

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 August 3, 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	
VACANT (Member)		
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)		
VACANT (Member)		
Travis Anderson (Alternate)		X
Virgin Valley Water District (1 Member)		
VACANT (Member)		
Aaron Bunker (Alternate)		X
Boulder City (1 Member)		
Joseph Stubitz (Member)	X	
Jim Keane (Alternate)		X

Guests Present

Elise Nguyen	CCWRD
Daylin Sigler	CCWRD
Jinju Lee	UNLV
John Tennert	RFGD
Deena Hannoun	SNWA
Ayoub Ayoub	SNWA
JD Dotchin	NDEP

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 MAY 4, 2022

Todd Tietjen moved and Charles Trushel seconded to accept the May 4, 2022 minutes. The motion was unanimously approved.

4. PRESENTATION: 2022-2060 CBER CLARK COUNTY POPULATION FORECASTS

5. APPROVAL OF AGENDA

Todd Tietjen moved and Brian Carlson seconded to approve the agenda. The motion was unanimously approved.

6. DISCUSSION OF QUARTERLY FLOW REPORT

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

- Wastewater flows are down across the Clark County, City of Henderson, Las Vegas and North Las Vegas compared to this time last year.
- The consumptive use for reclaimed water continues to decline across the Valley.

7. MEMBER UPDATES

A. Moapa Valley Water District

- Nothing to report.

B. Las Vegas Valley Water District

- Two weirs, that regulate flow at the AMS, failed. In the interim, water level is being controlled using a couple of butterfly valves.
- There is a proposal for rate changes that will likely impact the highest tier users.
- Continuing to collaborate with NDEP on monitoring legionella in groundwater supplies. R&D is looking at various in-situ treatment technologies.
- Inflation and supply chain delays are contributing to the rising cost of chemicals.
- The warm water discharging from Lake Powell is beginning to impact the water quality in upper Lake Mead, which poses a risk to endangered and threatened fish.
- As Lake Mead continues to decline, Las Vegas Bay is becoming a more detached water body, which raises concerns for water quality impacts in the near future.
- Summer monsoons across the Colorado River Basin increased the water level in Lake Mead by a few inches.

C. Boulder City

- There are items on City Council agenda to address water conservation.
- Received presentation on direct and indirect reuse options from SNWA.
- The water conservation campaign is having a positive impact and residents are reducing consumption.

D. Virgin Valley Water District

- N/A

E. City of Mesquite

- N/A

F. City of Las Vegas

- O&M Updates:
 - The effluent from the WPCF, that was rerouted through a temporary channel to support the DI Bridge project, has now returned to the normal outfall, which has been modified.
 - Received last set of digesters, which are in the process of being installed.
- CIP Updates:
 - BNR rehabilitation and digester rehabilitation projects are nearly complete.
 - Filtration rehabilitation project is 30% complete.
 - Dewatering building rehabilitation project is at 50% design.
 - A design consultant was selected for the headworks rehabilitation project. A contract is being prepared.
 - Phase I of the process air improvement project is underway. The project aims to replace the aging process air blowers with new turbo blower technology.
- A new Plant Operations and Maintenance Manager was hired.
- CLV has purchased the lease for Desert Pines Golf Course, a major reuse customer. Currently, the golf course uses over 100 million gallons of water per year. The city plans to redevelop the land as residential, which means the reuse water will be returned to Lake Mead.

G. Clark County Water Reclamation District

- Collection System Updates:
 - Whitney Lift Station project is at 100% design. Construction is scheduled to begin in January 2023.
 - Lincoln Lift Station project is at 100% design. Construction is anticipated to begin in July 2023.
 - Multiple projects to rehabilitate/replace defective small diameter pipe throughout the Collection System are on-going. There are 180 sections of metal pipes that need to be replaced.
 - The force main failed at the Moapa Valley Lift Station. The station currently down and is undergoing repairs.
- Flamingo Plant Updates:
 - The Flamingo plant expansion is on-going.
 - The headworks expansion and new primaries are under construction.
 - Three new secondary treatment basins with clarifiers and biological nutrient removal are under construction.
 - Construction for the sludge thickeners is underway.
 - Demolition of old facilities is on-going.

H. City of North Las Vegas

- N/A

I. City of Henderson

- Nothing to report.

J. Clark County

- Water Quality has hired two new full-time employees.
- MS4 Permit – NDEP is submitting the new draft MS4 permit to EPA for final review.
- Selenium – NDEP has submitted proposed site-specific standards and tributary exemptions to the Legislative Council Bureau. Public workshops will likely occur in the fall, and the proposed regulation changes submitted to the Station Environmental Commission in December for approval. The revised regulations will then be submitted to EPA.
- Draft Construction General Permit – MS4 co-permittees still have unresolved concerns with permit provisions and will be submitting formal comments to NDEP. The draft was distributed to SWAC members, should they wish to comment, as well.
- Recent NDEP BWPC changes included Elizabeth Kingsland stepping down as Bureau Chief and Katrina Pascual being appointed Interim Bureau Chief.

8. MEMBER VACANCIES

- A. Virgin Valley Water District – 1 member vacancy
- C. City of Las Vegas – 2 member vacancies
- D. Clark County – 1 member vacancy
- E. City of Mesquite – 1 member vacancy

9. COMMENTS BY THE GENERAL PUBLIC - None

10. SCHEDULE NEXT MEETING

The next meeting is scheduled for November 2, 2022 at 9:00 am. A meeting invite will be sent out.

11. ADJOURNMENT

The meeting was adjourned at 10:53 am.

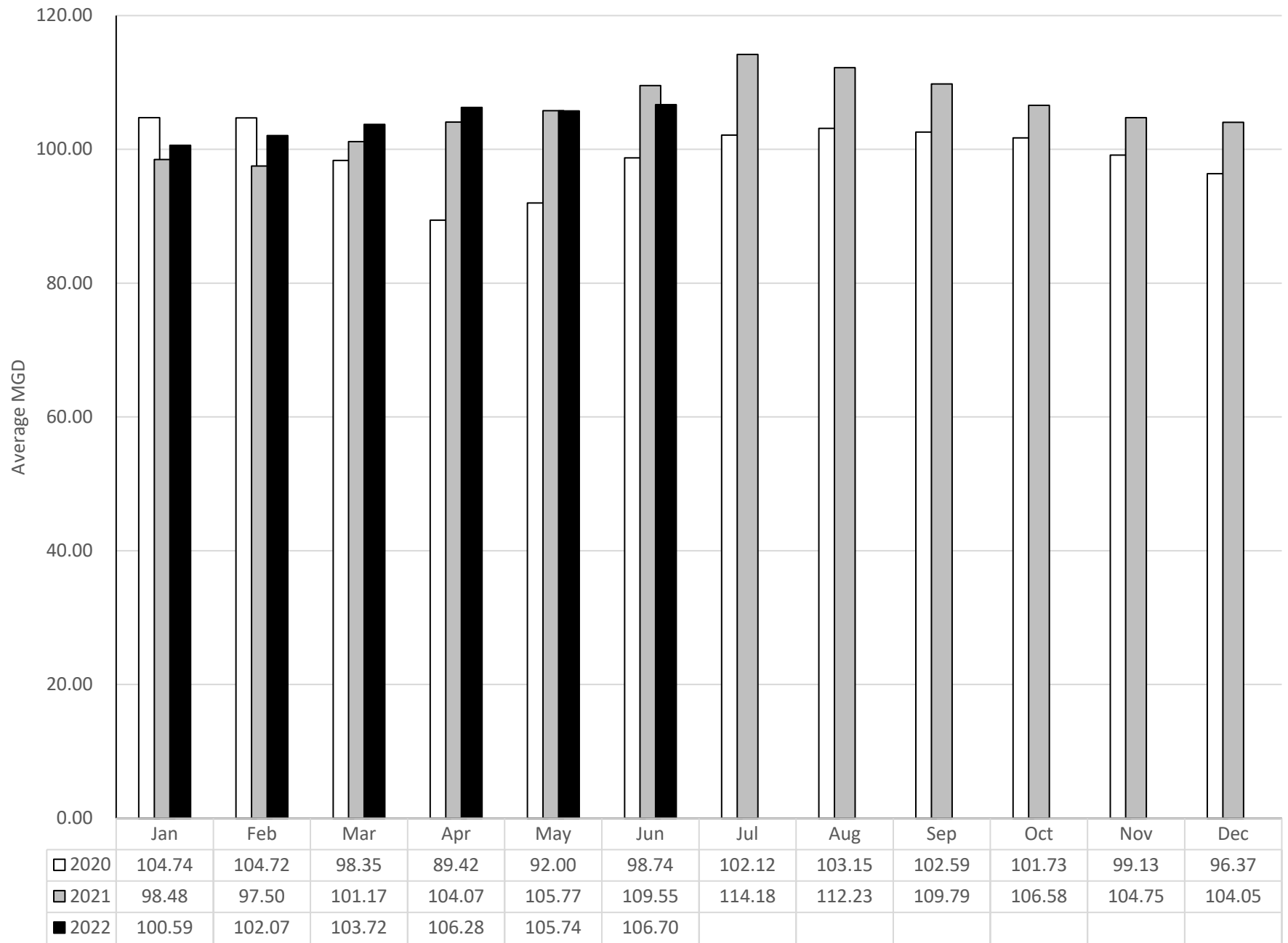
2022
2nd Quarter Flow Report
For
Clark County Sewage
And
Wastewater Advisory
Committee
(SWAC)

