

THE SOUTHERN NEVADA HEALTH DISTRICT'S WEEKLY WASTEWATER SURVEILLANCE REPORT

October 29, 2025

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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**, and **Verily**, 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 October 29, 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), 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 October 29, 2025)

Wastewater surveillance across ten monitored sites showed no detections of Measles, Mpox Clade 1b, Influenza H5, or RSV, indicating no current community transmission of these pathogens. The last Measles detection was recorded at FWRF, Nevada, on August 1, with all subsequent samples testing negative.

Respiratory virus trends revealed medium Influenza A concentrations at FWRF, while other sites reported low levels. Influenza B concentrations remained low across the three monitored Nevada facilities, suggesting limited seasonal influenza activity. SARS-CoV-2 concentrations across Nevada wastewater sites continued to decline, with low concentration levels overall except in Mesquite, where medium concentrations were observed. Despite the overall decline in SARS-CoV-2 levels, lineage XFG remained dominant in regional circulation, indicating ongoing though reduced community transmission.

Enteric viruses showed varied patterns. Parvovirus was detected at low concentrations at FWRF, while Adenovirus Group F appeared at high concentration levels, reflecting low and high viral activity, respectively. Rotavirus was present at low concentrations, suggesting some localized circulation. Norovirus, *Candida auris*, and *Enterovirus D68* were detected at low levels, indicating limited spread. Both *Candida auris* and Hepatitis A were consistently present at low concentrations at FWRF.

Summary: Overall, wastewater data indicate regional stability with localized viral activity. At FWRF in Nevada, Influenza A was detected at medium concentrations, while Adenovirus Group F appeared at high concentration levels. Norovirus activity was observed in Provo City, Utah, and Rotavirus activity was detected in Central City, Utah. *Enterovirus D68* was identified at a regional water recycling plant in California, where Hepatitis A was also present at moderate levels.

Methodological Notes: Sampling approaches differed by site. FWRF collected 24-hour composite solid samples analyzed by WastewaterSCAN, while Mesquite relied on liquid grab samples analyzed by Verily. Boulder Mesquite relied on liquid grab samples analyzed by Verily. These methodological differences likely influenced pathogen measurements and should be considered when comparing results across facilities.

Note: Boulder City has 25 days of missing wastewater data; these gaps may impact the accuracy of trend interpretation for virus concentrations.



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

- Latest data point for Flamingo Water reclamation district plant is October 29, 2025
- Latest data point for City of Mesquite Wastewater Treatment Plant is October 28, 2025
- Latest data point for Boulder City Wastewater Treatment Plant is October 29, 2025

Pathogen	Concentration Level / Presence- Flamingo	Concentration Level / Presence- Boulder	Concentration Level / Presence - Mesquite
SARS-CoV-2	Low	Low	<u>Medium</u>
Influenza A	Medium	Low	Low
Influenza B	Low	Low	Low
Respiratory Syncytial virus (RSV)	Low	Low	Low
Norovirus	Low	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	Low	Not Tested	Not Tested
Adenovirus Group F	High	Not Tested	Not Tested
Parvovirus	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

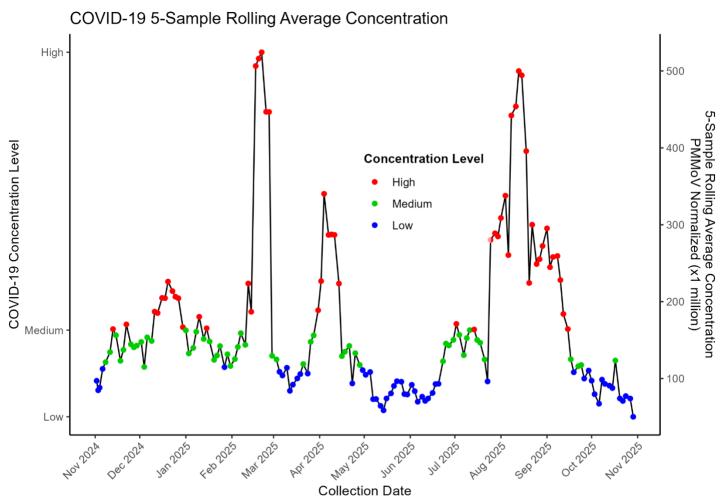
Note: The wastewater data for Las Vegas were collected from the Flamingo Water Reclamation District Plant, where samples were analyzed on solids and sourced from Wastewater SCAN. In contrast, data for the City of Mesquite and Boulder City were analyzed on liquid samples by Verily and provided by the 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 5- Sample rolling average concentrations in wastewater from the Flamingo Water Reclamation District in Clark County, covering November 2024 through October 29, 2025. Concentrations fluctuated with several pronounced peaks, including major surges in Early November, February, and August Between these peaks, concentrations declined to medium or low levels. After the August spike, viral levels gradually decreased through September and mid-October. The data suggest multiple short-term outbreaks throughout the year, with overall declining activity toward the latest sampling date, indicating reduced community transmission by end-October 2025.

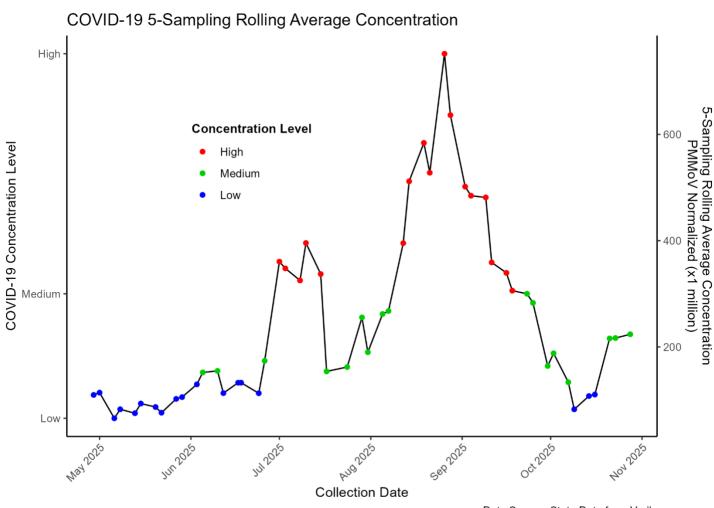


Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 10/29/25



City of Mesquite Wastewater Treatment Plant

The chart shows COVID-19 wastewater concentrations from the City of Mesquite wastewater treatment plant between May through October 2025. Levels stayed low through early summer, began rising in July, and peaked sharply from late August to early September, the highest point of the year. After September, concentrations steadily declined to low levels by mid-October before increasing again to a medium level. Concentration categories are defined as high (red), medium (green), and low (blue). The data are based on 5-sample rolling averages normalized by PMMoV, with the last sample collected on October 28, 2025.

