

SEWAGE AND WASTEWATER ADVISORY COMMITTEE
Advisory to the Board of Clark County Commissioners

Conveyed virtually in accordance with changes to Open Meeting Law during the 2021 Legislative Session
Meeting Minutes of May 4, 2022

MEMBERS	Present	Absent
Clark County (2 Members)		
John Solvie (Member)	X	
VACANT (Member)		
Joseph Leedy (Alternate)	X	
Sara Gedo (Alternate)	X	
City of Las Vegas (3 Members)		
VACANT (Member)		
John Bettencourt (Member)	X	
Sharon Harney (Member)	X	
Charles Trushel (Alternate)	X	
Nalleli Herrera (Alternate)	X	
Dan Combs (Alternate)	X	
City of Henderson (2 Members)		
Brian Carlson (Member)	X	
VICE-CHAIR		
Adrian Edwards (Member)	X	
Bryan Mortensen (Alternate)		X
James Koloskie (Alternate)	X	
City of North Las Vegas (1 Member)		
Frazier Speaks (Member)		X
Daniel Ybarra (Alternate)	X	
Clark County Water Reclamation District (1 Member)		
Daniel Fischer (Member)	X	
CHAIR		
Richard Donahue (Alternate)	X	
Moapa Valley Water District (1 Member)		
Joe Davis (Member)		X
Lon Dalley (Alternate)		X
Las Vegas Valley Water District (1 Member)		
Todd Tietjen (Member)	X	
Xiaoping Zhou (Alternate)	X	
Mesquite (1 Member)		
Bill Tanner (Member)		X
Travis Anderson (Alternate)		X
Virgin Valley Water District (1 Member)		
VACANT (Member)		
Aaron Bunker (Alternate)		X
Boulder City (1 Member)		
VACANT (Member)		
Jim Keane (Alternate)		X

Guests Present

Rodriguez, AJ

CCWRD

Sumanis, Abigail

CCWRD

Stubitz, Joseph

Boulder City

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 9:01 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 9, 2022

Adrian Edwards moved and Sharon Harney seconded to accept the February 9, 2022 minutes. The motion was unanimously approved.

4. APPROVAL OF AGENDA

Charles Trushel moved and Adrian Edwards seconded to approve the agenda. The motion was unanimously approved.

5. DISCUSSION OF QUARTERLY FLOW REPORT

The group discussed the flow report for the first quarter of 2022:

- Members noted discrepancies in the net flow to the Las Vegas Wash calculated by the wastewater dischargers and the Colorado River Commission. The agencies used different approaches to calculate the net flow to LV Wash.

6. MEMBER UPDATES

A. Moapa Valley Water District

- N/A

B. Las Vegas Valley Water District

- Removed the restrictor plates from the low lake level pumps to allow pumping at full capacity.
- Continue monthly updates to the Lake Mead model projections based on new inflow, outflow and surface elevation predictions provided by Bureau of Reclamation.
- Preparing to begin modeling changes in the delivery of water to Lake Mead, withdrawals from Lake Mead, and surface elevations that result, in anticipation that water quality changes are likely to begin as the rate of water moving in and out of the Lake fluctuates.
- Discussing how pump stations across the Valley will be cooled in the future. Options include using treated water to cool the pumps, but Lake Mead model projections indicate that the Lake water will exceed the desired temperature.
- Beginning work on a Bureau of Reclamation grant for quantitative microbial risk assessment of the Las Vegas Wash.
- The Las Vegas Wash Coordination Committee's annual wash tour was a success. The committee is moving into a long-term operating plan.
- Projects Updates:
 - Planning the lateral pipeline to go across the south end of Henderson is on-going.

- There is construction activity in the Lower Las Vegas Wash to evaluate the condition of existing erosion control structures along North Shore Rd. The Wash was temporarily diverted to allow access to the channel.

C. Boulder City

- Continuing to work on ways to capture all the indoor water use and distribute it to the Las Vegas Wash as return flow credits.

D. Virgin Valley Water District

- N/A

E. City of Mesquite

- N/A

F. City of Las Vegas

- O&M Updates:
 - Rerouted effluent in support of the DI Bridge project.
 - Receiving last set of digesters that were modified with new jet mixing.
- CIP Updates:
 - BNR rehabilitation project is approaching 90% complete.
 - Digester rehabilitation project is approaching 99% complete.
 - Filtration building rehabilitation project is 20% complete.
 - Dewatering building rehabilitation project is working towards 90% design.
 - Headworks rehabilitation project is entering into a design contract.
- Dan Combs has been promoted to Plant Operations and Maintenance Manager.
- Open recruitment for a new Operations & Maintenance Supervisor.

