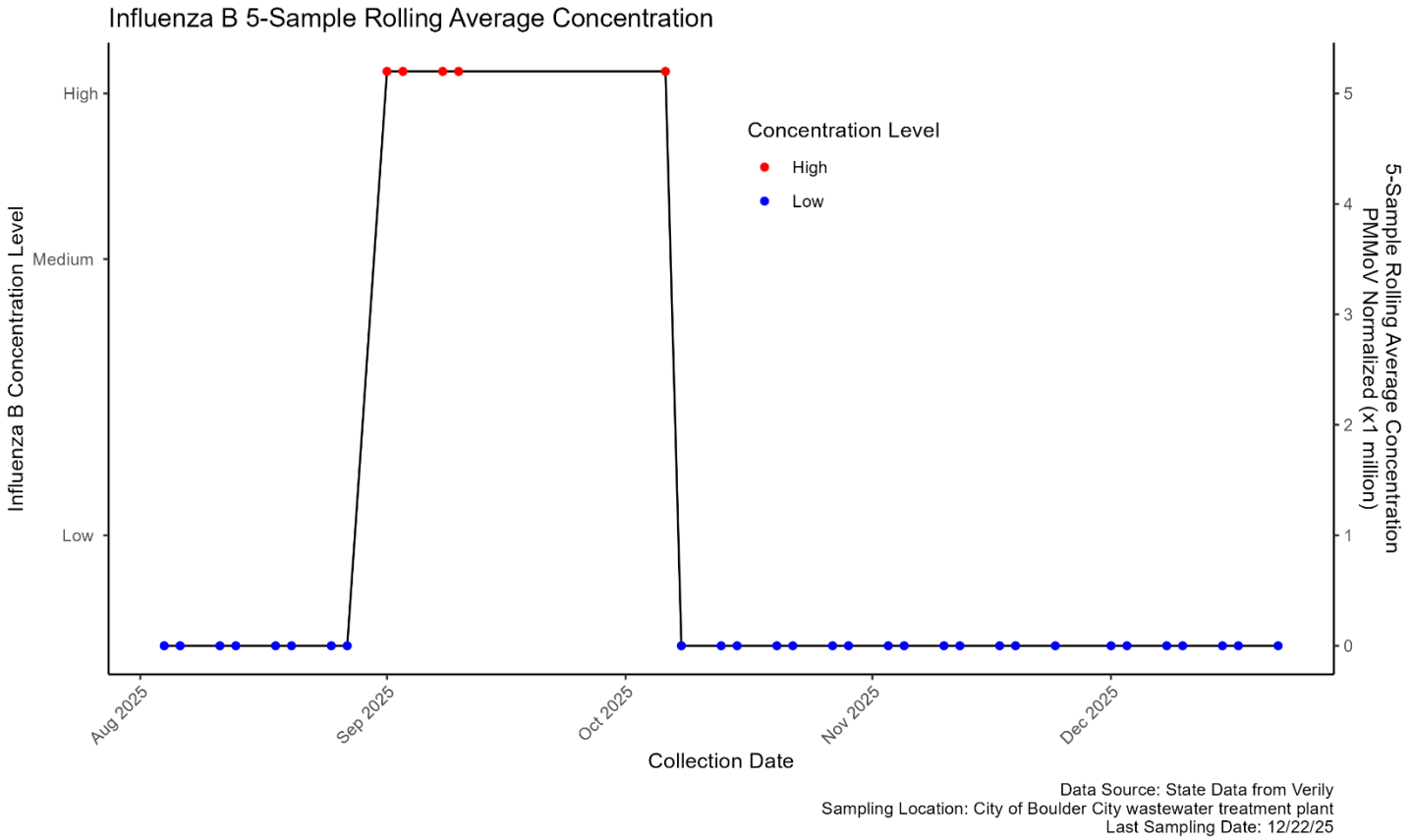
**City of Mesquite Wastewater Treatment Plant**

The chart shows Influenza B concentrations in wastewater at the City of Mesquite treatment plant from May to December 18, 2025, using 5-sample rolling averages. Levels were low in early May, spiked to high at the end of May, then dropped to low by mid-June. A smaller high-level increase occurred in mid-June and July before returning to low. From July through November, levels remained consistently low. Overall, the data indicates two brief summer surges and prolonged low activity.



**Boulder City Wastewater Treatment Plant**

The chart shows Influenza B concentrations at Boulder City wastewater treatment plant from August to December 2025. Levels were consistently low from August through late August, then surged to high in early September and remained elevated until early October. Afterward, concentrations dropped back to low and stayed stable through November and December. The last sample was collected on December 22, 2025, indicating minimal recent Influenza B activity.



**Interpretation of Influenza B Concentrations**

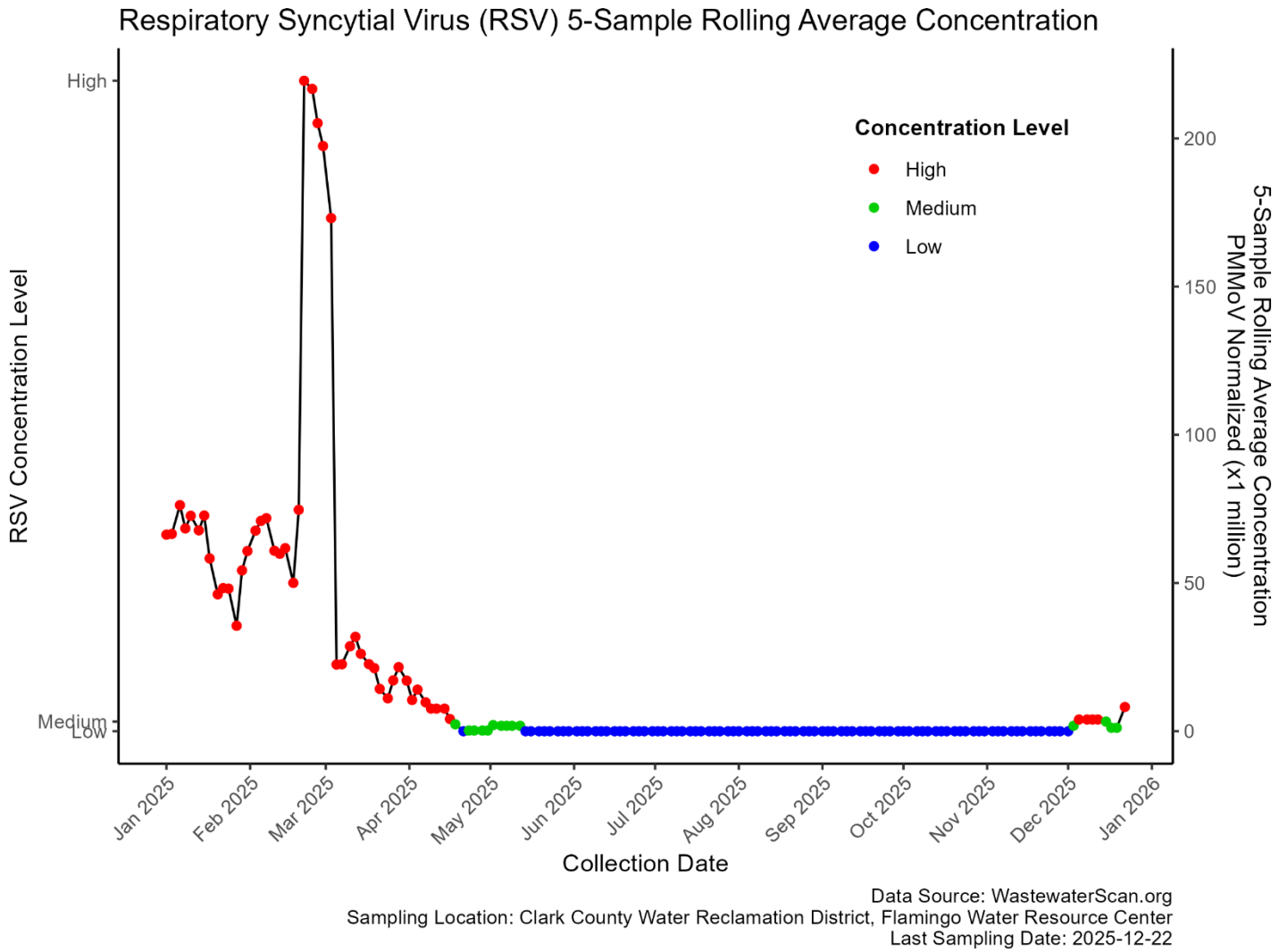
As of December 18, 2025, Influenza B remains nearly undetectable across most wastewater facilities in Utah, Nevada, and California. Sites such as Flamingo (Las Vegas), Mesquite, Boulder City, A.K. Warren, Hyperion, RP-1 Ontario, Riverside, and Valley Sanitary District all report 0.00 GC/L with stable trends. However, Utah shows localized increases: Central Valley at 13.06 GC/L (↑) and Provo City at 37.41 GC/L (↑). Overall, regional Influenza B activity is minimal, with rising levels confined to Utah.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 0.00 | → | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | 0.00 | → | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | 0.00 | → | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 0.00 | → | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 0.00 | → | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 14.81 | ↑ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 37.41 | ↑ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 0.00 | → | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 0.00 | → | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 0.00 | → | December 22 2025 |

