



### Guests Present

Elise Nguyen  
Katie Horn  
William Bruninga  
Clifford Clark

Clark County  
SNWA  
Boulder City  
City of Henderson

#### **1. CALL TO ORDER**

The Sewage and Wastewater Advisory Committee (SWAC) meeting was called to order by Chair Dan Fischer, Clark County Water Reclamation District at 9:02 a.m. It was confirmed that the meeting was properly noticed and posted in accordance with the Open Meeting Law.

#### **2. COMMENTS BY THE GENERAL PUBLIC - None**

#### **3. APPROVAL OF THE MINUTES OF THE MEETING OF FEBRUARY 1, 2023**

Todd Tietjen moved and Brian Carlson seconded to accept the February 1, 2023 minutes. The motion was unanimously approved.

#### **4. APPROVAL OF AGENDA**

Charles Trushel moved and Todd Tietjen seconded to approve the agenda. The motion was unanimously approved.

#### **5. PRESENTATION: SNWA SEPTIC CONVERSION PROGRAM UPDATE**

#### **6. DISCUSSION OF QUARTERLY FLOW REPORT**

The group discussed the flow report for the first quarter of 2023:

- All municipalities reported lower than average water production for March. Suspect the combination of cooler temperatures, rain and smart irrigation technologies are contributing to the trend.
- Member agencies plan to meet soon to discuss potential adjustments to the flow report.

#### **7. MEMBER UPDATES**

##### **A. Moapa Valley Water District**

- Nothing to report.

##### **B. Las Vegas Valley Water District**

- Continuing to detect low concentrations of algal toxins in Lake Mead. This appears to be a year-round occurrence but does not pose a risk to human health.
- A Supplemental Environmental Impact Statement was released to address the possibility that the federal administration is contemplating imposing on water allocations in the lower basin states, including Nevada.
- The Annual Las Vegas Wash Tour was very successful.
- Coordinating with NDEP to finalize permits for the Lower Las Vegas Wash construction projects.
- Septic conversion program is a focus of LVVWD. Conservation is another focus.
- Project the recent snowpack in the Colorado Rockies will increase the elevation of Lake Mead by 20 ft of Lake level rise due to the snowpack in the Rockies.

### **C. Boulder City**

- A townhall was held in April to discuss direct reuse options. SNWA asked the city which option should have a detailed engineer study. The city council decided sending the water to an injection well near Lake Mead is the best option.

### **D. Virgin Valley Water District**

- N/A

### **E. City of Mesquite**

- N/A

### **F. City of Las Vegas**

- O&M Updates:
  - The coating and filtration rehabilitation project is on-going.
  - PLC and communication upgrades. Operations vs. information technology. Supply chain delays are impacting the project.
- CIP Updates:
  - Filtration rehabilitation project is on-going. 50% complete.
  - Construction of a treatment plant and solar site security project is going to begin soon.
  - Replacement of the first process air blower will be installed soon. Electrical equipment delays have impacted the project.
  - Dewatering building rehabilitation project is at 50% design.
  - A lab rehabilitation and expansion project is going into design.
  - A headworks rehabilitation project is also going into design.
  - Began construction of an influent sewer modification to help facilitate cleaning. This is going to benefit the headworks rehabilitation and allow for easier cleaning.

### **G. Clark County Water Reclamation District**

- Collection System Updates:
  - Construction material cost increases and supply chain issues are delaying scheduled construction projects.
  - Lift Station #3 in Laughlin failed due to a part malfunctioning. All contents were contained.
- The Flamingo Plant Updates:
  - Expansion is on-going.
    - Three new primary clarifiers and new headworks are under construction.
    - Three new secondary biological nutrient removal trains are under construction.
    - Construction of new sludge thickeners is on-going. The new thickeners will produce VFAs.
    - Demolition of the lime silos is going to begin soon.

### **H. City of North Las Vegas**

- The flow equalization basin project is on-going.
- Work on septic dump station at the headworks facility is on-going.

**I. City of Henderson**

- Cliff Clark is the new Water Wastewater Operations Manager.
- Phase 4 expansion is past 60% design.
- Reviewing chemical contract renewals and seeing price increases ranging from 5% to 30%.

**J. Clark County**

- New MS4 Permit – NDEP received comments from EPA but has not yet shared them.
- Draft Construction General Permit – Awaiting a response from NDEP to discuss concerns.
- A new 604(b) NDEP grant was initiated to perform a comprehensive assessment of Clark County's requirements under Section 208 of the Clean Water Act and NRS/NAC.
- A new 319(h) grant is being initiated to fund ongoing public outreach efforts.
- New Clark County SWAC members: Joseph Leedy (previously an alternate) and Daylin Sigler (new alternate).

