

**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 14, 2024**

| MEMBERS                                                   | Present | Absent |
|-----------------------------------------------------------|---------|--------|
| <b>Clark County (2 Members)</b>                           |         |        |
| John Solvie (Member)                                      | X       |        |
| Joseph Leedy (Member)                                     | X       |        |
| Sara Gedo (Alternate)                                     | X       |        |
| Daylin Sigler (Alternate)                                 | X       |        |
| <b>City of Las Vegas (3 Members)</b>                      |         |        |
| John Bettencourt (Member)                                 | X       |        |
| Charles Trushel (Member)                                  | X       |        |
| Dan Combs (Member)                                        | X       |        |
| Dawn Boyer (Alternate)                                    | X       |        |
| Tom Hornsby (Alternate)                                   | X       |        |
| Chris Marinch (Alternate)                                 | X       |        |
| <b>City of Henderson (2 Members)</b>                      |         |        |
| Brian Carlson (Member) VICE-CHAIR                         |         | X      |
| Adrian Edwards (Member)                                   |         | X      |
| Bryan Mortensen (Alternate)                               |         | X      |
| James Koloskie (Alternate)                                | X       |        |
| <b>City of North Las Vegas (1 Member)</b>                 |         |        |
| Alan Wolfley (Member)                                     | X       |        |
| Bryce Burrell (Alternate)                                 |         | X      |
| <b>Clark County Water Reclamation District (1 Member)</b> |         |        |
| Daniel Fischer (Member) CHAIR                             | X       |        |
| Richard Donahue (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>                            |         |        |
| Joseph Stubitz (Member)                                   |         | X      |
| Jim Keane (Alternate)                                     | X       |        |

### **Guests Present**

|                  |                   |
|------------------|-------------------|
| Elise Nguyen     | CCWQ              |
| Anita Marquez    | SNWA              |
| Elaine Ferraro   | SNWA              |
| JD Dotchin       | NDEP              |
| Michael Arrasate | 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 MAY 1, 2024**

Charles Trushel moved, and John Bettencourt seconded to accept the May 1, 2024 minutes. The motion was unanimously approved.

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

Joe Leedy moved, and Sara Gedo seconded to approve the agenda. The motion was unanimously approved.

#### **5. PRESENTATION: THE COST OF STABILIZATION: NEW COMPLIANCE, BELOW FULL POOL, STRUCTURE FAILURES, AND FINANCIAL UPDATES ON THE LOWER WASH PROGRAM**

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

The group discussed the flow report for the second quarter of 2024:

- Flows from the Water Reclamation District and North Las Vegas are up compared to previous years, while flows at the City of Las Vegas is down. Henderson's flows appear to be stable. Meanwhile, water deliveries are down despite record setting summer temperatures, this is suspected to be due, in part, to the increase in residential water rates.

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

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

- N/A

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

- On-going projects, including the Horizon lateral project and treatment plant updates, are progressing nicely.
- By November 2024, five weather buoys will be installed Lakes Mead & 6 buoys on Lake Mojave. These instruments will collect real weather data on the lakes. The National Park Service & Weather Service will use this data for boater advisories.
- National Park Service had an internal meeting about designating inner Las Vegas Bay as non-contact recreation.

- Quagga mussels are still present at Lake Mead, but they are not having a significant impact on the lake.
- Routine water quality sampling to support long-term monitoring along the Las Vegas Wash is progressing as normal.
- Due to grant funding, the Water Smart Landscapes rebate was increased to \$5 per square foot of grass removed.

#### **C. Boulder City**

- Project to replace the Headworks screen is underway. Reached out to a local contractor to provide an estimate to install the screen.
- Recently completed an odor control project at one of the lift stations. The new odor control is called a Peacemaker™. A second unit may be installed in another location where there are odor issues.
- SNWA has received the proposal to get the City's effluent back to Lake Mead and is currently conducting a feasibility study. A report is expected to be presented to the City Council by next spring.
- The Public Works Director position was filled.

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

- N/A

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

- N/A

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

- O&M Updates:
  - Permit season. Trying to maintain phosphorus and ammonia levels.
  - Some clarifier basins have been taken offline for repairs.
- CIP Updates:
  - Filtration building rehabilitation project is nearly 90% complete.
  - Phase I of the process air blower replacement project is underway. This phase will install one megawatt turbo blower in the blower building.
  - The BNR clarifier replacement project is about to begin. Contractors are performing inspections and taking final measurements before clarifier mechanisms are ordered.
  - The existing on-site fueling station is going to be demolished. A new fueling station, equipped with an above ground fuel tank, will be built in its place.
  - Projects that are in design:
    - Dewatering building rehabilitation project is about 90% complete.
    - Headworks rehabilitation project is about 10% complete.
    - Lab expansion project is about 2%.
- Staffing Updates:
  - Interviews for two new chemists will take place soon.
  - A new quality assurance officer recently started working at the lab.

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

- Collection System Updates:
  - Whitney and Lincoln Lift Station improvement projects are being impacted by rising construction costs.
  - Preparations for the 2024 Las Vegas Grand Prix Race are impacting the Collection System. Prior to the 2023 Race, the race circuit paved over 96

manholes, which have since been brought to grade but need corrosion protection. In addition, five manholes within the race circuit are scheduled to be rehabilitated by Formula 1, as outline in a contract with the Water Reclamation District.

- The Flamingo Plant Updates:
  - Plant expansion is on-going:
    - Construction of new headworks, primary clarifiers, and grit removers is progressing well. The new facilities are scheduled to be up and running within two years.
    - Construction of three new secondary trains is on-going.
    - Construction of the sludge thickeners is on-going.
- The Reclamation District is the only entity in the Valley that collects septage and chemical toilet waste. Trying to modify the program to make it more financially self-sufficient.

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

- Phase III of the membrane replacement project is going to start in September.
- A couple of vacant operator positions will be filled soon.
- A new lab technician is going to start next week.
- Sloan Channel repairs are going to begin soon. A new diversion structure will be built as part of the project.

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

- Phase 4 expansion project is on-going.
- Four new operators are being hired.
- Closely watching Phosphorus limits during the high summer temperatures.
- Membrane replacement at the Southwest Reclamation Facility is nearly complete. All eight membrane trains have been replaced within the past three years.

#### **J. Clark County**

- Updates to the 208 Area-Wide Water Quality Management Plan are expected to begin soon.
- Water Quality is in recruitment for another Water Quality Specialist and a Management Assistant.
- Coordination for the next Formula 1 race is underway.
- October will once again be declared Stormwater Pollution Awareness Month, and a grant-funded social media campaign will soon begin.

### **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**

Dan Fischer made a motion and John Bettencourt seconded to schedule the next meeting is scheduled for November 13, 2024 at 9:00 am. A meeting invite will be sent out.

### **11. ADJOURNMENT**

The meeting was adjourned at 10:22 am.

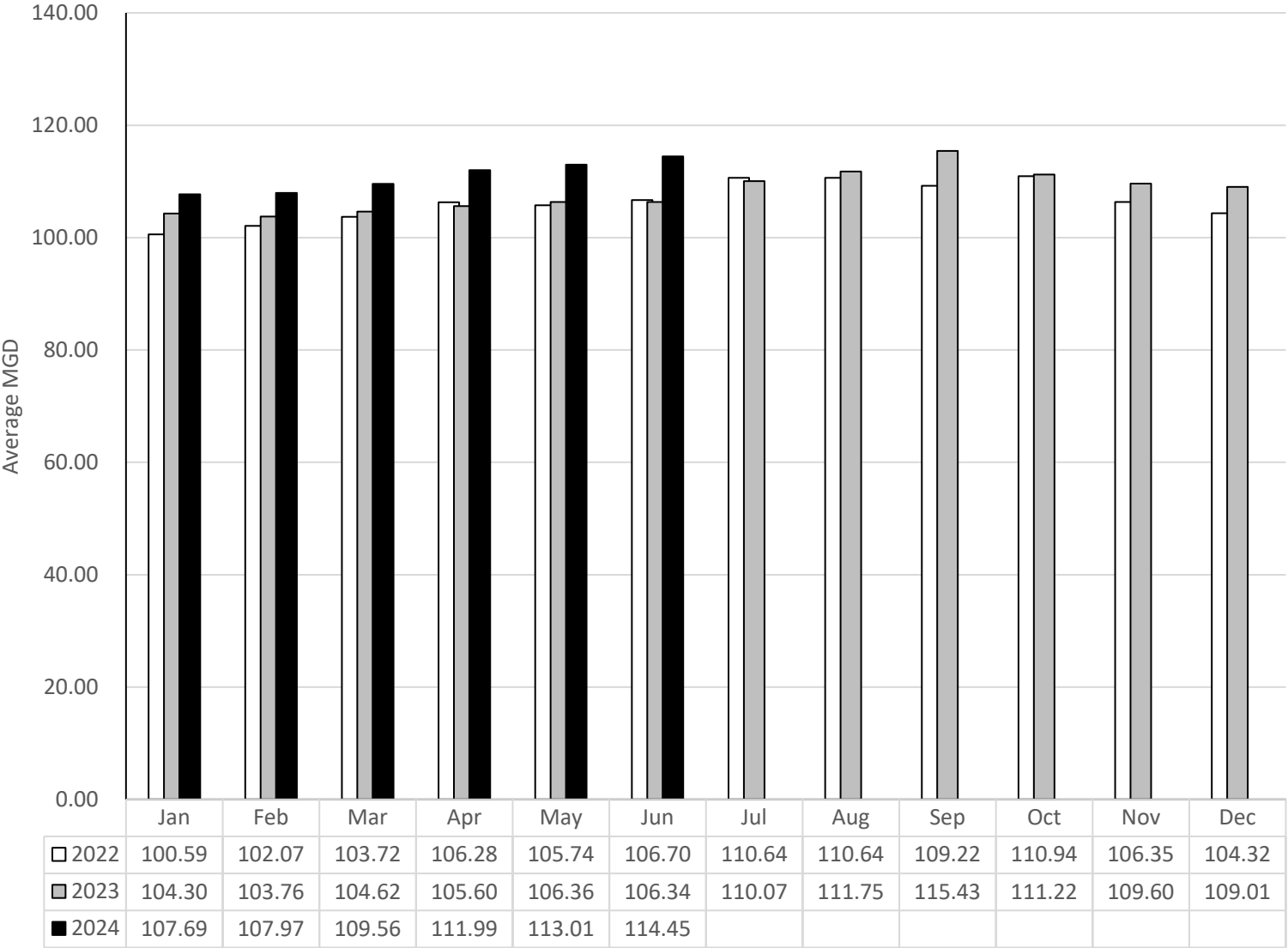
2024  
2<sup>nd</sup> Quarter Flow Report For  
Clark County Sewage And  
Wastewater Advisory  
Committee  
(SWAC)