**Respiratory Syncytial Virus (RSV) Viral Concentration Trends in Clark County**

**Flamingo Water Reclamation District Plant**

The chart shows RSV concentrations at the Flamingo Water Resource Center from January to December 2025 using a 5-sample rolling average. Levels were high from January through early April, peaking sharply in March. After April, concentrations declined steadily, reaching low by May and remaining near zero through summer and fall. A slight resurgence occurred in November, rising briefly to medium before dropping back to low in December. Overall, the trend indicates an early-year surge, prolonged lull, and minor late-year increase. Last sample: December 22, 2025.



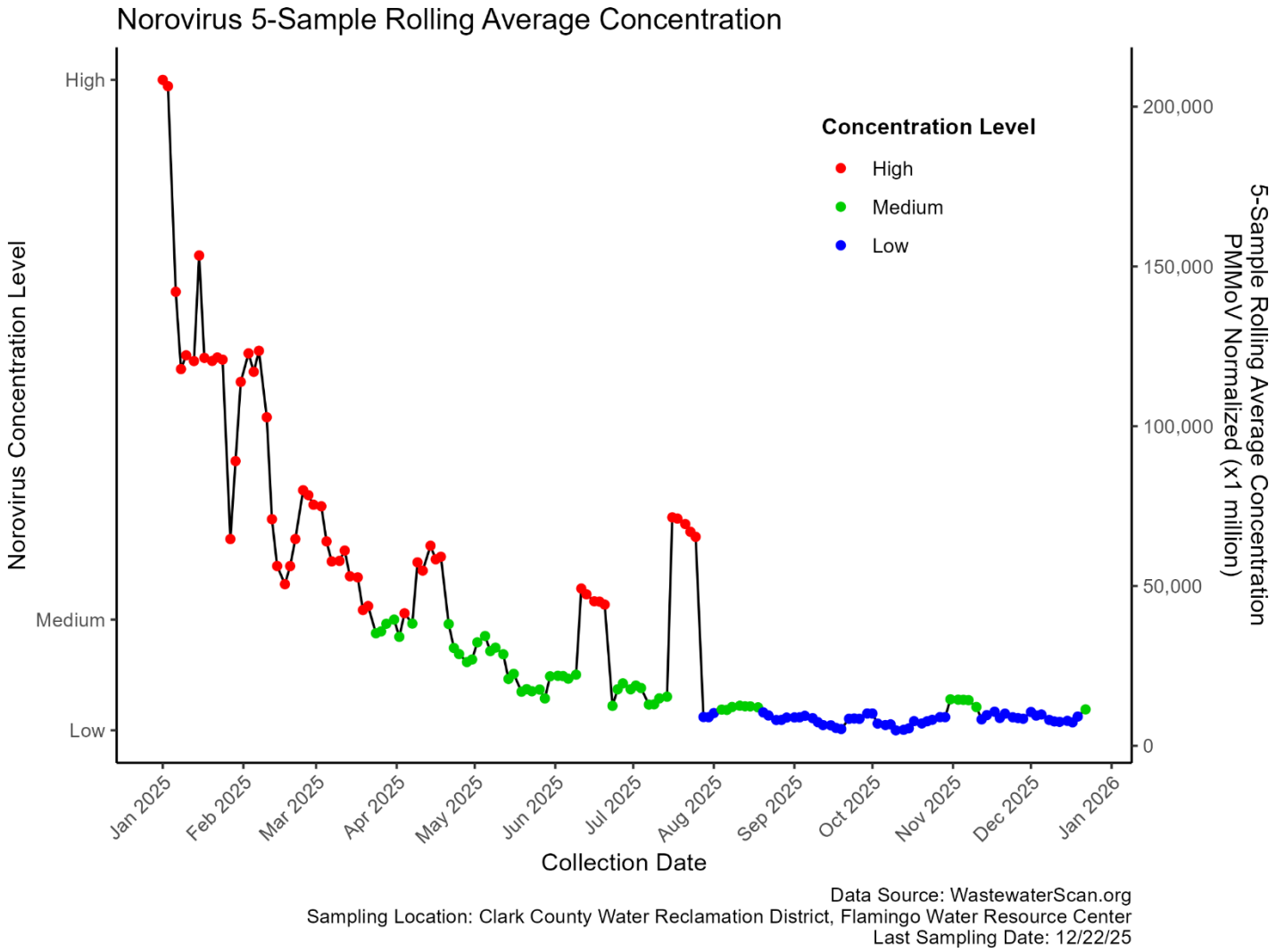
**Respiratory Syncytial Virus (RSV) Concentrations Interpretation**
As of December 22, 2025, RSV levels in wastewater remain low but show upward trends at several sites. Mesquite leads Nevada with 16.92 GC/L, followed by Flamingo (8.18 GC/L) and Boulder City (2.21 GC/L). California sites like Hyperion (7.45 GC/L) and Riverside (4.53 GC/L) are increasing, while Utah shows mixed activity.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 8.18 | ↑ | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | 16.92 | ↑ | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | 2.21 | ↑ | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 5.48 | ↑ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 7.45 | ↑ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 1.72 | ↓ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 2.44 | ↑ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 0.45 | ↓ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 4.53 | ↑ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 0.00 | → | December 22 2025 |

## Norovirus Viral Concentration Trends in Clark County

**Flamingo Water Reclamation District Plant**

The chart shows Norovirus concentrations at the Flamingo Water Resource Center from January through December 2025, using a 5-sample rolling average normalized to PMMoV. Levels were extremely high in January and February, exceeding 150,000 normalized units, followed by a steady decline through spring. Concentrations shifted to medium levels in April and May, then dropped to low by June. A brief spike to high occurred in August, but levels quickly returned to low and remained stable through the fall and early winter. Overall, the data indicates a strong early-year surge, gradual decline, and sustained low activity from September onward. The last sample was collected on December 22, 2025.




Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 12/22/25

**Interpretation of Norovirus Concentrations**

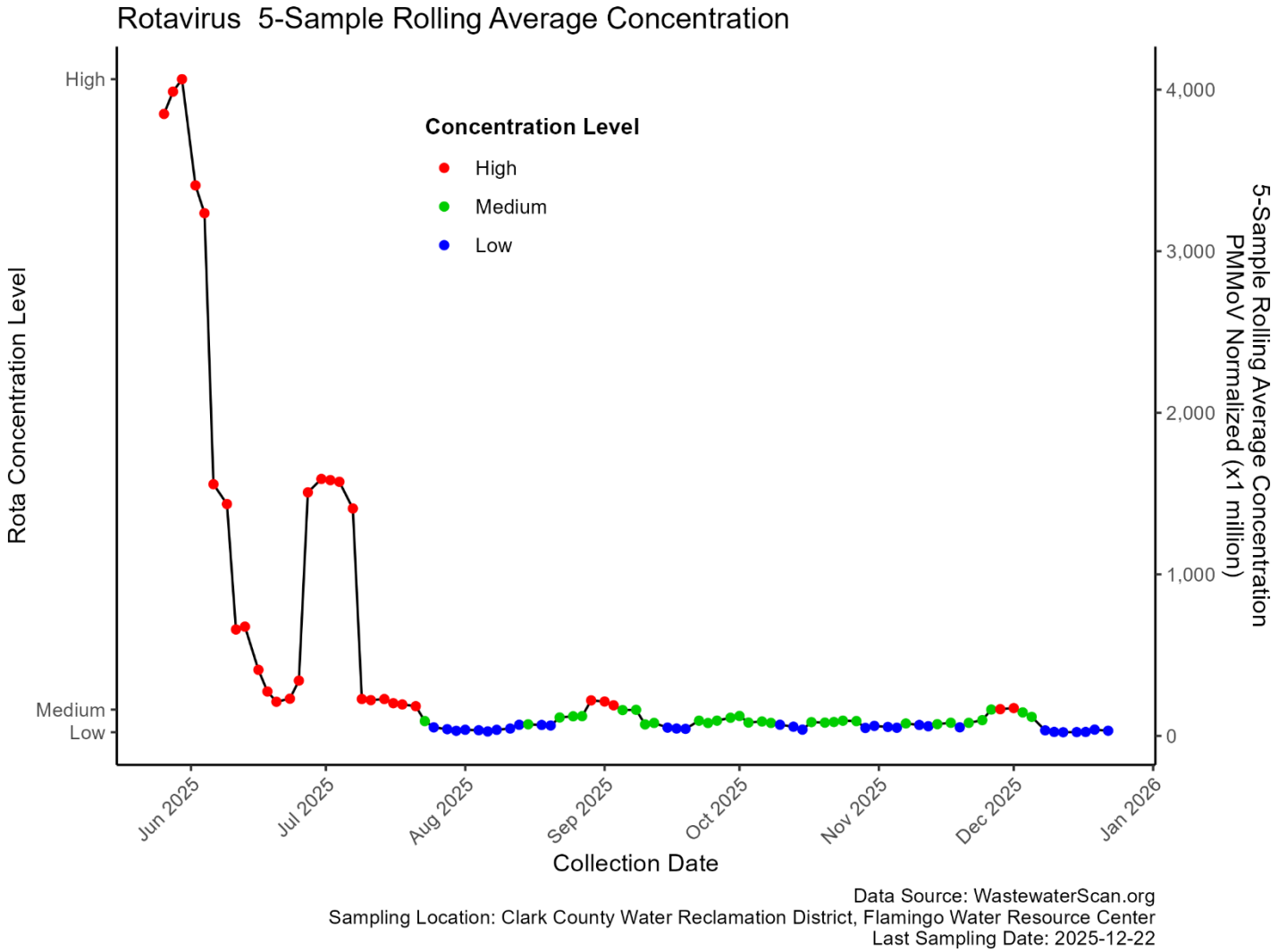
As of December 22, 2025, Norovirus concentrations in wastewater across Nevada, California, and Utah show widespread and elevated activity with mixed trends. Provo City reports the highest level at 28,343.99 GC/L (↑), followed by Central Valley at 13,671.99 GC/L (↓). California sites, including Riverside (13,993.10 GC/L) and RP-1 Ontario (13,407.09 GC/L), are trending upward, while Flamingo in Las Vegas recorded 11,395.21 GC/L (↑).

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 11,395.21 | ↑ | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 8,922.90 | ↑ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 12,000.06 | ↑ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 13,671.99 | ↓ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 28,343.99 | ↑ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 13,407.09 | ↑ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 13,993.10 | ↑ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 4,576.55 | ↑ | December 22 2025 |

## Rotavirus Viral Concentration Trends in Clark County

**Flamingo Water Reclamation District Plant**

The chart illustrates Rotavirus concentrations in Clark County wastewater were high in early June 2025, followed by a sharp decline and a brief resurgence in late June. Levels dropped to low by early July, then fluctuated between low and medium from August through December. Overall, the trend shows an initial peak in early summer, a secondary spike in late June, and sustained low-to-medium levels for the remainder of the year. Data source: WastewaterScan.org; last sample collected December 22, 2025.



**Interpretation of Rotavirus Concentrations**

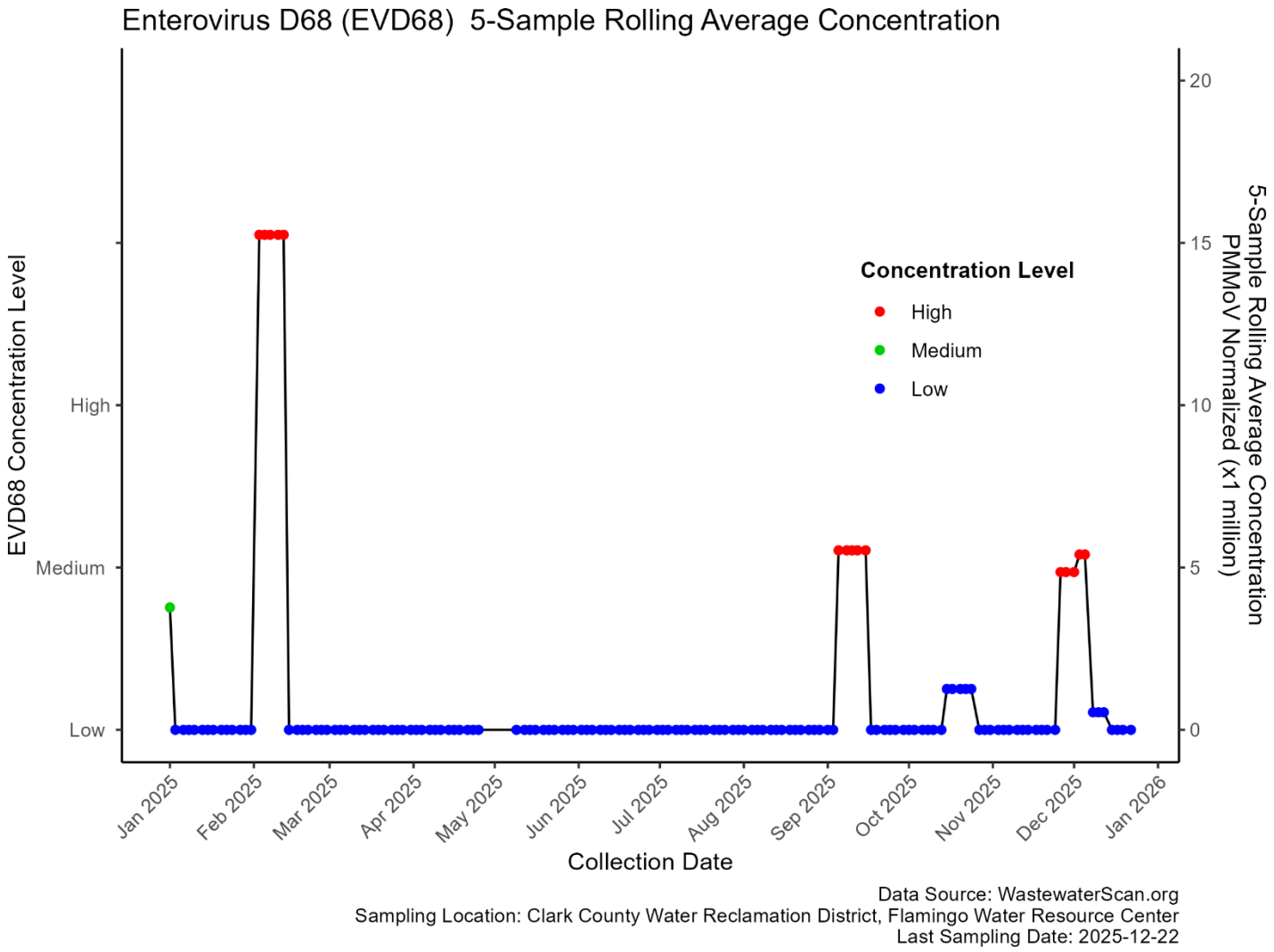
As of December 22, 2025, Rotavirus concentrations in wastewater across Nevada, California, and Utah show mixed trends. Riverside reports the highest level at 110.20 GC/L (↑), followed by Provo (94.92 GC/L, ↓) and Central Valley (75.44 GC/L, ↓). California sites like A.K. Warren (40.90 GC/L, ↑) and Hyperion (30.60 GC/L, ↑) indicate moderate activity, while Flamingo shows 32.37 GC/L (↓).

