

**SEWAGE AND WASTEWATER ADVISORY COMMITTEE**

Conveyed virtually in accordance with the Governor's Declaration of Emergency Directive 006  
**Advisory to the Board of Clark County Commissioners**  
**Meeting Minutes of May 5, 2021**

MEMBERS	Present	Absent
<b>Clark County (2 Members)</b>		
John Solvie (Member)	X	
Ebrahim Juma (Member)		X
Joseph Leedy (Alternate)	X	
Sara Gedo (Alternate)	X	
<b>City of Las Vegas (3 Members)</b>		
Mark Dunbar (Member)	X	
John Bettencourt (Member)	X	
Sharon Harney (Member)	X	
Nalleli Herrera (Alternate)	X	
Charles Trushel (Alternate)	X	
Dan Combs (Alternate)		X
<b>City of Henderson (2 Members)</b>		
Adrian Edwards (Member)		X
Howard Analla (Member) VICE-CHAIR	X	
Kyle Okamura (Alternate)		X
VACANT (Alternate)		
<b>City of North Las Vegas (1 Member)</b>		
Frazier Speaks (Member)		X
Daniel Ybarra (Alternate)	X	
<b>Clark County Water Reclamation District (1 Member)</b>		
Daniel Fischer (Member) CHAIR	X	
Greg Turner (Alternate)		X
<b>Moapa Valley Water District (1 Member)</b>		
Joe Davis (Member)		X
Lon Dalley (Alternate)	X	
<b>Las Vegas Valley Water District (1 Member)</b>		
Todd Tietjen (Member)	X	
Xiaoping Zhou (Alternate)	X	
<b>Mesquite (1 Member)</b>		
Bill Tanner (Member)		X
Travis Anderson (Alternate)		X
<b>Virgin Valley Water District (1 Member)</b>		
VACANT (Member)		
Aaron Bunker (Alternate)		X
<b>Boulder City (1 Member)</b>		
Dennis Porter (Member)	X	
Jim Keane (Alternate)		X

## Guests Present

Isler, Dan

Sumanis, Abigail

Prieur, James

Horn, Katie

Carlson, Brian

Hunt, Troy

SNHD

HERServices

LVVWD

LVVWD

COH

Geosyntec Consultants

## **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 9:06 a.m. It was confirmed that the meeting was properly noticed and posted in accordance with the Open Meeting Law.

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

### **2. APPROVAL OF THE MINUTES OF THE MEETING OF FEBRUARY 3, 2021**

Howard Analla moved and Todd Tietjen seconded to accept the February 3, 2021 minutes. The motion was unanimously approved.

### **3. APPROVAL OF AGENDA WITH THE INCLUSION OF ANY EMERGENCY ITEMS AND DELETION OF ANY ITEMS**

Howard Analla moved and Todd Tietjen seconded to accept the agenda w/ one revision to give Troy Hunt a chance to provide an update. The motion was unanimously approved.

### **4. SEPTIC CONVERSION PILOT PROGRAM PRESENTATION (SNWA)**

Katie Horn and James Prieur provided an update on the septic conversion program:

- Estimate 15,000 septic systems throughout Clark County. Septic systems pose a health risk to the community's groundwater supply and prevent wastewater from being returned to Lake Mead as return flow credits.
- There is a desire to convert septic systems to the municipal sewer, however it is cost prohibitive.
- There is a high density of septic systems throughout the Valley. The areas with the highest density are predominately in the NW and the SW.
  - COH has a shallow groundwater system that is not compatible with septic systems.
- Higher nitrate concentrations are being found in areas of high septic system densities.
- SNWA is in the process of developing a septic conversion pilot program which will provide septic users with a grant of up to 85% of connection costs.

### **5. LEGISLATIVE UPDATE**

- Bills AB97 on PFAS and AB146 on Diffuse Sources both passed the Assembly and moved to the Senate. The hearing on AB146 took place on May 3 in the Senate Natural Resource Committee. Both COH and CLV opposed the bill as presented.
- The water conservation bill AB356, which bans ornamental grass, passed the House and is moving on to the Senate. The legislation prohibits the use of Colorado River water on all non-functional turf (i.e., medians, streetscapes, commercial landscaping, etc.) and requires their removal by 2026. The legislation exempts single-family residential homes. The legislation will establish a non-functional turf advisory committee to further refine the rules and regulations.