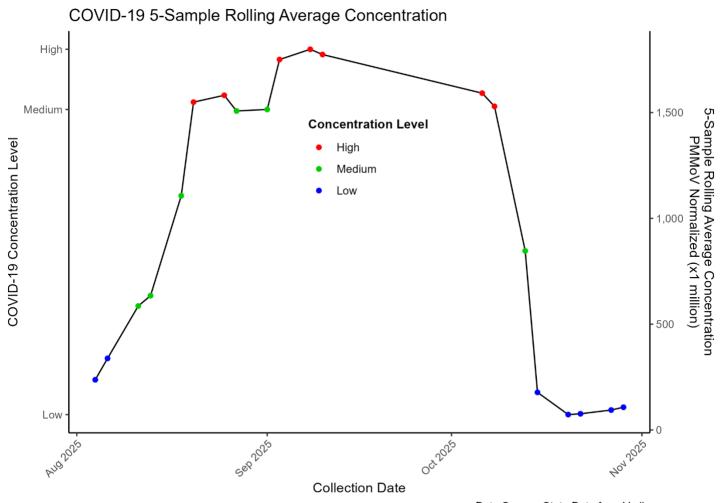


Data Source: State Data from Verily Sampling Location: City of Mesquite wastewater treatment plant Last Sampling Date: 10/28/25



Boulder City Wastewater Treatment Plant

The chart shows the 5-sample rolling average of COVID-19 concentrations in wastewater from the Boulder City Wastewater Treatment Plant between August and October 29, 2025. Levels were low in early August, then rose sharply in late August and early September, reaching medium and later high concentrations. Elevated levels continued through late September before steadily declining throughout October. By mid-October, concentrations had returned to low levels, where they have remained.



Data Source: State Data from Verily Sampling Location: City of Boulder City wastewater treatment plant Last Sampling Date: 10/29/25



SARS-CoV-2 Concentrations Interpretation

As of October 29, 2025, wastewater surveillance across Nevada, California, and Utah indicates widespread declines in SARS-CoV-2 concentrations. The five-sample rolling means range from 16.6 gc/mL at Los Angeles's Hyperion Water Reclamation Plant to 223.7 gc/mL in Mesquite, NV, showing downward 14-day trends at nearly all monitoring sites. Only the Valley Sanitary District in Indio, CA, reports a slight increase. Sampling dates, clustered around October 28 and 29, 2025, confirm current and consistent data coverage. Overall, regional wastewater indicators point to broad decreases in viral load, with one localized increase under observation.

Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	50.32	\	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	223.72	\	October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	107.39	4	October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	19.80	4	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	16.57	4	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	38.39	4	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	130.02	\	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	18.63	\	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	42.10	4	October 29 2025
Valley Sanitary District	Indio, CA	Current	37.01	↑	October 29 2025



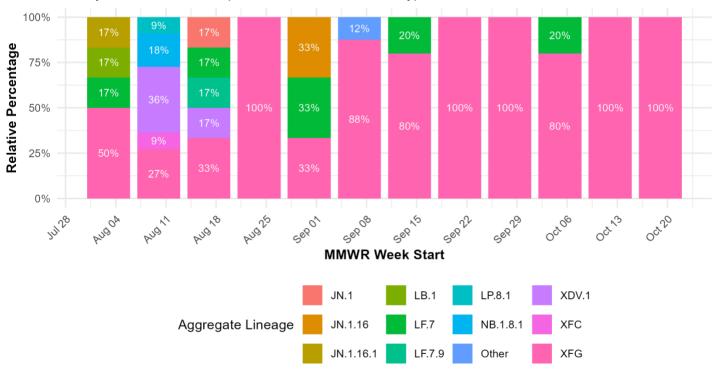
SARS-CoV-2 Variants Circulating

Flamingo Water Reclamation District Plant

The chart displays SARS-CoV-2 lineage groups detected at the Flamingo Water Reclamation District Plant from August through October 2025. Early August featured a mix of lineages including JN.1.16.1, LB.1, LF.7, and XFG at roughly comparable proportions (around 17–50%). Mid-August showed increased diversity, with XDV.1 and several minor variants briefly emerging. By late August, XFG became the predominant lineage, accounting for nearly all detections. Although LF.7 and JN.1.16 reappeared sporadically in early September, XFG maintained sustained dominance (80–100%) through September and October, indicating a strong replacement of earlier circulating variants.