**8. MEMBER VACANCIES**

- A. Virgin Valley Water District – 1 member vacancy
- B. City of Las Vegas – 2 member vacancies

**9. COMMENTS BY THE GENERAL PUBLIC - None**

**10. SCHEDULE NEXT MEETING**

The next meeting is scheduled for August 2, 2023 at 9:00 am. A meeting invite will be sent out.

**11. ADJOURNMENT**

The meeting was adjourned at 10:18 am.

2023

1<sup>st</sup> Quarter Flow Report For  
Clark County Sewage And  
Wastewater Advisory  
Committee  
(SWAC)

May 7, 2023

# Wastewater Flows

2021 through 2023



















# Water Production 2021 through 2023

















# Historic Trends Influent Wastewater Flows

(Avg. in MGD)

Month	Clark County Water Reclamation District *			City of Las Vegas			City of North Las Vegas			City of Henderson			Boulder City		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Jan	98.48	100.59	104.30	41.06	41.62	47.71	17.84	18.00	18.60	24.71	25.23	23.91	1.21	1.13	1.08
Feb	97.50	102.07	103.76	41.23	42.04	48.34	17.73	17.96	18.47	24.55	24.56	24.68	1.21	1.14	1.08
Mar	101.17	103.72	104.62	41.67	42.45	47.70	17.87	18.08	18.36	25.74	25.07	24.20	1.19	1.15	1.08
Apr	104.07	106.28		41.84	42.63		17.98	17.71		25.83	25.42		1.20	1.11	
May	105.77	105.74		42.14	42.78		17.72	17.98		25.45	25.50		1.27	1.13	
Jun	109.55	106.70		42.58	42.16		18.27	18.11		26.46	24.55		1.25	1.13	
Jul	114.18	110.64		42.71	47.16		18.69	18.80		26.71	24.34		1.22	1.15	
Aug	112.23	110.64		43.10	48.20		18.76	19.10		26.87	25.19		1.17	1.15	
Sep	109.79	109.22		42.95	47.28		18.62	18.90		26.83	25.27		1.17	1.09	
Oct	106.58	110.94		42.63	49.90		18.17	18.71		26.71	24.56		1.13	1.08	
Nov	104.75	106.35		42.22	46.27		18.17	18.58		25.76	24.18		1.16	1.08	
Dec	104.05	104.32		41.46	46.53		18.12	18.63		25.73	23.94		1.13	1.09	
ANNUAL	105.68	106.43	104.23	42.13	44.92	47.92	18.16	18.38	18.48	25.95	24.82	24.26	1.19	1.12	1.08

\* Includes estimated .5 MGD NLV

# Historic Trends Influent Wastewater Flows

Month	Searchlight			Blue Diamond			MVWRC			Laughlin			Mesquite			Indian Springs		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Jan	0.030	0.041	0.039	0.017	0.017	0.019	0.191	0.155	0.155	1.47	1.45	1.52	1.76	1.86	1.89	0.072	0.088	0.106
Feb	0.029	0.042	0.040	0.020	0.026	0.009	0.181	0.157	0.163	1.52	1.52	1.51	1.81	1.89	1.90	0.073	0.091	0.098
Mar	0.034	0.039	0.042	0.020	0.017	0.016	0.180	0.172	0.171	1.58	1.65	1.58	1.82	1.89	1.94	0.074	0.095	0.138
Apr	0.027	0.043		0.016	0.015		0.172	0.175		1.69	1.65		1.81	1.88		0.082	0.095	
May	0.340	0.044		0.016	0.010		0.163	0.155		1.79	1.80		1.75	1.76		0.082	0.098	
Jun	0.028	0.042		0.014	0.009		0.168	0.142		1.87	1.70		1.76	1.73		0.081	0.101	
Jul	0.042	0.048		0.018	0.011		0.152	0.140		2.12	1.98		1.82	1.72		0.092	0.101	
Aug	0.041	0.045		0.015	0.012		0.145	0.134		1.78	1.78		1.78	1.73		0.098	0.104	
Sep	0.030	0.042		0.018	0.011		0.143	0.151		1.68	1.74		1.79	1.73		0.104	0.101	
Oct	0.033	0.039		0.017	0.012		0.150	0.147		1.60	1.73		1.84	1.80		0.095	0.094	
Nov	0.046	0.039		0.018	0.016		0.154	0.146		1.36	1.69		1.89	1.87		0.085	0.094	
Dec	0.040	0.039		0.021	0.012		0.150	0.149		1.47	1.58		1.78	1.83		0.092	0.120	
ANNUAL	0.060	0.042	0.040	0.018	0.014	0.015	0.167	0.152	0.163	1.66	1.69	1.54	1.80	1.81	1.91	0.086	0.099	0.114