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

The group discussed the flow report for the first quarter of 2021:

- CCWRD flows are showing signs of recovery at the Flamingo plant as hotels open up. WRD estimates normal flows through summer 2021. WRD noted multiple new sewer connections.
- Laughlin plant is still showing flows below normal.
- COHs flows increased.
- Boulder City flows are strong and flat.

## 7. MEMBER UPDATES

### A. Moapa Valley Water District

- The District is adding multiple new connections to the system.

### B. Las Vegas Valley Water District

- Anticipate shortage of the Colorado River next year. There will be reductions imposed to Nevada, but it is not anticipated to impact current water usage rates which fall below what the restrictions would allow.
- Met with BLM and Sloan Canyon staff to discuss the construction of a new lateral pipe from west Henderson to Lake Mead. The two agencies agreed to the project and tunneling work is expected to begin soon.
- Recently completed more drought modeling work. The model ran various climate change scenarios and showed that there will be temperature driven impacts leading to decreased water quality to Las Vegas's water supply.
- Water District is investing time and resources towards EPA's new lead and copper standard. The priority is to create a map of every public & residential service line and assess whether lead is present.
- Two of the WQ platforms on Lake Mead became detached but were recovered after several weeks of freely floating on the Lake.
- Evaluating the feasibility of a new optical nitrate sensor that has been deployed near the Las Vegas Wash. If the results are positive, the instrument may be used for on-going nitrate monitoring and modeling work on Lake Mead.
- Lower Las Vegas Wash construction project is scheduled to begin next year. The project will build six erosion control structures near north shore bridge to address erosion problems.

### C. Boulder City

- Moving forward with the bar screen replacement project and potential dirt removal improvements. Some of the work is dependent on receiving federal funds to move forward.
- Project rehabilitate arid lagoon basins is scheduled to start in July 2021.
- On-going work to improve manholes and sewer pipelines.

### D. Virgin Valley Water District

- N/A

### E. City of Mesquite

- N/A

### F. City of Las Vegas

- Clark County Public Works has a construction project to widen Desert Inn Rd. Part of the project is to construct a bridge over the Las Vegas Wash. There was an excess of sediment and debris in the Wash due to the diversion on the first day. Upon completion, the city's effluent from the WPCF may be diverted.

- In early 2021, a metering cabinet experienced an arc flash that cut off all incoming power to the Durango Hills facility. Repairs have been on-going, and the system is anticipated to be back online soon.
- CIP Updates:
  - Filtration building rehabilitation project is still out for bid.
  - WPCS site security project and a process air blower project are both in design.
  - Dewatering building rehabilitation project is going into design.

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

- Greg Turner retired and the District will soon elect a new alternate member.
- Flamingo Plant Updates:
  - A project to expand capacity at the plant is underway. To make room for the expansion, demolition of old/unused infrastructure has begun.

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

- Nellis reuse service line is online. Initial testing well went and the water is being used to irrigate a nearby golf course.
- Sludge conveyance project will start in June.
- Membrane coating project will go out for bid in May, and will be awarded in July.
- Suez is scheduled to perform some cassette relocations. In preparation for the coating project, twelve membrane trains will be consolidated to run off of nine trains, opening three basins for the coating project.

#### **I. City of Henderson**

- Wastewater projects:
  - Problems with the belt filter press at the WRF. After an investigation, it was determined that the shaft is scored and needs repairs. The manufacturer is coming to the plant to assess the situation.
  - Phase 4 project to expand WRF is moving forward. Construction is expected to begin soon.
  - Project to upgrade lift stations by replacing pumps with new chopper pumps in underway.
  - New lift stations are in design: Cadence lift station (new) and Stephanie lift station, which is being relocated.
  - Lake Las Vegas lift station project is still affected by pump delivery delays.
  - Recently completed the annual membrane cleaning project at the SWRF.
  - Problem with the process at the SWRF. Straggler flock is not settling and is causing problems in the membranes. Remediation efforts are underway.
- Black Mountain reclaim water system is scheduled to be disbanded by 2022. Most of those customers will transfer to potable water systems.
- Interviews for two Wastewater Facility Operator II positions are scheduled in late May.
- Held interviews for a Water and Wastewater Division Manager. The new position is responsible for the water, lab, and field operations sections.

### **8. CLARK COUNTY / 208 AREA WIDE WATER QUALITY MANAGEMENT PLAN UPDATE**

- Water Quality Standards – Selenium Project: Awaiting EPA response on reconsideration of bootstrap analysis. Tributary assessments scheduled for later this month. Preparing for fish collection this summer.
- MS4 Permit update: Draft permit received and is being reviewed by the co-permittees.

