

THE SOUTHERN NEVADA HEALTH DISTRICT'S WEEKLY WASTEWATER SURVEILLANCE REPORT

November 7, 2025

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Contents
Definitions

Definitions	3
Purpose	3
Summary of Select Pathogen Concentrations in Neveda	5
SARS-CoV-2 Viral Concentration Trends in Clark County	6
Flamingo Water Reclamation District Plant	6
City of Mesquite Wastewater Treatment Plant	7
Boulder City Wastewater Treatment Plant	8
SARS-CoV-2 Concentrations Interpretation	9
SARS-CoV-2 Variants Circulating	10
Flamingo Water Reclamation District Plant	10
Mesquite Wastewater Treatment Plant	11
Boulder City Wastewater Treatment Plant	12
Influenza A Viral Concentration Trends in Clark County	13
Flamingo Water Reclamation District Plant	13
City of Mesquite Wastewater Treatment Plant	14
Interpretation of Influenza A Concentrations	15
Influenza B Viral Concentration Trends in Clark County	16
Flamingo Water Reclamation District Plant	16
City of Mesquite Wastewater Treatment Plant	17
Interpretation of Influenza B Concentrations	18
Respiratory Syncytial Virus (RSV) Viral Concentration Trends in Clark County	19
Flamingo Water Reclamation District Plant	19
Respiratory Syncytial Virus (RSV) Concentrations Interpretation	20
Norovirus Viral Concentration Trends in Clark County	21
Flamingo Water Reclamation District Plant	21
Interpretation of Norovirus Concentrations	22
Rotavirus Viral Concentration Trends in Clark County	23
Flamingo Water Reclamation District Plant	23
Interpretation of Rotavirus Concentrations	23
Enterovirus D68 Viral Concentration Trends in Clark County	25
Flamingo Water Reclamation District Plant	25



Interpretation of Enterovirus D68 Concentrations	26
Hepatitis A (HepA) Viral Concentration Trends in Clark County	27
Flamingo Water Reclamation District Plant	27
Interpretation of Hepatitis A Concentrations	28
Candida Auris Fungal Concentration Trends in Clark County	29
Flamingo Water Reclamation District Plant	29
Interpretation of Candida Auris Concentrations	30
Adenovirus Group F Concentration Trends in Clark County	31
Flamingo Water Reclamation District Plant	31
Interpretation of Adenovirus Group F Concentrations	32
Parvovirus Concentration Trends in Clark County	33
Flamingo Water Reclamation District Plant	33
Parvovirus Concentrations Interpretation	34
Influenza H5 Viral Detection Comparing to Neighboring States	35
MPOX Clade 1b Viral Detection Comparing to Neighboring States	36
Measles Viral Detection Comparing to Neighboring States	37
References	38
Appendix	39



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 November 7, 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 November 7, 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 across the sites. Parvovirus was detected at low concentrations at FWRF, whereas Adenovirus Group F appeared at high levels, highlighting a strong contrast in circulation. Rotavirus was present at medium concentrations, suggesting localized transmission. Norovirus, *Candida auris*, and Enterovirus D68 were all detected at low levels, indicating limited spread. Additionally, Hepatitis A levels increased to a medium range at FWRF.

Summary: SARS-CoV-2 levels increased in Provo, Utah, and Indio, California. Norovirus levels rose across Utah and California facilities, except in Los Angeles County and the Central Salt Lake Valley. Adenovirus concentrations were highest in Provo City, Utah, and at AK Warren in Los Angeles County, California. Overall, wastewater data indicates regional stability with localized viral activity. At FWRF in Nevada, Influenza A, Rotavirus, and Hepatitis A were detected at medium concentrations, while Influenza B and Adenovirus F were high. In the City of Mesquite, Nevada, SARS-CoV-2 was detected at medium 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 November 07, 2025
- Latest data point for City of Mesquite Wastewater Treatment Plant is November 04, 2025
- Latest data point for Boulder City Wastewater Treatment Plant November 05, 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	High	Low	Low
Respiratory Syncytial virus (RSV)	Low	Low	Low
Norovirus	Low	Not Tested	Not Tested
Rotavirus	Medium	Not Tested	Not Tested
Enterovirus D68	Low	Not Tested	Not Tested
Hepatitis A	Medium	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

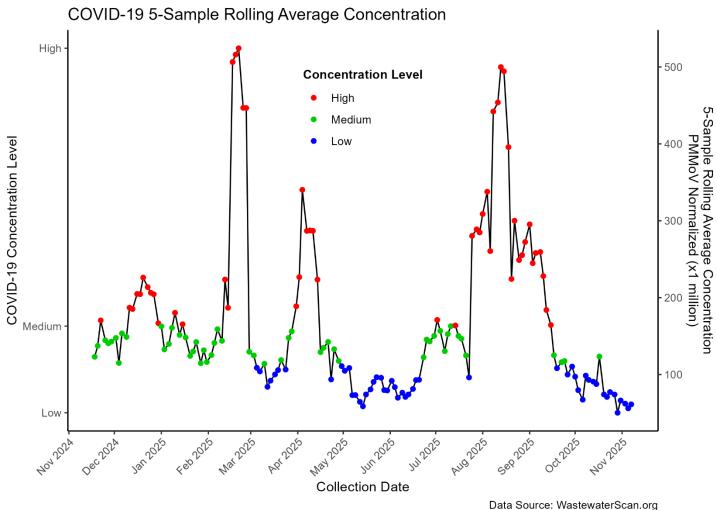
Note: The wastewater data for Las Vegas were collected from the Flamingo Water Reclamation District Plant, where samples were analyzed on solids and sourced from Wastewater SCAN. In contrast, data for the City of Mesquite and Boulder City were analyzed on liquid samples by Verily and provided by the 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 illustrates the 5-sample rolling average of SARS-CoV-2 concentrations in wastewater from the Flamingo Water Reclamation District (Clark County) between November 2024 and November 7, 2025. Viral concentrations exhibited multiple pronounced peaks, notably in early November, February, and August. Between these surges, levels declined to moderate or low values. Following the August spike, concentrations steadily decreased through September and mid-October. These patterns suggest several short-term outbreaks throughout the year, with an overall downward trend by early November 2025, indicating reduced community transmission.