Indian Springs calculation revised in 2021



# Non-Discharging Facilities

Boulder City				
(Avg. in MGD)			(Total in MG)	
Month	Influent Flow	Reuse	Influent Flow	Reuse
Jan	1.08	0.12	33.5	3.72
Feb	1.08	0.11	30.2	3.08
Mar	1.08	0.13	33.5	4.03
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				
Annual	1.08	0.12	97.20	10.83

## Las Vegas Wash and Colorado River Dischargers (2023)

Month	Clark County Water Reclamation District*					City of Las Vegas						City of Henderson			City of North Las Vegas		
	Influent Flow	Main Plant Reuse	DBWRC Reuse	Total Reuse	Net to LV Wash	Influent Flow	WPCF Reuse	BMWRC Reuse	DHWRC Reuse	Total Reuse	Net to LV Wash	Influent Flow	Reuse	Net to LV Wash	Influent Flow	Reuse	Net to LV Wash
Jan	104.30	0.06	0.00	8.37	95.93	47.71	0.11	0.00	0.00	3.42	43.95	23.91	2.22	21.69	18.60	0.00	18.60
Feb	103.76	0.10	0.00	8.71	95.05	48.34	0.16	0.00	0.00	4.48	44.02	24.68	3.83	20.85	18.47	0.00	18.47
Mar	104.62	0.18	0.00	8.93	95.69	47.70	0.16	0.00	0.00	4.81	44.03	24.20	3.95	20.25	18.36	0.15	18.21
Apr																	
May																	
Jun																	
Jul																	
Aug																	
Sep																	
Oct																	
Nov																	
Dec																	
<b>Average</b>	26.06	0.12	0.00	2.17	23.89	11.98	0.14	0.00	0.00	1.06	44.00	6.07	3.33	20.93	4.62	0.05	4.61
<b>YTD total</b>	312.68	0.35	0.00	26.01	286.67	143.75	0.43	0.00	0.00	12.71	132.00	72.79	10.00	62.79	55.43	0.15	55.28

Net to LV Wash is calculated as Influent minus Total Reuse

## Las Vegas Wash and Colorado River Dischargers (2023)

Month	Las Vegas Wash Discharge (Avg in MGD)			Discharge Directly to Colorado River (Avg in MGD)			Total Discharge (Totals in A/F)
	Influent Flow	Reuse	Net to LV Wash	Laughlin Influent Flow	Laughlin Reuse	Net to River	
Jan	194.52	2.39	188.48	1.52	0.16	1.36	17,269.85
Feb	195.25	4.09	187.00	1.51	0.19	1.32	15,993.78
Mar	194.88	4.44	186.93	1.58	0.19	1.39	15,981.06
Apr							
May							
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
<b>Annual Avg</b>	194.88	3.64	187.47	1.54	0.18	1.36	49244.69

## Water Production (2023)

### (Totals in AF)

	Las Vegas Valley Water District			City of Henderson			City of North Las Vegas			Boulder City			Nellis Air Force Base			Totals	
Month	WELLS	SNWS	TOTAL	SNWS	BMI	TOTAL	WELLS	SNWS	TOTAL	RMTP	SNWS	TOTAL	WELL	SNWS	TOTAL	WELLS	SNWS
Jan	2	19,314	19,316	4,664	0	4,664	0	3,728	3,728	68	309	377	6.09	63	69	8	28,146
Feb	12	17,941	17,953	4,347	0	4,347	0	3,534	3,534	79	261	340	4.28	58	62	16	26,220
Mar	9	21,704	21,713	5,432	0	5,432	0	4,084	4,084	113	326	439	10.05	66	76	19	31,725
Apr																	
May																	
Jun																	
Jul																	
Aug																	
Sep																	
Oct																	
Nov																	
Dec																	
YTD	23	58,958	58,981	14,443	0	14,443	0	11,347	11,347	260	896	1,156	20	187	208	43	86,092

Historic Trends Water Production  
(Totals in AF)