- 208 update: No report.
- Grants – Preparing to submit a project grant proposal for assessing Coanda screens to remove trash and debris.

**9. MEMBER VACANCIES**

- A. Virgin Valley Water District – 1 member vacancy
- B. City of Henderson – 1 alternate vacancy
- C. Clark County Water Reclamation District – 1 alternate vacancy

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

**11. SCHEDULE NEXT MEETING**

The next meeting is scheduled for August 4, 2021 at 9:00 am at the Clark County Water Reclamation District, 5857 E. Flamingo Road, Las Vegas, NV, 89122. A meeting invite will be sent out.

**12. ADJOURNMENT**

The meeting was adjourned at 10:46 am.

2021  
1st Quarter Flow Report  
For  
Clark County Sewage  
And  
Wastewater Advisory  
Committee  
(SWAC)

May 4, 2021

# Wastewater Flows

2019 through 2021



















# Water Production

2019 through 2021

















# 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		
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Jan	102.48	104.74	98.48	43.54	41.67	41.06	17.51	17.58		25.24	24.98	24.71	1.21	1.21	1.21
Feb	101.90	104.72	97.50	43.56	41.68	41.23	17.44	17.68		24.83	24.77	24.55	1.21	1.20	1.21
Mar	104.00	98.35	101.17	43.27	41.67	41.67	17.60	17.47		24.52	23.88	25.74	1.19	1.23	1.19
Apr	105.63	89.42		44.01	40.09		17.60	16.84		23.62	23.96		1.20	1.20	
May	106.42	92.00		43.74	41.13		17.87	17.26		23.72	24.65		1.29	1.26	
Jun	107.84	98.74		43.17	43.20		18.18	18.18		23.27	24.51		1.28	1.20	
Jul	109.74	102.12		42.02	43.52		18.47	18.74		23.67	25.00		1.31	1.33	
Aug	109.74	103.15		42.27	43.41		18.70	18.86		24.01	25.40		1.30	1.37	
Sep	108.48	102.59		42.15	43.28		18.49	18.65		23.70	25.03		1.29	1.33	
Oct	105.63	101.73		41.87	42.73		18.06	18.46		23.65	24.89		1.23	1.31	
Nov	105.45	99.13		41.85	42.99		18.00	18.19		25.93	24.10		1.23	1.24	
Dec	104.93	96.37		41.86	42.52		17.87	17.87		25.23	24.21		1.22	1.21	
ANNUAL	106.02	99.42		42.78	42.32	41.32	17.98	17.98		24.48	24.62		1.24	1.26	

\* Includes estimated .5 MGD NLV



# Historic Trends Influent Wastewater Flows

Month	Searchlight			Blue Diamond			MVWRC			Laughlin			Mesquite			Indian Springs		
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Jan	0.046	0.033	0.030	0.014	0.018	0.017	0.164	0.166	0.191	1.66	1.85	1.47	1.82	1.77		0.106	0.121	0.103
Feb	0.048	0.041	0.029	0.009	0.016	0.020	0.181	0.179	0.181	1.77	1.85	1.52	1.83	1.76		0.112	0.118	0.105
Mar	0.042	0.030	0.034	0.009	0.019	0.020	0.188	0.196	0.180	1.84	1.50	1.58	1.89	1.70		0.101	0.113	0.107
Apr	0.041	0.026		0.008	0.015		0.193	0.191		1.89	1.02		1.87	1.67		0.112	0.108	
May	0.045	0.030		0.008	0.023		0.176	0.183		2.03	1.14		1.81	1.72		0.114	0.125	
Jun	0.032	0.032		0.005	0.015		0.157	0.159		2.24	1.86		1.80	1.86		0.121	0.121	
Jul	0.039	0.034		0.014	0.018		0.149	0.149		2.45	1.90		1.80	2.02		0.117	0.117	
Aug	0.037	0.034		0.017	0.016		0.148	0.146		2.22	1.98		1.79	2.03		0.120	0.115	
Sep	0.039	0.033		0.022	0.017		0.148	0.138		2.14	1.90		1.84	2.03		0.119	0.109	
Oct	0.031	0.029		0.020	0.018		0.148	0.158		2.02	1.80		1.83	1.99		0.127	0.111	
Nov	0.035	0.028		0.017	0.015		0.164	0.170		1.99	1.57		1.89	1.96		0.120	0.096	
Dec	0.034	0.028		0.017	0.018		0.168	0.167		1.62	1.45		1.74	1.94		0.114	0.101	
ANNUAL	0.039	0.032	0.031	0.013	0.017	0.019	0.165	0.167	0.184	1.99	1.65	1.52	1.75	1.87		0.103	0.113	0.105