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 32.37 | ↓ | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 40.90 | ↑ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 30.60 | ↑ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 75.44 | ↓ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 94.92 | ↓ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 11.44 | ↓ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 110.20 | ↑ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 3.26 | ↑ | December 22 2025 |

## *Enterovirus D68* Viral Concentration Trends in Clark County

**Flamingo Water Reclamation District Plant**

The chart shows *Enterovirus D68* concentrations at Flamingo Water Resource Center fluctuated in 2025, showing brief medium spikes in January, major high peaks in February, September, and early December, and sustained low levels for most months. These patterns suggest intermittent surges rather than continuous transmission, with notable activity during winter and early fall. Last sample: December 22, 2025.



**Interpretation of *Enterovirus D68* Concentrations**

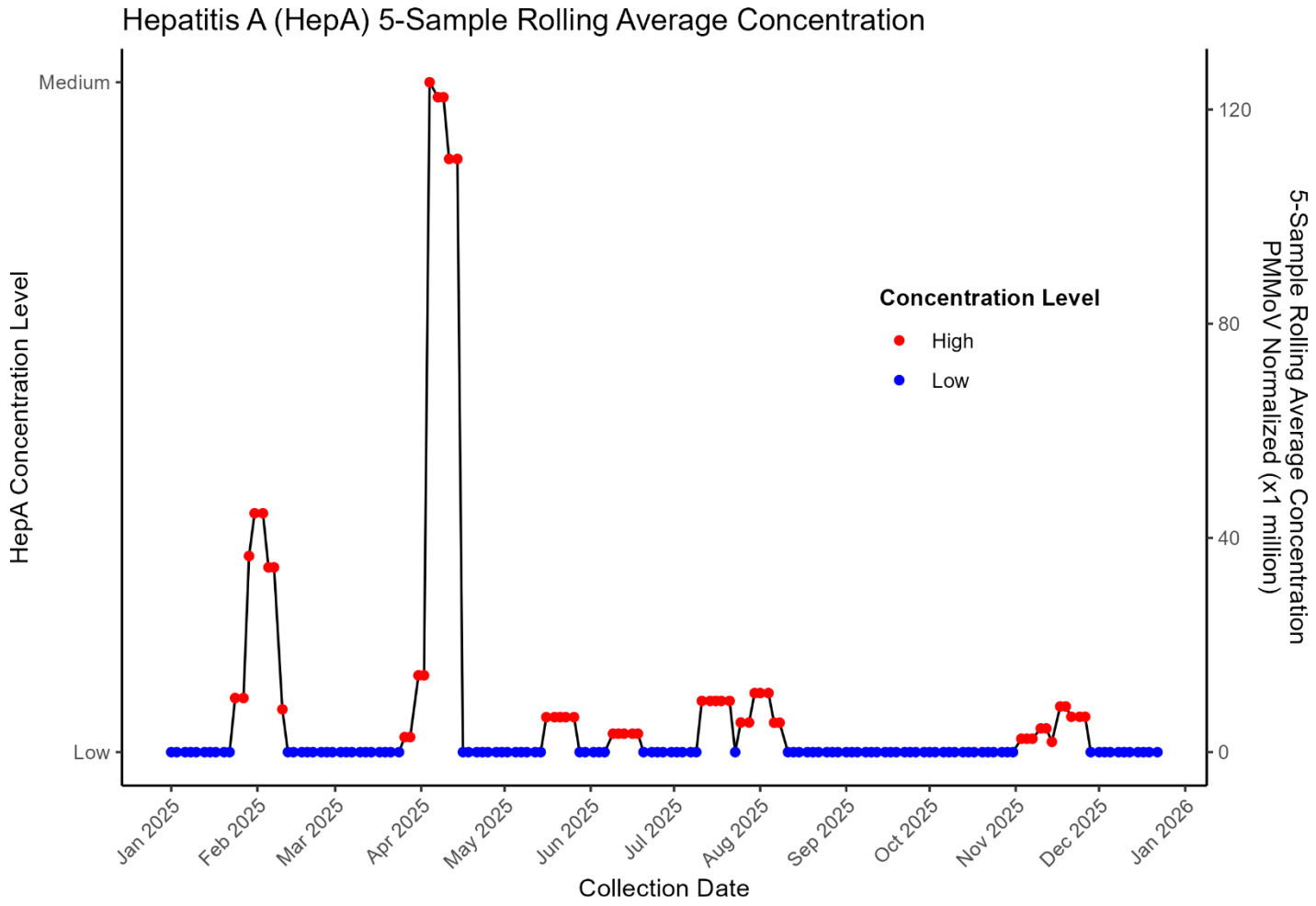
As of December 22, 2025, *Enterovirus D68* levels in wastewater across Nevada, California, and Utah remain low to moderate with mixed trends. Nevada sites report no detection, while California shows variable activity: Riverside (8.96 GC/L, ↓), RP-1 Ontario (10.01 GC/L, ↓), and Valley Sanitary District (9.93 GC/L, ↑). Utah sites remain low, with Central Valley at 1.79 GC/L (↓).

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 0.00 | → | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 8.23 | ↓ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 3.34 | ↓ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 1.79 | ↓ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 0.00 | → | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 10.01 | ↓ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 8.96 | ↓ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 9.93 | ↑ | December 22 2025 |

## Hepatitis A (HepA) Viral Concentration Trends in Clark County

**Flamingo Water Reclamation District Plant**

The chart shows Hepatitis A concentrations at the Flamingo Water Resource Center from January to December 2025 using a 5-sample rolling average. Two major spikes occurred in February and April, reaching high levels above 120 million PMMoV-normalized units, indicating significant transmission during these periods. After April, concentrations dropped sharply to low levels, with occasional minor upticks in summer and early fall. November showed a slight increase, but overall, HepA activity remained minimal for most of the year. The last sample, collected on December 22, confirms continued low levels.




Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-12-22

**Interpretation of Hepatitis A Concentrations**

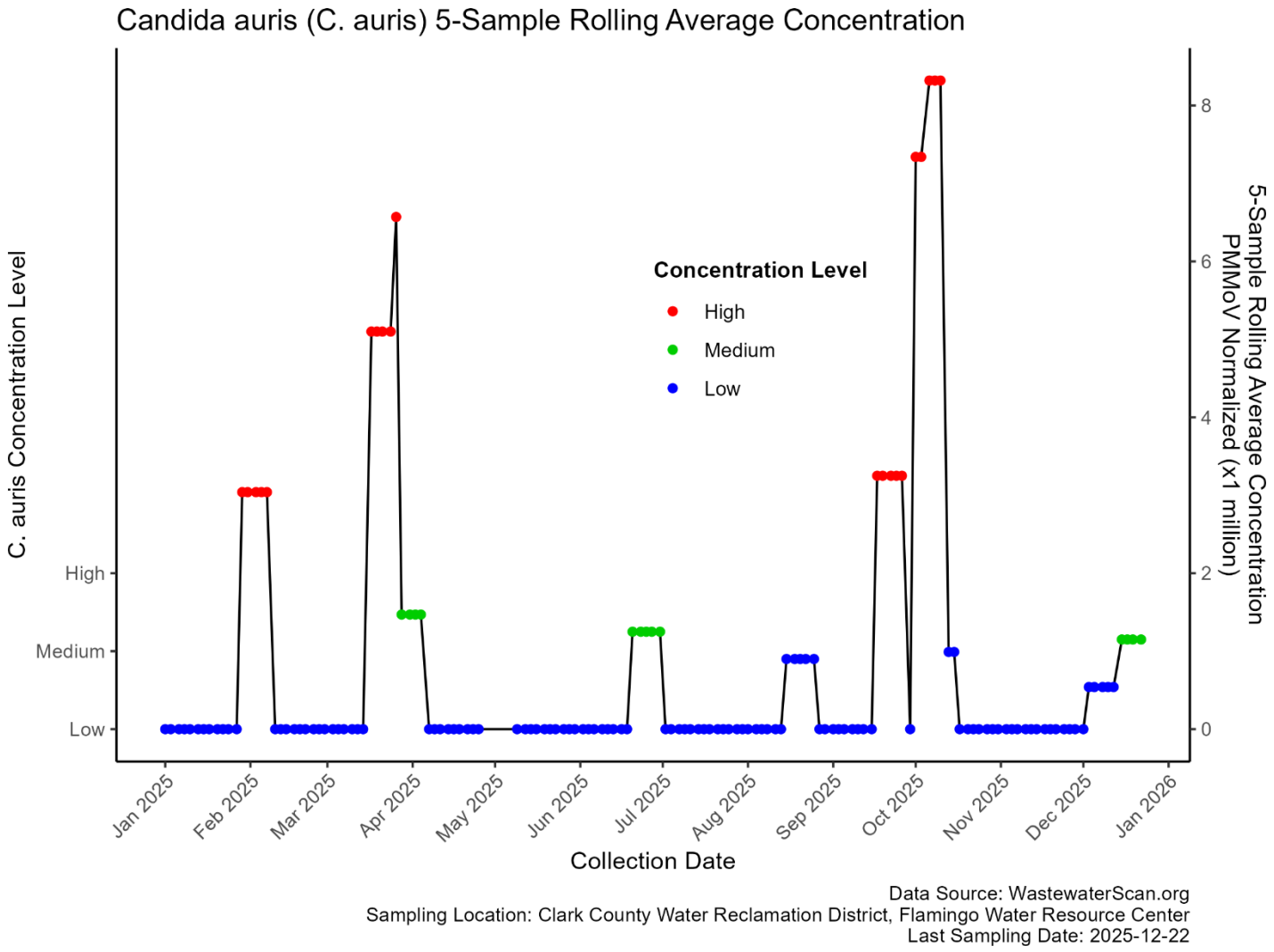
As of December 22, 2025, Hepatitis A concentrations in wastewater across Nevada, California, and Utah are mostly low or undetectable. Flamingo, Central Valley, and Provo report 0.00 GC/L, while California shows localized spikes: Riverside at 238.42 GC/L (↑) and RP-1 Ontario at 25.11 GC/L (↑). Minor levels at A.K. Warren (6.62 GC/L) and Hyperion (7.31 GC/L) are trending downward.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 0.00 | → | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 6.62 | ↓ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 7.31 | ↓ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 0.00 | → | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 0.00 | → | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 25.11 | ↑ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 238.42 | ↑ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 5.69 | ↑ | December 22 2025 |

## *Candida Auris* Fungal Concentration Trends in Clark County

**Flamingo Water Reclamation District Plant**

The chart shows *Candida auris* concentrations in Clark County wastewater were mostly low throughout 2025, with intermittent spikes. High levels occurred in February, April, and November, with April and November showing the most pronounced peaks. Medium concentrations appeared briefly in May, July, and December. Overall, the trend indicates sporadic surges amid predominantly low levels, suggesting episodic introductions or outbreaks rather than sustained transmission. Data source: WastewaterScan.org; last sample collected December 22, 2025.