July 12, 2024

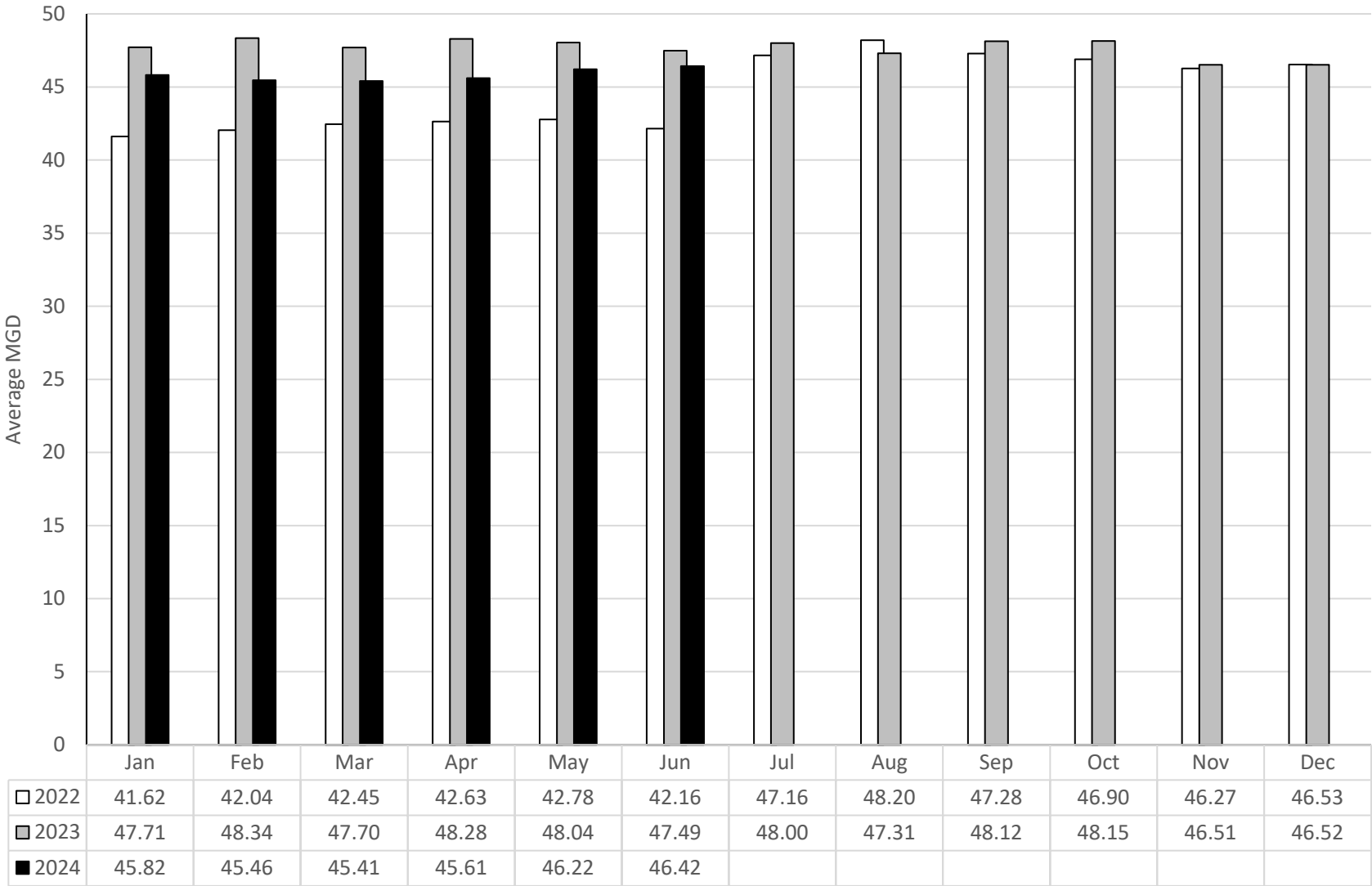
# Wastewater Flows

2022 through 2024

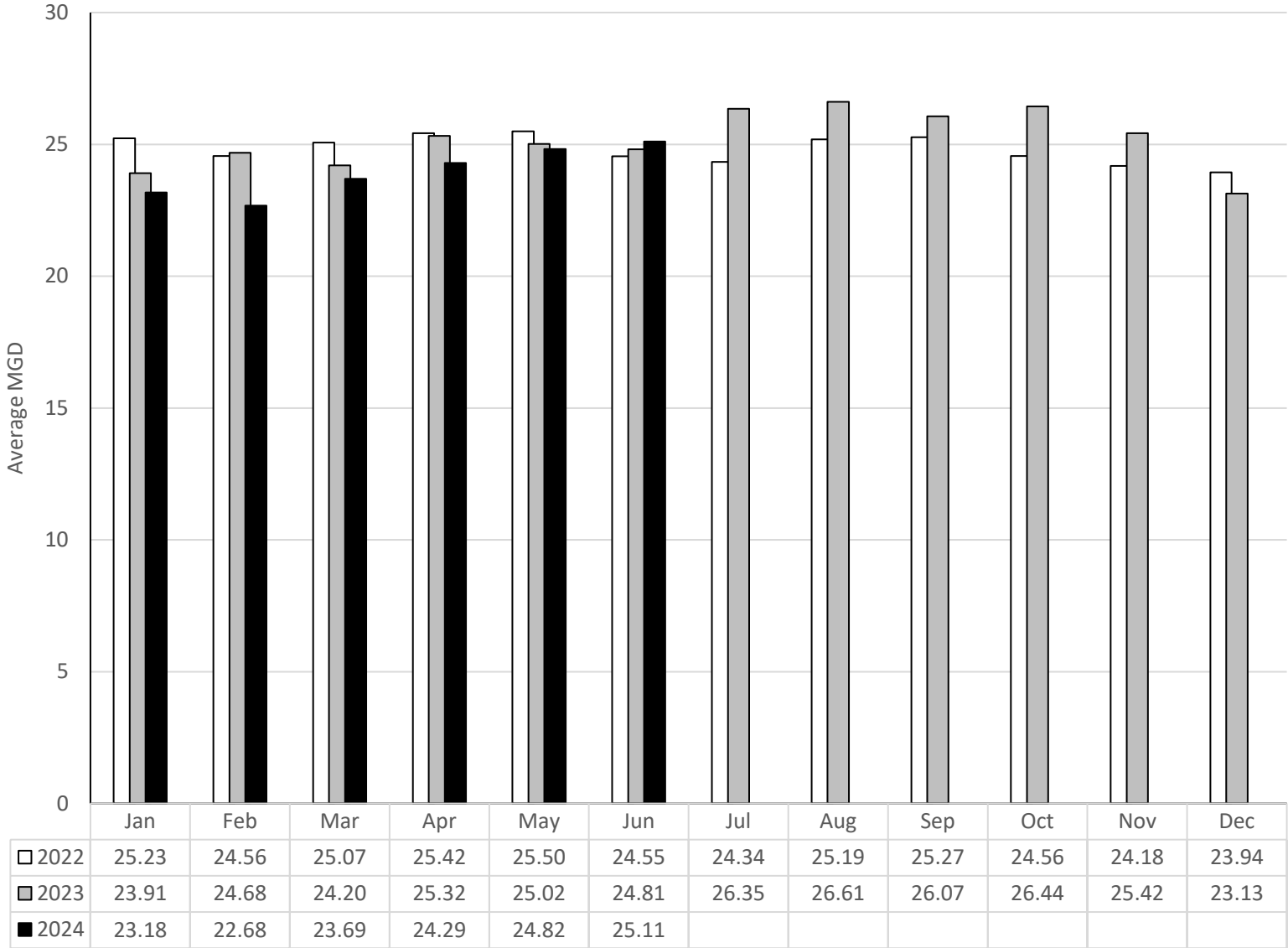
# Clark County Water Reclamation District Wastewater Flows