Aggregate Lineages: Flamingo Clark County NV (Aug-Oct 2025)





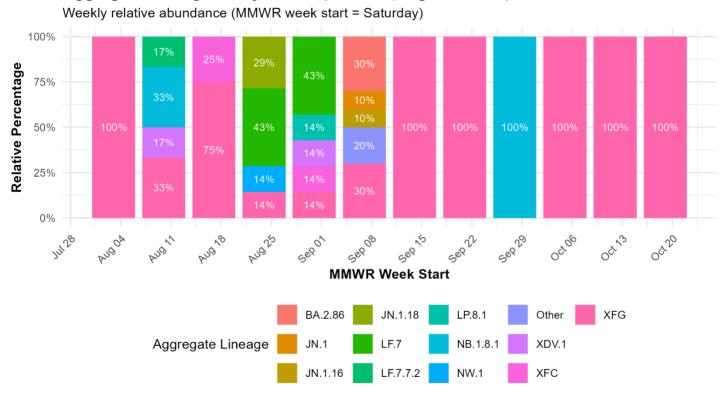
Source: Nevada State Health Department | Analyzed by Verily, Oct 2025 Data through Oct 29, 2025



Mesquite Wastewater Treatment Plant

The chart illustrates the SARS-CoV-2 lineage groups detected in Mesquite wastewater from August to October 2025. During this period, sequencing data show that lineage XFG became overwhelmingly dominant, accounting for nearly all detections after mid-September. In early August, there was greater diversity, with LF.7, NB.1.8.1, XDV.1, and XFC each contributing between 10 and 40 percent of sequences. Through late August, transitional weeks showed shifting proportions as XFG steadily increased. By early September, only XFG and a few minor sub lineages BA.2.86, JN.1, and JN.1.16 remained detectable, marking XFG's clear rise to complete dominance by end of October 2025.

Aggregate Lineages: City of Mesquite NV (Aug-Oct 2025)



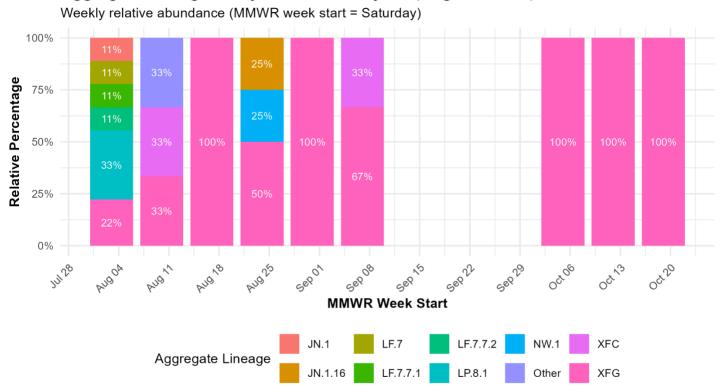
Source: Nevada State Health Department | Analyzed by Verily, Oct 2025 Data through Oct 29, 2025



Boulder City Wastewater Treatment Plant

The chart shows SARS-CoV-2 lineages detected in Boulder City wastewater from August through October 2025. Early August exhibited high viral diversity, with JN.1, LF.7, LF.7.7.1, LF.7.7.2, and LP.8.1 each accounting for approximately 10–33% of sequences. By mid-August, this diversity declined sharply as lineage XFG rapidly increased to 100% of detections. Minor sub lineages including JN.1.16, NW.1, and XFC briefly emerged in late August and early September but quickly faded. XFG remained dominant from early October through the end of the month.

Aggregate Lineages: City of Boulder City NV (Aug-Oct 2025)



Source: Nevada State Health Department | Analyzed by Verily, Oct 2025 Data through Oct 29, 2025

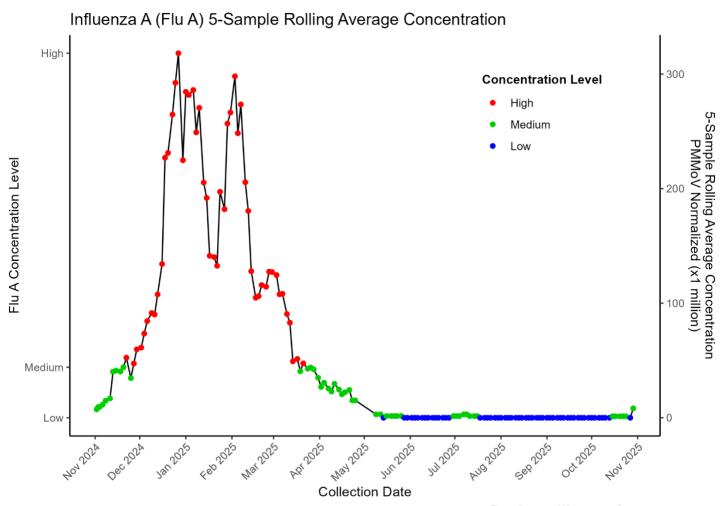
Note: Data for the weeks of September 15, 22, and 29, 2025, were missing and are not represented in the dataset.



Influenza A Viral Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart illustrates Influenza A (Flu A) 5- Sample rolling average concentrations in wastewater from the Flamingo Water Reclamation District in Clark County, spanning November 2024 through October 29, 2025. Concentrations began to rise in November 2024, peaking sharply in December and January 2025 at high levels. Levels gradually declined through February and March, shifting from high to medium concentrations and stabilizing by May. From June onward, concentrations decreased from medium to consistently low levels, with a slight return to medium levels in end-October. The most recent sample, collected on October 29, 2025, confirmed moderate Influenza A activity.

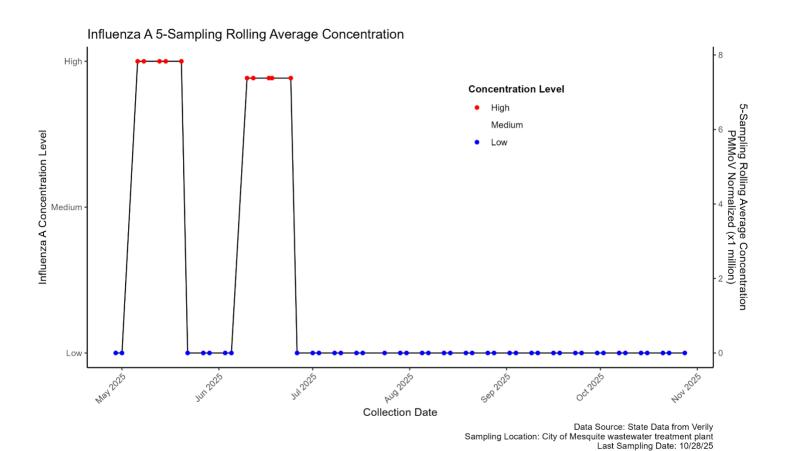


Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-10-29



City of Mesquite Wastewater Treatment Plant

The chart shows Influenza A concentrations in wastewater from the City of Mesquite, NV between May through October 2025, based on a 5- Sample rolling average normalized to PMMoV. Levels were mostly low (blue) across the monitoring period, with two brief high spikes (red) observed in May and June. These peaks quickly subsided, returning concentrations to low levels by early July. From July through October, values remained consistently low, with no further medium-level signals detected. The most recent sample, collected on October 28, 2025, confirms that Influenza A activity in wastewater is currently minimal following earlier isolated surges.