**Interpretation of *Candida Auris* Concentrations**

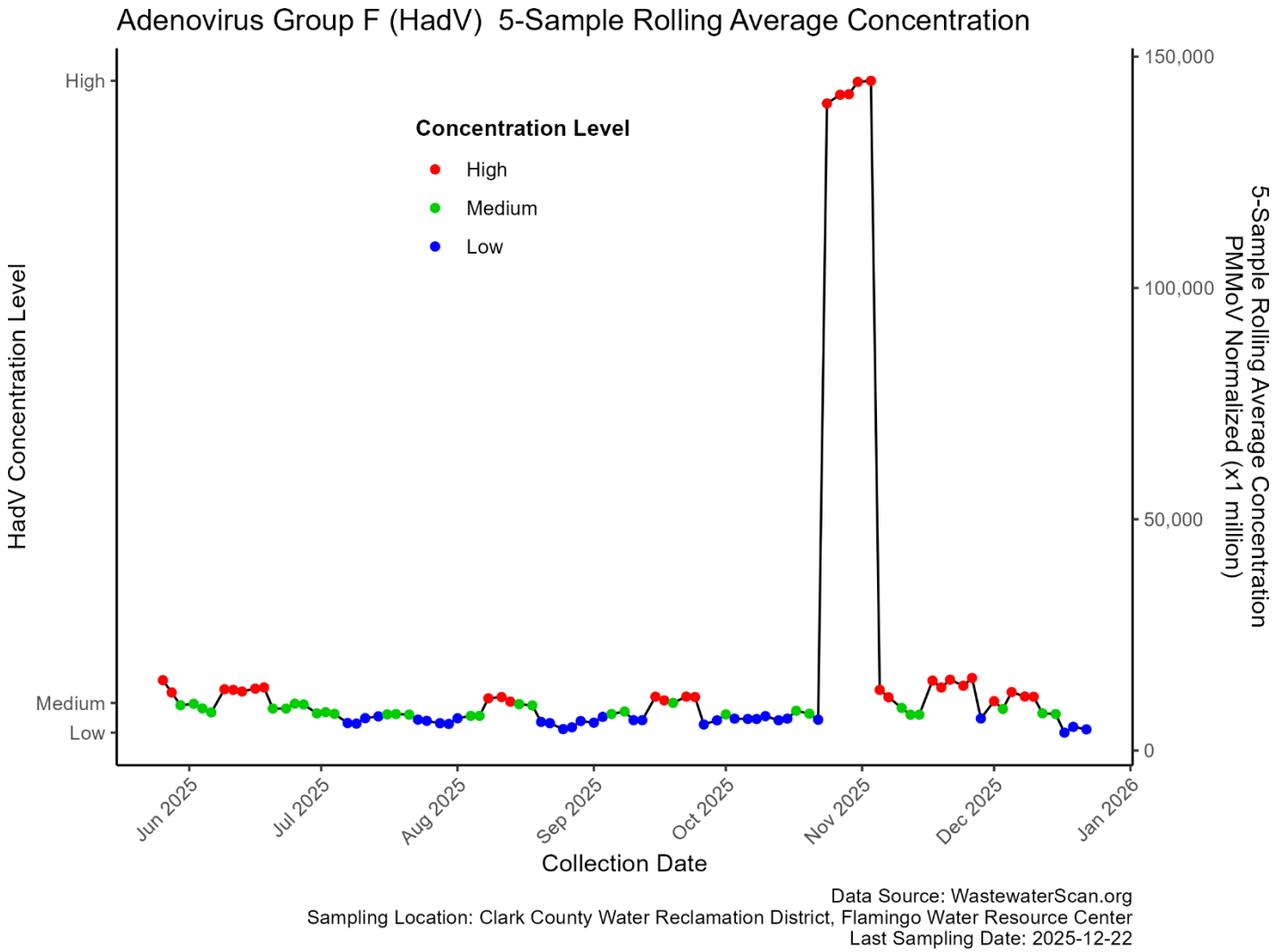
As of December 22, 2025, Candida auris concentrations in wastewater across Nevada, California, and Utah remain extremely low or undetectable. Flamingo recorded 1.15 GC/L (↑), Hyperion 3.57 GC/L (↑), and Provo 3.37 GC/L (↑). Most sites, including Central Valley, Riverside, and Valley Sanitary District, reported 0.00 GC/L, indicating minimal regional activity with slight increases at select locations.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 1.15 | ↑ | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 0.60 | ↑ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 3.57 | ↑ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 0.00 | → | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 3.37 | ↑ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 1.73 | ↑ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 0.00 | → | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 0.00 | → | December 22 2025 |

## Adenovirus Group F Concentration Trends in Clark County

**Flamingo Water Reclamation District Plant**

The chart shows Adenovirus Group F (HadV) concentrations in Clark County wastewater were mostly low to medium from June through October 2025, with minor fluctuations. A sharp spike occurred in early November, reaching high levels before quickly returning to medium by late November. December showed continued low-to-medium concentrations. Overall, the trend indicates stable low-to-medium levels for most of the year, interrupted by a significant surge in November. Data source: WastewaterScan.org; last sample collected December 22, 2025.



**Interpretation of Adenovirus Group F Concentrations**

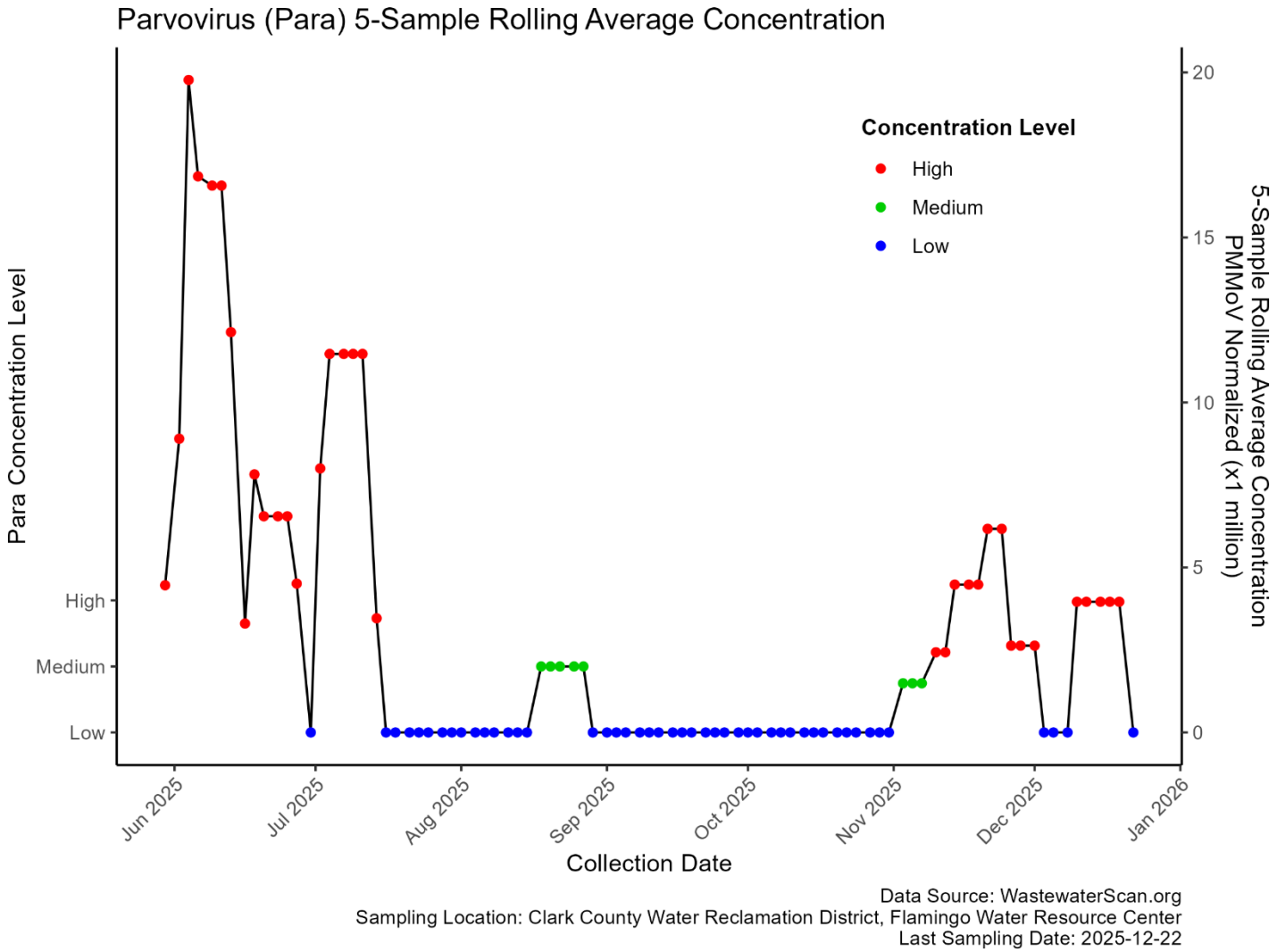
As of December 22, 2025, Adenovirus Group F concentrations remain high across Nevada, California, and Utah with mixed trends. RP-1 Ontario leads at 27,513.35 GC/L (↑), followed by Riverside (14,746.04 GC/L, ↑) and Central Valley (14,166.21 GC/L, ↑). Flamingo shows 4,569.41 GC/L (↓), while other sites range from 6,848.71 to 10,764.81 GC/L, indicating widespread elevated activity.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 4,569.41 | ↓ | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 10,764.81 | ↑ | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 7,117.72 | ↓ | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 14,166.21 | ↑ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 11,731.91 | ↓ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 27,513.35 | ↑ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 14,746.04 | ↑ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 6,848.71 | ↓ | December 22 2025 |

## Parvovirus Concentration Trends in Clark County

**Flamingo Water Reclamation District Plant**

The chart shows Parvovirus concentrations at the Flamingo Water Resource Center from June to December 2025 using a 5-sample rolling average. Levels were high in June and early July, followed by a sharp decline to low levels through August and October. A brief medium spike occurred in September, then concentrations rose again in November and December, fluctuating between medium and high before dropping back to low. Overall, the trend indicates an early summer surge, a quiet fall, and a late-year resurgence. Last sample: December 22, 2025.