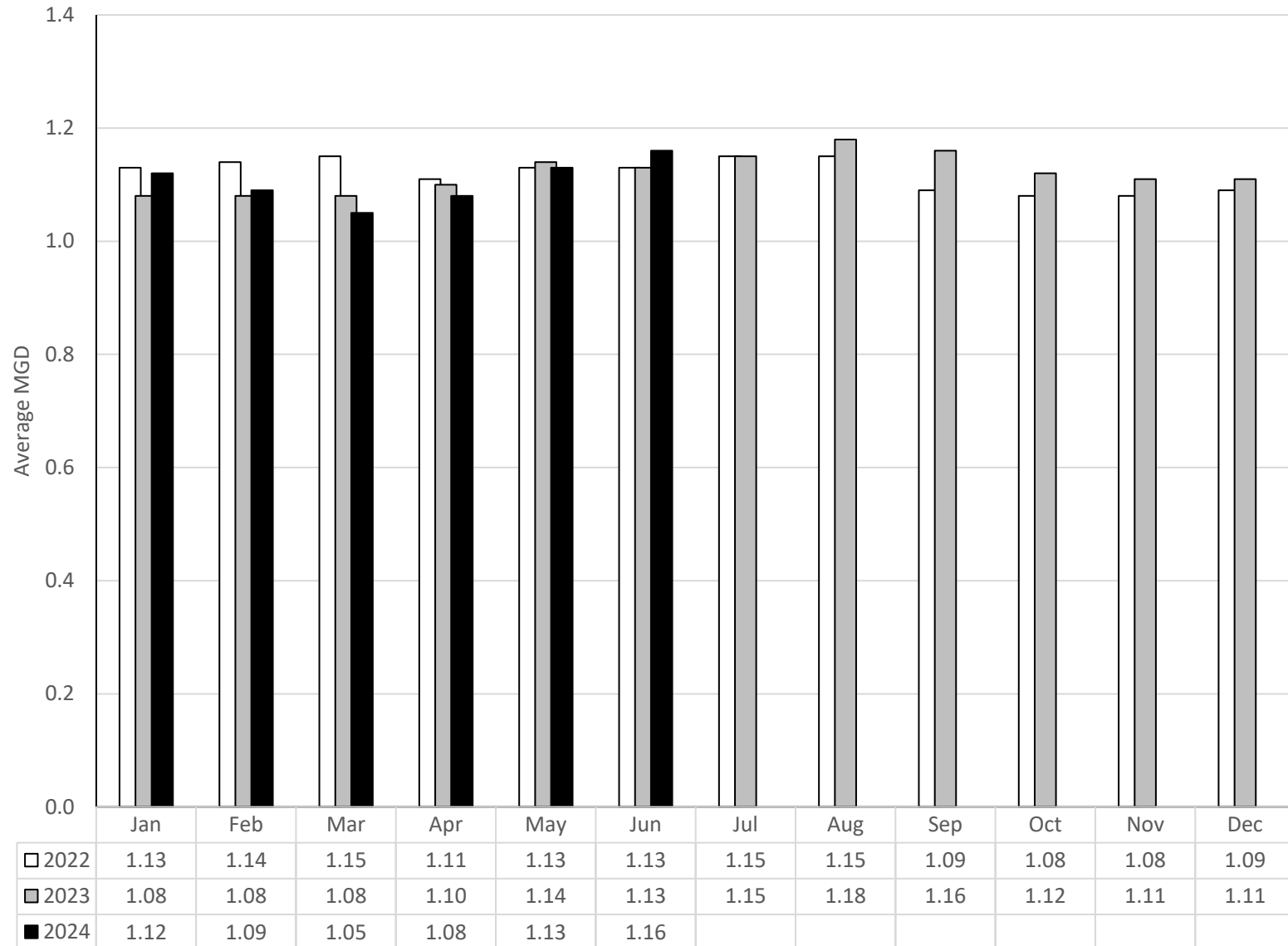
# City of Las Vegas Wastewater Flows



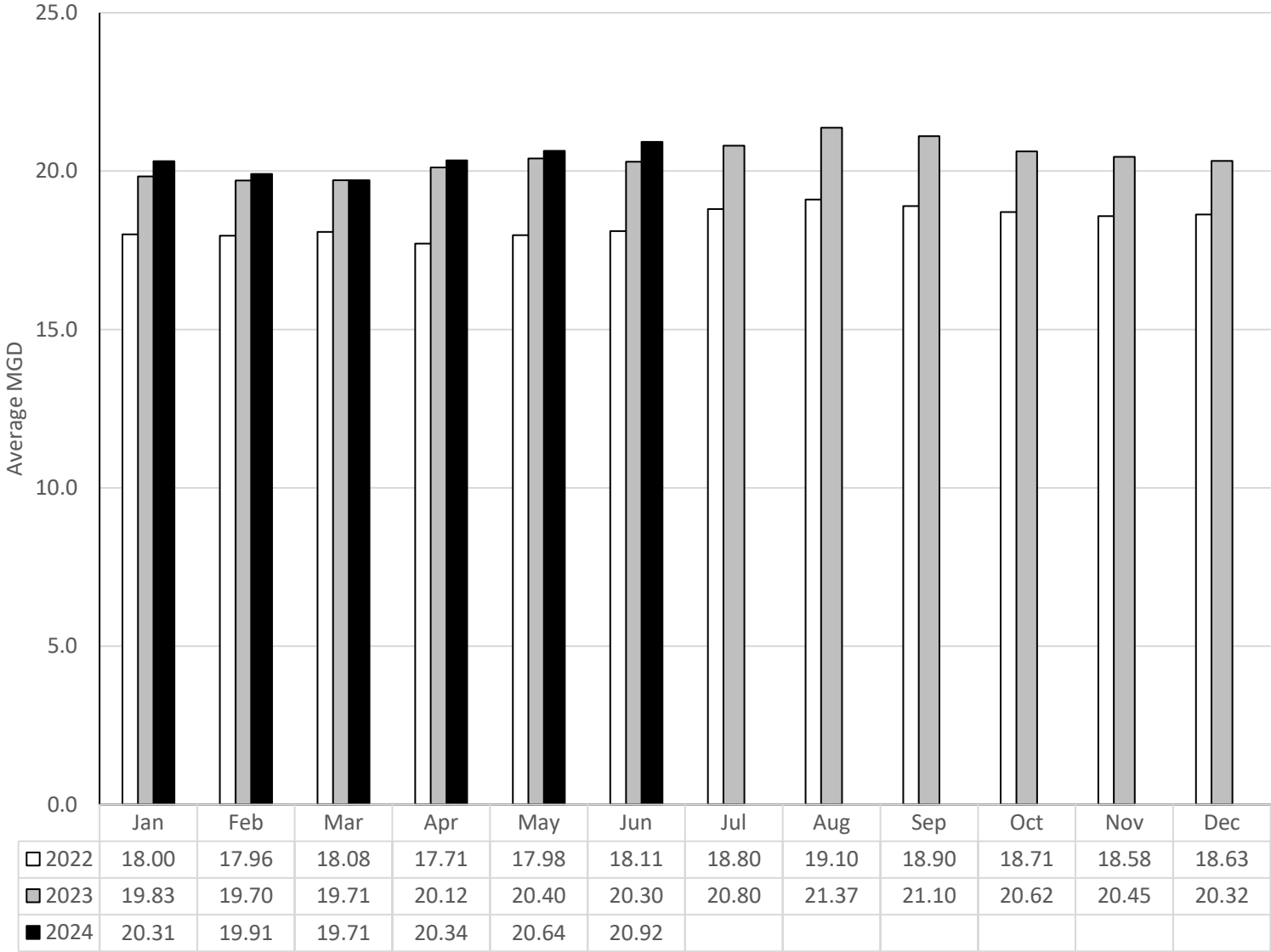
# City of Henderson Wastewater Flows



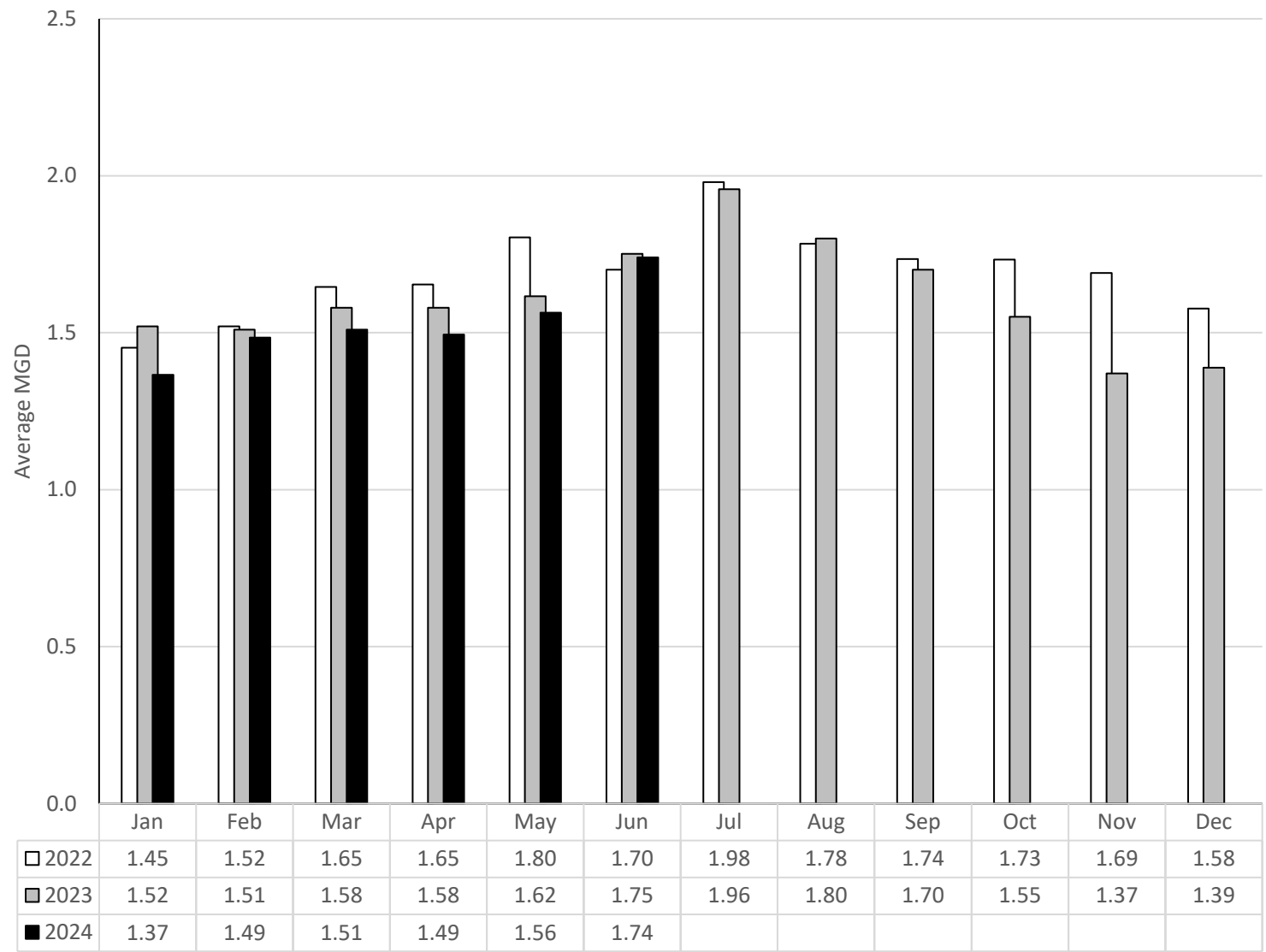
# Boulder City Wastewater Flows



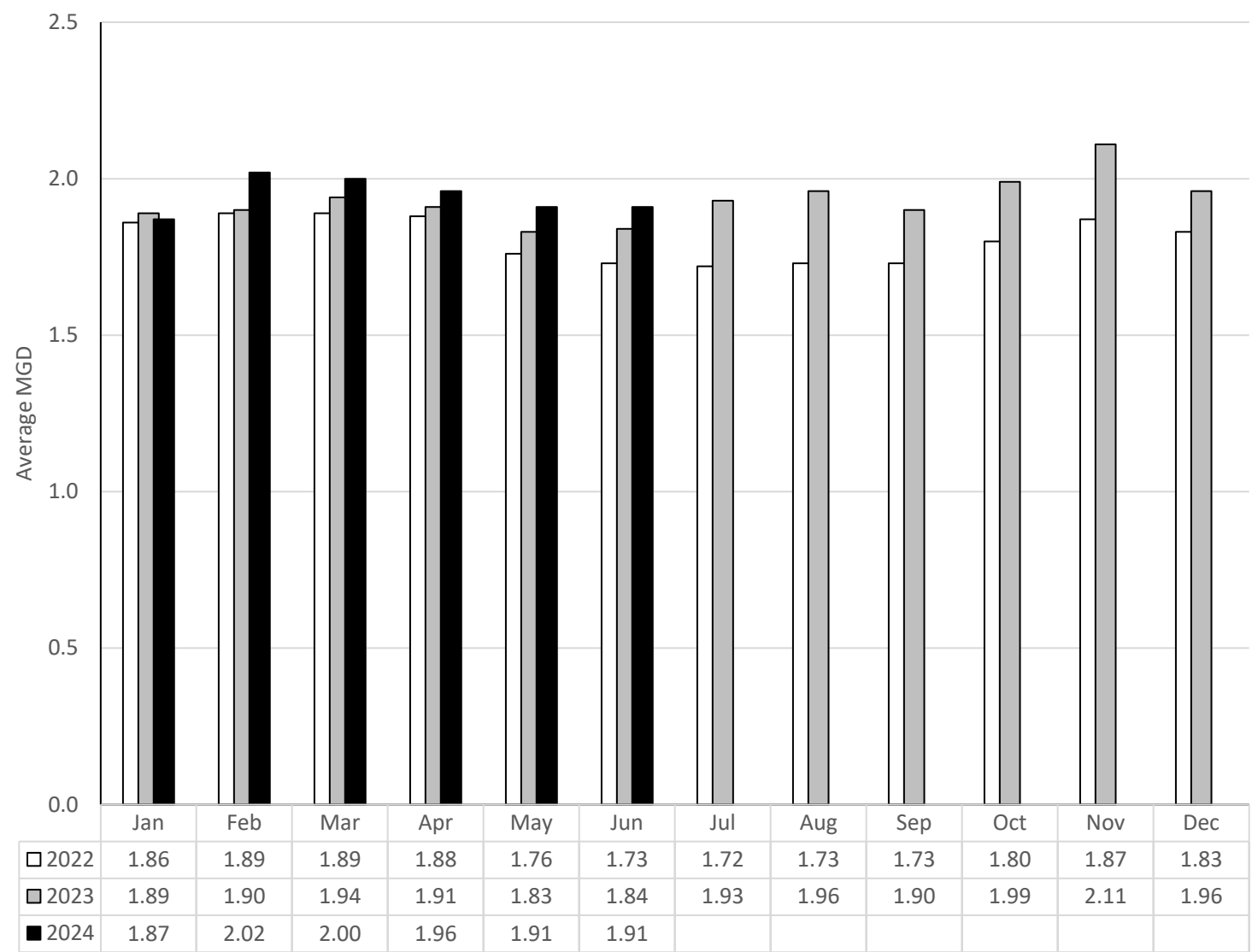
City of North Las Vegas Wastewater Flows