August 2, 2022

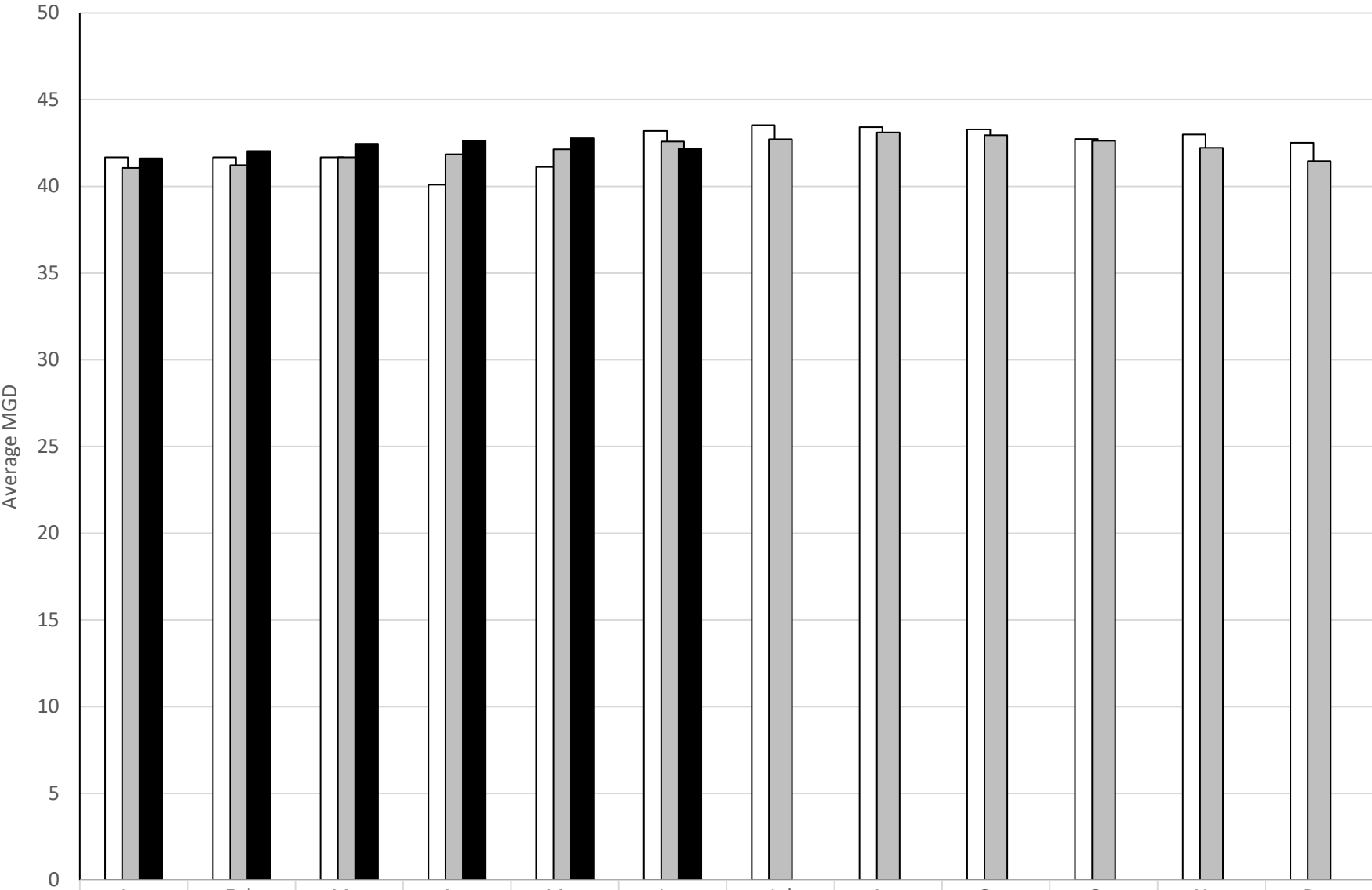
Wastewater Flows

2020 through 2022

Clark County Water Reclamation District Wastewater Flows

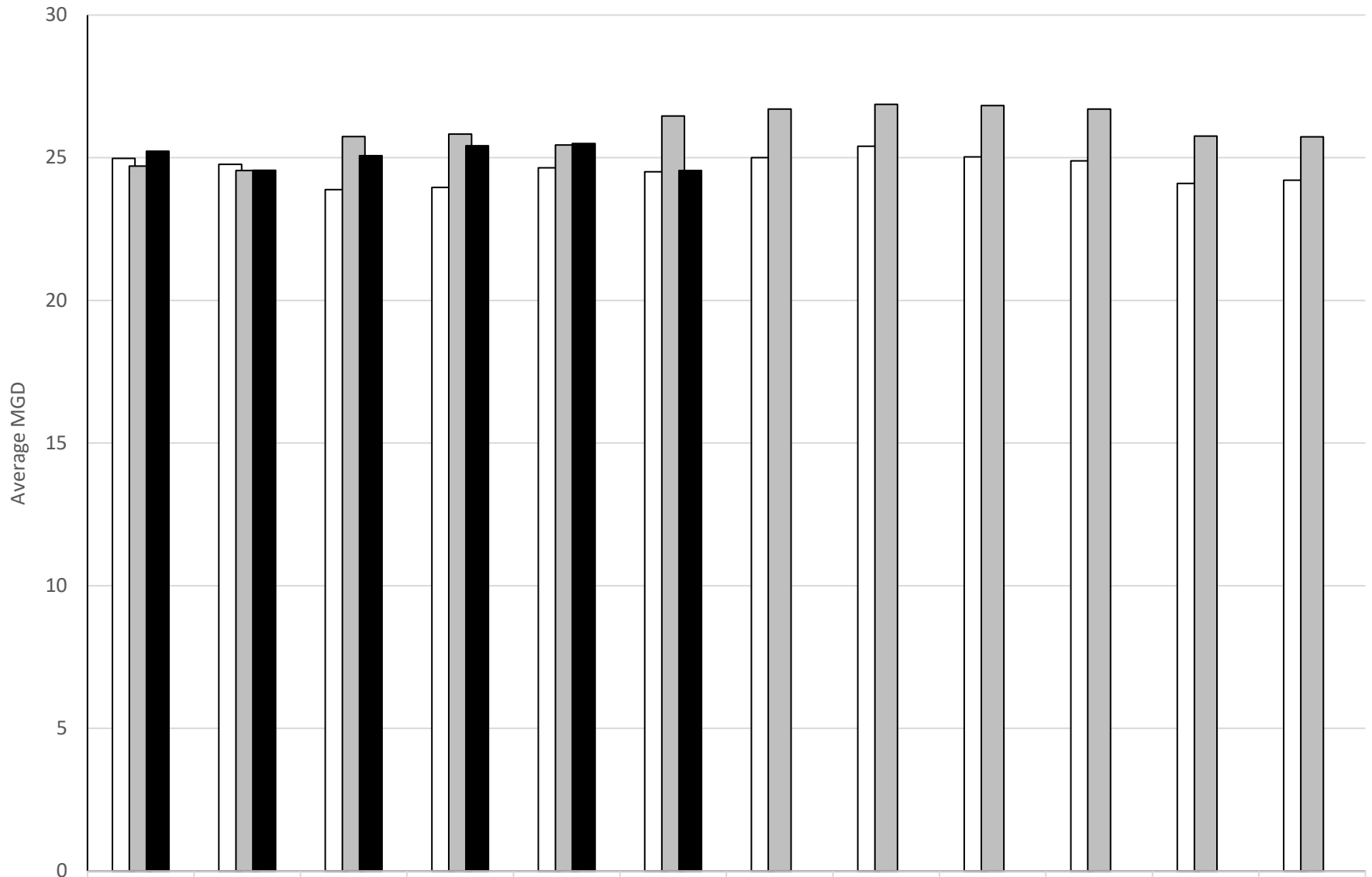


City of Las Vegas Wastewater Flows



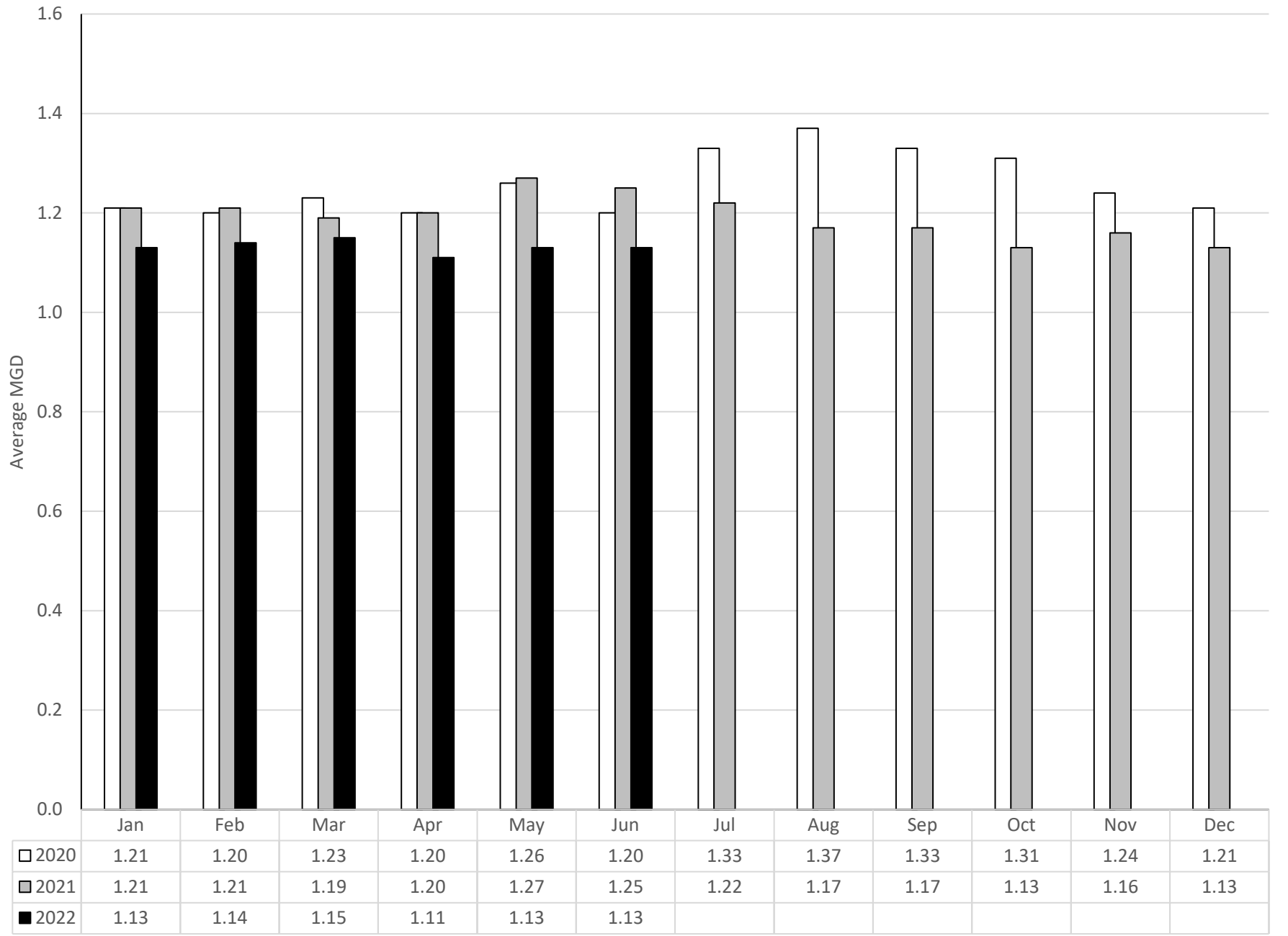
□ 2020	41.67	41.68	41.67	40.09	41.13	43.20	43.52	43.41	43.28	42.73	42.99	42.52
■ 2021	41.06	41.23	41.67	41.84	42.14	42.58	42.71	43.10	42.95	42.63	42.22	41.46