Interpretation of Influenza A Concentrations

As of October 29, 2025, wastewater surveillance across Nevada, California, and Utah showed minimal Influenza A activity. Most sites including Mesquite, Boulder City, and several in California reported non-detectable levels (0.00 gc/mL) with stable trends. Slight increase were noted at Flamingo (8.20 gc/mL), while in Central Valley (1.97 gc/mL) there was a decrease, and Provo City (4.10 gc/mL) stable. Overall, no sustained upward trends were observed regionally.

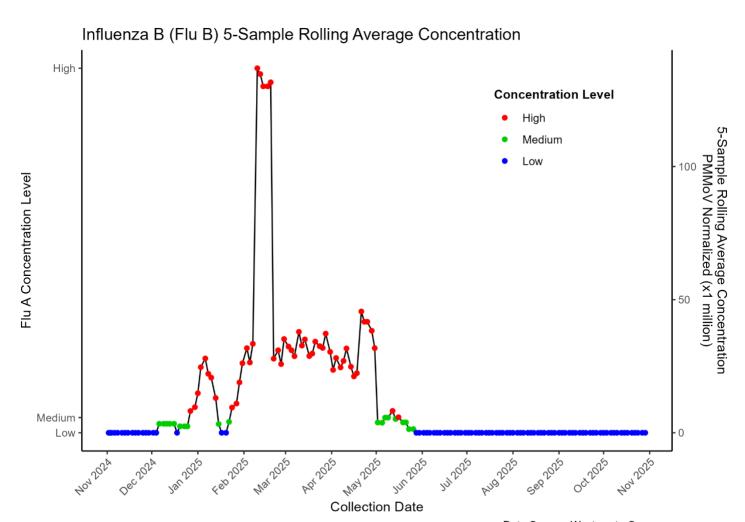
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	8.20	1	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	0.00	\rightarrow	October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	0.00	→	October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.23	\rightarrow	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	0.00	\rightarrow	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	1.97	4	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	4.10	\rightarrow	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0.00	\rightarrow	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	→	October 29 2025
Valley Sanitary District	Indio, CA	Current	0.00	\rightarrow	October 29 2025



Influenza B Viral Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart shows Influenza B wastewater trends at the Flamingo Water Resource Center (Las Vegas, NV) from November 2024 through October 29, 2025. Levels remained low through late 2024, with only brief medium detections in mid-December 2024. A sharp rise began in early January 2025, peaking in March 2025 with sustained high concentrations. Moderate but elevated activity persisted into April,2025 and May 2025 before declining rapidly. By June 2025, signals returned to low or undetectable levels, where they remained through October 2025. The last sampling date was October 29, 2025.

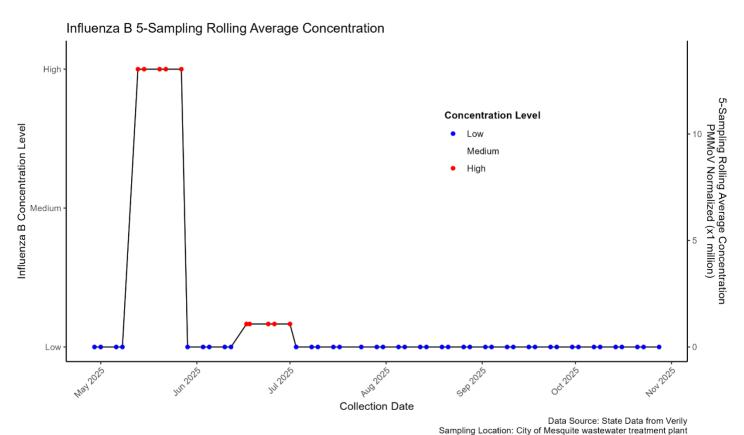


Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-10-29



City of Mesquite Wastewater Treatment Plant

The chart tracks Influenza B concentrations in wastewater from the City of Mesquite, NV between May through October 2025, using a 5- Sample rolling average normalized to PMMoV. Concentrations were low (blue) for most of the monitoring period, with two briefly high spikes (red) one in mid-May to late June and another in mid-June to late June. Both peaks quickly declined, and levels returned to low by early July. From July through October, concentration remained consistently low, with no medium-level activity observed. The most recent sample, collected on October 28, 2025, confirms minimal Influenza B activity following earlier isolated surges.



Last Sampling Date: 10/28/25



Interpretation of Influenza B Concentrations

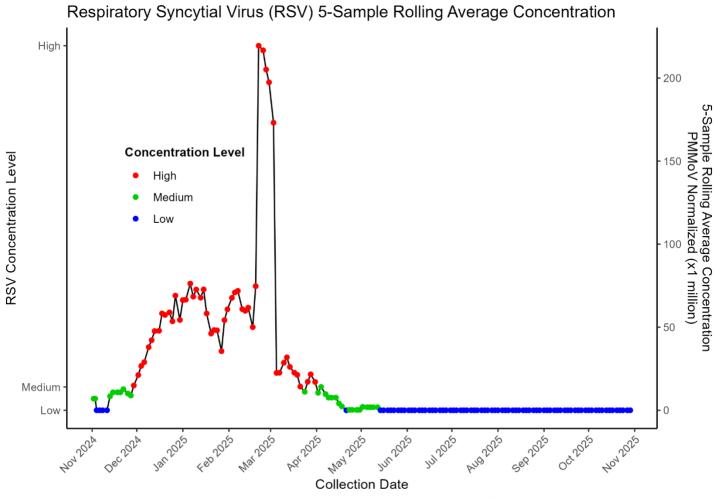
As of October 29, 2025, wastewater surveillance across Nevada, California, and Utah showed minimal to non-detectable Influenza B activity. Most sites, including Las Vegas, Mesquite, Los Angeles, Ontario, Riverside, and Indio, reported 0.00 gc/mL with stable 14-day trends. Only Provo City, UT showed a slight detection with a decreasing concentration (1.79 gc/mL, ↓). Overall, the data indicate very low Influenza B levels and no significant upward trends region wide.