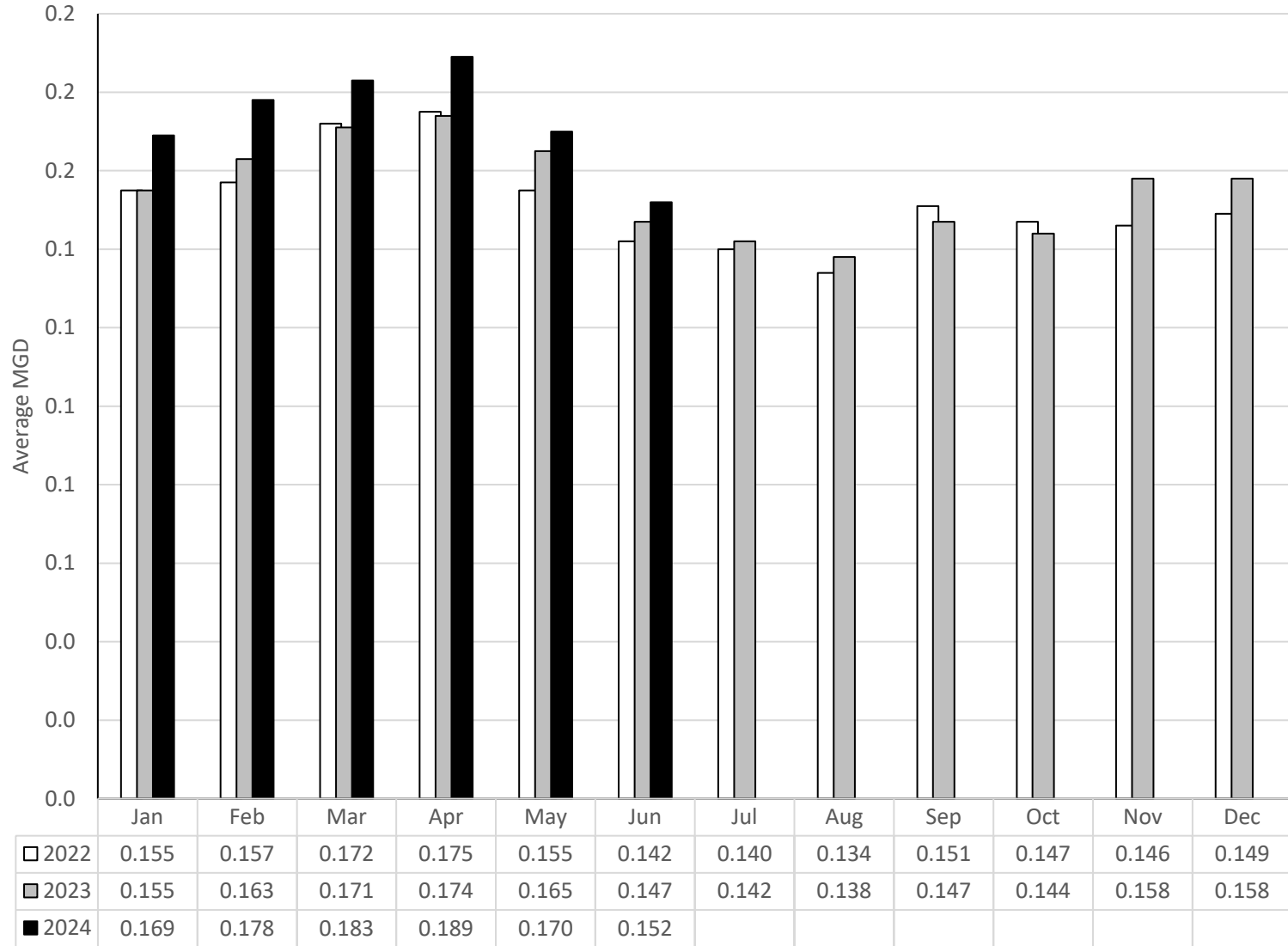
# Laughlin Wastewater Flows



City of Mesquite Wastewater Flows

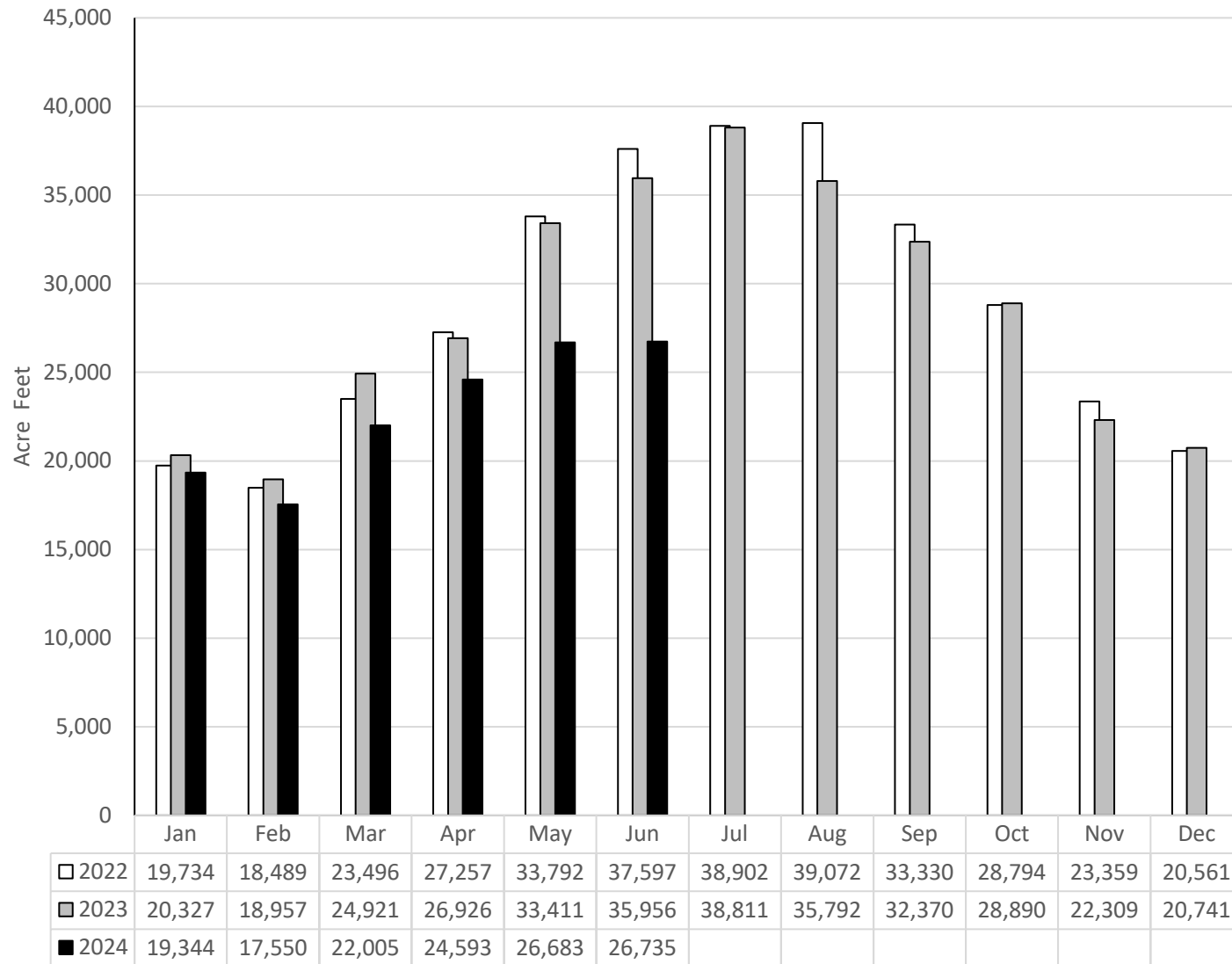


# Moapa Wastewater Flows

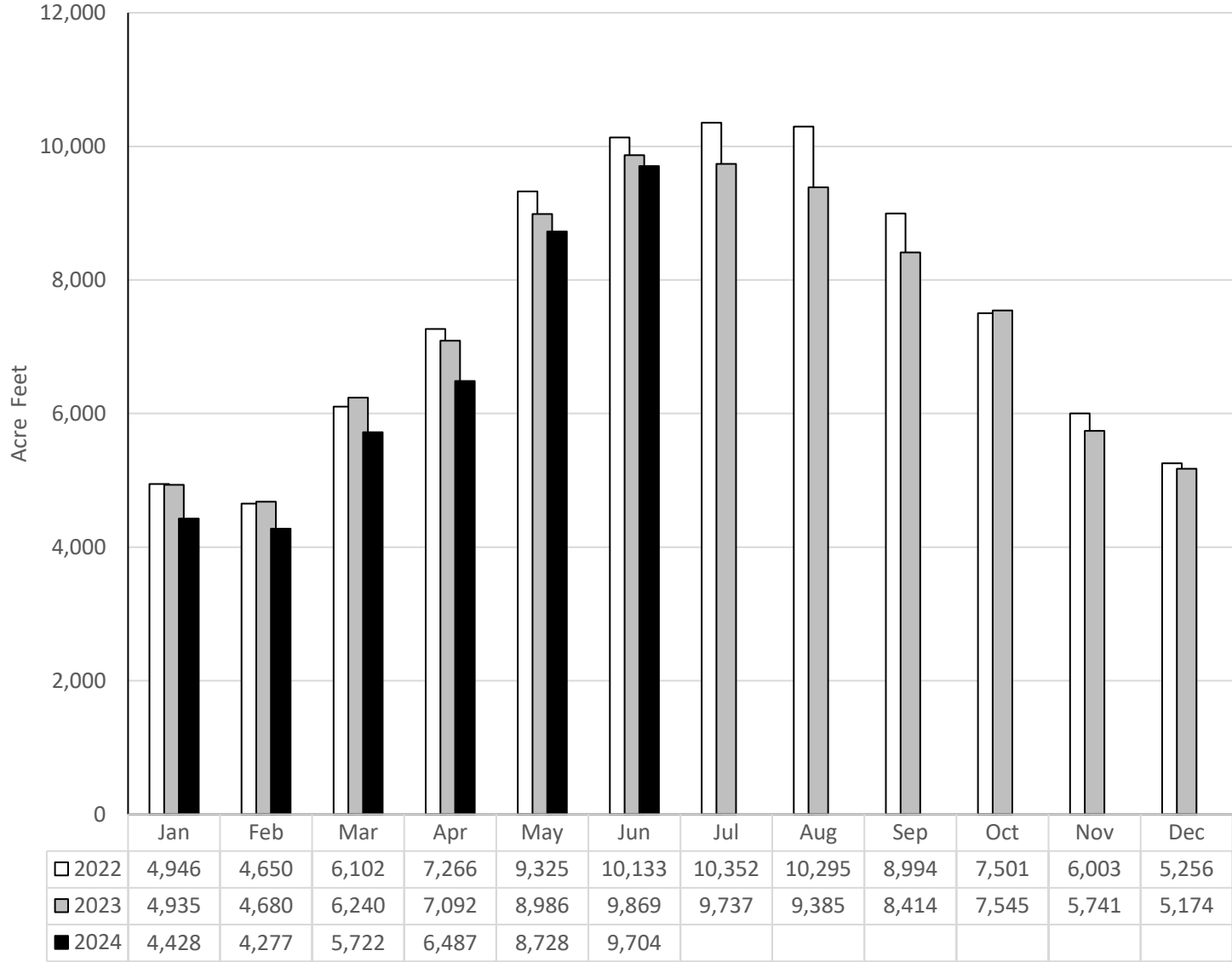


# Water Production 2022 through 2024

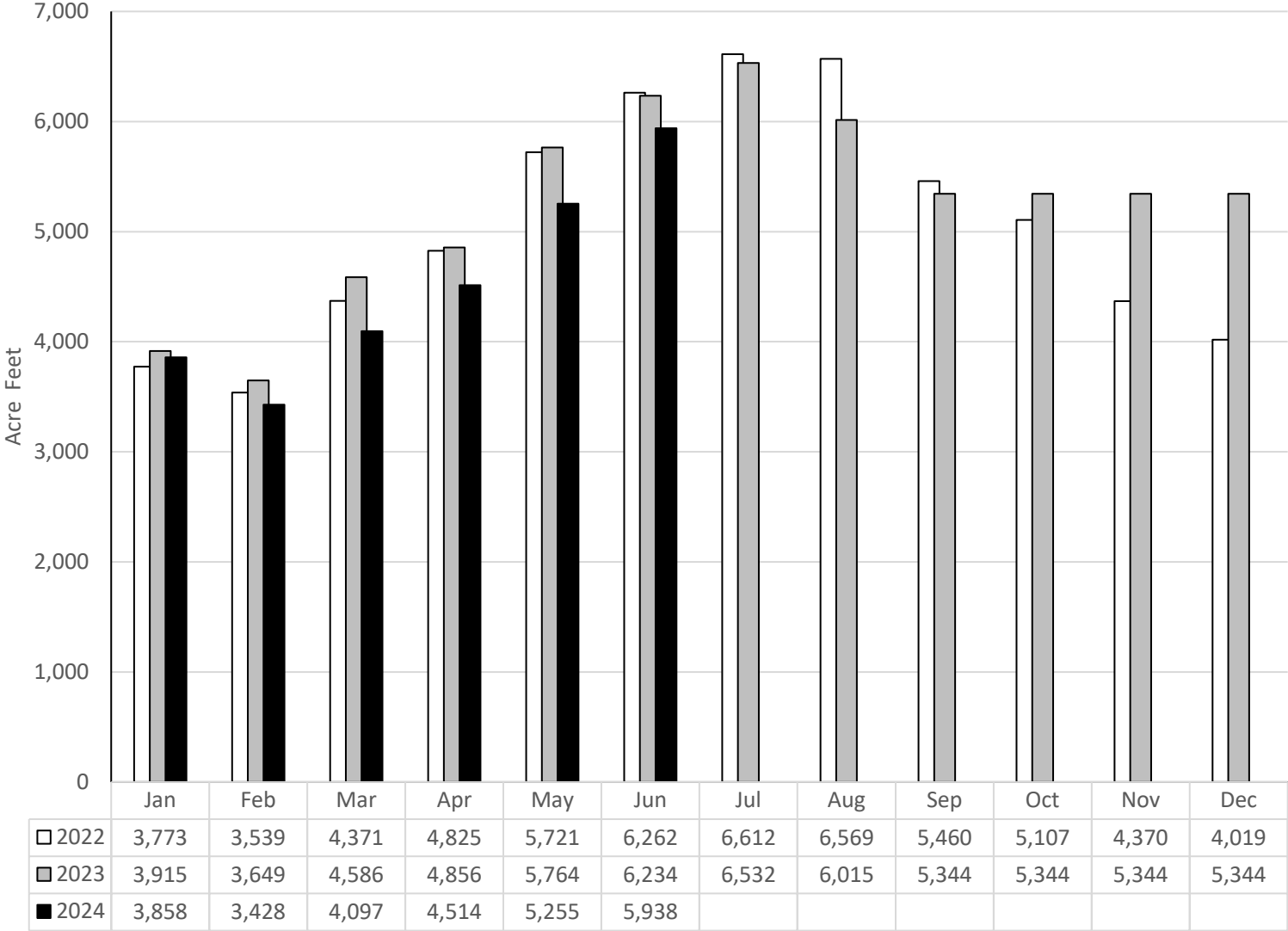