■ 2022	41.62	42.04	42.45	42.63	42.78	42.16						

City of Henderson Wastewater Flows

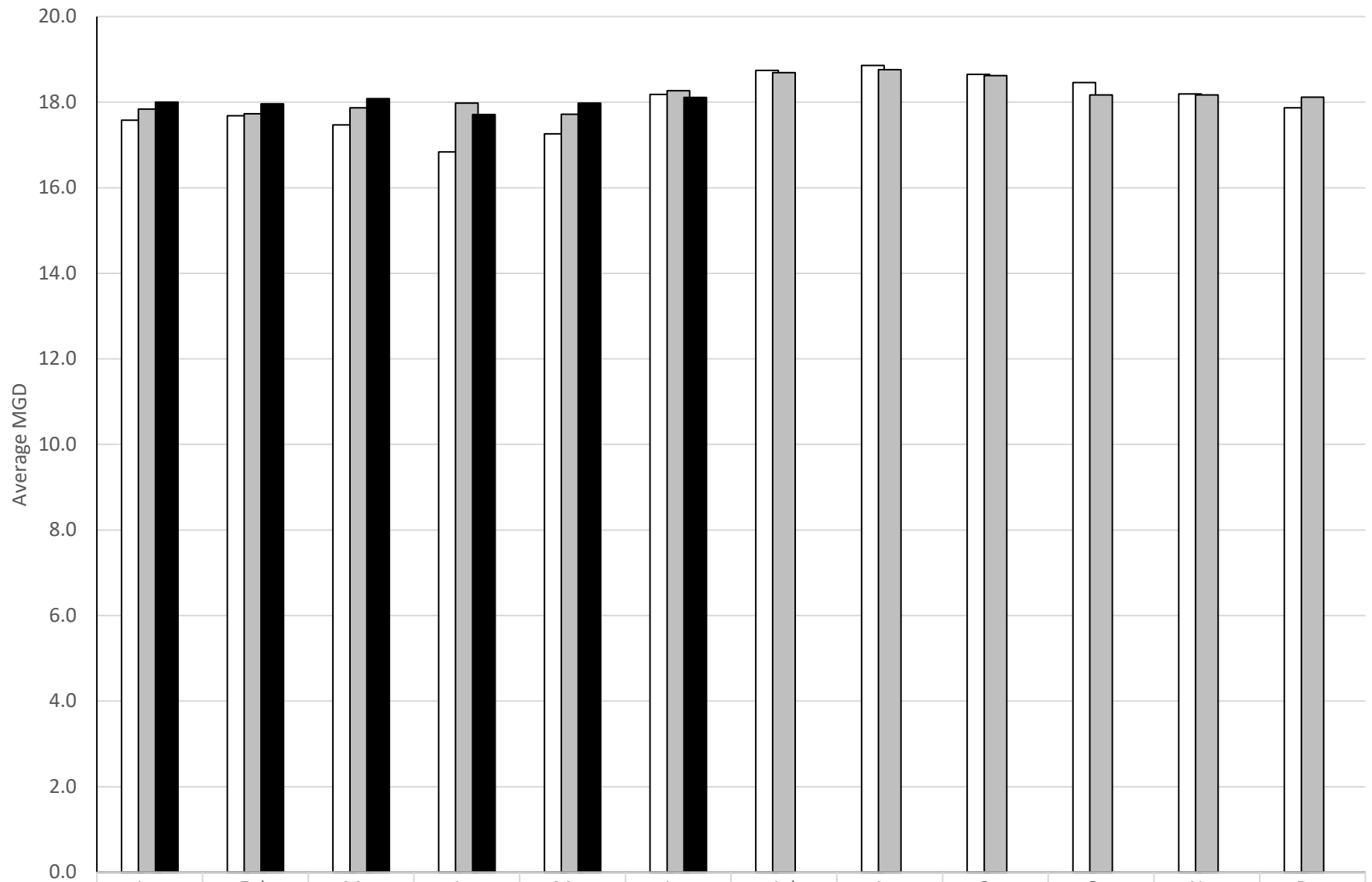


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
□ 2020	24.98	24.77	23.88	23.96	24.65	24.51	25.00	25.40	25.03	24.89	24.10	24.21
■ 2021	24.71	24.55	25.74	25.83	25.45	26.46	26.71	26.87	26.83	26.71	25.76	25.73
■ 2022	25.23	24.56	25.07	25.42	25.50	24.55						