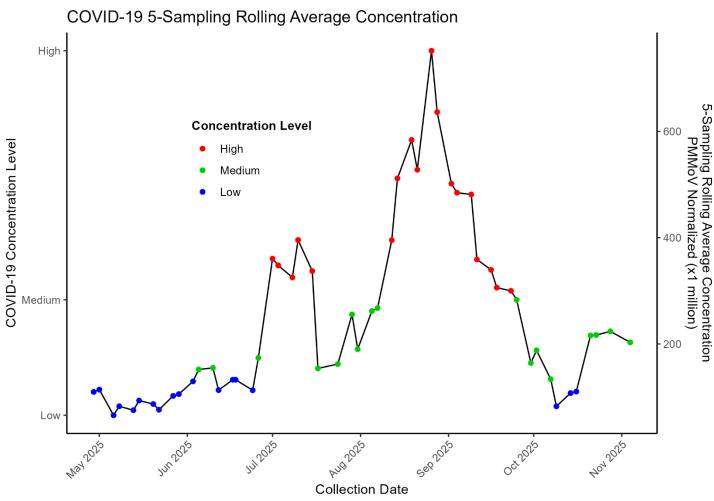


Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 11/07/25



City of Mesquite Wastewater Treatment Plant

The chart shows SARS-CoV-2 concentrations in wastewater from the City of Mesquite treatment plant between May and November 4, 2025, using 5-sample rolling averages normalized by PMMoV. Concentrations stayed low through early summer, began rising in July, and reached their highest point from late August to early September. After September, levels declined steadily to low by mid-October, followed by a late-October increase that returned concentrations to medium levels, which persisted through November 4. Categories are defined as high (red), medium (green), and low (blue).

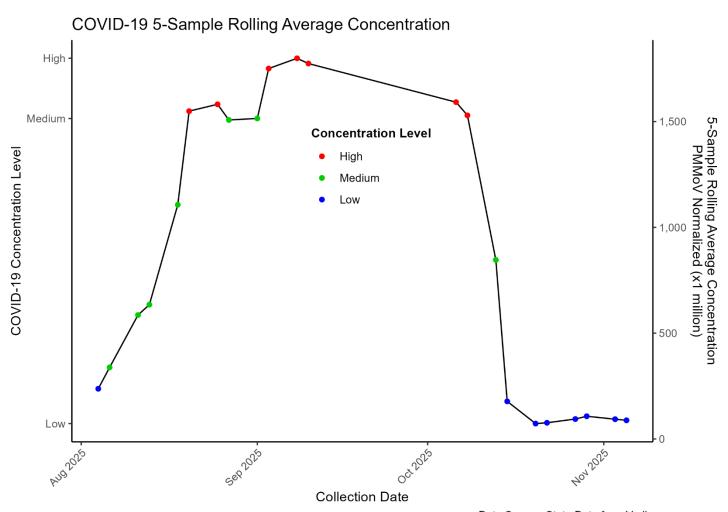


Data Source: State Data from Verily Sampling Location: City of Mesquite wastewater treatment plant Last Sampling Date: 11/04/25



Boulder City Wastewater Treatment Plant

The chart displays the 5-sample rolling average of COVID-19 concentrations in wastewater from the Boulder City Wastewater Treatment Plant between August and November 05, 2025. Concentrations were low in early August, then rose sharply in late August and early September, reaching medium and later high levels. Elevated concentrations persisted through late September before gradually declining throughout October. By mid-October, levels stabilized at low concentrations, which have continued through November 05.



Data Source: State Data from Verily Sampling Location: City of Boulder City wastewater treatment plant Last Sampling Date: 11/05/25



SARS-CoV-2 Concentrations Interpretation

As of November 7, 2025, wastewater surveillance across Nevada California and Utah showed widespread declines in SARS CoV 2 concentrations. Most facilities reported downward trends, including Las Vegas [61.27] copies per liter, Mesquite [202.88] copies per liter, Boulder City [88.10] copies per liter, Los Angeles County [14.82] copies per liter, and Riverside [9.89] copies per liter. Central Salt Lake Valley also declined at [27.74] copies per liter. In contrast, Provo Utah [144.55] copies per liter and Indio California [35.34] copies per liter showed rising trends, indicating localized increases.

Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	61.27	4	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	202.88	4	November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	88.10	4	November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	14.82	4	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	17.53	4	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	27.74	4	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	144.55	↑	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	25.07	4	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	9.89	4	November 07 2025
Valley Sanitary District	Indio, CA	Current	35.34	↑	November 07 2025



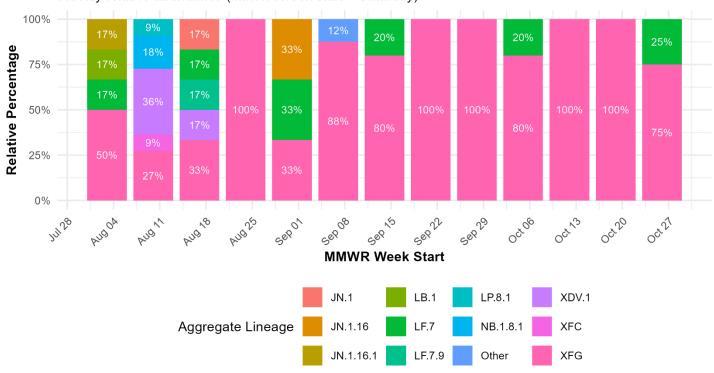
SARS-CoV-2 Variants Circulating

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 diverse mix of JN.1.16.1, LB.1, LF.7, and XFG, each comprising roughly 17–50% of detections. Mid-August showed increased diversity with brief appearances of XDV.1 and several minor variants. By late August, XFG became the predominant lineage, accounting for nearly all detections and maintaining 80–100% dominance through September and most of October. However, by October 27, LF.7 re-emerged at 25% while XFG declined to 75%, suggesting a potential resurgence or renewed co-circulation of LF.7.