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	\rightarrow	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	0.00	→	October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	0.00	→	October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.00	→	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	0.00	→	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.00	→	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	1.79	4	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0.00	→	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	→	October 29 2025
Valley Sanitary District	Indio, CA	Current	0.00	→	October 29 2025



Respiratory Syncytial Virus (RSV) Viral Concentration Trends in Clark County Flamingo Water Reclamation District Plant

The chart shows Respiratory Syncytial Virus (RSV) levels at the Clark County Water Reclamation District (Flamingo site) from November 2024 through October 29, 2025. RSV concentrations remained low through October 2024, began rising in December 2024, and peaked sharply in February 2025. Levels declined through April 2025 and returned to low by June 2025, remaining low through late October 2025. Data was normalized using PMMoV, with the last sampling recorded on October 29, 2025.



Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-10-29



Respiratory Syncytial Virus (RSV) Concentrations Interpretation

As of October 29, 2025, wastewater surveillance across Nevada, California, and Utah showed no detectable or very low RSV activity. Most facilities, including Las Vegas, Mesquite, Boulder City, Riverside, and Indio, reported 0.00 gc/mL with stable trends. Minor detections were observed at Hyperion (1.34 gc/mL), A.K. Warren (0.20 gc/mL), RP-1 (0.20 gc/mL), and Central Valley UT (0.36 gc/mL). Overall, data indicate minimal RSV presence and no upward trends regionally.

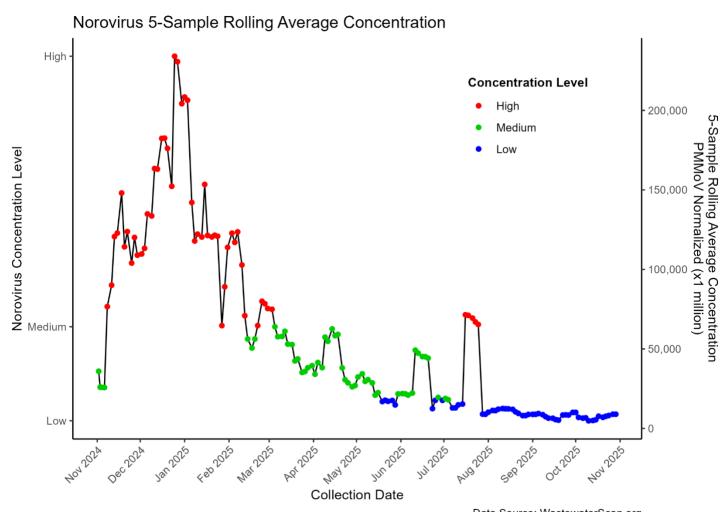
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	0.00	\rightarrow	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	0.00	\rightarrow	October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	0.00	\rightarrow	October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.20	→	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	1.34	→	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.36	→	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0.00	\rightarrow	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0.20	\rightarrow	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	→	October 29 2025
Valley Sanitary District	Indio, CA	Current	0.00	→	October 29 2025



Norovirus Viral Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart shows Norovirus 5- Sample rolling average concentrations in wastewater from the Flamingo Water Reclamation District in Clark County from November 2024 through October 29, 2025. Concentrations rose sharply in November 2024, peaking at high levels in December and January 2025, before gradually declining through spring. Moderate activity persisted from February to April, followed by a steady drop to low levels by May. Brief spikes were observed in July and August 2025, but concentrations remained low from September onward. Overall, the data indicate strong Norovirus activity in late 2024 to early 2025, with reduced circulation later in the year.



Data Source: WastewaterScan.org Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center Last Sampling Date: 10/29/25



Interpretation of Norovirus Concentrations

As of October 29, 2025, wastewater monitoring for Norovirus across Nevada, California, and Utah showed elevated concentrations with mixed regional trends. Nevada's Flamingo Water Resource Center in Las Vegas recorded 8,961.27 copies per liter, trending upward. California's A.K. Warren and RP-1 plants also rose, while Hyperion and Riverside declined. Utah displayed the highest levels, with Provo (11,889.66) increasing and Central Valley (11,403.77) decreasing. Mesquite and Boulder City plants were not tested.

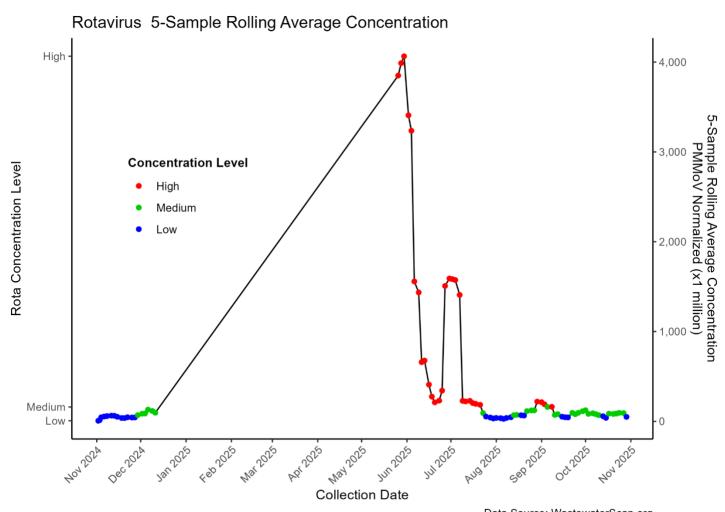
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	8,961.27	1	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	5,389.62	↑	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	5,181.52	4	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	11,403.77	4	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	11,889.66	1	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	5,696.28	↑	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	3,772.61	4	October 29 2025
Valley Sanitary District	Indio, CA	Current	3,201.15	↑	October 29 2025