Boulder City Wastewater Flows

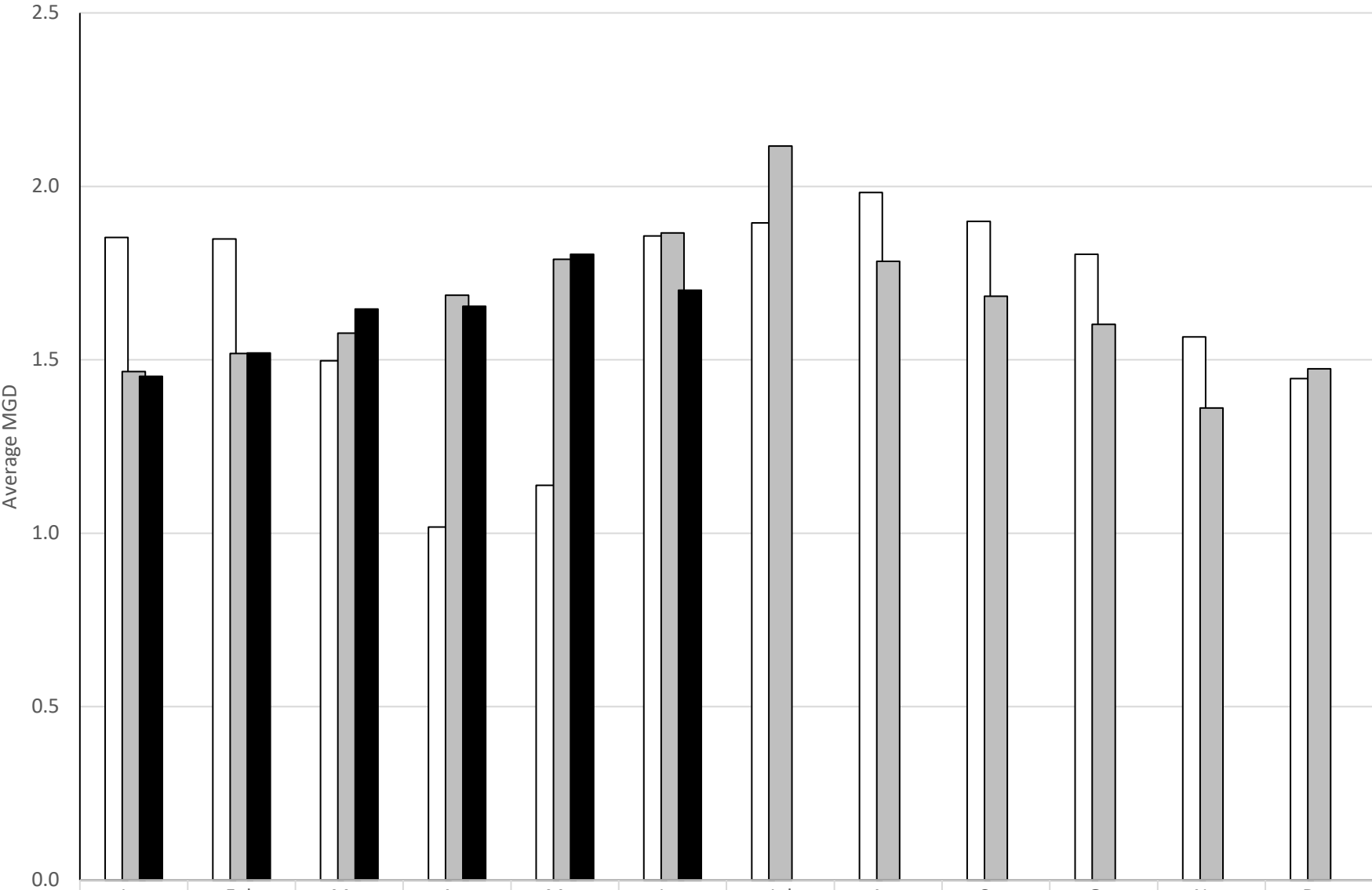


City of North Las Vegas Wastewater Flows



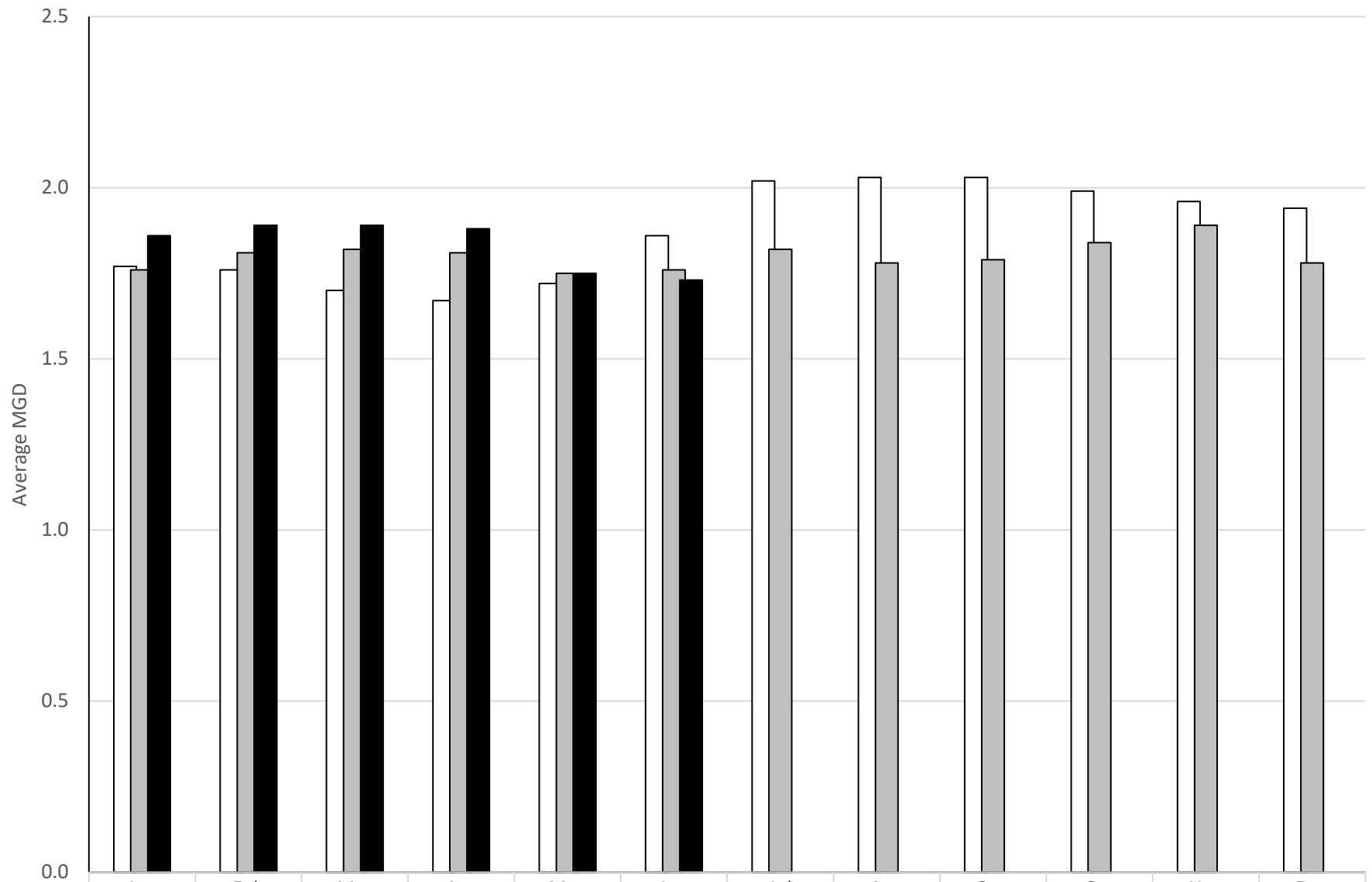
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
□ 2020	17.58	17.68	17.47	16.84	17.26	18.18	18.74	18.86	18.65	18.46	18.19	17.87
■ 2021	17.84	17.73	17.87	17.98	17.72	18.27	18.69	18.76	18.62	18.17	18.17	18.12
■ 2022	18.00	17.96	18.08	17.71	17.98	18.11						

Laughlin Wastewater Flows



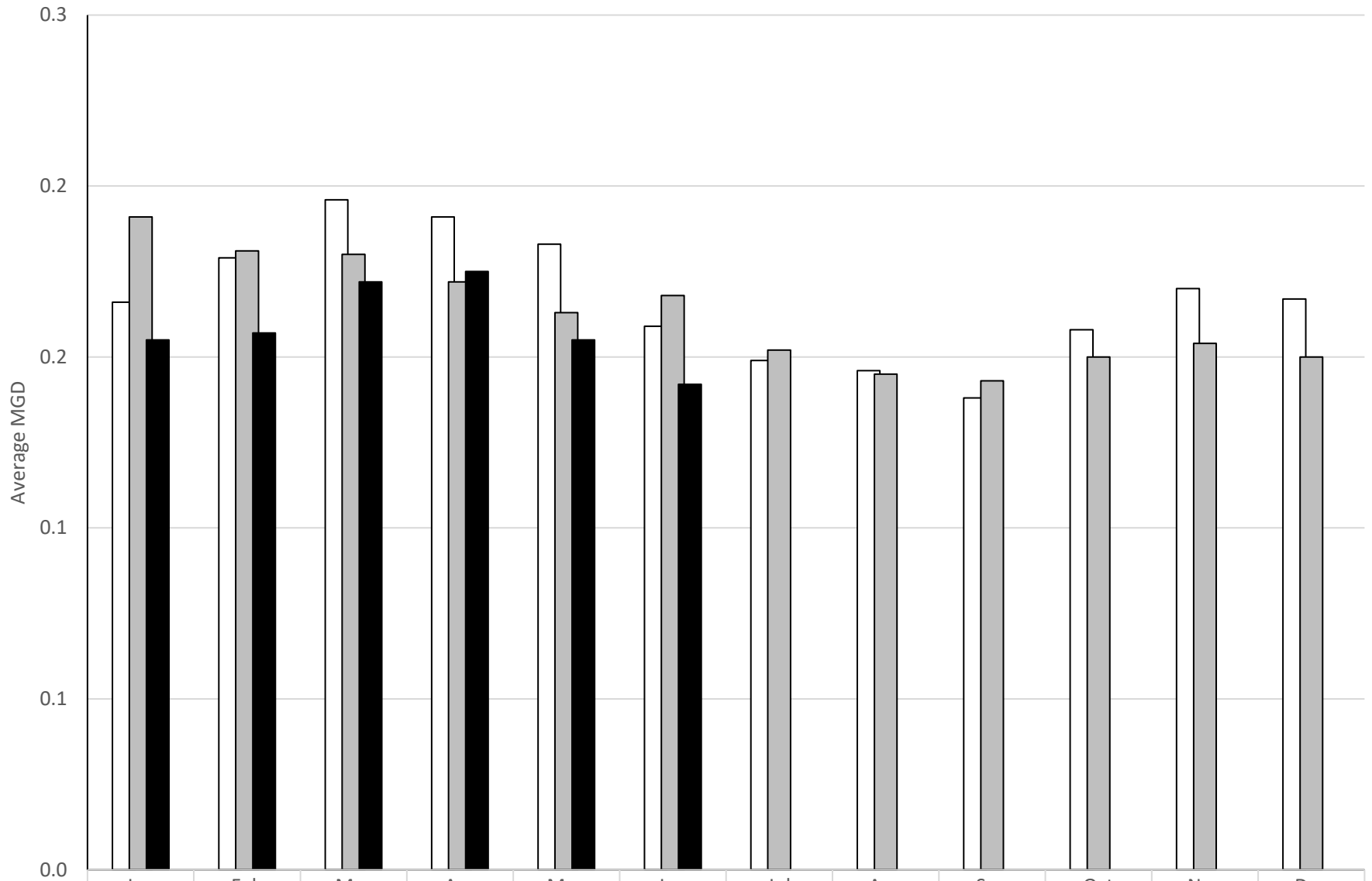
□ 2020	1.85	1.85	1.50	1.02	1.14	1.86	1.90	1.98	1.90	1.80	1.57	1.45
■ 2021	1.47	1.52	1.58	1.69	1.79	1.87	2.12	1.78	1.68	1.60	1.36	1.47
■ 2022	1.45	1.52	1.65	1.65	1.80	1.70						