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





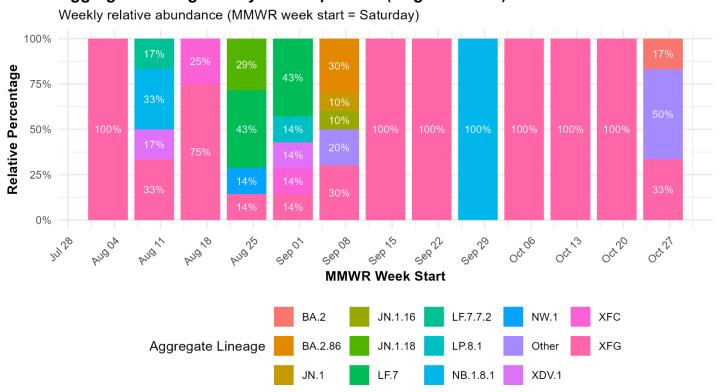
Source: Nevada State Health Department | Analyzed by Verily, Oct 2025 Data through Nov 05, 2025



Mesquite Wastewater Treatment Plant

The chart illustrates the SARS-CoV-2 lineage groups detected in Mesquite wastewater from August to October 2025. Early August showed notable diversity, with LF.7, NB.1.8.1, XDV.1, and XFC each comprising 10–40% of sequences. Through late August, proportions shifted as XFG began increasing steadily. By early September, only XFG and a few minor sub lineages BA.2.86, JN.1, and JN.1.16 remained detectable, signaling XFG's rapid emergence as the dominant strain. From mid-September through most of October, XFG accounted for nearly all detections. However, by October 27, lineage diversity reappeared, with "Others" at 50%, BA.2 at 17%, and XFG declining to 33%, suggesting renewed competition among variants.

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



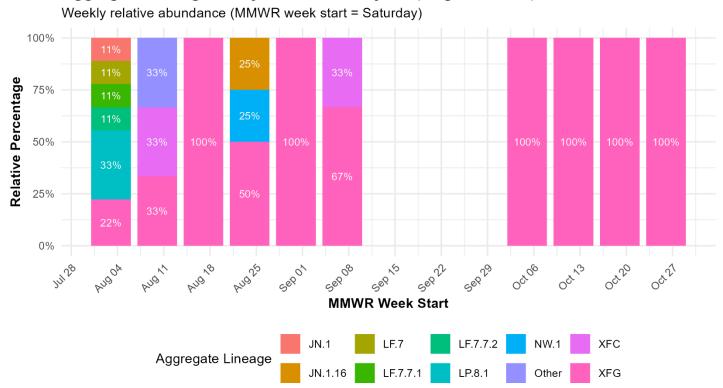
Source: Nevada State Health Department | Analyzed by Verily, Oct 2025 Data through Nov 05, 2025



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 Nov 05, 2025

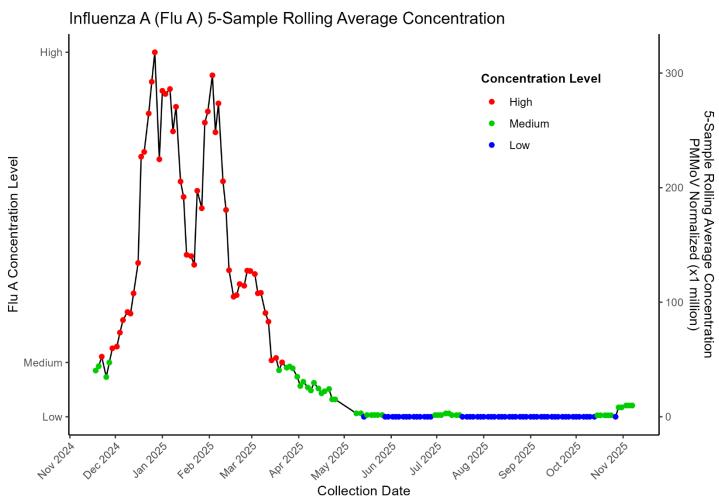
Note: Data for the weeks of September 15, 22, and 29, 2025, were missing and are not represented in the dataset.



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 November 07, 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 Early-November. The most recent sample, collected on November 07, 2025, confirmed moderate Influenza A activity.