Rotavirus Viral Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart illustrates Rotavirus 5- Sample rolling average concentrations in wastewater from the Flamingo Water Reclamation District in Clark County from November 2024 through October 29, 2025. Concentrations remained low to medium through late 2024 before rising sharply in early 2025, peaking at high levels between April and May. Afterward, concentrations declined steeply, with moderate fluctuations in June and July. From August through mid-October, levels stabilized within the low to medium range, suggesting reduced viral activity following earlier surges. The most recent sample, collected on October 29, 2025, showed a decrease of the concentrations to low.



Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-10-29



Interpretation of Rotavirus Concentrations

As of October 29, 2025, wastewater surveillance for Rotavirus across Nevada, California, and Utah revealed elevated concentrations with mixed short-term trends. Nevada's Flamingo Water Resource Center in Las Vegas measured 49.69 copies per liter, trending downward. California showed variable activity A.K. Warren (43.61) and Hyperion (23.25), declined, while RP-1 (10.87) and Riverside (90.98) increased. Utah reported 65.07 at Central Valley (rising) and 27.08 at Provo (falling). Mesquite and Boulder City were not tested.

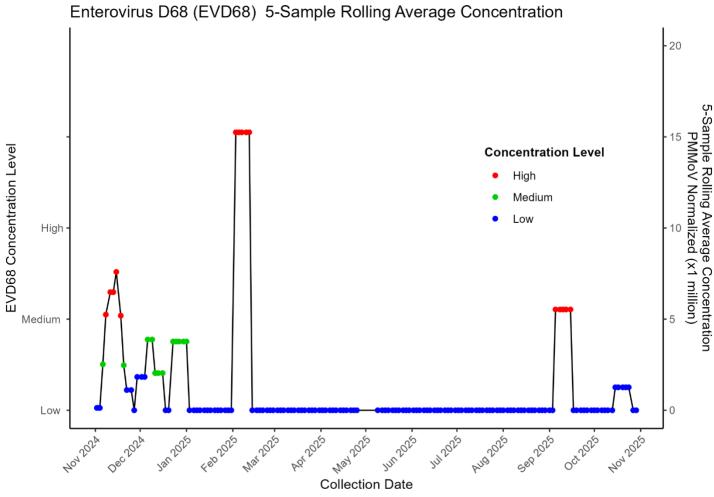
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	49.69	4	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	43.61	4	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	23.25	4	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	65.07	↑	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	27.08	4	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	10.87	↑	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	90.98	↑	October 29 2025
Valley Sanitary District	Indio, CA	Current	1.22	4	October 29 2025



Enterovirus D68 Viral Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

Enterovirus D68 (EVD68) concentrations in wastewater at the Flamingo Water Reclamation District in Clark County fluctuated between November 2024 through October 29, 2025. Sharp peaks occurred in November 2024, and again in February 2025. From March through early September 2025, levels declined and remained low. A brief resurgence was observed around September 10, followed by a return to low concentrations in early October. These patterns suggest seasonal variation and highlight the value of wastewater surveillance.



Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-10-29



Interpretation of *Enterovirus D68* Concentrations

As of October 29, 2025, wastewater surveillance for *Enterovirus D68* across Nevada, California, and Utah indicated low to moderate concentrations with varied trends. Nevada's Flamingo Water Resource Center reported no detectable levels, while Mesquite and Boulder City were not tested. In California, A.K. Warren (10.20), RP-1 (35.41), Riverside (14.28), and Indio (8.25) all trended upward, while Hyperion (3.20) declined. Utah showed stable levels at Central Valley (2.87) and a slight decrease in Provo (1.32).

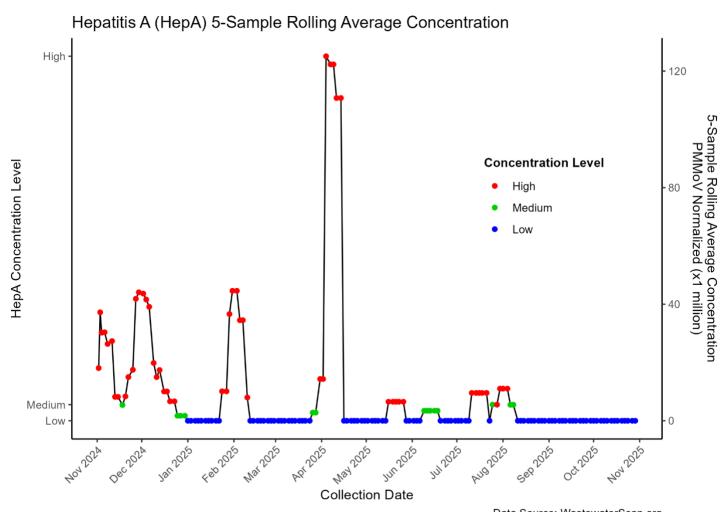
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	0.00	\rightarrow	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	10.20	↑	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	3.20	T	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	2.87	→	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	1.32	4	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	35.41	↑	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	14.28	↑	October 29 2025
Valley Sanitary District	Indio, CA	Current	8.25	1	October 29 2025



Hepatitis A (HepA) Viral Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart illustrates Hepatitis A (HepA) 5- Sample rolling average concentrations in wastewater from the Flamingo Water Reclamation District in Clark County from November 2024 through October 29, 2025. Concentrations peaked sharply in November and December 2024, declined to low levels in January, and rose again in February and April 2025. From May through October, values fluctuated between low and medium, with brief spikes in late May, late July, and early August. Since September, concentrations have remained consistently low. Overall, the data indicates multiple short-term outbreaks followed by a sustained period of low activity, with the most recent sample collected on October 29, 2025.