# Non-Discharging Facilities

Boulder City				
(Avg. in MGD)			(Total in MG)	
Month	Influent Flow	Reuse	Influent Flow	Reuse
Jan	1.21	0.38	37.60	11.80
Feb	1.21	0.52	33.90	14.60
Mar	1.19	0.69	36.90	21.40
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				
Annual	1.20	0.53	108.40	47.80

# Las Vegas Wash and Colorado River Dischargers (2021)

Month	Clark County Water Reclamation District*					City of Las Vegas						City of Henderson			City of North Las Vegas		
	(Avg. in MGD)					(Avg. in MGD)						(Avg. in MGD)			(Avg. in MGD)		
	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	98.48	8.26	0.00	8.26	90.22	41.06	0.38	0.00	0.00	0.38	40.68	24.71	4.18	16.34			0.00
Feb	97.50	7.56	0.00	7.56	89.94	41.23	0.44	0.00	0.00	0.44	40.79	24.55	4.22	15.22			0.00
Mar	101.17	7.80	0.00	7.80	93.37	41.67	0.46	0.00	0.00	0.46	41.21	25.74	5.24	16.04			0.00
Apr				0.00	0.00					0.00	0.00						0.00
May				0.00	0.00					0.00	0.00						0.00
Jun				0.00	0.00					0.00	0.00						0.00
Jul				0.00	0.00					0.00	0.00						0.00
Aug				0.00	0.00					0.00	0.00						0.00
Sep				0.00	0.00					0.00	0.00						0.00
Oct				0.00	0.00					0.00	0.00						0.00
Nov				0.00	0.00					0.00	0.00						0.00
Dec				0.00	0.00					0.00	0.00						0.00
<b>YTD</b>	99.05	7.87	0.00	1.97	22.79	41.32	0.42	0.00	0.00	0.11	10.22	25.00	4.55	15.87	#DIV/0!	#####	0.00

## Las Vegas Wash and Colorado River Dischargers (2021)

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	Effluent Flow
Jan	164.25	12.82	147.24	1.47	0.00	1.47	14,147.60
Feb	163.28	12.21	145.96	1.52	0.00	1.52	13,124.85
Mar	168.58	13.49	150.63	1.58	0.00	1.58	13,545.72
Apr							
May							
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
<b>YTD</b>	496.11	38.52	443.83	4.56	0.00	4.56	40818.17

# Water Production (2021)

## 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	RMTD	SNWS	TOTAL	WELL	SNWS	TOTAL	WELLS	SNWS
Jan	995	18,739	19,734	4,849	96	4,946	0	3,773	3,773	127	326	453	0.01	61	61	995	27,875
Feb	2,762	15,727	18,489	4,120	530	4,650	0	3,539	3,539	134	349	483	0.02	61	61	2,762	23,929
Mar	0	23,496	23,496	5,182	920	6,102	0	4,371	4,371	181	447	628	0.05	75	75	0	33,753
Apr																	
May																	
Jun																	
Jul																	
Aug																	
Sep																	
Oct																	
Nov																	
Dec																	
YTD	3,757	57,962	61,719	14,152	1,546	15,698	0	11,683	11,683	442	1,122	1,563	0	197	197	3,757	85,557

# Historic Trends Water Production

(Totals in AF)