# Las Vegas Valley Water District Water Production



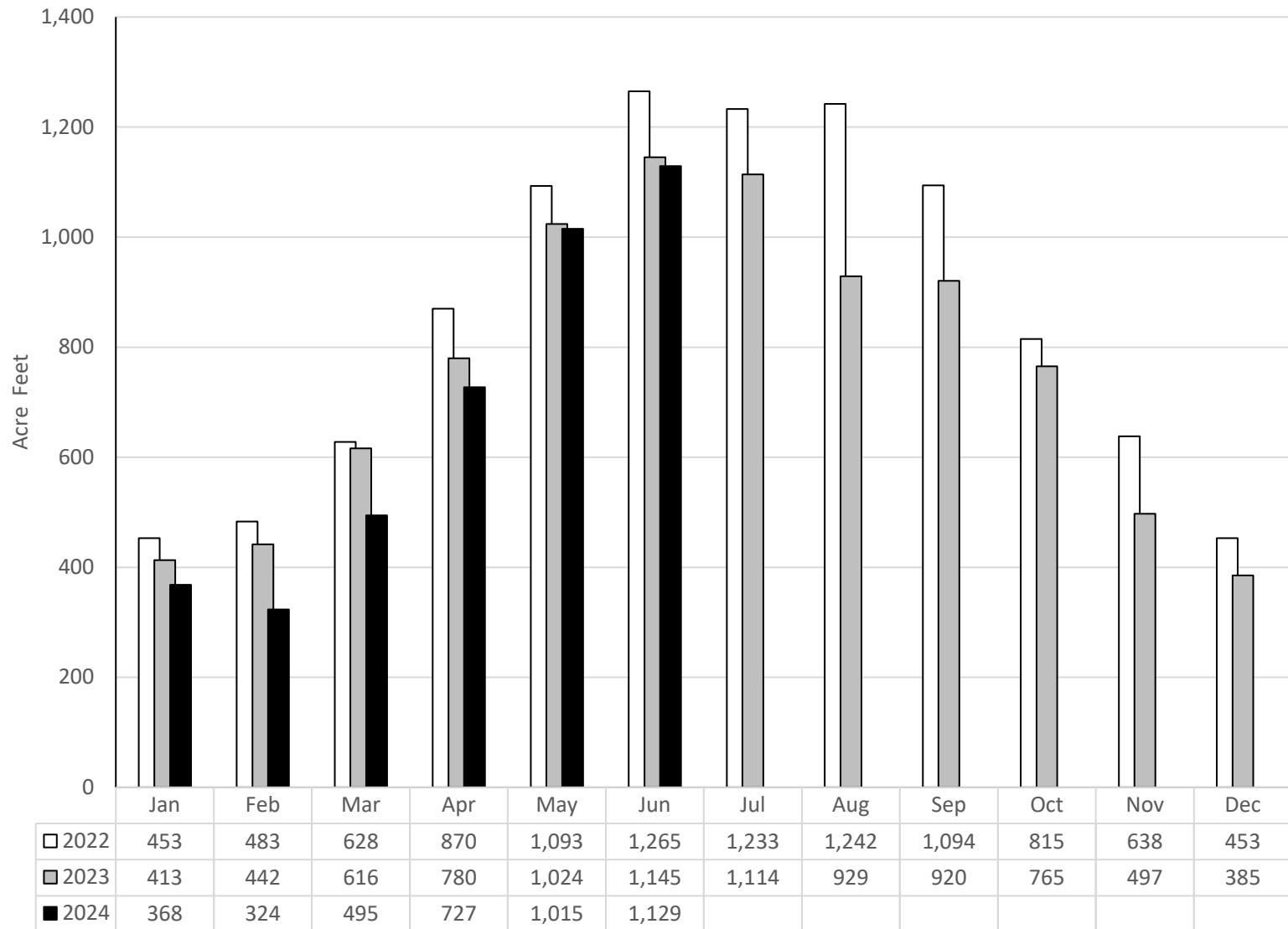
# City of Henderson Water Production



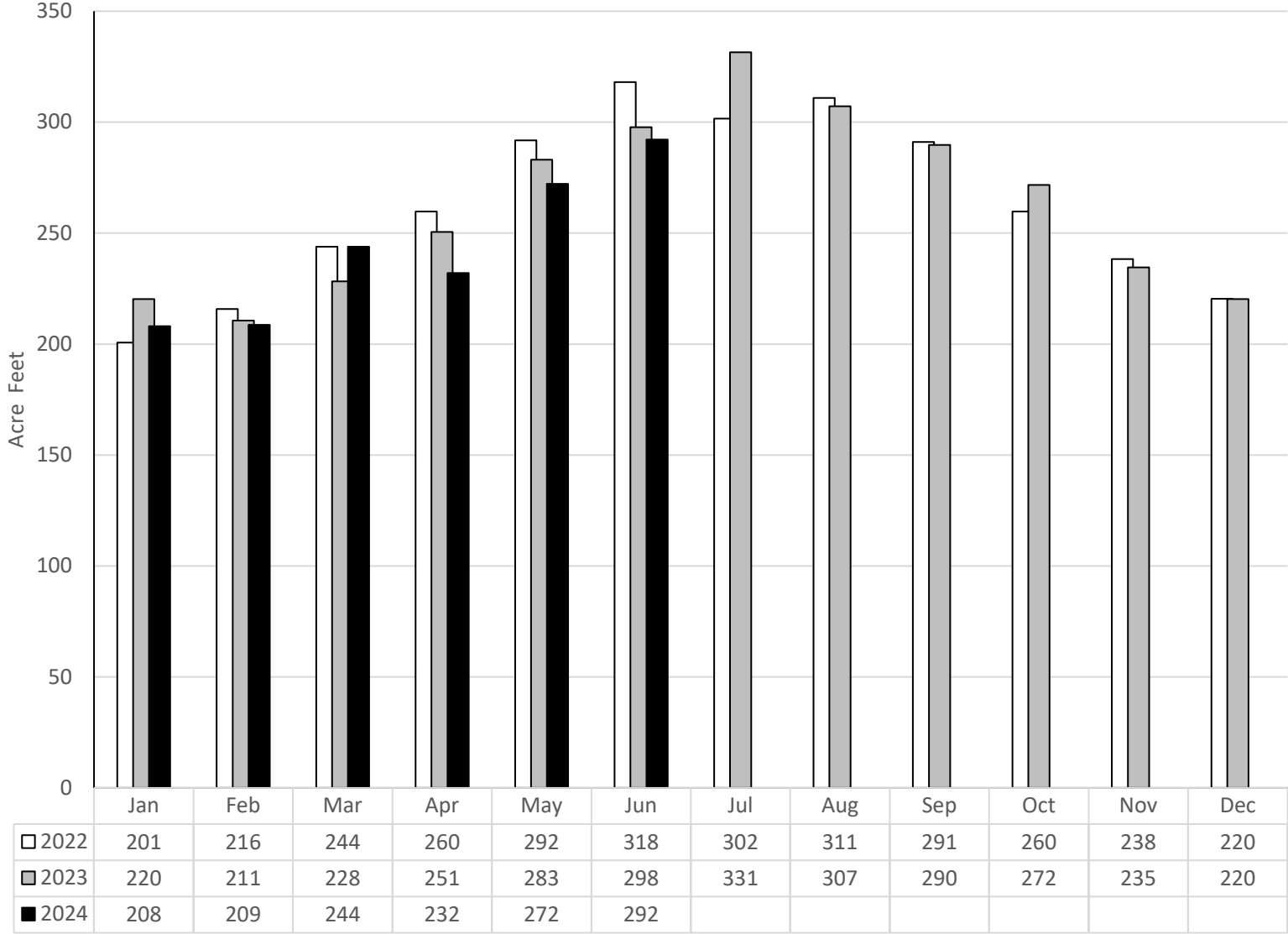
# City of North Las Vegas Water Production