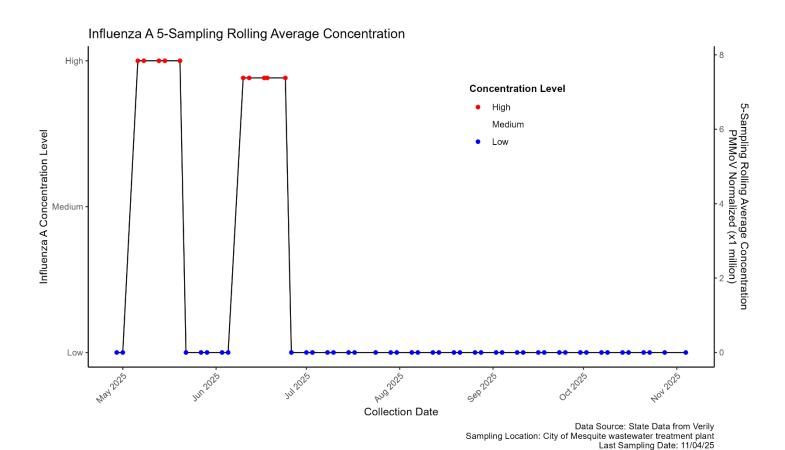


Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-11-07



City of Mesquite Wastewater Treatment Plant

The chart shows Influenza A concentrations in wastewater from the City of Mesquite, NV, between May and November 04, 2025, based on a 5-sample rolling average normalized to PMMoV. Levels were mostly low (blue) throughout the monitoring period, with two brief high spikes (red) 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 medium-level signals detected. The most recent sample, collected on November 04, 2025, confirms that Influenza A activity in wastewater is currently minimal following earlier isolated surges.





Interpretation of Influenza A Concentrations

As of November 7, 2025, wastewater data across Nevada California and Utah showed elevated Influenza A activity at Flamingo Las Vegas [9.84], Central Valley Utah [8.92], and Provo [4.63], all rising. Hyperion Los Angeles remained moderate at [7.85] with stable trends. Most other facilities, including Mesquite and Boulder City, reported [0.00]. Overall Influenza A levels were largely stable region wide, with increases concentrated in Nevada and Utah.

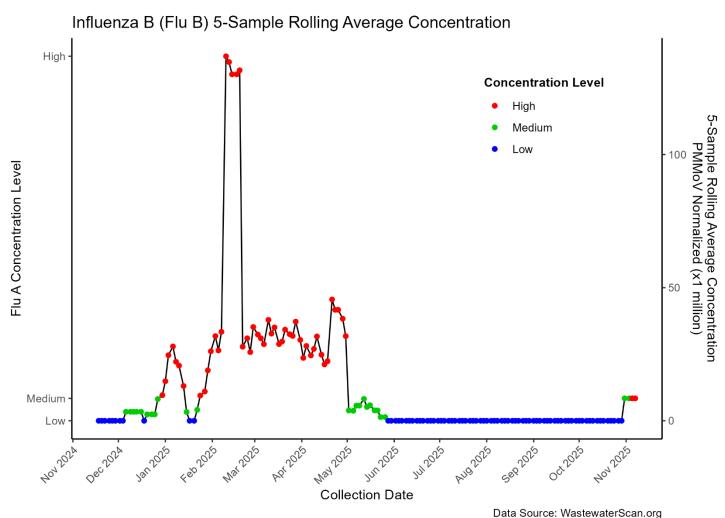
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	9.84	↑	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	0.00	\rightarrow	November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	0.00	→	November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.23	→	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	7.85	→	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	8.92	↑	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	4.63	↑	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0.97	\rightarrow	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	1.78	→	November 07 2025
Valley Sanitary District	Indio, CA	Current	0.12	→	November 07 2025



Influenza B Viral Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart displays Influenza B wastewater trends at the Flamingo Water Resource Center (Las Vegas, NV) from November 2024 through November 7, 2025. Levels remained low throughout late 2024, with only brief moderate detections in mid-December. A sharp increase began in early January 2025, peaking in March with sustained high concentrations. Elevated but moderate activity persisted through April and May before declining rapidly. By June, signals returned to low or undetectable levels and stayed that way through October. However, in early November 2025, concentrations rose again to high levels. The last sampling date was November 7,2025.

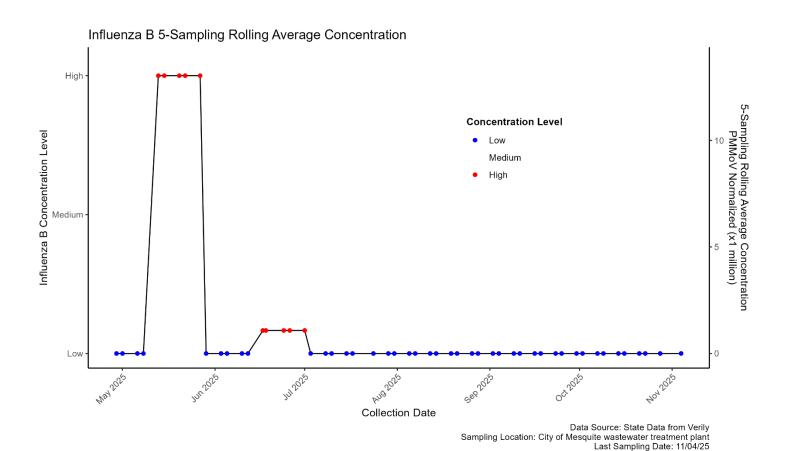


Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-11-07



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.





