

# **Engineering Investigation of the Bunker Hill Basin 2023-2024**

## **Figures**



**San Bernardino Valley  
Water Conservation District**

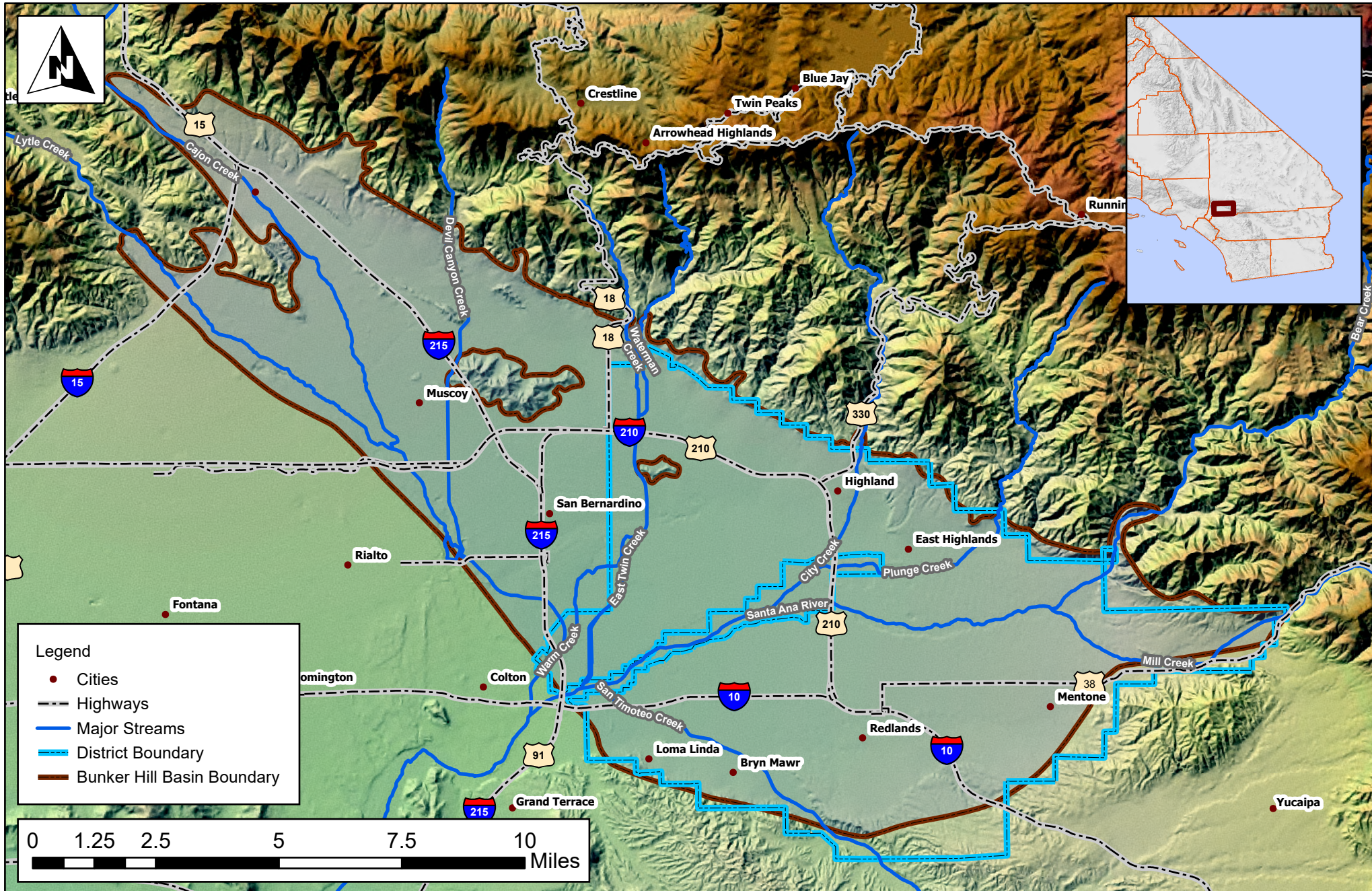
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# Figure 1: Project Area Engineering Investigation Report 2025

Coordinate System:  
 NAD 1983 StatePlane California V FIPS 0405 Feet  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Source: SBVWCD, CASIL, SBVMWD  
 GIS Contact: A. Frey  
 January 29, 2025