Month	Las Vegas Valley Water District			City of Henderson			City of North Las Vegas			Boulder City			Big Bend Water District			Virgin Valley Water District			Moapa Valley Water District		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Jan	19,734	20,327	19,316	4,946	4,935	4,664	3,773	3,915	3,728	453	413	377	201	220	203	381	395	332	157	160	120
Feb	18,489	18,957	17,953	4,650	4,680	4,347	3,539	3,649	3,534	483	442	340	216	211	193	345	376	336	142	145	126
Mar	23,496	24,921	21,713	6,102	6,240	5,432	4,371	4,586	4,084	628	616	439	244	228	208	449	488	369	194	181	148
Apr	27,257	26,926		7,266	7,092		4,825	4,856		870	780		260	251		546	588		213	233	
May	33,792	33,411		9,325	8,986		5,721	5,764		1,093	1,024		292	283		667	686		297	263	
Jun	37,597	35,956		10,133	9,869		6,262	6,234		1,265	1,145		318	298		800	752		320	307	
Jul	38,902	38,811		10,352	9,737		6,612	6,532		1,233	1,114		302	331		835	806		313	335	
Aug	39,072	35,792		10,295	9,385		6,569	6,015		1,242	929		311	307		848	727		306	308	
Sep	33,330	32,370		8,994	8,414		5,460	5,344		1,094	920		291	290		773	681		287	263	
Oct	28,794	28,890		7,501	7,545		5,107	5,344		815	765		260	272		617	644		226	246	
Nov	23,359	22,309		6,003	5,741		4,370	5,344		638	497		238	235		484	476		185	194	
Dec	20,561	20,741		5,256	5,174		4,019	5,344		453	385		220	220		393	398		143	136	
ANNUAL	344,383	339,413	58,981	90,823	87,798	14,443	60,627	62,926	11,347	10,266	9,029	1,156	3,152	3,145	604	7,137	7,018	1,037	2,783	2,771	394

# Wastewater/Water Production Ratios

Month	City of Las Vegas/Clark County*			City of Henderson			City of North Las Vegas			Boulder City			Big Bend Water District			All Entities **		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Jan	0.67	0.67	0.75	0.48	0.49	0.49	0.45	0.44	0.47	0.25	0.26	0.27	0.70	0.63	0.71	0.60	0.60	0.66
Feb	0.64	0.65	0.73	0.45	0.45	0.49	0.43	0.42	0.45	0.22	0.22	0.27	0.60	0.62	0.67	0.58	0.58	0.64
Mar	0.58	0.56	0.67	0.40	0.38	0.42	0.39	0.38	0.43	0.18	0.18	0.23	0.62	0.69	0.72	0.52	0.50	0.59
Apr	0.49	0.51		0.33	0.33		0.34	0.34		0.13	0.13		0.60	0.61		0.44	0.45	
May	0.42	0.42		0.26	0.27		0.29	0.30		0.11	0.10		0.58	0.61		0.37	0.37	
Jun	0.37	0.38		0.24	0.23		0.27	0.27		0.09	0.09		0.54	0.53		0.33	0.33	
Jul	0.38	0.39		0.25	0.24		0.27	0.27		0.09	0.10		0.67	0.57		0.34	0.34	
Aug	0.38	0.42		0.25	0.26		0.27	0.30		0.09	0.12		0.55	0.55		0.34	0.37	
Sep	0.42	0.45		0.27	0.28		0.31	0.33		0.10	0.11		0.53	0.55		0.38	0.40	
Oct	0.49	0.53		0.34	0.31		0.34	0.36		0.13	0.13		0.59	0.61		0.44	0.46	
Nov	0.58	0.63		0.40	0.39		0.38	0.41		0.17	0.20		0.53	0.66		0.51	0.55	
Dec	0.67	0.69		0.47	0.44		0.43	0.45		0.24	0.27		0.64	0.68		0.60	0.61	
AVG.	0.48	0.50	0.71	0.32	0.32	0.46	0.34	0.34	0.45	0.13	0.14	0.26	0.59	0.61	0.70	0.43	0.44	0.63

# Water Production and Waste Flows

## Monthly Flows in A/F

Month	CLV and Clark County Monthly Flow in AF		City of Henderson Monthly Flow in AF		City of North Las Vegas Monthly Flow in AF		Boulder City Monthly Flow in AF		Big Bend Water District Monthly Flow in AF		All Entities Monthly Flow in AF	
	Water Production	Waste Flow	Water Production	Waste Flow	Water Production	Waste Flow	Water Production	Waste Flow	Water Production	Waste Flow	Water Production	Waste Flow
Jan	19,316	14,462	4,664	2,275	3,728	1,770	377	103	203	145	28,288	18,753
Feb	17,953	13,070	4,347	2,121	3,534	1,587	340	93	193	130	26,367	17,000
Mar	21,713	14,491	5,432	2,302	4,084	1,747	439	103	208	150	31,877	18,793
Apr												
May												
Jun												
Jul												
Aug												
Sep												
Oct												
Nov												
Dec												
YTD	58,981	42,022	14,443	6,698	11,347	5,103	1,156	298	604	425	86,532	54,546

# Recharge and Recovery

Monthly Flows In Acre-Feet

Month	Recharged			Recovered			
	LVVWD	NLV	Total	LVVWD	LV Paiute	NLV	Total
Jan	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0
Sep	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0
Total 2022	0	0	0	0	0	0	0
Total 2021	0	0	0	797	0	0	0
Total 2020	0	0	0	688	0	0	0