Interpretation of Influenza B Concentrations

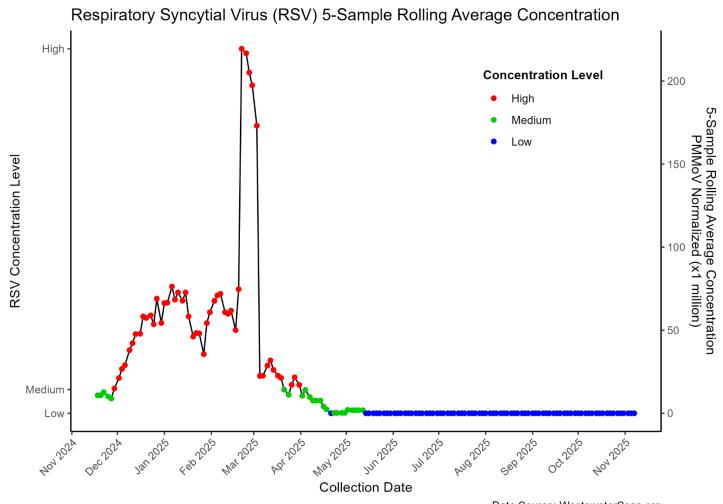
As of November 7, 2025, wastewater surveillance across Nevada California and Utah showed elevated activity at the Flamingo Water Resource Center in Las Vegas, which reported [8.42] copies per liter with a rising trend. Mesquite and Boulder City recorded [0.00] copies per liter with stable trends. California sites including Los Angeles Ontario Riverside and Indio also remained near zero. In Utah, Central Valley showed [0.50] copies per liter with a stable trend, and Provo reported [0.00] copies per liter. Overall, regional trends remained stable with a localized increase in Las Vegas.

Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	8.42	1	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	0.00	\rightarrow	November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	0.00	\rightarrow	November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.00	\rightarrow	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	0.00	\rightarrow	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.50	→	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0.00	\rightarrow	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0.00	\rightarrow	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	\rightarrow	November 07 2025
Valley Sanitary District	Indio, CA	Current	0.00	→	November 07 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 November 7, 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 November 7, 2025.



Data Source: WastewaterScan.org Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center Last Sampling Date: 2025-11-07



Respiratory Syncytial Virus (RSV) Concentrations Interpretation

As of November 7, 2025, wastewater surveillance across Nevada California and Utah indicated no detectable or very low RSV activity. Most facilities, including Las Vegas Mesquite Boulder City Los Angeles Ontario Riverside and Provo, reported [0.00] copies per liter with stable trends. Minor detections were observed at A K Warren [0.20] copies per liter and Valley Sanitary District [0.38] copies per liter, both stable. Overall, RSV levels remain extremely low region wide, suggesting minimal community transmission.

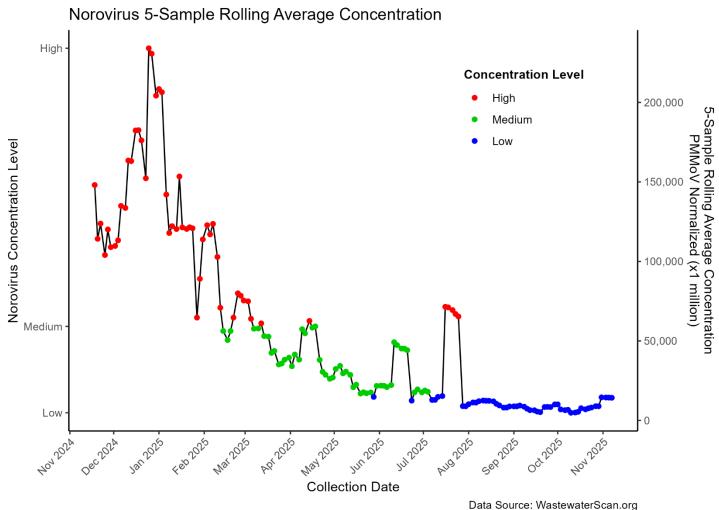
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	0.00	\rightarrow	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	0.00	→	November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	0.00	\rightarrow	November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.20	\rightarrow	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	0.00	\rightarrow	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.00	→	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0.00	\rightarrow	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0.00	\rightarrow	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	\rightarrow	November 07 2025
Valley Sanitary District	Indio, CA	Current	0.38	\rightarrow	November 07 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 November 7, 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 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.



Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 11/07/25



Interpretation of Norovirus Concentrations

As of November 7, 2025, wastewater surveillance across Nevada California and Utah showed elevated Norovirus concentrations with mixed trends. Nevada's Flamingo Water Resource Center reported the highest level at [14277.84] copies per liter with a rising trend. Utah sites also remained high, with Provo [13092.84] copies per liter increasing and Central Valley [12254.80] copies per liter declining. California facilities showed moderate levels, including Hyperion [8364.19] copies per liter, RP1 [5342.53] copies per liter, Riverside [4399.54] copies per liter, Valley Sanitary [4414.60] copies per liter all rising, and A K Warren [4776.65] copies per liter decreasing. Mesquite and Boulder City were not tested.

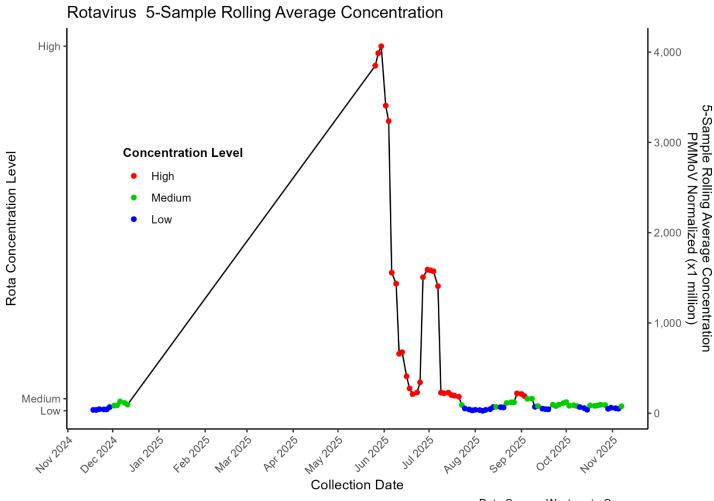
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	14,277.84	1	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	4,776.65	1	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	8,364.19	↑	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	12,254.80	4	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	13,092.84	↑	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	5,342.53	↑	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	4,399.54	1	November 07 2025
Valley Sanitary District	Indio, CA	Current	4,414.60	↑	November 07 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 November 7, 2025. Concentrations remained low to medium through late 2024 before rising sharply in early 2025, peaking at high levels between April and May. Afterward, concentration 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 November 7, 2025, showed an increase of the concentrations to Medium.



Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-11-07



Interpretation of Rotavirus Concentrations

As of November 7, 2025, wastewater surveillance across Nevada California and Utah showed declining Rotavirus concentrations at all monitored sites. Nevada's Flamingo Water Resource Center reported [77.23] copies per liter with a decreasing trend, while Mesquite and Boulder City were not tested. California recorded lower levels, including A K Warren [42.07] copies per liter, Hyperion [44.65] copies per liter, RP1 [7.27] copies per liter, Riverside [32.18] copies per liter, and Valley Sanitary [1.62] copies per liter, all declining. Utah sites also fell, with Central Valley at [37.67] copies per liter and Provo at [28.66] copies per liter, indicating widespread regional decreases.

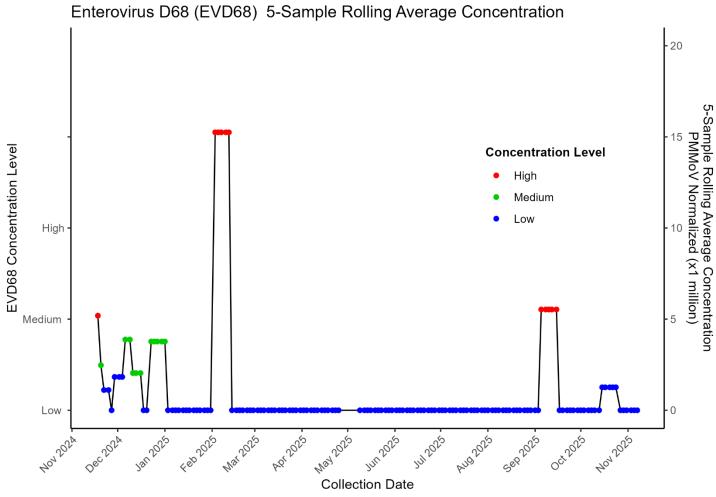
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	77.23	4	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	42.07	4	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	44.65	4	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	37.67	4	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	28.66	4	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	7.27	4	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	32.18	4	November 07 2025
Valley Sanitary District	Indio, CA	Current	1.62	4	November 07 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 November 7, 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: 2025-11-07



Interpretation of *Enterovirus D68* Concentrations

As of November 7, 2025, *Enterovirus D68* wastewater surveillance across Nevada California and Utah showed low to moderate concentrations with mixed trends. Nevada's Flamingo site reported [0.00] copies per liter, while Mesquite and Boulder City were not tested. In California, RP1 [27.49] copies per liter and Riverside [15.75] copies per liter showed increases, whereas Hyperion [4.38] copies per liter and A K Warren [6.69] copies per liter declined. Utah remained stable at Central Valley [1.48] copies per liter, with a slight decrease at Provo [0.70] copies per liter.

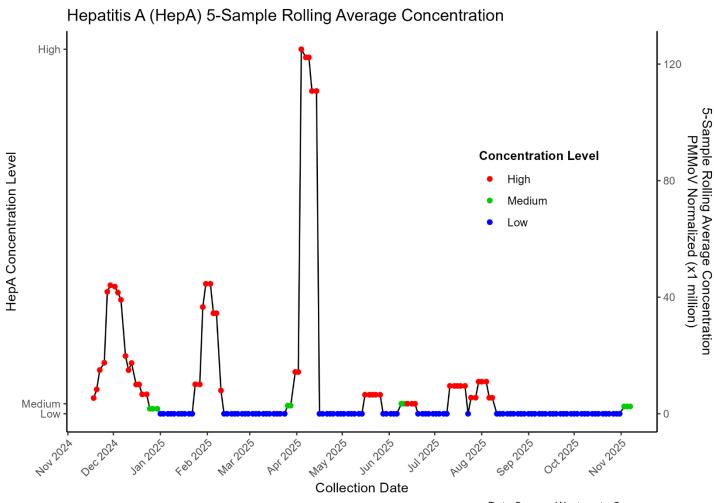
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	0.00	\rightarrow	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	6.69	4	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	4.38	4	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	1.48	↑	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0.70	4	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	27.49	4	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	15.75	1	November 07 2025
Valley Sanitary District	Indio, CA	Current	4.93	4	November 07 2025



Hepatitis A (HepA) Viral Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart shows the 5-sample rolling average of Hepatitis A (HepA) concentrations in wastewater from the Flamingo Water Reclamation District in Clark County, covering November 2024 through November 7, 2025. Levels spiked sharply in November–December 2024, dropped to low levels in January, and rose again in February and April 2025. From May through October, concentrations fluctuated at low to moderate levels, with brief increases in late May, mid-July, and early August. From September through late October, levels remained consistently low. In early November 2025, concentrations rose again to a medium level. Overall, the data suggest several short-term outbreaks, followed by an extended period of low activity, with the most recent sample collected on November 7, 2025.



Data Source: WastewaterScan.org
Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-11-07



Interpretation of Hepatitis A Concentrations

As of November 7, 2025, Hepatitis A wastewater surveillance across Nevada California and Utah showed very low to non-detectable concentrations. Most facilities including Flamingo [2.5] copies per liter, Central Valley [0.00] copies per liter, Provo [0.00] copies per liter, and Indio [0.00] copies per liter reported minimal activity. Hyperion showed a slight increase at [20.65] copies per liter, while RP1 in Ontario [28.00] copies per liter and Riverside [277.00] copies per liter displayed more pronounced elevations, indicating localized spikes amid otherwise minimal regional activity. Mesquite and Boulder City were not tested.