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**Legend**

- Cities
- Highways
- Major Streams
- - - District Boundary
- Bunker Hill Basin Boundary

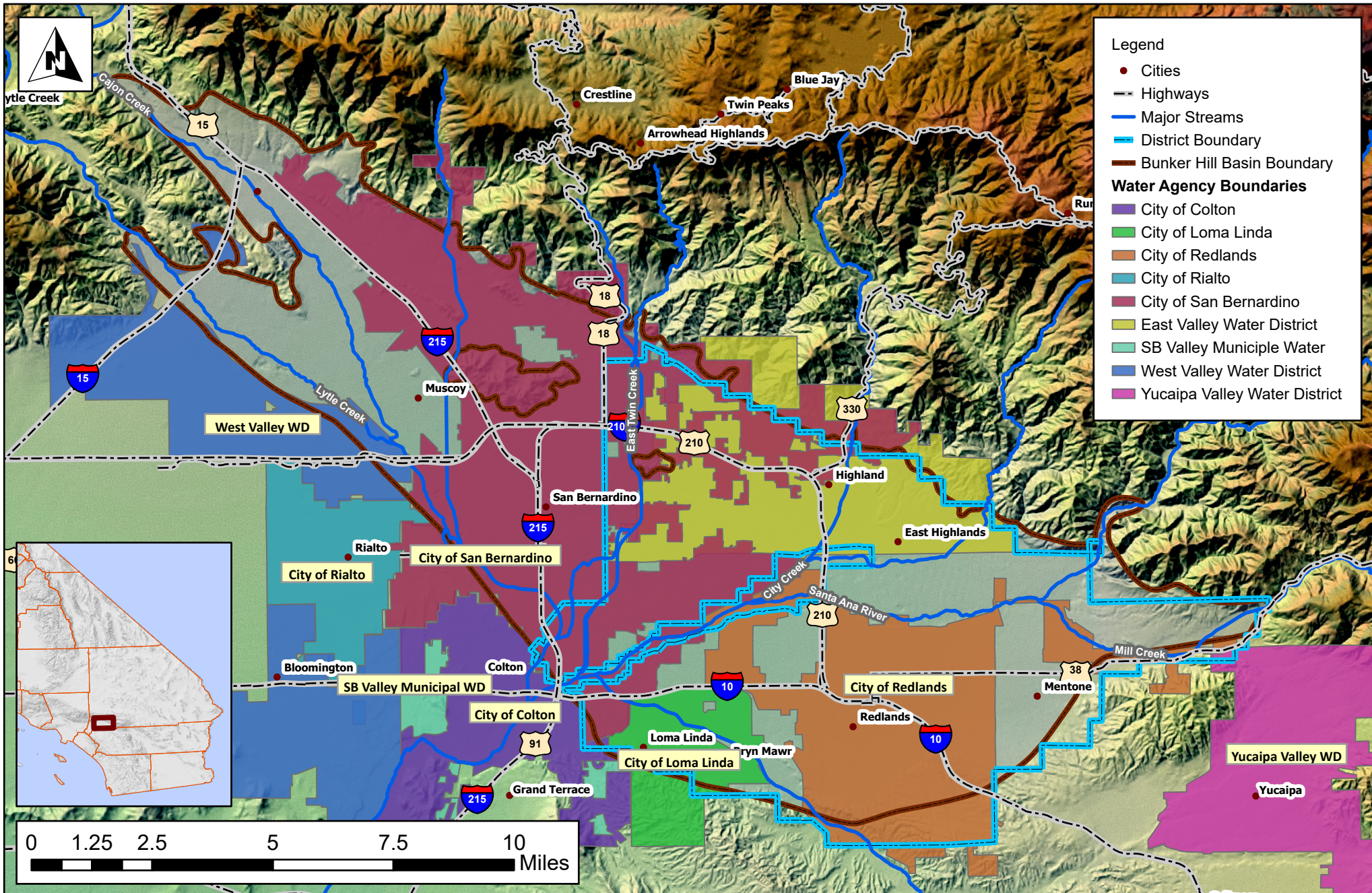


# Figure 2: District and Water Agency Boundaries Engineering Investigation Report 2025

Coordinate System:  
 NAD 1983 StatePlane California V FIPS 0405 Feet  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Source: SBVWCD, CASIL, SBVMWD  
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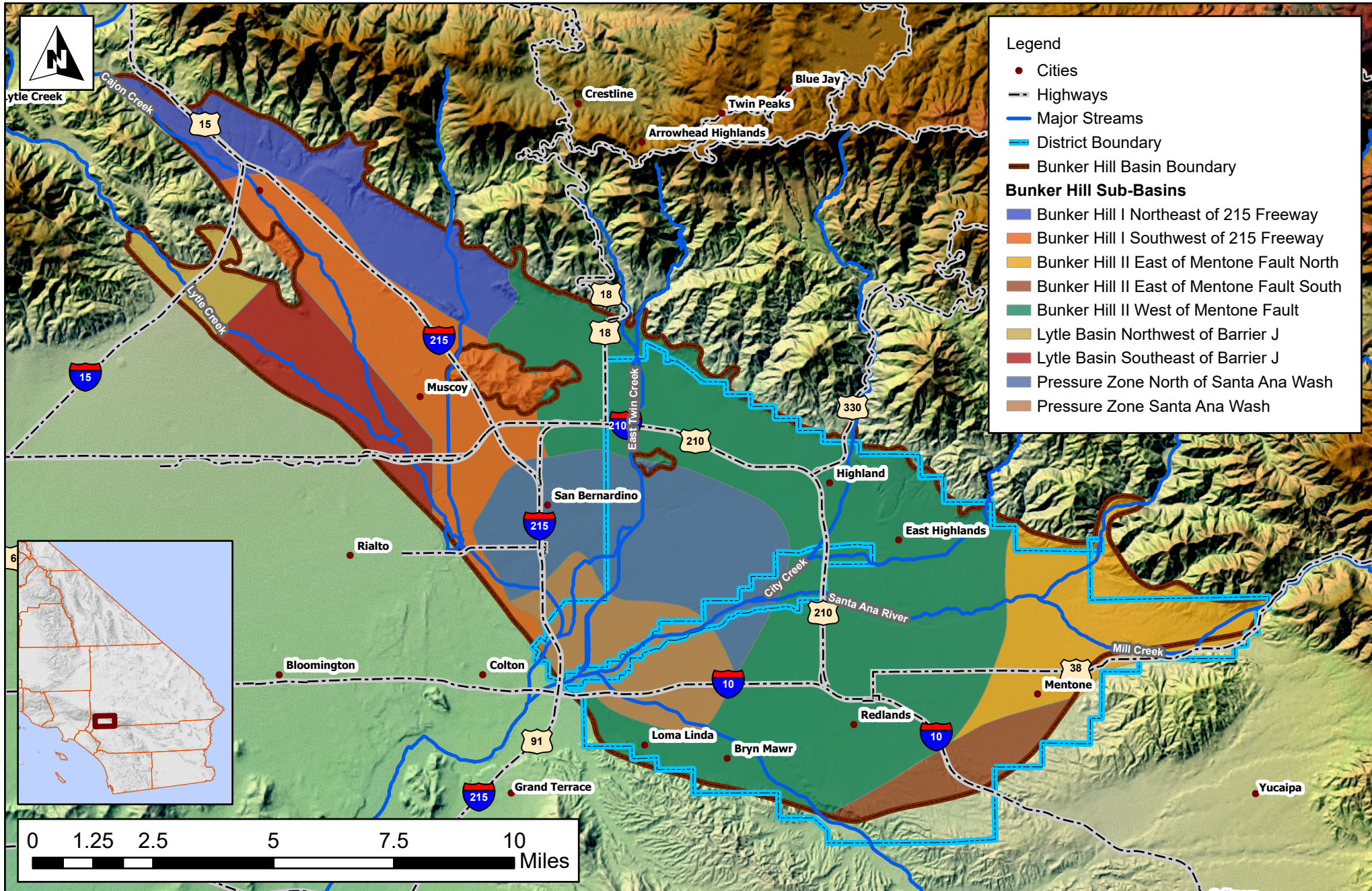


# Figure 3: Bunker Hill Sub Basins Engineering Investigation Report 2025

Coordinate System:  
 NAD 1983 StatePlane California V FIPS 0405 Feet  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Source: SBVWCD, CASIL, SBVMWD  
 GIS Contact: A. Frey  
 January 29, 2025



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# Figure 4: Precipitation Trends and Station Locations October 2023 - September 2024 Engineering Investigation Report 2025