City of Mesquite Wastewater Flows



□ 2020	1.77	1.76	1.70	1.67	1.72	1.86	2.02	2.03	2.03	1.99	1.96	1.94
■ 2021	1.76	1.81	1.82	1.81	1.75	1.76	1.82	1.78	1.79	1.84	1.89	1.78
■ 2022	1.86	1.89	1.89	1.88	1.75	1.73						

Moapa Wastewater Flows

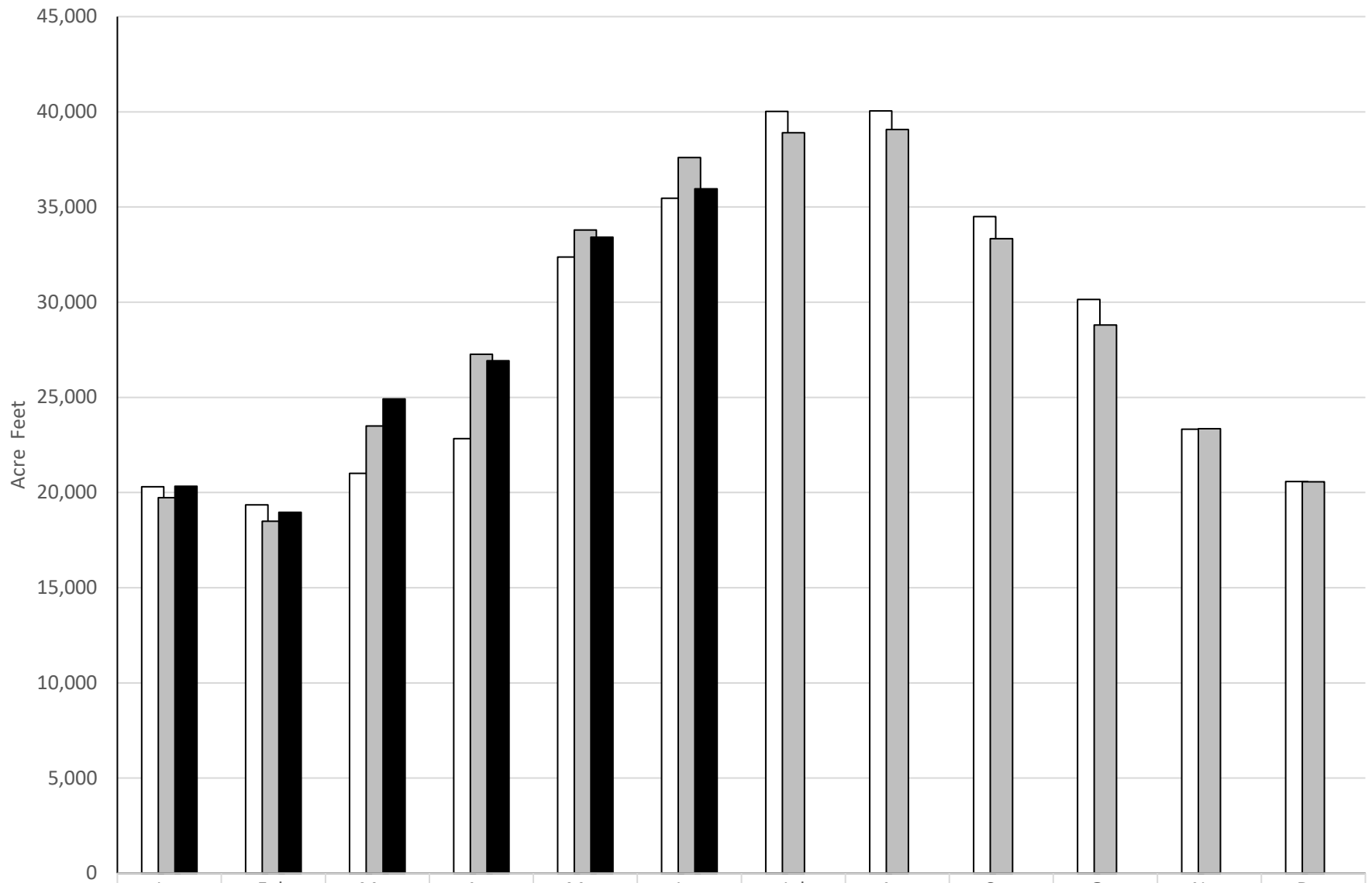


□ 2020	0.166	0.179	0.196	0.191	0.183	0.159	0.149	0.146	0.138	0.158	0.170	0.167
■ 2021	0.191	0.181	0.180	0.172	0.163	0.168	0.152	0.145	0.143	0.150	0.154	0.150
■ 2022	0.155	0.157	0.172	0.175	0.155	0.142						