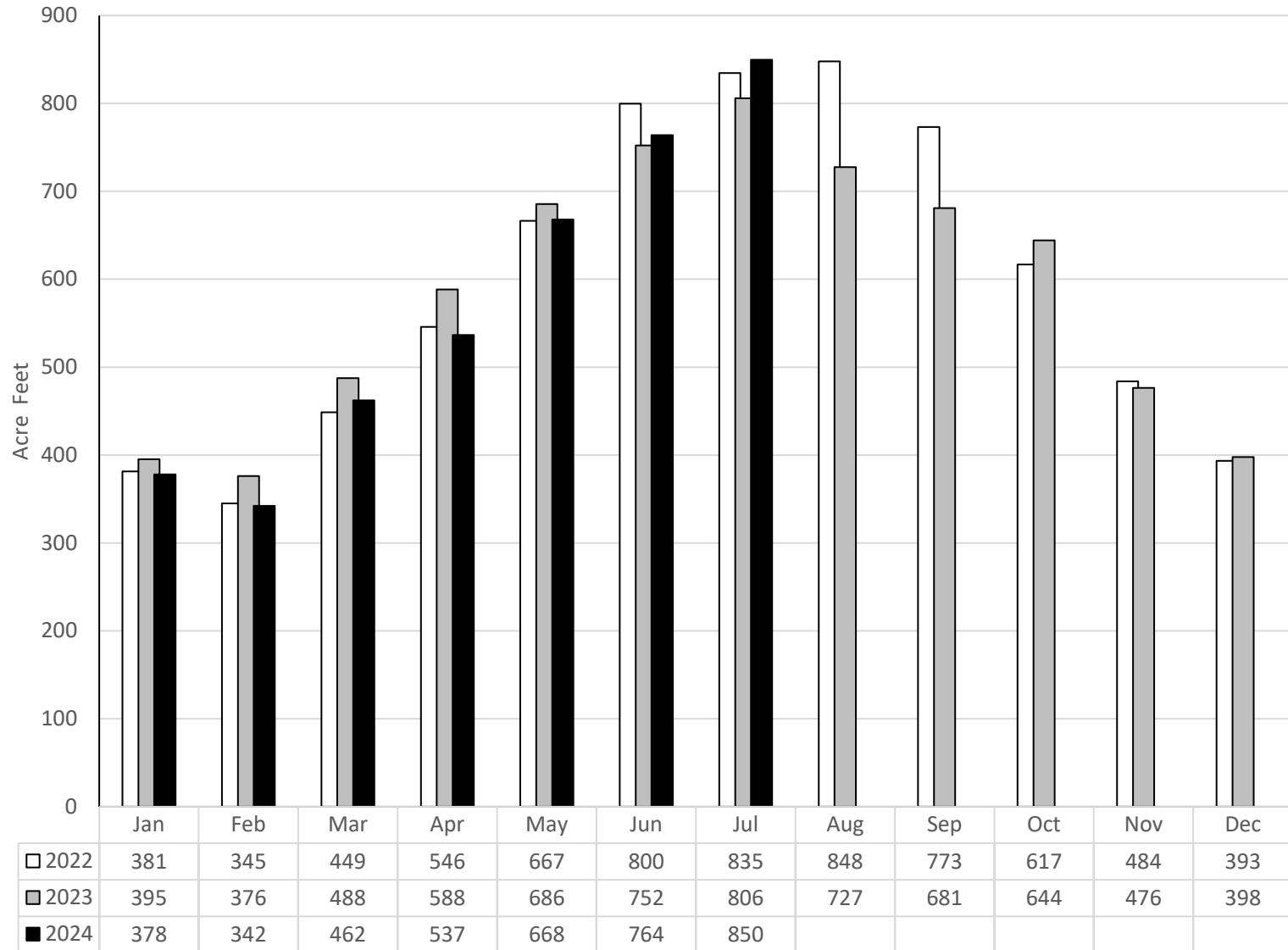
# Boulder City Water Production



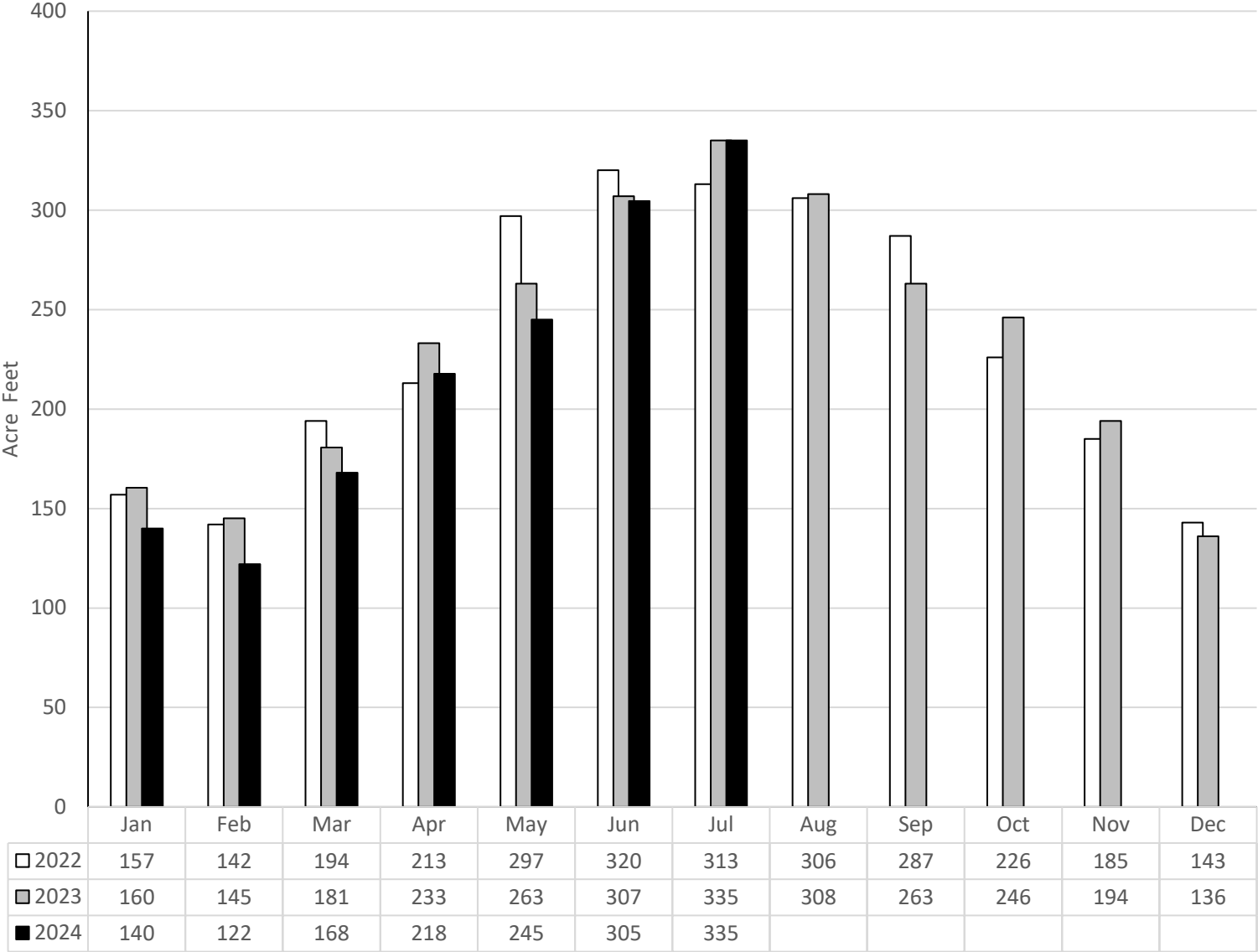
# Big Bend Water District Water Production



## Virgin Valley Water District Water Production



# Moapa Valley Water District Water Production



# Historic Trends Influent Wastewater Flows

(Avg. in MGD)