G. Clark County Water Reclamation District

- Collection System Updates:
 - Whitney Lift Station project is at 100% design. Construction is anticipated to begin in January 2023.
 - Lincoln Lift Station project is at 100% design. Construction is anticipated to begin in February 2023.
 - Multiple projects to rehabilitate/replace defective small diameter pipe throughout the Collection System are on-going.
- Flamingo Plant Updates:
 - The Flamingo Plant expansion is on-going.
 - Headworks, primary expansion, and grit are all 90% design.
 - Three new secondary basins and clarifiers are at 90% design.
 - Design for the sludge thickening is complete. Construction is anticipated to begin soon.
 - Planning to build another DAFT for thickening secondary sludge.
 - Demolishing old facilities is on-going.

H. City of North Las Vegas

- Successfully tested the first sludge conveyance pump at solids facility. Planning to demolish pump number two.
- The recoating project is entering the third phase. The project is scheduled to be complete by the end of July.
- Flow equalization basin project is out to bid.
- Sloan Channel improvements project is still in design.

- Continuing to send approximately 0.6 MGD of reuse water to Nellis Air Force Base.

I. City of Henderson

- Met with Jacobs Engineering to go over the 30% design review.
- Dan Combs will be coordinating a site visit to the Las Vegas plant.
- Ammonium concentrations that peaked in February during the oxidation ditch take down have returned to normal.
- Direct reclaim use will decline over the next year because the Black Mountain reuse line is being eliminated as part of the Black Mountain Golf Course decommissioning process.

J. Clark County

- Selenium Project: Continuing to work closely with NDEP. The site-specific standards report for Las Vegas Wash will be submitted to NDEP later this month. Arcadis will present a project overview at the May 5, 2022 SQMC meeting. NDEP hopes to present proposed standards to the SEC this fall, prior to the regulatory exemption for Las Vegas Wash expiring on 12/31.
- Draft MS4 Permit: NDEP submitted a revised draft to the MS4 co-permittees with nearly all proposed edits and revisions accepted.

7. MEMBER VACANCIES

- A. Virgin Valley Water District – 1 member vacancy
- B. Boulder City – 1 member vacancy
- C. City of Las Vegas – 1 member vacancy
- D. Clark County – 1 member vacancy

8. COMMENTS BY THE GENERAL PUBLIC - None

9. SCHEDULE NEXT MEETING

The next meeting is scheduled for August 3, 2022 at 9:00 am. A meeting invite will be sent out.

10. ADJOURNMENT

The meeting was adjourned at 10:13 am.

2022
1st Quarter Flow Report
For
Clark County Sewage
And
Wastewater Advisory
Committee
(SWAC)

February 9, 2022

Wastewater Flows

2020 through 2022

Water Production

2020 through 2022

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		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Jan	104.74	98.48	100.59	41.67	41.06	41.62	17.58	17.84	18.00	24.98	24.71	25.23	1.21	1.21	1.13
Feb	104.72	97.50	102.07	41.68	41.23	42.04	17.68	17.73	17.96	24.77	24.55	24.56	1.20	1.21	1.14
Mar	98.35	101.17	103.72	41.67	41.67	42.45	17.47	17.87	18.08	23.88	25.74	25.07	1.23	1.19	1.15
Apr	89.42	104.07		40.09	41.84		16.84	17.98		23.96	25.83		1.20	1.20	
May	92.00	105.77		41.13	42.14		17.26	17.72		24.65	25.45		1.26	1.27	
Jun	98.74	109.55		43.20	42.58		18.18	18.27		24.51	26.46		1.20	1.25	
Jul	102.12	114.18		43.52	42.71		18.74	18.69		25.00	26.71		1.33	1.22	
Aug	103.15	112.23		43.41	43.10		18.86	18.76		25.40	26.87		1.37	1.17	
Sep	102.59	109.79		43.28	42.95		18.65	18.62		25.03	26.83		1.33	1.17	
Oct	101.73	106.58		42.73	42.63		18.46	18.17		24.89	26.71		1.31	1.13	
Nov	99.13	104.75		42.99	42.22		18.19	18.17		24.10	25.76		1.24	1.16	
Dec	96.37	104.05		42.52	41.46		17.87	18.12		24.21	25.73		1.21	1.13	
ANNUAL	99.42	105.68	102.13	42.32	42.13	42.04	17.98	18.16	18.01	24.62	25.95	24.95	1.26	1.19	1.14