Water Production

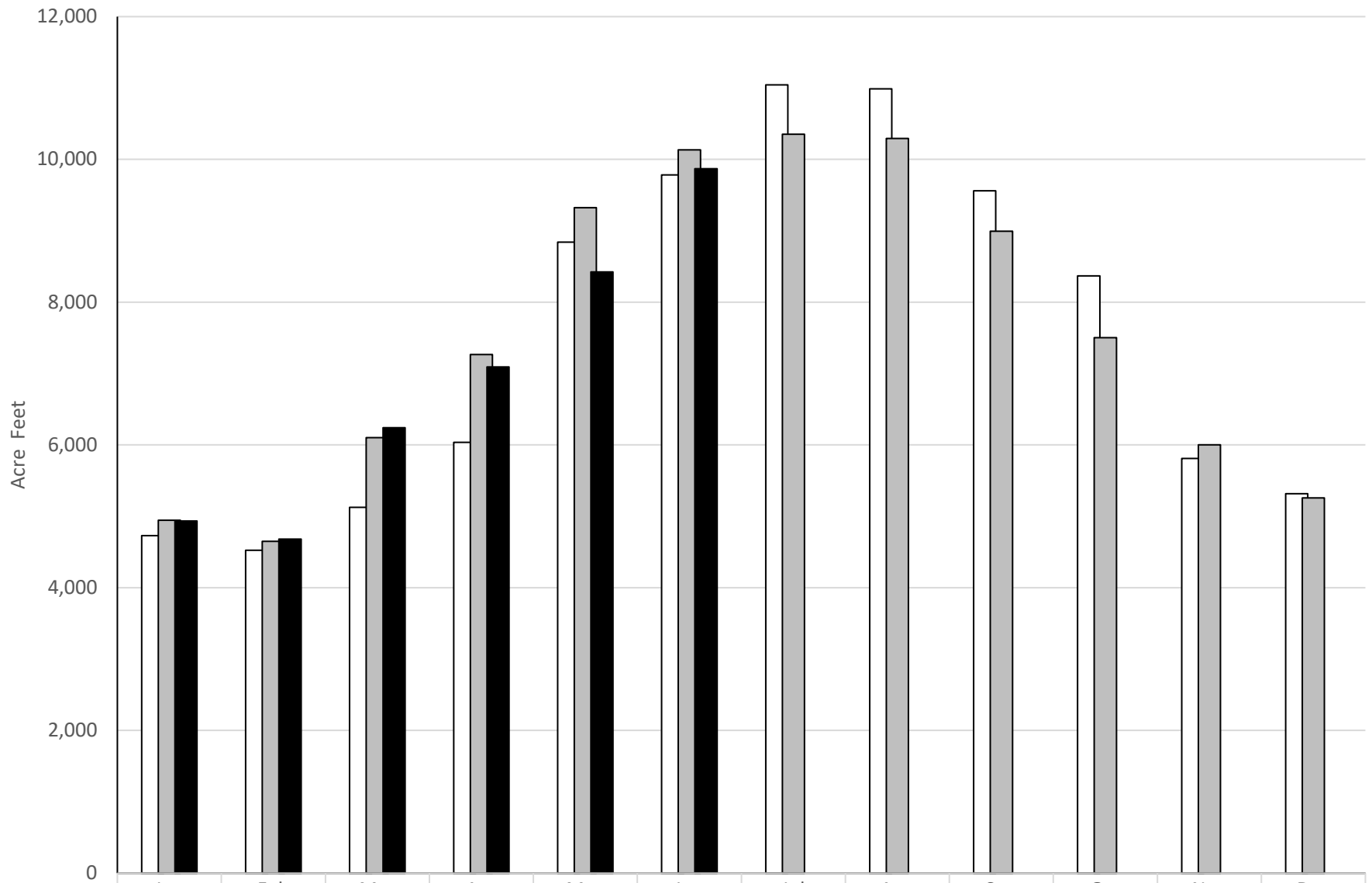
2020 through 2022

Las Vegas Valley Water District Water Production



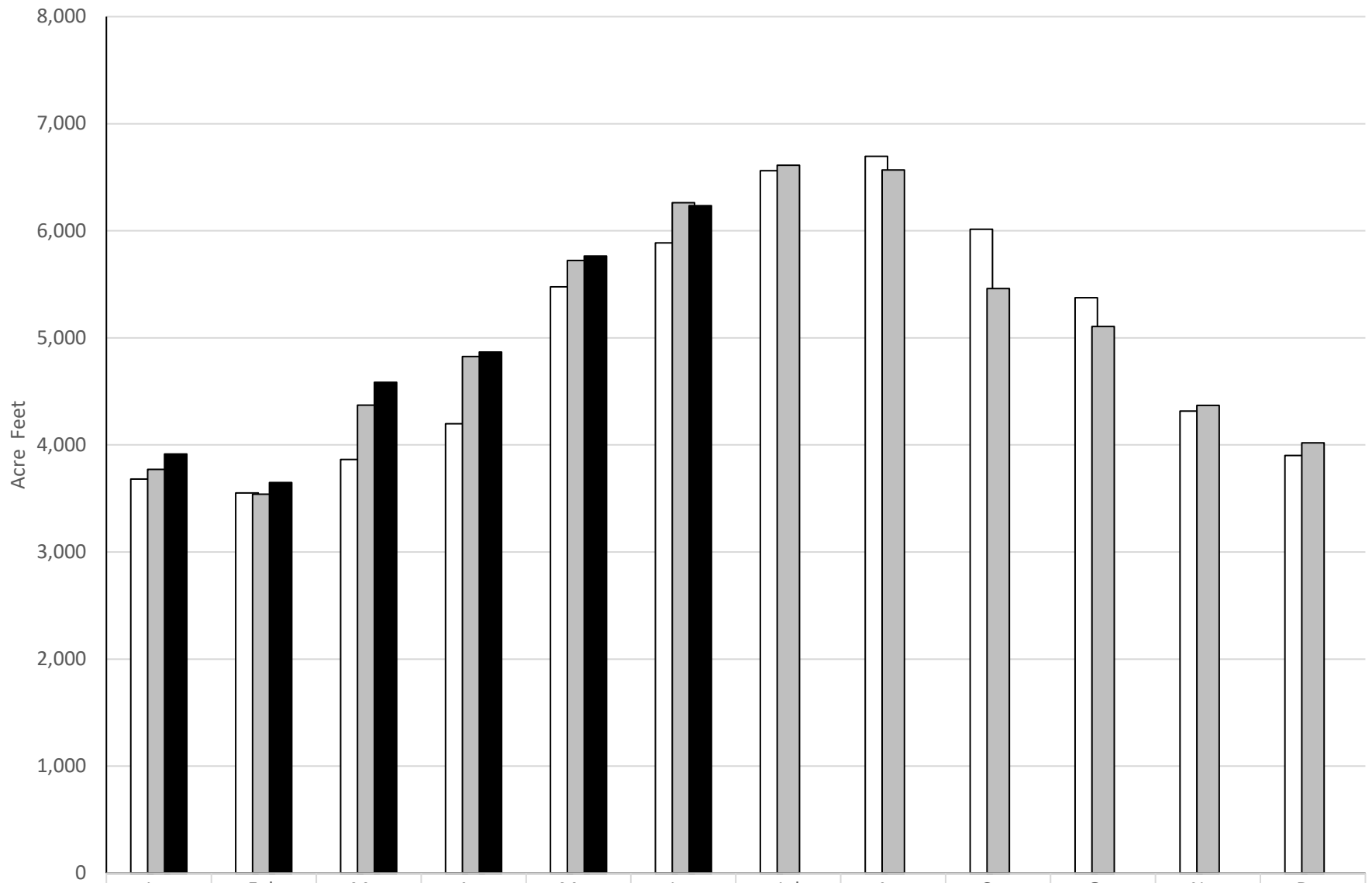
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	20,297	19,348	21,008	22,827	32,374	35,455	40,024	40,043	34,491	30,141	23,331	20,579
2021	19,734	18,489	23,496	27,257	33,792	37,597	38,902	39,072	33,330	28,794	23,359	20,561
2022	20,327	18,957	24,921	26,926	33,411	35,956						

City of Henderson Water Production



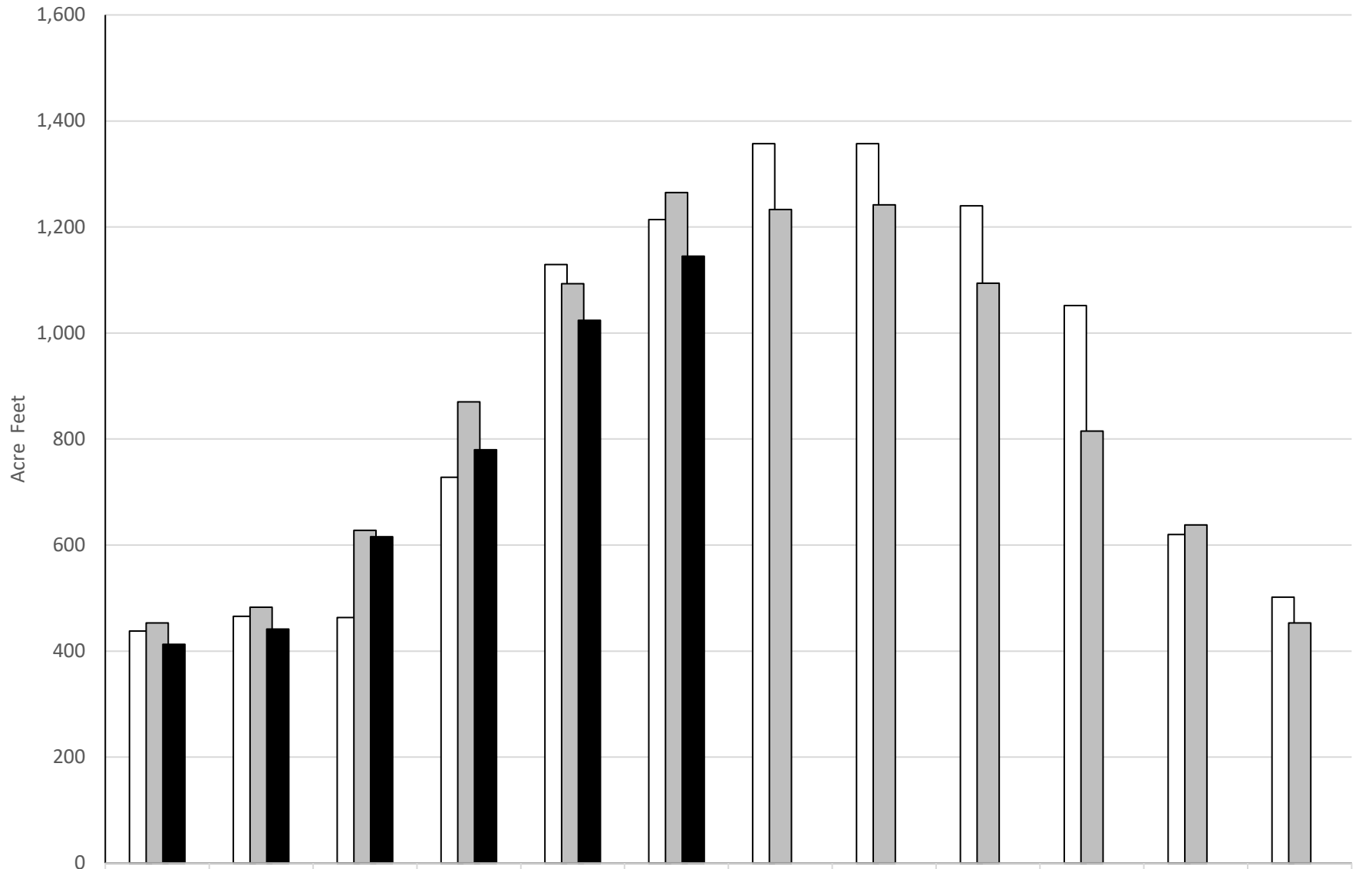
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	4,728	4,525	5,125	6,037	8,839	9,782	11,045	10,990	9,562	8,368	5,812	5,318
2021	4,946	4,650	6,102	7,266	9,325	10,133	10,352	10,295	8,994	7,501	6,003	5,256
2022	4,935	4,680	6,240	7,092	8,424	9,869						