	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		
Month	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Jan	19,868	20,297	19,734	3,343	4,728	4,946	3,378	3,682	3,773	399	438	453	236	248	201	363	350	381	131	144	
Feb	17,092	19,348	18,489	2,754	4,525	4,650	3,020	3,551	3,539	327	466	483	217	238	216	300	359	345	97	154	
Mar	22,272	21,008	23,496	4,059	5,125	6,102	3,709	3,865	4,371	561	463	628	269	226	244	378	367	449	142	162	
Apr	26,005	22,827		5,344	6,037		4,311	4,198		807	728		293	226		529	451		185	271	
May	29,685	32,374		6,758	8,839		4,827	5,478		874	1,129		318	293		587	657		229	300	
Jun	34,635	35,455		8,689	9,782		5,578	5,887		1,168	1,214		356	361		702	762		301	313	
Jul	39,083	40,024		9,325	11,045		6,291	6,562		1,299	1,357		400	393		789	867		336	341	
Aug	39,367	40,043		10,011	10,990		6,405	6,695		1,275	1,357		378	388		798	863		353	379	
Sep	33,729	34,491		8,797	9,562		5,560	6,015		1,149	1,240		343	354		734	758		269	310	
Oct	29,063	30,141		6,913	8,368		4,960	5,375		930	1,052		311	316		520	675		245	259	
Nov	21,713	23,331		4,140	5,812		3,989	4,316		550	620		272	237		508	481		176	192	
Dec	19,381	20,579		3,085	5,318		3,592	3,902		358	502		245	229		320	421		125	166	
ANNUAL	331,890	339,918	61,719	73,217	90,131	15,698	55,618	59,525	11,683	9,697	10,567	1,563	3,639	3,508	660	6,528	7,009	1,175	2,589	2,991	0

# Wastewater/Water Production Ratios

\*Calc. as combined CLV and CCWRDwastewater / LVVWD Production

\*\*Calc. as the sum of all entities wastewater / the sum of all entities production

Month	City of Las Vegas/Clark County*			City of Henderson			City of North Las Vegas			Boulder City			Big Bend Water District			All Entities **		
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Jan	0.70	0.69	0.67	0.72	0.50	0.48	0.49	1.55	0.00	0.29	0.26	0.25	0.85	0.67	0.70	0.67	0.62	0.55
Feb	0.73	0.65	0.64	0.77	0.47	0.45	0.50	1.67	0.00	0.32	0.22	0.22	0.85	0.70	0.60	0.70	0.59	0.52
Mar	0.63	0.63	0.58	0.57	0.44	0.40	0.45	1.70	0.00	0.20	0.25	0.18	0.77	0.65	0.62	0.59	0.57	0.47
Apr	0.53	0.52		0.41	0.37		0.38	1.90		0.14	0.15		0.72	0.59		0.49	0.47	
May	0.48	0.39		0.33	0.27		0.35	2.34		0.14	0.11		0.63	0.61		0.44	0.35	
Jun	0.40	0.37		0.25	0.23		0.30	2.61		0.10	0.09		0.55	0.58		0.36	0.33	
Jul	0.37	0.35		0.24	0.22		0.28	2.76		0.10	0.09		0.51	0.58		0.33	0.31	
Aug	0.37	0.35		0.23	0.22		0.28	2.77		0.10	0.10		0.53	0.56		0.33	0.31	
Sep	0.41	0.39		0.25	0.24		0.31	2.61		0.10	0.10		0.51	0.57		0.36	0.34	
Oct	0.48	0.46		0.33	0.28		0.35	2.27		0.13	0.12		0.51	0.62		0.43	0.40	
Nov	0.62	0.56		0.58	0.38		0.42	1.95		0.21	0.18		0.63	0.67		0.58	0.50	
Dec	0.72	0.64		0.78	0.43		0.47	1.69		0.32	0.23		0.66	0.63		0.69	0.57	
AVG.	0.50	0.47	0.63	0.37	0.31	0.44	0.36	2.16	0.00	0.14	0.13	0.21	0.64	0.62	0.64	0.46	0.42	0.51

# Water Production and Water Flows

Monthly flows in AF

Month	CLV and Clark County		City of Henderson		City of North Las Vegas		Boulder City		Big Bend Water District		All Entities	
	Monthly Flow in AF		Monthly Flow in AF		Monthly Flow in AF		Monthly Flow in AF		Monthly Flow in AF		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	19,734	13,275	4,946	2,351	3,773		453	115	201	139	29,106	15,881
Feb	18,489	11,921	4,650	2,110	3,539		483	104	216	130	27,376	14,265
Mar	23,496	13,589	6,102	2,449	4,371		628	113	244	150	34,841	16,301
Apr												
May												
Jun												
Jul												
Aug												
Sep												
Oct												
Nov												
Dec												
YTD	61,719	38,785	15,698	6,909	11,683	0	1,563	333	660	420	91,324	46,447



# Recharge and Recovery

Monthly Flows in AF

\*Data provided by SNWA

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 2020	0	0	0	0	0	0	0
Total 2020	0	0	0	672	0	0	0
Total 2019	0	0	0	0	0	0	0