* Includes estimated .5 MGD NLV

Historic Trends Influent Wastewater Flows

Month	Searchlight			Blue Diamond			MVWRC			Laughlin			Mesquite			Indian Springs		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Jan	0.033	0.030	0.041	0.018	0.017	0.017	0.166	0.191	0.155	1.85	1.47	1.45	1.77	1.76	1.86	0.121	0.072	0.088
Feb	0.041	0.029	0.042	0.016	0.020	0.026	0.179	0.181	0.157	1.85	1.52	1.52	1.76	1.81	1.89	0.118	0.073	0.091
Mar	0.030	0.034	0.039	0.019	0.020	0.017	0.196	0.180	0.172	1.50	1.58	1.65	1.70	1.82	1.89	0.113	0.074	0.095
Apr	0.026	0.027		0.015	0.016		0.191	0.172		1.02	1.69		1.67	1.81		0.108	0.082	
May	0.030	0.340		0.023	0.016		0.183	0.163		1.14	1.79		1.72	1.75		0.125	0.082	
Jun	0.032	0.028		0.015	0.014		0.159	0.168		1.86	1.87		1.86	1.76		0.121	0.081	
Jul	0.034	0.042		0.018	0.018		0.149	0.152		1.90	2.12		2.02	1.82		0.117	0.092	
Aug	0.034	0.041		0.016	0.015		0.146	0.145		1.98	1.78		2.03	1.78		0.115	0.098	
Sep	0.033	0.030		0.017	0.018		0.138	0.143		1.90	1.68		2.03	1.79		0.109	0.104	
Oct	0.029	0.033		0.018	0.017		0.158	0.150		1.80	1.60		1.99	1.84		0.111	0.095	
Nov	0.028	0.046		0.015	0.018		0.170	0.154		1.57	1.36		1.96	1.89		0.096	0.085	
Dec	0.028	0.040		0.018	0.021		0.167	0.150		1.45	1.47		1.94	1.78		0.101	0.092	
ANNUAL	0.032	0.060	0.041	0.017	0.018	0.020	0.165	0.167	0.161	1.65	1.66	1.54	1.87	1.80	1.88	0.113	0.086	0.091

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	1.13	0.014	35	4.34
Feb	1.14	0.2	31.9	5.6
Mar	1.15	0.19	35.7	5.89
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				
Annual	1.14	0.13	102.60	15.83

Las Vegas Wash and Colorado River Dischargers (2022)

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	100.59	0.23	0.00	0.23	100.36	41.62	0.13	0.00	0.00	0.13	43.95	25.23	6.28	16.81	18.00	0.20	17.80
Feb	102.07	0.30	0.00	0.30	101.77	42.04	0.23	0.00	0.00	0.23	44.02	24.56	4.94	17.60	17.96	0.20	17.76
Mar	103.72	0.32	0.00	0.32	103.40	42.45	0.17	0.00	0.00	0.17	44.03	25.07	6.56	16.21	18.08	0.40	17.68
Apr																	
May																	
Jun																	
Jul																	
Aug																	
Sep																	
Oct																	
Nov																	
Dec																	
Average	102.13	0.28	0.00	0.28	101.84	42.04	0.18	0.00	0.00	0.18	44.00	24.95	5.93	16.87	18.01	0.27	17.75
YTD total	306.38	0.85	0.00	0.85	305.53	126.11	0.53	0.00	0.00	0.53	132.00	74.86	17.78	50.62	54.04	0.80	53.24

Net to LV Wash is calculated as Influent minus Total Reuse

Las Vegas Wash and Colorado River Dischargers (2022)

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	185.44	6.84	179.32	1.45	0.18	1.28	17,181.00
Feb	186.63	5.66	181.55	1.52	0.17	1.35	16,277.77
Mar	189.32	7.45	182.12	1.65	0.20	1.45	16,337.05
Apr							
May							
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
Annual Avg	187.13	6.65	181.00	1.54	0.18	1.36	49795.82

Water Production (2022)

(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	4	20,323	20,327	3,919	1,016	4,935	0	3,915	3,915	98	315	413	2.79	66	69	7	28,636
Feb	1	18,956	18,957	3,698	981	4,680	0	3,649	3,649	122	320	442	2.72	65	68	4	26,810
Mar	2	24,919	24,921	5,304	733	6,037	0	4,586	4,586	189	427	616	7.97	77	85	10	35,502
Apr																	
May																	
Jun																	
Jul																	
Aug																	
Sep																	
Oct																	
Nov																	
Dec																	
YTD	7	64,199	64,206	12,921	2,730	15,652	0	12,150	12,150	409	1,062	1,470	13	208	222	20	90,948