Coordinate System:  
NAD 1983 StatePlane California V FIPS 0405 Feet  
Projection: Lambert Conformal Conic  
Datum: North American 1983  
Source: SBVWCD, CASIL, SBVMWD  
GIS Contact: A. Frey & A. Olmos  
January 29, 2025



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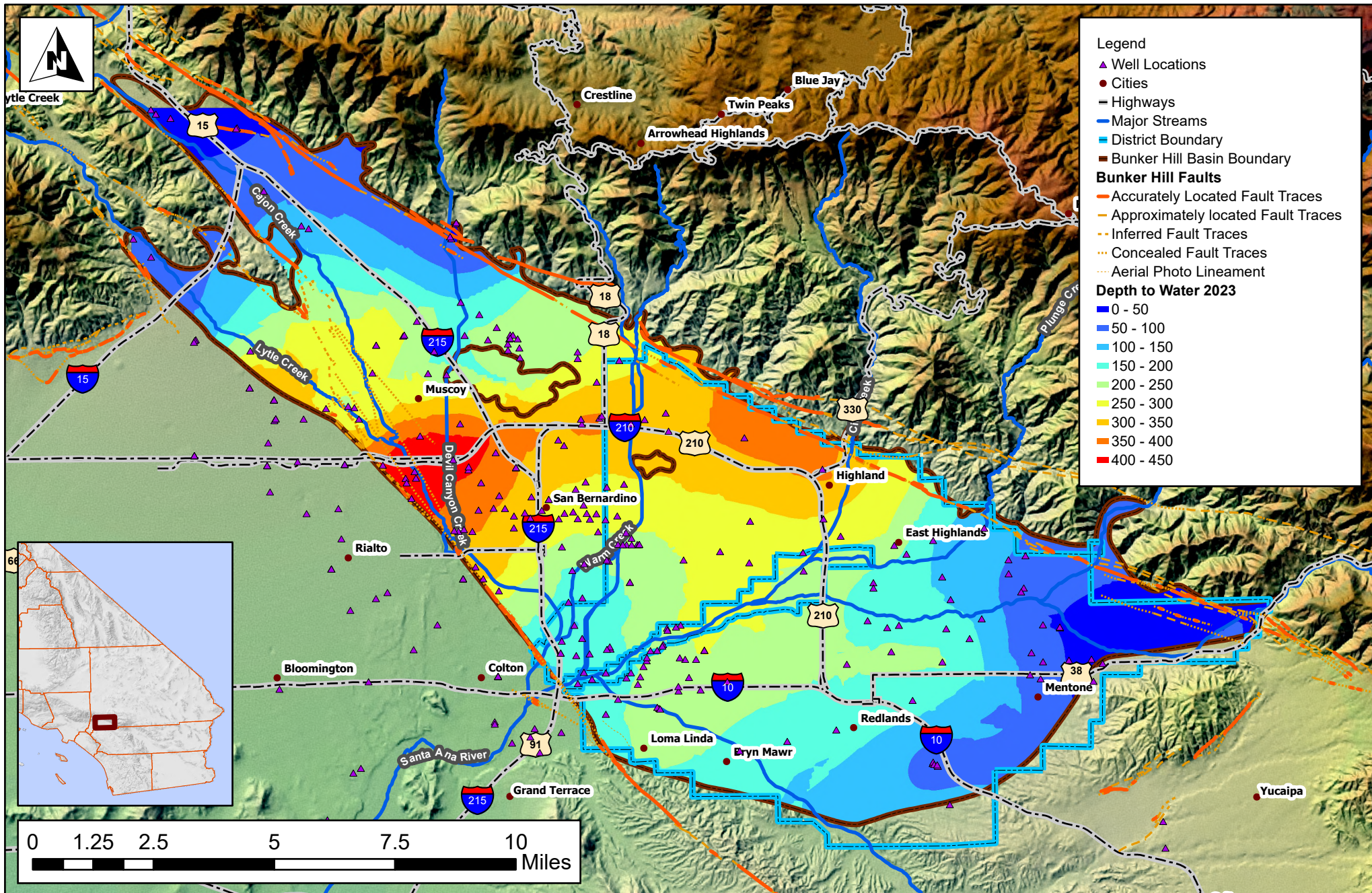


# Figure 5: Water Elevation Contour Surface Fall 2023 Engineering Investigation Report 2025

Coordinate System:  
 NAD 1983 StatePlane California V FIPS 0405 Feet  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Source: SBVWCD, CASIL, SBVMWD  
 GIS Contact: A. Frey & A. Olmos  
 January 29, 2025