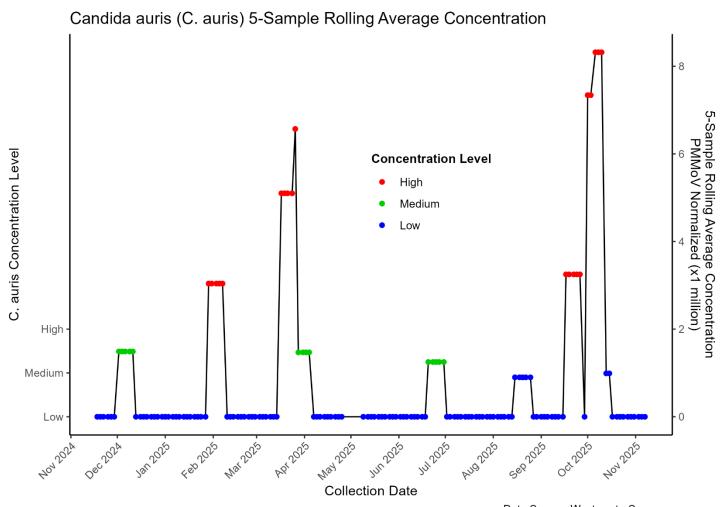
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	2.5	1	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	1.69	→	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	20.65	1	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.00	→	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0.00	\rightarrow	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	28.00	1	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	277.00	→	November 07 2025
Valley Sanitary District	Indio, CA	Current	0.00	→	November 07 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 November 7, 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, February 2025, 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: 2025-11-07



Interpretation of Candida Auris Concentrations

As of November 7, 2025, wastewater monitoring for *Candida auris* across Nevada California and Utah showed minimal to non-detectable concentrations. Most facilities including Flamingo A K Warren Central Valley Provo Riverside and Indio reported [0.00] copies per liter with stable trends. Hyperion detected [1.68] copies per liter, and RP1 in Ontario showed a slight increase at [1.37] copies per liter. Mesquite and Boulder City were not tested during this period.

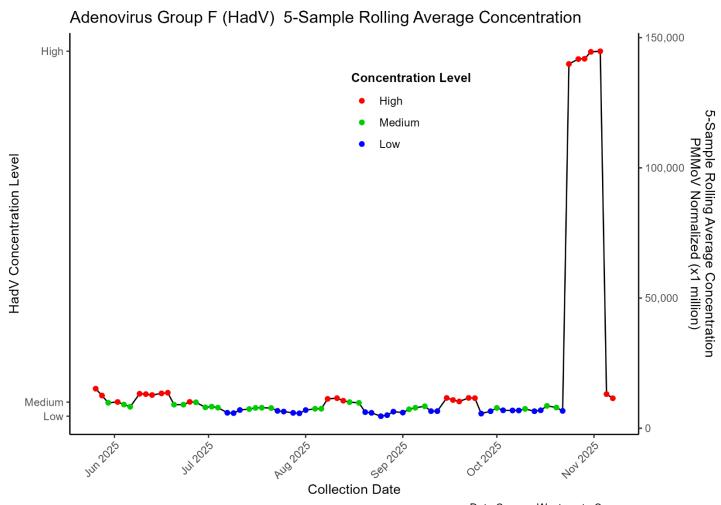
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	0.00	→	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.00	→	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	1.68	→	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.00	→	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0.00	→	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	1.37	↑	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	→	November 07 2025
Valley Sanitary District	Indio, CA	Current	0.00	→	November 07 2025



Adenovirus Group F Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart shows concentrations of Adenovirus Group F (HAdV) in wastewater from Clark County's Flamingo Water Reclamation District between June and November 7, 2025. Levels were high in early June, then declined to medium and low by late June. July was mostly medium to low. August remained low with a brief increase. September displayed fluctuating activity with several high peaks. In October, concentrations ranged from low to medium, before rising to high; although levels have since declined, they remain elevated. The most recent sample was collected on November 7, 2025.



Data Source: WastewaterScan.org Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center Last Sampling Date: 2025-11-07



Interpretation of Adenovirus Group F Concentrations

As of November 7, 2025, wastewater monitoring for Adenovirus Group F across Nevada, California and Utah showed elevated concentrations with mixed trends. Flamingo reported [11520.15] copies per liter and declined. In California, A K Warren [11645.05] copies per liter and Indio [8274.47] copies per liter increased, while Hyperion [4508.31] copies per liter, RP1 [18370.37] copies per liter, and Riverside [7289.18] copies per liter decreased. In Utah, Central Valley declined to [15662.55] copies per liter, while Provo rose to [22800.12] copies per liter. Mesquite and Boulder City were not tested.

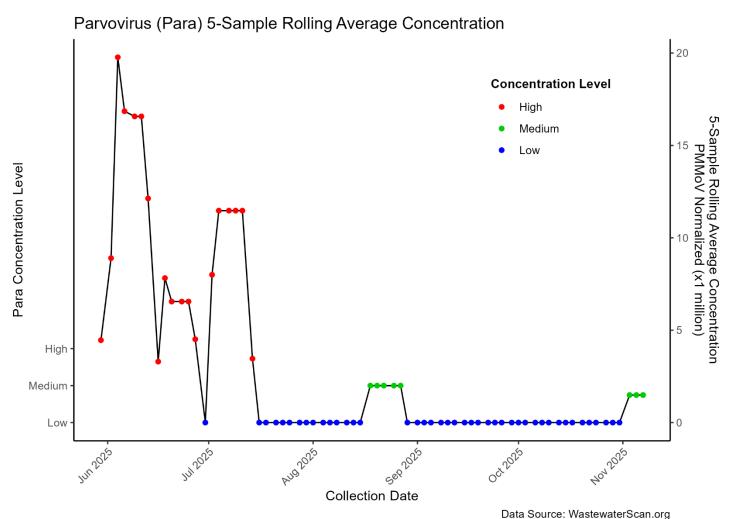
Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	11,520.15	4	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	11,645.05	↑	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	4508.31	4	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	15,662.55	4	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	22,800.12	1	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	18,370.37	4	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	7,289.18	4	November 07 2025
Valley Sanitary District	Indio, CA	Current	8,274.47	1	November 07 2025