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	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Jan	20,297	19,734	20,327	4,728	4,946	4,935	3,682	3,773	3,915	438	326	413	248	201	220	350	381	395	144	157	220
Feb	19,348	18,489	18,957	4,525	4,650	4,680	3,551	3,539	3,649	466	349	442	238	216	211	359	345	376	154	142	211
Mar	21,008	23,496	24,921	5,125	6,102	6,037	3,865	4,371	4,586	463	447	616	226	244	228	367	449	488	162	194	228
Apr	22,827	27,257		6,037	7,266		4,198	4,825		728	597		226	260		451	546		271	213	
May	32,374	33,792		8,839	9,325		5,478	5,721		1,129	727		293	292		657	667		300	297	
Jun	35,455	37,597		9,782	10,133		5,887	6,262		1,214	815		361	318		762	800		313	320	
Jul	40,024	38,902		11,045	10,352		6,562	6,612		1,357	776		393	302		867	835		341	313	
Aug	40,043	39,072		10,990	10,295		6,695	6,569		1,357	785		388	311		863	848		379	306	
Sep	34,491	33,330		9,562	8,994		6,015	5,460		1,240	685		354	291		758	773		310	287	
Oct	30,141	28,794		8,368	7,501		5,375	5,107		1,052	815		316	260		675	617		259	226	
Nov	23,331	23,359		5,812	6,003		4,316	4,370		620	638		237	238		481	484		192	185	
Dec	20,579	20,561		5,318	5,256		3,902	4,019		502	453		229	220		421	393		166	143	
ANNUAL	339,918	344,383	64,206	90,131	90,823	15,652	59,525	60,627	12,150	10,567	7,412	1,470	3,508	3,152	659	7,009	7,137	1,259	2,991	2,783	659

Wastewater/Water Production Ratios

	City of Las Vegas/Clark County*			City of Henderson			City of North Las Vegas			Boulder City			Big Bend Water District			All Entities **		
Month	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Jan	0.69	0.67	0.67	0.50	0.48	0.49	0.45	0.45	0.44	0.26	0.25	0.26	0.67	0.70	0.63	0.62	0.60	0.60
Feb	0.65	0.64	0.65	0.47	0.45	0.45	0.43	0.43	0.42	0.22	0.22	0.22	0.70	0.60	0.62	0.59	0.58	0.58
Mar	0.63	0.58	0.56	0.44	0.40	0.40	0.43	0.39	0.38	0.25	0.18	0.18	0.65	0.62	0.69	0.57	0.52	0.50
Apr	0.52	0.49		0.37	0.33		0.37	0.34		0.15	0.13		0.59	0.60		0.47	0.44	
May	0.39	0.42		0.27	0.26		0.30	0.29		0.11	0.11		0.61	0.58		0.35	0.37	
Jun	0.37	0.37		0.23	0.24		0.28	0.27		0.09	0.09		0.58	0.54		0.33	0.33	
Jul	0.35	0.38		0.22	0.25		0.27	0.27		0.09	0.09		0.58	0.67		0.31	0.34	
Aug	0.35	0.38		0.22	0.25		0.27	0.27		0.10	0.09		0.56	0.55		0.31	0.34	
Sep	0.39	0.42		0.24	0.27		0.29	0.31		0.10	0.10		0.57	0.53		0.34	0.38	
Oct	0.46	0.49		0.28	0.34		0.33	0.34		0.12	0.13		0.62	0.59		0.40	0.44	
Nov	0.56	0.58		0.38	0.40		0.39	0.38		0.18	0.17		0.67	0.53		0.50	0.51	
Dec	0.64	0.67		0.43	0.47		0.44	0.43		0.23	0.24		0.63	0.64		0.57	0.60	
AVG.	0.47	0.48	0.62	0.31	0.32	0.44	0.34	0.34	0.41	0.13	0.13	0.21	0.62	0.59	0.64	0.42	0.43	0.56

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	20,327	13,529	4,935	2,400	3,915	1,712	413	107	220	138	29,810	17,887
Feb	18,957	12,383	4,680	2,110	3,649	1,543	442	98	211	131	27,938	16,265
Mar	24,921	13,906	6,037	2,385	4,586	1,720	616	110	228	157	36,389	18,277
Apr	0	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0	0
Sep	0	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0	0	0	0	0	0
YTD	64,206	39,818	15,652	6,896	12,150	4,976	1,470	315	659	425	94,136	52,430

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							
May							
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
Total 2022	0	0	0	0	0	0	0
Total 2021	0	0	0	688	0	0	0
Total 2020	0	0	0	672	0	0	0

* Data provided by SNWA