Data Source: WastewaterScan.org Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center Last Sampling Date: 2025-10-29



Interpretation of Hepatitis A Concentrations

As of October 29, 2025, wastewater surveillance for Hepatitis A across Nevada, California, and Utah showed very low to non-detectable concentrations. Most plants, including Nevada's Flamingo, Utah's Central Valley and Provo, and several California sites (A.K. Warren, Riverside, Indio), reported no detectable levels. Hyperion in Los Angeles showed a minor decline at 7.65 copies per liter. Only Ontario's RP-1 facility registered a notable increase, reaching 126.00, indicating a localized elevation amid otherwise minimal activity.

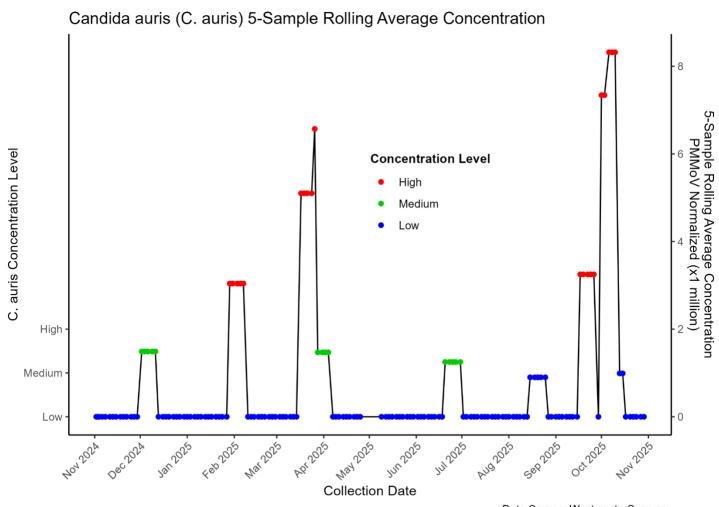
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	0.00	\rightarrow	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.00	→	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	7.65	T	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.00	→	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0.00	\rightarrow	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	126.00	1	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	→	October 29 2025
Valley Sanitary District	Indio, CA	Current	0.00	\rightarrow	October 29 2025



Candida Auris Fungal Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The graph illustrates *Candida auris* (C. auris) 5- Sample rolling average concentrations in wastewater at the Flamingo Water Resource Center from November 2024 through October 29, 2025. Concentrations were mostly low or undetectable, with brief medium-level increases in December 2024, March—April, and July 2025. High peaks occurred in October 2024, February2025, and October 2025, with the mid-October 2025 spike marking the year's highest level before returning to low levels. Overall, *C. auris* activity was intermittent, showing sporadic surges in community shedding.



Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-10-29



Interpretation of Candida Auris Concentrations

As of October 29, 2025, wastewater monitoring for *Candida auris* across Nevada, California, and Utah showed minimal to non-detectable concentrations. All tested facilities in Nevada, Utah, and most of California reported 0.00 copies per liter with stable trends. The only exception was Ontario's Regional Water Recycling Plant No. 1 (RP-1), which recorded a slight increase at 1.37, suggesting isolated low-level activity. Mesquite and Boulder City facilities were not tested during this reporting period.

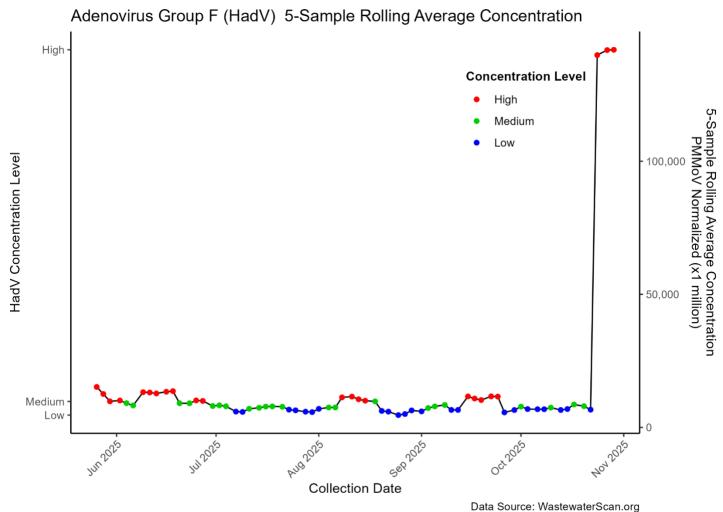
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	0.00	→	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.00	→	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	0.00	→	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.00	→	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0.00	→	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	1.37	↑	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	→	October 29 2025
Valley Sanitary District	Indio, CA	Current	0.00	→	October 29 2025



Adenovirus Group F Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart displays Adenovirus Group F (HAdV) concentrations in wastewater from Clark County's Flamingo Water Reclamation District from June to October 29, 2025. Levels were high in early June, then declined to medium and low by late June. July trended mostly medium to lower. August remained low with a brief rise. September showed variable activity with high peaks. October ranged from low to medium, rising to high in the final October 29 sample.



Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-10-29



Interpretation of Adenovirus Group F Concentrations

As of October 29, 2025, wastewater monitoring for Adenovirus Group F across Nevada, California, and Utah showed elevated concentrations with mixed trends. Nevada's Flamingo Water Resource Center measured 141,888.14 copies/L (\downarrow). California's A.K. Warren recorded 9,220.10 (\downarrow) and Hyperion 5,264.90 (\downarrow), while RP-1 in Ontario (18,154.10), Riverside (7,155.93), and Indio (3,850.80) increased. Utah's Central Valley (17,596.14) and Provo (21,393.28) also rose. Mesquite and Boulder City were not tested.