**Parvovirus Concentrations Interpretation**

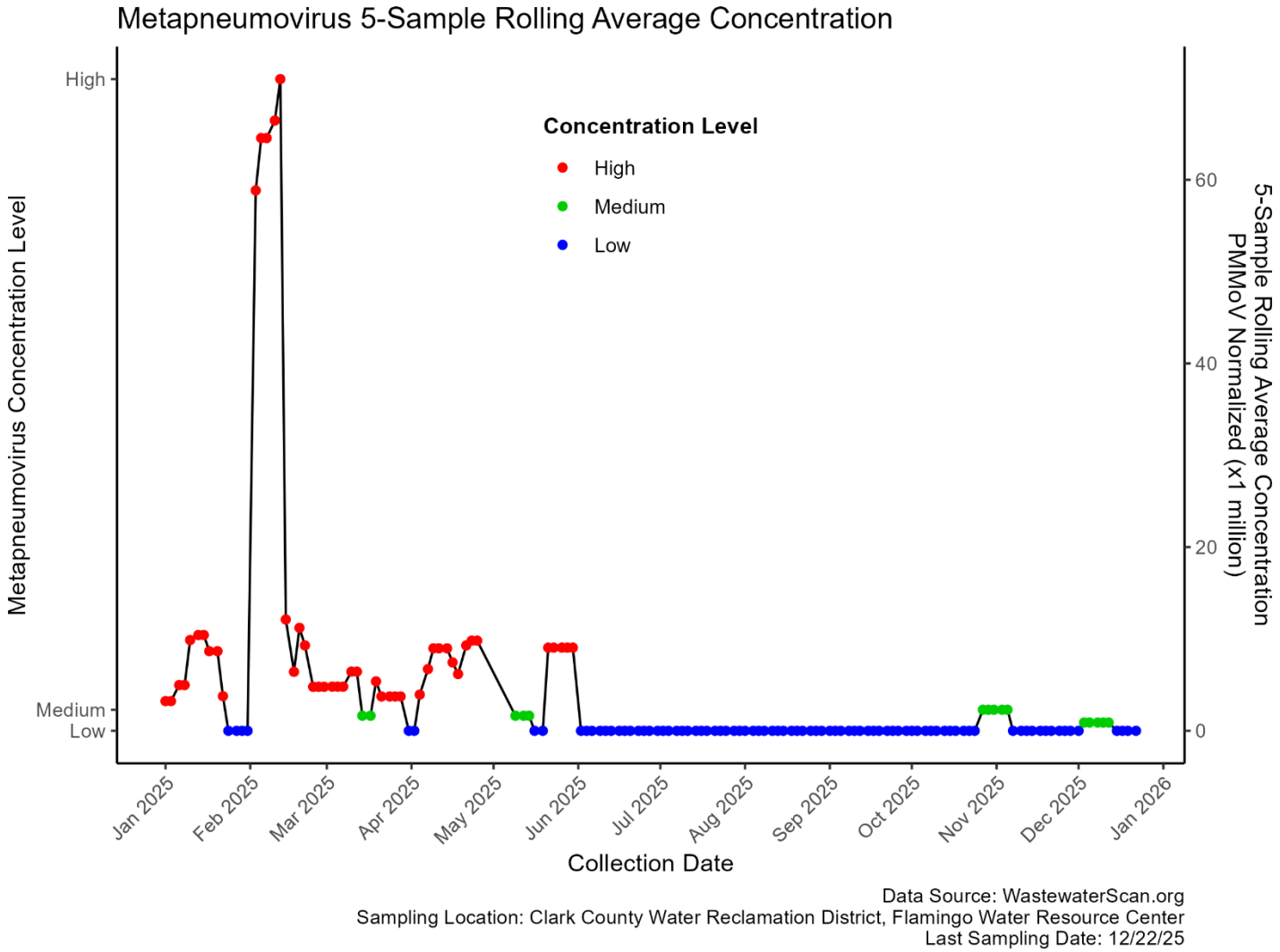
As of December 22, 2025, Parvovirus levels in wastewater across Nevada, California, and Utah remain generally low. Flamingo Water Resource Center recorded the highest level at 3.96 GC/L (→), while Hyperion in Los Angeles showed 11.30 GC/L (→). Other sites reported minimal concentrations or non-detectable levels, indicating limited regional activity with mostly stable trends.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 3.96 | → | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 0.00 | → | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 11.30 | → | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 0.37 | → | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 1.05 | → | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 0.40 | ↓ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 3.78 | ↑ | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 0.00 | → | December 22 2025 |

## Human Metapneumovirus Concentration Trends in Clark County

### Flamingo Water Reclamation District Plant

The chart shows Metapneumovirus concentrations in Clark County wastewater were medium in January 2025, rising sharply to high levels in late February and early March. After peaking, levels declined but remained intermittently high through May, with occasional medium spikes. By June, concentrations dropped to low and stayed near zero through October. A slight increase occurred in November and December, reaching medium levels before dropping back to low. Overall, the trend shows an early-year surge, gradual decline, and minor late-year activity. Data source: WastewaterScan.org; last sample December 22, 2025.



**Human Metapneumovirus Concentrations Interpretation**

As of December 22, 2025, Human Metapneumovirus (HMPV) wastewater surveillance across ten facilities in Nevada, California, and Utah shows mostly undetectable or very low concentrations. Rolling means (GC/L) include Hyperion Water Reclamation Plant (Los Angeles) at 7.01 GC/L, Provo City (Utah) at 6.78 GC/L, and Ontario's RP-1 at 3.85 GC/L. Other sites report minimal levels: Valley Sanitary District (2.32 GC/L), A.K. Warren (1.60 GC/L), and Central Valley (1.87 GC/L). Mesquite and Boulder City were not tested, indicating limited regional activity.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 0.00 | → | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 1.60 | → | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 7.01 | → | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 1.87 | ↑ | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 6.78 | ↑ | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 3.85 | ↑ | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 0.00 | → | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 2.32 | ↑ | December 22 2025 |

**Influenza H5 Viral Detection Comparing to Neighboring States**

As of December 22, 2025, wastewater surveillance from ten treatment facilities in California, Nevada, and Utah detected no Influenza H5 activity. All sites reported a five-day rolling average of zero with no change in the 14-day trend, indicating stable conditions and no current evidence of Influenza H5.

| Plant Name | City | Time frame | 5 Sample Rolling Mean | 14 Day Trend | Last Sampling Dates |
|---|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | 0 | → | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | 0 | → | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | 0 | → | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | 0 | → | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | 0 | → | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | 0 | → | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | 0 | → | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | 0 | → | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | 0 | → | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | 0 | → | December 22 2025 |

**West Nile Virus Viral Detection Comparing to Neighboring States**

As of December 22, 2025, wastewater surveillance across ten facilities in California, Nevada, and Utah detected no West Nile virus. All sites with sampling in the past 30 days reported non-detectable levels, indicating no recent viral activity. Mesquite and Boulder City were not tested during this period.

| Plant Name | City | Time frame | Detect/ Non-detect | Last Sampling Dates |
|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | Non-detect | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Not Tested | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Not Tested | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | Non-detect | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | Non-detect | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | Non-detect | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | Non-detect | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | Non-detect | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | Non-detect | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | Non-detect | December 22 2025 |