|        | Clark County Water Reclamation District * |        |        | City of Las Vegas |       |       | City of North Las Vegas |       |       | City of Henderson |       |       | Boulder City |      |      |
|--------|-------------------------------------------|--------|--------|-------------------|-------|-------|-------------------------|-------|-------|-------------------|-------|-------|--------------|------|------|
| Month  | 100.59                                    | 104.30 | 107.69 | 41.62             | 47.71 | 45.82 | 18.00                   | 19.83 | 20.31 | 25.23             | 23.91 | 23.18 | 1.13         | 1.08 | 1.12 |
| Jan    | 102.07                                    | 103.76 | 107.97 | 42.04             | 48.34 | 45.46 | 17.96                   | 19.70 | 19.91 | 24.56             | 24.68 | 22.68 | 1.14         | 1.08 | 1.09 |
| Feb    | 103.72                                    | 104.62 | 109.56 | 42.45             | 47.70 | 45.41 | 18.08                   | 19.71 | 19.71 | 25.07             | 24.20 | 23.69 | 1.15         | 1.08 | 1.05 |
| Mar    | 106.28                                    | 105.60 | 111.99 | 42.63             | 48.28 | 45.61 | 17.71                   | 20.12 | 20.34 | 25.42             | 25.32 | 24.29 | 1.11         | 1.10 | 1.08 |
| Apr    | 105.74                                    | 106.36 | 113.01 | 42.78             | 48.04 | 46.22 | 17.98                   | 20.40 | 20.64 | 25.50             | 25.02 | 24.82 | 1.13         | 1.14 | 1.13 |
| May    | 106.70                                    | 106.34 | 114.45 | 42.16             | 47.49 | 46.42 | 18.11                   | 20.30 | 20.92 | 24.55             | 24.81 | 25.11 | 1.13         | 1.13 | 1.16 |
| Jun    | 110.64                                    | 110.07 |        | 47.16             | 48.00 |       | 18.80                   | 20.80 |       | 24.34             | 26.35 |       | 1.15         | 1.15 |      |
| Jul    | 110.64                                    | 111.75 |        | 48.20             | 47.31 |       | 19.10                   | 21.37 |       | 25.19             | 26.61 |       | 1.15         | 1.18 |      |
| Aug    | 109.22                                    | 115.43 |        | 47.28             | 48.12 |       | 18.90                   | 21.10 |       | 25.27             | 26.07 |       | 1.09         | 1.16 |      |
| Sep    | 110.94                                    | 111.22 |        | 46.90             | 48.15 |       | 18.71                   | 20.62 |       | 24.56             | 26.44 |       | 1.08         | 1.12 |      |
| Oct    | 106.35                                    | 109.60 |        | 46.27             | 46.51 |       | 18.58                   | 20.45 |       | 24.18             | 25.42 |       | 1.08         | 1.11 |      |
| Nov    | 104.32                                    | 109.01 |        | 46.53             | 46.52 |       | 18.63                   | 20.32 |       | 23.94             | 23.13 |       | 1.09         | 1.11 |      |
| Dec    | 106.43                                    | 108.17 | 110.78 | 44.92             | 47.68 | 45.82 | 18.38                   | 20.39 | 20.31 | 24.82             | 25.16 | 23.96 | 1.12         | 1.12 | 1.11 |
| ANNUAL | 100.59                                    | 104.30 | 107.69 | 41.62             | 47.71 | 45.82 | 18.00                   | 19.83 | 20.31 | 25.23             | 23.91 | 23.18 | 1.13         | 1.08 | 1.12 |

\* Includes estimated .5 MGD NLV

# Historic Trends Influent Wastewater Flows

|        | Searchlight |       |       | Blue Diamond |       |       | MVWRC |       |       | Laughlin |      |      | Mesquite |      |      | Indian Springs |       |       |
|--------|-------------|-------|-------|--------------|-------|-------|-------|-------|-------|----------|------|------|----------|------|------|----------------|-------|-------|
| Month  | 2022        | 2023  | 2024  | 2022         | 2023  | 2024  | 2022  | 2023  | 2024  | 2022     | 2023 | 2024 | 2022     | 2023 | 2024 | 2022           | 2023  | 2024  |
| Jan    | 0.041       | 0.039 | 0.045 | 0.017        | 0.019 | 0.009 | 0.155 | 0.155 | 0.169 | 1.45     | 1.52 | 1.37 | 1.86     | 1.89 | 1.87 | 0.088          | 0.106 | 0.117 |
| Feb    | 0.042       | 0.040 | 0.045 | 0.026        | 0.009 | 0.010 | 0.157 | 0.163 | 0.178 | 1.52     | 1.51 | 1.49 | 1.89     | 1.90 | 2.02 | 0.091          | 0.098 | 0.110 |
| Mar    | 0.039       | 0.042 | 0.039 | 0.017        | 0.016 | 0.011 | 0.172 | 0.171 | 0.183 | 1.65     | 1.58 | 1.51 | 1.89     | 1.94 | 2.00 | 0.095          | 0.138 | 0.115 |
| Apr    | 0.043       | 0.040 | 0.038 | 0.015        | 0.016 | 0.012 | 0.175 | 0.174 | 0.189 | 1.65     | 1.58 | 1.49 | 1.88     | 1.91 | 1.96 | 0.095          | 0.139 | 0.118 |
| May    | 0.044       | 0.041 | 0.042 | 0.010        | 0.016 | 0.012 | 0.155 | 0.165 | 0.170 | 1.80     | 1.62 | 1.56 | 1.76     | 1.83 | 1.91 | 0.098          | 0.145 | 0.136 |
| Jun    | 0.042       | 0.042 | 0.045 | 0.009        | 0.015 | 0.009 | 0.142 | 0.147 | 0.152 | 1.70     | 1.75 | 1.74 | 1.73     | 1.84 | 1.91 | 0.101          | 0.150 | 0.125 |
| Jul    | 0.048       | 0.042 |       | 0.011        | 0.011 |       | 0.140 | 0.142 |       | 1.98     | 1.96 |      | 1.72     | 1.93 |      | 0.101          | 0.157 |       |
| Aug    | 0.045       | 0.042 |       | 0.012        | 0.013 |       | 0.134 | 0.138 |       | 1.78     | 1.80 |      | 1.73     | 1.96 |      | 0.104          | 0.191 |       |
| Sep    | 0.042       | 0.041 |       | 0.011        | 0.015 |       | 0.151 | 0.147 |       | 1.74     | 1.70 |      | 1.73     | 1.90 |      | 0.101          | 0.156 |       |
| Oct    | 0.039       | 0.041 |       | 0.012        | 0.014 |       | 0.147 | 0.144 |       | 1.73     | 1.55 |      | 1.80     | 1.99 |      | 0.094          | 0.151 |       |
| Nov    | 0.039       | 0.042 |       | 0.016        | 0.012 |       | 0.146 | 0.158 |       | 1.69     | 1.37 |      | 1.87     | 2.11 |      | 0.094          | 0.146 |       |
| Dec    | 0.039       | 0.039 |       | 0.012        | 0.010 |       | 0.149 | 0.158 |       | 1.58     | 1.39 |      | 1.83     | 1.96 |      | 0.120          | 0.159 |       |
| ANNUAL | 0.042       | 0.041 | 0.042 | 0.014        | 0.014 | 0.011 | 0.152 | 0.155 | 0.174 | 1.69     | 1.61 | 1.53 | 1.81     | 1.93 | 1.95 | 0.099          | 0.145 | 0.120 |

Indian Springs calculation revised in 2021

# Non-Discharging Facilities

|        | Boulder City     |       |                  |       |
|--------|------------------|-------|------------------|-------|
|        | (Avg. in MGD)    |       | (Total in MG)    |       |
|        | Influent<br>Flow | Reuse | Influent<br>Flow | Reuse |
| Jan    | 1.12             | 0.01  | 34.7             | 0.31  |
| Feb    | 1.09             | 0.01  | 31.6             | 0.28  |
| Mar    | 1.05             | 0.1   | 32.6             | 3.1   |
| Apr    | 1.08             | 0.07  | 32.4             | 2.1   |
| May    | 1.13             | 0.24  | 35.00            | 7.44  |
| Jun    | 1.16             | 0.24  | 34.80            | 7.20  |
| Jul    |                  |       |                  |       |
| Aug    |                  |       |                  |       |
| Sep    |                  |       |                  |       |
| Oct    |                  |       |                  |       |
| Nov    |                  |       |                  |       |
| Dec    |                  |       |                  |       |
| Annual |                  |       |                  |       |

## Las Vegas Wash and Colorado River Dischargers (2024)

|                      | 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)           |       |                              |
| Month                | Influent<br>Flow                         | Main<br>Plant<br>Reuse | DBWRC<br>Reuse | Total<br>Reuse | Effluent<br>to<br>LV Wash | Influent<br>Flow  | WPCF<br>Reuse | BMWRC<br>Reuse | DHWRC<br>Reuse | Total<br>Reuse | Effluent<br>to<br>LV Wash | Influent<br>Flow  | Reuse | Effluent<br>to<br>LV<br>Wash | Influent<br>Flow        | Reuse | Effluent<br>to<br>LV<br>Wash |
| Jan                  | 107.69                                   | 0.48                   | 0.00           | 0.48           | 107.57                    | 45.82             | 0.19          | 0.00           | 0.00           | 0.19           | 47.76                     | 23.18             | 2.55  | 21.46                        | 20.31                   | 0.02  | 19.13                        |
| Feb                  | 107.97                                   | 0.20                   | 0.00           | 0.20           | 107.94                    | 45.46             | 0.11          | 0.00           | 0.00           | 0.11           | 47.91                     | 22.68             | 3.02  | 20.40                        | 19.91                   | 0.02  | 18.88                        |
| Mar                  | 109.56                                   | 0.26                   | 0.00           | 0.26           | 109.30                    | 45.41             | 0.24          | 0.00           | 0.00           | 0.24           | 46.37                     | 23.69             | 4.88  | 18.68                        | 19.71                   | 0.31  | 18.41                        |
| Apr                  | 111.99                                   | 0.67                   | 0.00           | 0.67           | 111.32                    | 45.61             | 0.37          | 0.00           | 0.00           | 0.37           | 46.67                     | 24.29             | 6.63  | 17.25                        | 20.34                   | 0.49  | 18.66                        |
| May                  | 113.01                                   | 1.03                   | 0.00           | 1.03           | 111.98                    | 46.22             | 0.46          | 0.00           | 0.00           | 0.46           | 46.32                     | 24.82             | 7.82  | 16.42                        | 20.64                   | 0.84  | 18.67                        |
| Jun                  | 114.45                                   | 2.48                   | 0.00           | 2.48           | 111.97                    | 46.42             | 0.51          | 0.00           | 0.00           | 0.51           | 46.24                     | 25.11             | 8.52  | 15.77                        | 20.92                   | 0.87  | 18.92                        |
| Jul                  |                                          |                        |                |                |                           |                   |               |                |                |                |                           |                   |       |                              |                         |       |                              |
| Aug                  |                                          |                        |                |                |                           |                   |               |                |                |                |                           |                   |       |                              |                         |       |                              |
| Sep                  |                                          |                        |                |                |                           |                   |               |                |                |                |                           |                   |       |                              |                         |       |                              |
| Oct                  |                                          |                        |                |                |                           |                   |               |                |                |                |                           |                   |       |                              |                         |       |                              |
| Nov                  |                                          |                        |                |                |                           |                   |               |                |                |                |                           |                   |       |                              |                         |       |                              |
| Dec                  |                                          |                        |                |                |                           |                   |               |                |                |                |                           |                   |       |                              |                         |       |                              |
| <b>Average</b>       | 110.78                                   | 0.85                   | 0.00           | 0.85           | 110.01                    | 45.82             | 0.31          | 0.00           | 0.00           | 0.31           | 39.71                     | 23.96             | 5.57  | 289.26                       | 20.31                   | 0.43  | 19.12                        |
| <b>YTD<br/>total</b> | 664.67                                   | 5.11                   | 0.00           | 5.11           | 660.08                    | 274.94            | 1.87          | 0.00           | 0.00           | 1.87           | 238.27                    | 143.77            | 33.42 | 1735.56                      | 121.83                  | 2.55  | 112.67                       |