City of North Las Vegas Water Production



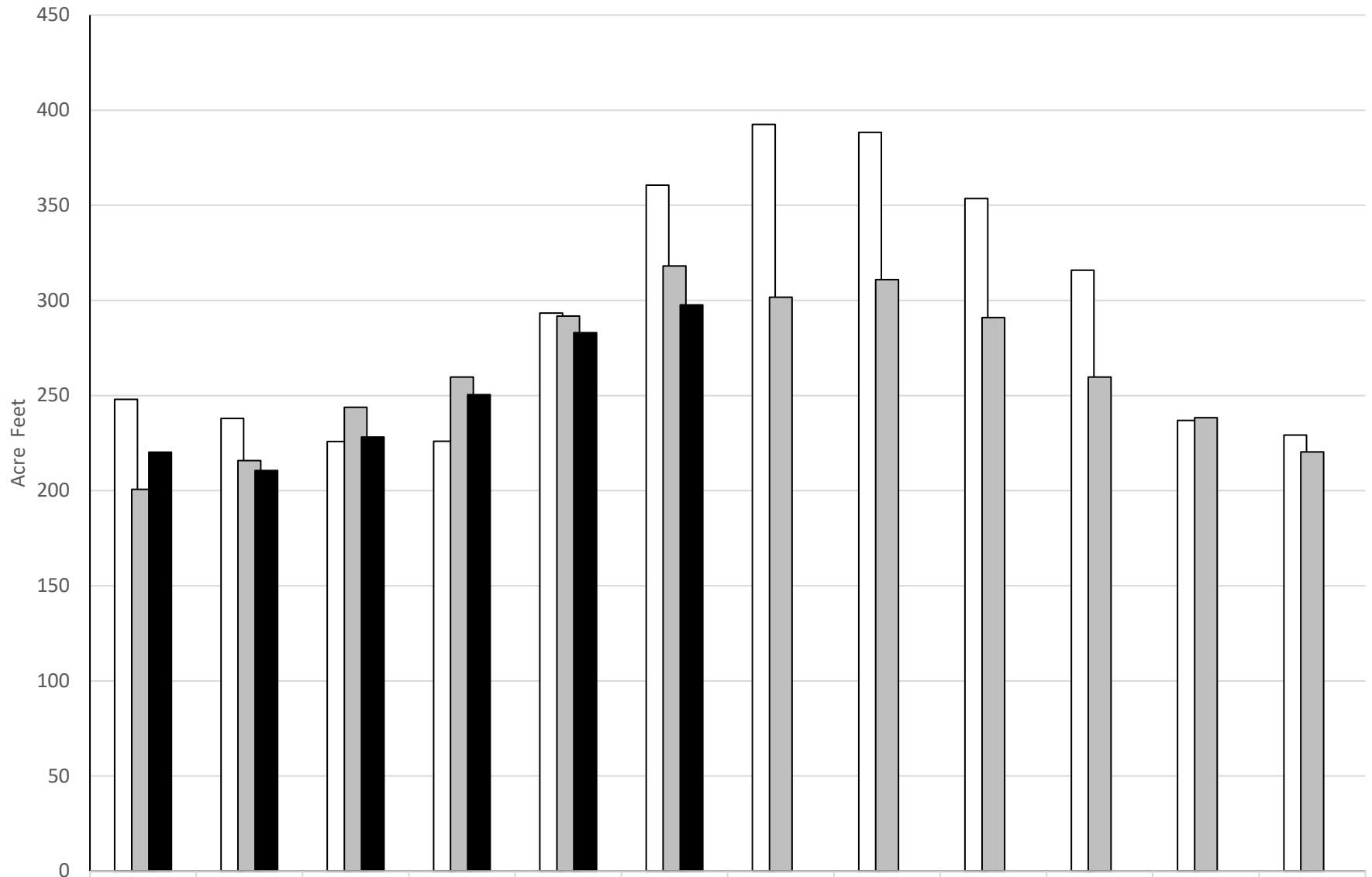
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
□ 2020	3,682	3,551	3,865	4,198	5,478	5,887	6,562	6,695	6,015	5,375	4,316	3,902
■ 2021	3,773	3,539	4,371	4,825	5,721	6,262	6,612	6,569	5,460	5,107	4,370	4,019
■ 2022	3,915	3,649	4,586	4,867	5,764	6,234						

Boulder City Water Production



2020	438	466	463	728	1,129	1,214	1,357	1,357	1,240	1,052	620	502
2021	453	483	628	870	1,093	1,265	1,233	1,242	1,094	815	638	453
2022	413	442	616	780	1,024	1,145						

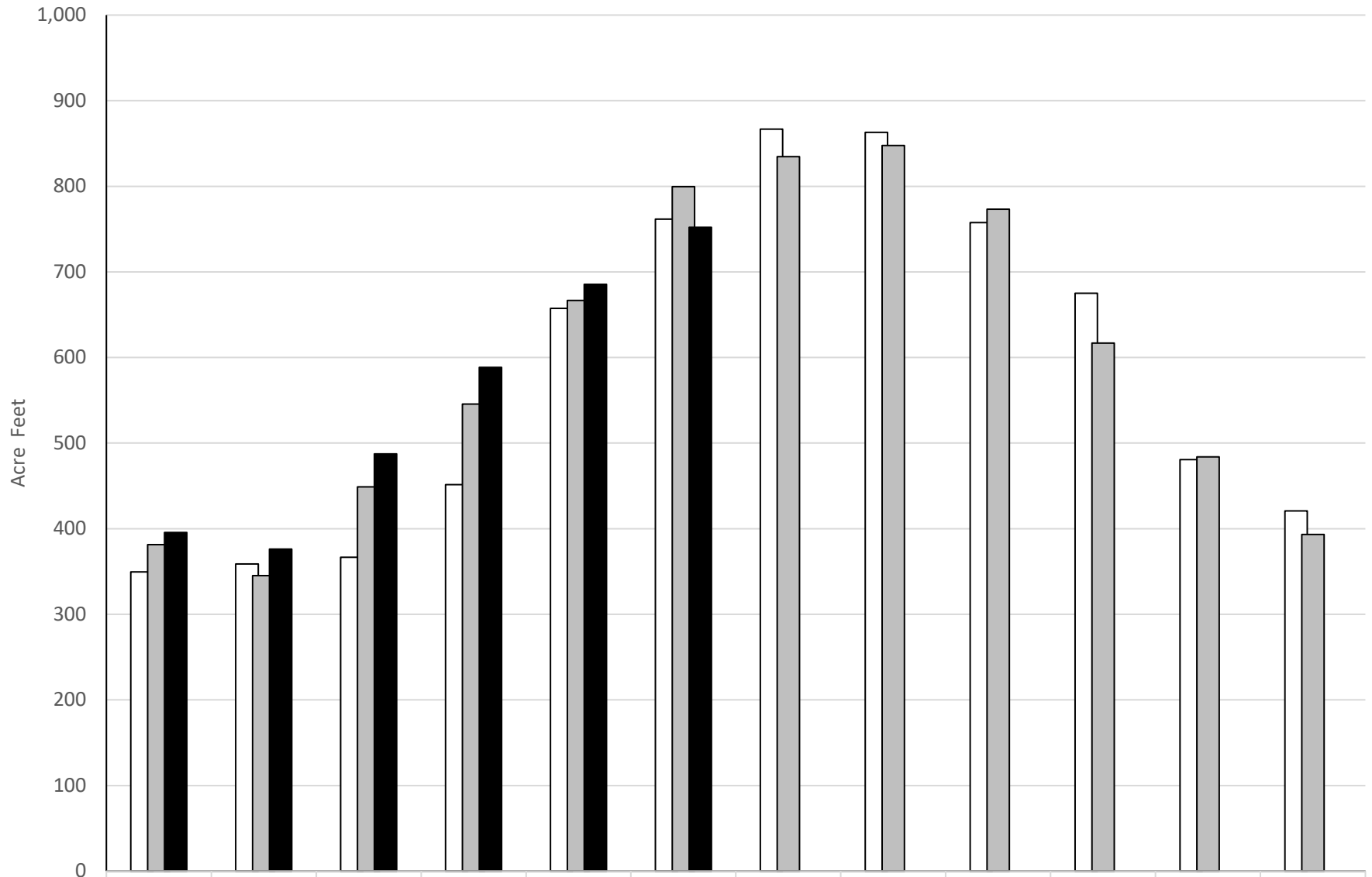
Big Bend Water District Water Production