Parvovirus Concentration Trends in Clark County

Flamingo Water Reclamation District Plant

The chart illustrates Parvovirus (Para) concentrations in wastewater at Clark County's Flamingo Water Reclamation District from June through November 7, 2025, based on 5-sample rolling averages. Concentration fluctuated significantly during the monitoring period, with several high spikes in June and early July, followed by brief declines. Levels rose again in 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; however, concentrations rose to medium levels in November. The most recent sample, collected on November 7, 2025



Sampling Location: Clark County Water Reclamation District, Flamingo Water Resource Center
Last Sampling Date: 2025-11-07



Parvovirus Concentrations Interpretation

As of November 7, 2025, wastewater monitoring across Nevada California and Utah showed minimal Parvovirus activity. Most facilities, including A K Warren RP1 Riverside and Indio, reported [0.00] copies per liter with stable trends. Flamingo recorded [1.49] copies per liter with no trend change. Slight detections were observed at Hyperion [2.99] copies per liter, Central Valley [0.79] copies per liter with a rising trend, and Provo [2.25] copies per liter. Mesquite and Boulder City were not tested, indicating an overall low regional signal.

Plant Name	City	Time frame	5 Sample Rolling Mean	14 Day Trend	Last Sampling Dates
Flamingo Water Resource Center	Las Vegas, NV	Current	1.49	→	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Not Tested		November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Not Tested		November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0.00	\rightarrow	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	2.99	\rightarrow	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0.79	1	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	2.25	\rightarrow	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0.00	\rightarrow	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0.00	\rightarrow	November 07 2025
Valley Sanitary District	Indio, CA	Current	0.00	\rightarrow	November 07 2025



Influenza H5 Viral Detection Comparing to Neighboring States

As of November 07, 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	\rightarrow	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	0	\rightarrow	November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	0	\rightarrow	November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	0	→	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	0	→	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	0	\rightarrow	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	0	→	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	0	\rightarrow	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	0	→	November 07 2025
Valley Sanitary District	Indio, CA	Current	0	\rightarrow	November 07 2025



MPOX Clade 1b Viral Detection Comparing to Neighboring States

As of November 07, 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	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Non-detect	November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Non-detect	November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	Non-detect	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	Non-detect	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	Non-detect	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	Non-detect	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	Non-detect	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	Non-detect	November 07 2025
Valley Sanitary District	Indio, CA	Current	Non-detect	November 07 2025



Measles Viral Detection Comparing to Neighboring States

As of November 07, 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	November 07 2025
Mesquite Wastewater Treatment Plant	City of Mesquite, NV	Current	Non-detect	November 04 2025
Boulder Wastewater Treatment Plant	Boulder City, NV	Current	Non-detect	November 05 2025
A.K. Warren Water Resource Facility	Los Angeles County, CA	Current	Non-detect	November 05 2025
Hyperion Water Reclamation Plant (HWRP)	Los Angeles, CA	Current	Non-detect	November 05 2025
Central Valley Water Reclamation Facility	Central Salt Lake Valley, UT	Current	Non-detect	November 07 2025
Provo City Water Reclamation Facility	Provo, UT	Current	Non-detect	November 07 2025
Regional Water Recycling Plant No.1 (RP-1)	Ontario, CA	Current	Non-detect	November 07 2025
Riverside Water Quality Control Plant	Riverside, CA	Current	Non-detect	November 07 2025
Valley Sanitary District	Indio, CA	Current	Non-detect	November 07 2025



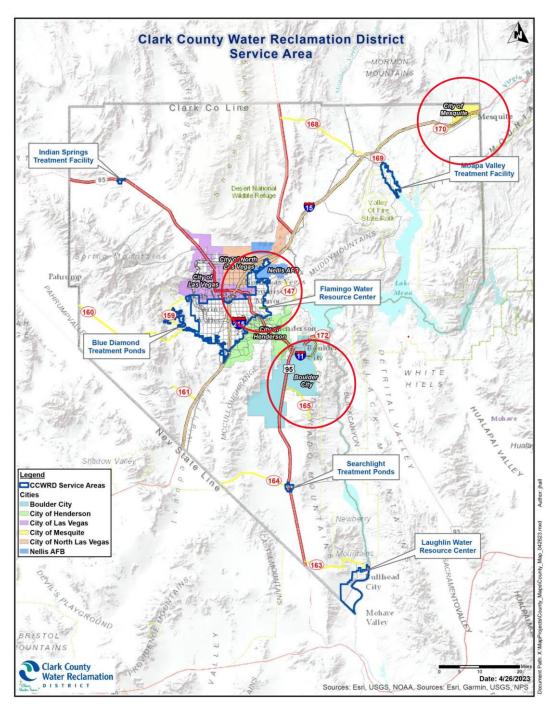
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- 2) WastewaterSCAN. WastewaterSCAN: wastewater surveillance for community-level disease monitoring. https://www.wastewaterscan.org. Accessed July 3, 2025.
- 3. Boehm, A. B., Wolfe, M. K., Bidwell, A. L., Zulli, A., Vikram-Chan-Herur, V., White, B.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