**MPOX Clade 1b Viral Detection Comparing to Neighboring States**

As of December 22, 2025, wastewater surveillance from ten facilities in California, Nevada, and Utah detected no Mpox clade 1b. Across all sites, monitoring within the past 90 days reported no recent presence. These findings indicate continued absence of detectable Mpox clade 1b in sampled wastewater across the three states.

| Plant Name | City | Time frame | Detect/ Non-detect | Last Sampling Dates |
|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | Non-detect | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Non-detect | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Non-detect | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | Non-detect | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | Non-detect | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | Non-detect | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | Non-detect | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | Non-detect | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | Non-detect | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | Non-detect | December 22 2025 |

**MPOX Clade II Viral Detection Comparing to Neighboring States**

As of December 22, 2025, wastewater surveillance from ten facilities across California, Nevada, and Utah detected no Mpox Clade II. All sites reported no detect results.

| Plant Name | City | Time frame | Detect/ Non-detect | Last Sampling Dates |
|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | Non-detect | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Non-detect | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Non-detect | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | Non-detect | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | Non-detect | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | Non-detect | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | Non-detect | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | Non-detect | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | Non-detect | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | Non-detect | December 22 2025 |

**Measles Viral Detection Comparing to Neighboring States**

As of December 22, 2025, measles was undetected at nine of ten wastewater facilities across Nevada, California, and Utah. Only Provo City (December 19) and Ontario's RP-1 (December 22) reported detections, making them isolated outliers. All other sites, including major plants in Las Vegas, Los Angeles, and Riverside, showed non-detect results, indicating minimal regional measles activity.

| Plant Name | City | Time frame | Detect/ Non-detect | Last Sampling Dates |
|---|---|---|---|---|
| Flamingo Water Resource Center | Las Vegas, NV | Current | Non-detect | December 22 2025 |
| Mesquite Wastewater Treatment Plant | City of Mesquite, NV | Current | Non-detect | December 18 2025 |
| Boulder Wastewater Treatment Plant | Boulder City, NV | Current | Non-detect | December 22 2025 |
| A.K. Warren Water Resource Facility | Los Angeles County, CA | Current | Non-detect | December 21 2025 |
| Hyperion Water Reclamation Plant (HWRP) | Los Angeles, CA | Current | Non-detect | December 21 2025 |
| Central Valley Water Reclamation Facility | Central Salt Lake Valley, UT | Current | Non-detect | December 19 2025 |
| Provo City Water Reclamation Facility | Provo, UT | Current | **Detected** | December 19 2025 |
| Regional Water Recycling Plant No.1 (RP-1) | Ontario, CA | Current | **Detected** | December 22 2025 |
| Riverside Water Quality Control Plant | Riverside, CA | Current | Non-detect | December 22 2025 |
| Valley Sanitary District | Indio, CA | Current | Non-detect | December 22 2025 |

**References**

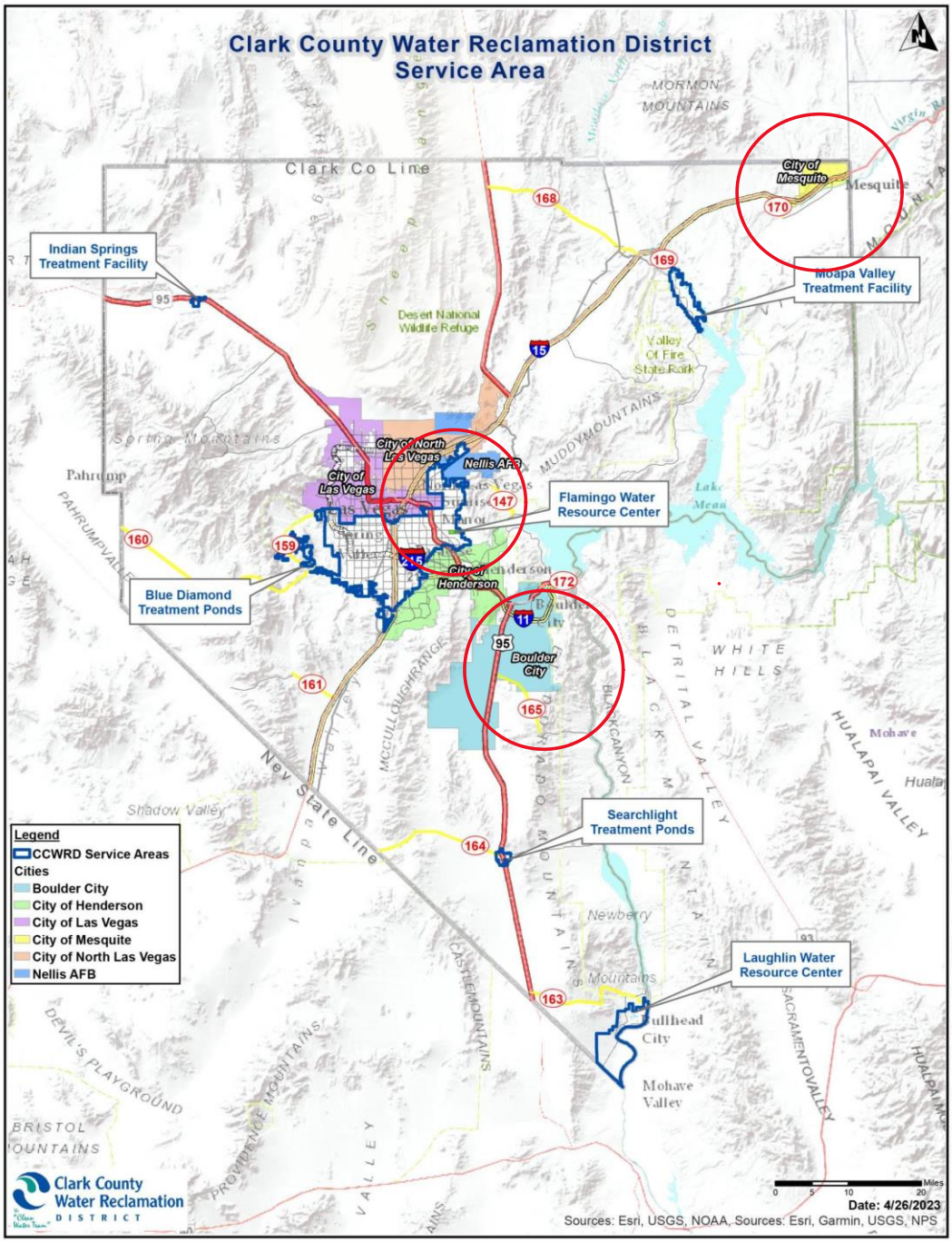
1) Verily Laboratories. *Public health: wastewater-based epidemiology (WBE)*. https://verily.com/solutions/sightline/wastewater. Published 2025. Accessed January 1, 2024.

2) WastewaterSCAN. WastewaterSCAN: wastewater surveillance for community-level disease monitoring. https://www.wastewaterscan.org. Accessed July 3, 2025.

3. Boehm, A. B., Wolfe, M. K., Bidwell, A. L., Zulli, A., Vikram-Chan-Herur, V., White, B. J., Shelden, B., & Duong, D. (2024). *Human pathogen nucleic acids in wastewater solids from 191 wastewater treatment plants in the United States*. *Scientific Data*, 11, 1141.

## Appendix

**Wastewater Sampling Sites in Clark County, Nevada (red circles).**




Source: Clark County Water Reclamation District