2020
 2021
 2022

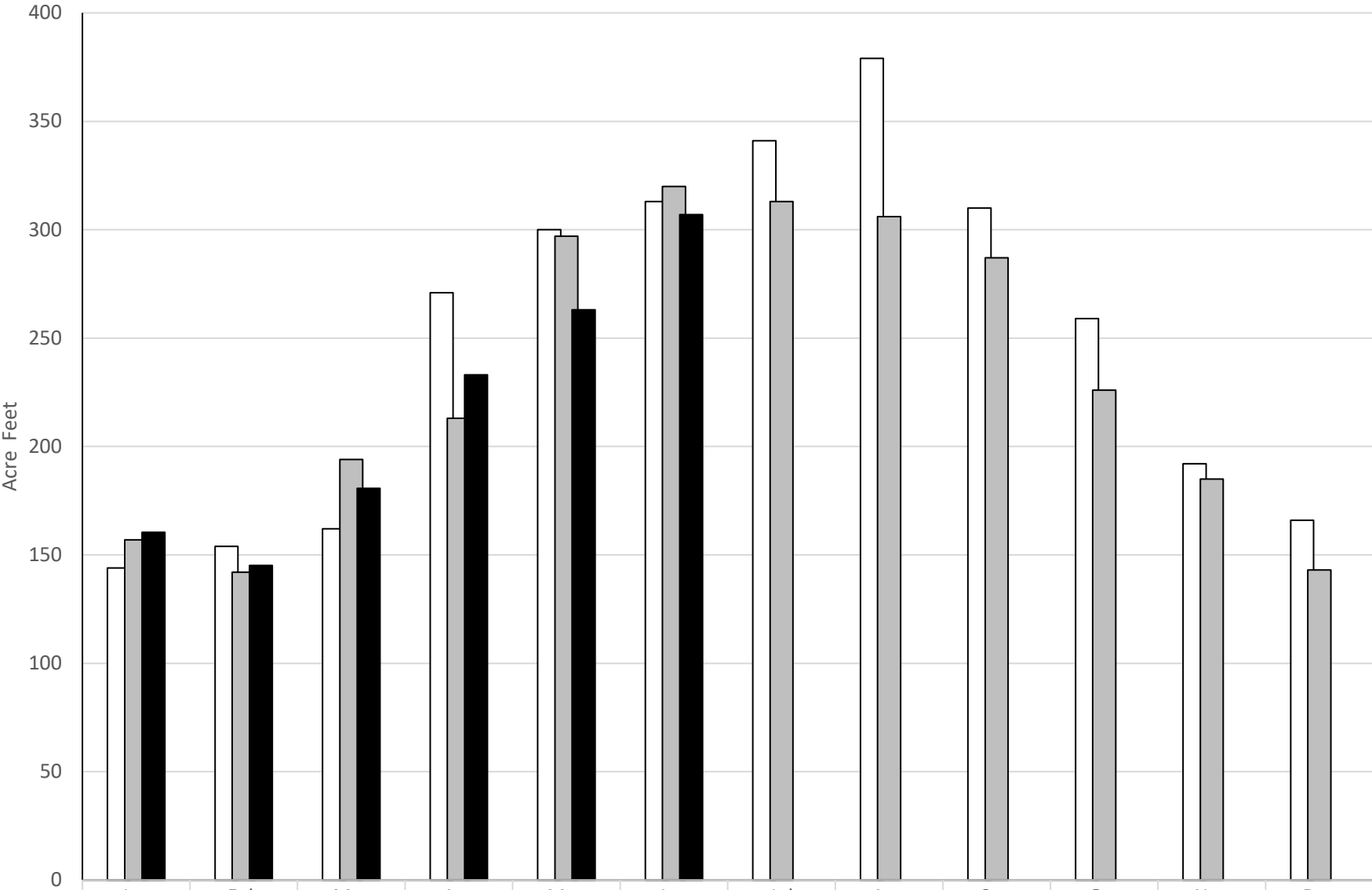
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
248	238	226	226	293	361	393	388	354	316	237	229
201	216	244	260	292	318	302	311	291	260	238	220
220	211	228	251	283	298						

Virgin Valley Water District Water Production



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	350	359	367	451	657	762	867	863	758	675	481	421
2021	381	345	449	546	667	800	835	848	773	617	484	393
2022	395	376	488	588	686	752						

Moapa Valley Water District Water Production



2020
 2021
 2022

2020	144	154	162	271	300	313	341	379	310	259	192	166
2021	157	142	194	213	297	320	313	306	287	226	185	143
2022	160	145	181	233	263	307						

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	106.28	40.09	41.84	42.63	16.84	17.98	17.71	23.96	25.83	25.42	1.20	1.20	1.11
May	92.00	105.77	105.74	41.13	42.14	42.78	17.26	17.72	17.98	24.65	25.45	25.50	1.26	1.27	1.13
Jun	98.74	109.55	106.70	43.20	42.58	42.16	18.18	18.27	18.11	24.51	26.46	24.55	1.20	1.25	1.13
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	0.043	0.015	0.016	0.015	0.191	0.172	0.175	1.02	1.69	1.65	1.67	1.81	1.88	0.108	0.082	0.095
May	0.030	0.340	0.044	0.023	0.016	0.010	0.183	0.163	0.155	1.14	1.79	1.80	1.72	1.75	1.75	0.125	0.082	0.098
Jun	0.032	0.028	0.042	0.015	0.014	0.009	0.159	0.168	0.142	1.86	1.87	1.70	1.86	1.76	1.73	0.121	0.081	0.101
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	1.11	0.17	33.3	5.1
May	1.13	0.15	35.00	4.65
Jun	1.13	0.23	33.90	6.90
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				
Annual	1.13	0.16	204.80	32.48

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	106.28	2.06	0.00	2.06	104.22	42.63	0.49	0.00	0.00	0.49	45.03	25.42	6.61	16.13	17.71	0.80	16.91
May	105.74	2.20	0.00	2.20	103.54	42.78	0.69	0.00	0.00	0.69	46.03	25.50	7.89	15.16	17.98	0.80	17.18
Jun	106.70	2.60	0.00	2.60	104.10	42.16	0.94	0.00	0.00	0.94	47.03	24.55	8.25	16.21	18.11	0.90	17.21
Jul																	
Aug																	
Sep																	
Oct																	
Nov																	
Dec																	
Average	104.18	1.29	0.00	1.29	102.89	42.28	0.44	0.00	0.00	0.44	45.02	25.06	6.76	16.35	17.97	0.55	17.42
YTD total	625.10	7.74	0.00	7.74	617.36	253.68	2.65	0.00	0.00	2.65	270.09	150.33	40.53	98.12	107.84	3.30	104.54

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	192.04	9.96	182.29	1.65	0.23	1.42	16,349.68
May	192.00	11.58	181.91	1.80	0.19	1.62	16,333.31
Jun	191.52	12.69	184.55	1.70	0.26	1.44	16,553.13
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
Annual Avg	189.49	9.04	181.68	1.63	0.20	1.43	98883.85

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	4,592	22,334	26,926	6,104	988	7,092	0	4,867	4,867	264	516	780	7.62	83	91	4,600	34,168
May	5,760	27,651	33,411	7,876	548	8,424	0	5,764	5,764	377	647	1,024	13.43	76	89	5,773	42,391
Jun	5,716	30,240	35,956	9,244	625	9,869	0	6,234	6,234	436	709	1,145	7.98	85	85	5,716	46,948
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
YTD	16,075	144,425	160,500	36,145	5,095	41,240	0	29,014	29,014	1,485	2,934	4,419	43	453	495	16,118	214,455

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		
	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	160
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	145
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	181
Apr	22,827	27,257	26,926	6,037	7,266	7,092	4,198	4,825	4,867	728	870	780	226	260	251	451	546	588	271	213	233
May	32,374	33,792	33,411	8,839	9,325	8,424	5,478	5,721	5,764	1,129	1,093	1,024	293	292	283	657	667	686	300	297	263
Jun	35,455	37,597	35,956	9,782	10,133	9,869	5,887	6,262	6,234	1,214	1,265	1,145	361	318	298	762	800	752	313	320	307
Jul	40,024	38,902		11,045	10,352		6,562	6,612		1,357	1,233		393	302		867	835		341	313	
Aug	40,043	39,072		10,990	10,295		6,695	6,569		1,357	1,242		388	311		863	848		379	306	
Sep	34,491	33,330		9,562	8,994		6,015	5,460		1,240	1,094		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	160,500	90,131	90,823	41,240	59,525	60,627	29,014	10,567	10,266	4,419	3,508	3,152	1,490	7,009	7,137	3,285	2,991	2,783	1289

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 **		
	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	0.51	0.37	0.33	0.33	0.37	0.34	0.34	0.15	0.13	0.13	0.59	0.60	0.61	0.47	0.44	0.45
May	0.39	0.42	0.42	0.27	0.26	0.29	0.30	0.29	0.30	0.11	0.11	0.10	0.61	0.58	0.61	0.35	0.37	0.38
Jun	0.37	0.37	0.38	0.23	0.24	0.23	0.28	0.27	0.27	0.09	0.09	0.09	0.58	0.54	0.53	0.33	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	0.51	0.31	0.32	0.34	0.34	0.34	0.34	0.13	0.13	0.14	0.62	0.59	0.61	0.42	0.43	0.45

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	26,926	13,710	7,092	2,340	4,867	1,631	780	102	251	152	39,916	17,935
May	33,411	14,130	8,424	2,426	5,764	1,711	1,024	107	283	172	48,906	18,545
Jun	35,956	13,705	9,869	2,260	6,234	1,667	1,145	104	298	157	53,502	17,893
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	160,500	81,363	41,240	13,922	29,014	9,984	4,419	629	1,490	906	236,663	106,803

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							
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