Net to LV Wash is measured effluent at each treatment plant

## Las Vegas Wash and Colorado River Dischargers (2024)

|                   | Las Vegas Wash Discharge<br>(Avg in MGD) |       |                        | Discharge Directly to Colorado River<br>(Avg in MGD) |                   |                 | Total Discharge<br>(Totals in A/F) |
|-------------------|------------------------------------------|-------|------------------------|------------------------------------------------------|-------------------|-----------------|------------------------------------|
| Month             | Influent<br>Flow                         | Reuse | Effluent to<br>LV Wash | Laughlin<br>Influent Flow                            | Laughlin<br>Reuse | Net to<br>River | Effluent<br>Flow                   |
| Jan               | 197.00                                   | 3.23  | 195.92                 | 1.37                                                 | 0.00              | 1.37            | 18,768.90                          |
| Feb               | 196.02                                   | 3.35  | 152.13                 | 1.49                                                 | 0.00              | 1.49            | 13,671.39                          |
| Mar               | 198.37                                   | 5.69  | 192.76                 | 1.51                                                 | 0.00              | 1.51            | 17,289.59                          |
| Apr               | 202.23                                   | 8.16  | 193.90                 | 1.49                                                 | 1.00              | 1.49            | 17,389.62                          |
| May               | 204.69                                   | 10.16 | 1818.97                | 1.56                                                 | 2.00              | 1.56            | 162,023.40                         |
| Jun               | 206.90                                   | 12.37 | 192.90                 | 1.74                                                 | 3.00              | 1.74            | 17,322.52                          |
| Jul               |                                          |       |                        |                                                      |                   |                 |                                    |
| Aug               |                                          |       |                        |                                                      |                   |                 |                                    |
| Sep               |                                          |       |                        |                                                      |                   |                 |                                    |
| Oct               |                                          |       |                        |                                                      |                   |                 |                                    |
| Nov               |                                          |       |                        |                                                      |                   |                 |                                    |
| Dec               |                                          |       |                        |                                                      |                   |                 |                                    |
| <b>Annual Avg</b> | 200.87                                   | 7.16  | 457.76                 | 1.53                                                 | 1.00              | 1.53            | 246465.42                          |

# Water Production (2024)

## (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   | 0                               | 19,344  | 19,344  | 4,428             | 0   | 4,428  | 0                       | 3,858  | 3,858  | 84           | 285   | 368   | 8.31                  | 18   | 26    | 8      | 28,017  |
| Feb   | 6                               | 17,544  | 17,550  | 4,277             | 0   | 4,277  | 0                       | 3,428  | 3,428  | 65           | 259   | 324   | 10.59                 | 43   | 54    | 17     | 25,616  |
| Mar   | 3                               | 22,002  | 22,005  | 5,722             | 0   | 5,722  | 1                       | 4,096  | 4,097  | 138          | 356   | 495   | 1.63                  | 60   | 61    | 6      | 32,374  |
| Apr   | 70                              | 24,593  | 24,663  | 6,487             | 0   | 6,487  | 2                       | 4,514  | 4,516  | 255          | 472   | 727   | 0.63                  | 66   | 67    | 72     | 36,387  |
| May   | 4,346                           | 26,682  | 31,028  | 8,728             | 0   | 8,728  | 271                     | 5,255  | 5,526  | 379          | 36    | 415   | 7.60                  | 32   | 40    | 4,625  | 41,112  |
| Jun   | 7,772                           | 26,735  | 34,507  | 9,704             | 0   | 9,704  | 4                       | 5,938  | 5,942  | 417          | 712   | 1,129 | 3.63                  | 73   | 77    | 7,779  | 43,579  |
| 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   | 12,197                          | 136,900 | 149,097 | 39,345            | 0   | 39,345 | 278                     | 27,089 | 27,366 | 1,338        | 2,119 | 3,457 | 32                    | 292  | 325   | 12,507 | 207,083 |

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  | 2022                            | 2023    | 2024    | 2022              | 2023   | 2024   | 2022                    | 2023   | 2024   | 2022         | 2023  | 2024  | 2022                    | 2023  | 2024  | 2022                         | 2023  | 2024  | 2022                        | 2023  | 2024  |
| Jan    | 19,734                          | 20,327  | 19,344  | 4,946             | 4,935  | 4,428  | 3,773                   | 3,915  | 3,858  | 453          | 413   | 368   | 201                     | 220   | 208   | 381                          | 395   | 378   | 157                         | 160   | 140   |
| Feb    | 18,489                          | 18,957  | 17,550  | 4,650             | 4,680  | 4,277  | 3,539                   | 3,649  | 3,428  | 483          | 442   | 324   | 216                     | 211   | 209   | 345                          | 376   | 342   | 142                         | 145   | 122   |
| Mar    | 23,496                          | 24,921  | 22,005  | 6,102             | 6,240  | 5,722  | 4,371                   | 4,586  | 4,097  | 628          | 616   | 495   | 244                     | 228   | 244   | 449                          | 488   | 462   | 194                         | 181   | 168   |
| Apr    | 27,257                          | 26,926  | 24,593  | 7,266             | 7,092  | 6,487  | 4,825                   | 4,856  | 4,514  | 870          | 780   | 727   | 260                     | 251   | 232   | 546                          | 588   | 537   | 213                         | 233   | 218   |
| May    | 33,792                          | 33,411  | 26,683  | 9,325             | 8,986  | 8,728  | 5,721                   | 5,764  | 5,255  | 1,093        | 1,024 | 1,015 | 292                     | 283   | 272   | 667                          | 686   | 668   | 297                         | 263   | 245   |
| Jun    | 37,597                          | 35,956  | 26,735  | 10,133            | 9,869  | 9,704  | 6,262                   | 6,234  | 5,938  | 1,265        | 1,145 | 1,129 | 318                     | 298   | 292   | 800                          | 752   | 764   | 320                         | 307   | 305   |
| Jul    | 38,902                          | 38,811  |         | 10,352            | 9,737  |        | 6,612                   | 6,532  |        | 1,233        | 1,114 |       | 302                     | 331   |       | 835                          | 806   | 850   | 313                         | 335   | 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 | 136,910 | 90,823            | 87,798 | 39,345 | 60,627                  | 62,926 | 27,090 | 10,266       | 9,029 | 4,057 | 3,152                   | 3,145 | 1,457 | 7,137                        | 7,018 | 4,001 | 2,783                       | 2,771 | 1,532 |

# 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 | 2022                            | 2023 | 2024 | 2022              | 2023 | 2024 | 2022                    | 2023 | 2024 | 2022         | 2023 | 2024 | 2022                    | 2023 | 2024 | 2022            | 2023 | 2024 |
| Jan   | 0.67                            | 0.67 | 0.75 | 0.48              | 0.49 | 0.50 | 0.45                    | 0.44 | 0.50 | 0.25         | 0.26 | 0.29 | 0.70                    | 0.63 | 0.62 | 0.60            | 0.60 | 0.67 |
| Feb   | 0.64                            | 0.65 | 0.75 | 0.45              | 0.45 | 0.46 | 0.43                    | 0.42 | 0.50 | 0.22         | 0.22 | 0.30 | 0.60                    | 0.62 | 0.61 | 0.58            | 0.58 | 0.66 |
| Mar   | 0.58                            | 0.56 | 0.67 | 0.40              | 0.38 | 0.39 | 0.39                    | 0.38 | 0.46 | 0.18         | 0.18 | 0.20 | 0.62                    | 0.69 | 0.59 | 0.52            | 0.50 | 0.59 |
| Apr   | 0.49                            | 0.51 | 0.59 | 0.33              | 0.33 | 0.34 | 0.34                    | 0.34 | 0.41 | 0.13         | 0.13 | 0.14 | 0.60                    | 0.61 | 0.59 | 0.44            | 0.45 | 0.51 |
| May   | 0.42                            | 0.42 | 0.49 | 0.26              | 0.27 | 0.27 | 0.29                    | 0.30 | 0.36 | 0.11         | 0.10 | 0.26 | 0.58                    | 0.61 | 0.55 | 0.37            | 0.37 | 0.43 |
| Jun   | 0.37                            | 0.38 | 0.43 | 0.24              | 0.23 | 0.24 | 0.27                    | 0.27 | 0.32 | 0.09         | 0.09 | 0.09 | 0.54                    | 0.53 | 0.55 | 0.33            | 0.33 | 0.37 |
| 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 | 0.58 | 0.32              | 0.32 | 0.34 | 0.34                    | 0.34 | 0.41 | 0.13         | 0.14 | 0.18 | 0.59                    | 0.61 | 0.59 | 0.43            | 0.44 | 0.51 |

# Water Production and Waste Flows

## Monthly Flows in A/F

|       | CLV and Clark County<br>Monthly Flow in AF |            | City of Henderson<br>Monthly Flow in AF |            | City of North Las Vegas<br>Monthly Flow in AF |            | Boulder City<br>Monthly Flow in AF |            | Big Bend Water District<br>Monthly Flow in AF |            | All Entities<br>Monthly Flow in AF |            |
|-------|--------------------------------------------|------------|-----------------------------------------|------------|-----------------------------------------------|------------|------------------------------------|------------|-----------------------------------------------|------------|------------------------------------|------------|
| Month | 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   | 19,344                                     | 14,604     | 4,428                                   | 2,205      | 3,858                                         | 1,932      | 368                                | 106        | 208                                           | 130        | 28,207                             | 18,978     |
| Feb   | 17,550                                     | 13,184     | 4,277                                   | 1,949      | 3,428                                         | 1,711      | 324                                | 97         | 209                                           | 128        | 25,787                             | 17,068     |
| Mar   | 22,005                                     | 14,743     | 5,722                                   | 2,254      | 4,097                                         | 1,875      | 495                                | 100        | 244                                           | 144        | 32,562                             | 19,116     |
| Apr   | 24,663                                     | 14,510     | 6,487                                   | 2,236      | 4,516                                         | 1,873      | 727                                | 99         | 232                                           | 138        | 36,624                             | 18,856     |
| May   | 31,028                                     | 15,148     | 8,728                                   | 2,361      | 5,526                                         | 1,964      | 415                                | 107        | 272                                           | 149        | 45,970                             | 19,730     |
| Jun   | 34,507                                     | 14,811     | 9,704                                   | 2,312      | 5,942                                         | 1,926      | 1,129                              | 107        | 292                                           | 160        | 51,573                             | 19,316     |
| Jul   |                                            |            |                                         |            |                                               |            |                                    |            |                                               |            |                                    |            |
| Aug   |                                            |            |                                         |            |                                               |            |                                    |            |                                               |            |                                    |            |
| Sep   |                                            |            |                                         |            |                                               |            |                                    |            |                                               |            |                                    |            |
| Oct   |                                            |            |                                         |            |                                               |            |                                    |            |                                               |            |                                    |            |
| Nov   |                                            |            |                                         |            |                                               |            |                                    |            |                                               |            |                                    |            |
| Dec   |                                            |            |                                         |            |                                               |            |                                    |            |                                               |            |                                    |            |
| YTD   | 149,097                                    | 87,000     | 39,345                                  | 13,317     | 27,366                                        | 11,280     | 3,457                              | 617        | 1,457                                         | 848        | 220,723                            | 113,063    |

# 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 2024 | 0         | 0   | 0     | 0         | 0         | 0   | 0     |
| Total 2023 | 0         | 0   | 0     | 639       | 0         | 0   | 0     |
| Total 2022 | 0         | 0   | 0     | 797       | 0         | 0   | 0     |

\* Data provided by SNWA