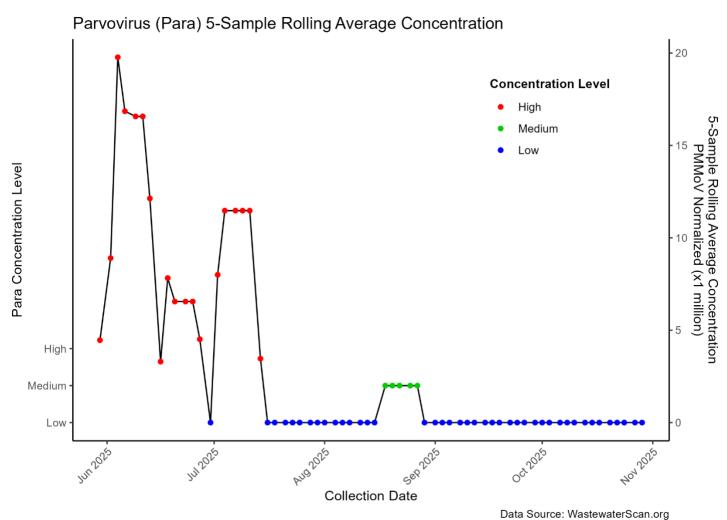
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	141,888.14	4	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	9,220.10	4	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	5,264.90	4	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	17,596.14	↑	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	21,393.28	↑	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	18,154.10	1	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	7,155.93	↑	October 29 2025
Valley Sanitary District	Indio, CA	Current	3,850.80	↑	October 29 2025



Parvovirus Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart illustrates Parvovirus (Para) 5- Sample rolling average concentrations in wastewater at Clark County's Flamingo Water Reclamation District from June through October 29, 2025. Concentration fluctuated significantly in the monitoring period, with several high spikes during June and early July, followed by brief declines. Levels rose again mid-July before dropping sharply to low by late July. From August onward, concentrations remained consistently low, with only a small resurgence to medium levels in early September. No further increases were detected through October. The most recent sample was collected on October 29, 2025, showing continued low activity.



Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-10-29



Parvovirus Concentrations Interpretation

As of October 29, 2025, wastewater monitoring for Parvovirus across Nevada, California, and Utah showed very low or non-detectable concentrations. Nevada's Flamingo Water Resource Center and multiple California and Utah sites including A.K. Warren, Riverside, and Indio reported 0.00 copies per liter with stable trends. Minimal detections were observed at Hyperion (3.80), Central Valley (2.54), Provo (1.53), and RP-1 (0.48). Mesquite and Boulder City were not tested during this period.

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	\rightarrow	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.00	→	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	3.80	→	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	2.54	→	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	1.53	\rightarrow	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0.48	→	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	→	October 29 2025
Valley Sanitary District	Indio, CA	Current	0.00	\rightarrow	October 29 2025



Influenza H5 Viral Detection Comparing to Neighboring States

As of October 29, 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	→	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	0	\rightarrow	October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	0	\rightarrow	October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0	→	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	0	→	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0	→	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0	→	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0	→	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0	→	October 29 2025
Valley Sanitary District	Indio, CA	Current	0	→	October 29 2025



MPOX Clade 1b Viral Detection Comparing to Neighboring States

As of October 29, 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	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Non-detect	October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Non-detect	October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	Non-detect	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	Non-detect	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	Non-detect	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	Non-detect	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	Non-detect	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	Non-detect	October 29 2025
Valley Sanitary District	Indio, CA	Current	Non-detect	October 29 2025



Measles Viral Detection Comparing to Neighboring States

As of October 29, 2025, wastewater monitoring at ten facilities in California, Nevada, and Utah shows no signs of measles activity. The only recent detection occurred at the Flamingo Water Resource Center in Las Vegas on August 1, but a follow-up sample on August 6 was negative. All other sites, including Los Angeles County, Ontario, Riverside, Indio, and Central Salt Lake Valley, reported non-detectable levels in their most recent samples.

Plant Name	City	Time frame	Detect/ Non-detect	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	Non-detect	October 29 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Non-detect	October 28 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Non-detect	October 29 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	Non-detect	October 29 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	Non-detect	October 29 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	Non-detect	October 29 2025
Provo City Water Reclamation Facility	Provo, UT	Current	Non-detect	October 29 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	Non-detect	October 29 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	Non-detect	October 29 2025
Valley Sanitary District	Indio, CA	Current	Non-detect	October 29 2025



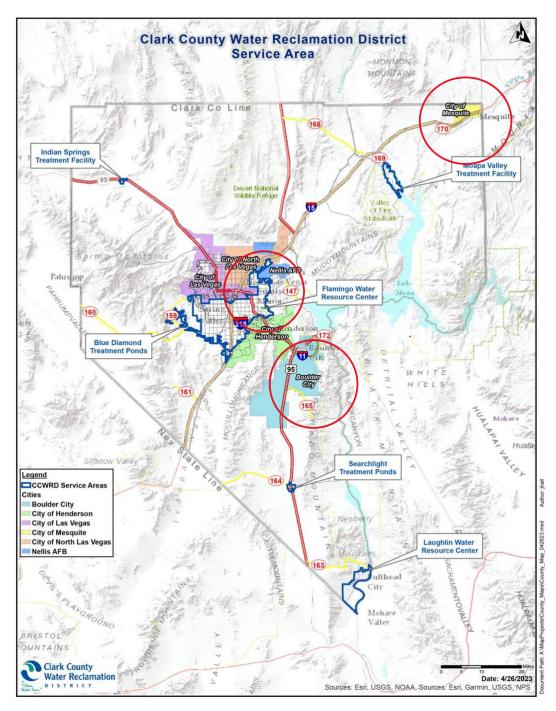
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- 2) WastewaterSCAN. WastewaterSCAN: wastewater surveillance for community-level disease monitoring. https://www.wastewaterscan.org. Accessed July 3, 2025.
- 3. Boehm, A. B., Wolfe, M. K., Bidwell, A. L., Zulli, A., Vikram-Chan-Herur, V., White, B. 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