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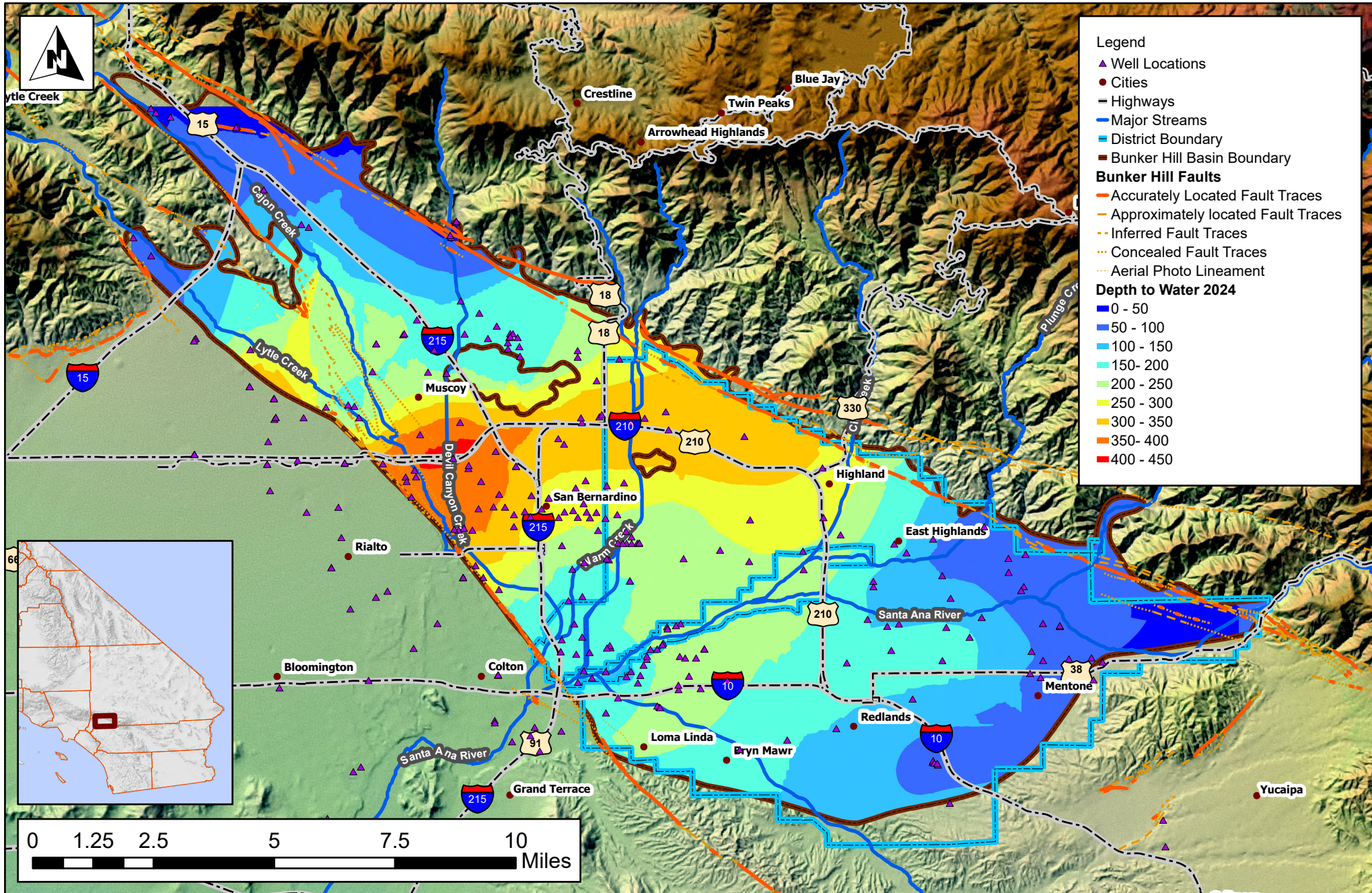


# Figure 6: Water Elevation Contour Surface Fall 2024 Engineering Investigation Report 2025

Coordinate System:  
 NAD 1983 StatePlane California V FIPS 0405 Feet  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Source: SBVWCD, CASIL, SBVMWD  
 GIS Contact: A. Frey & A. Olmos  
 January 29, 2025



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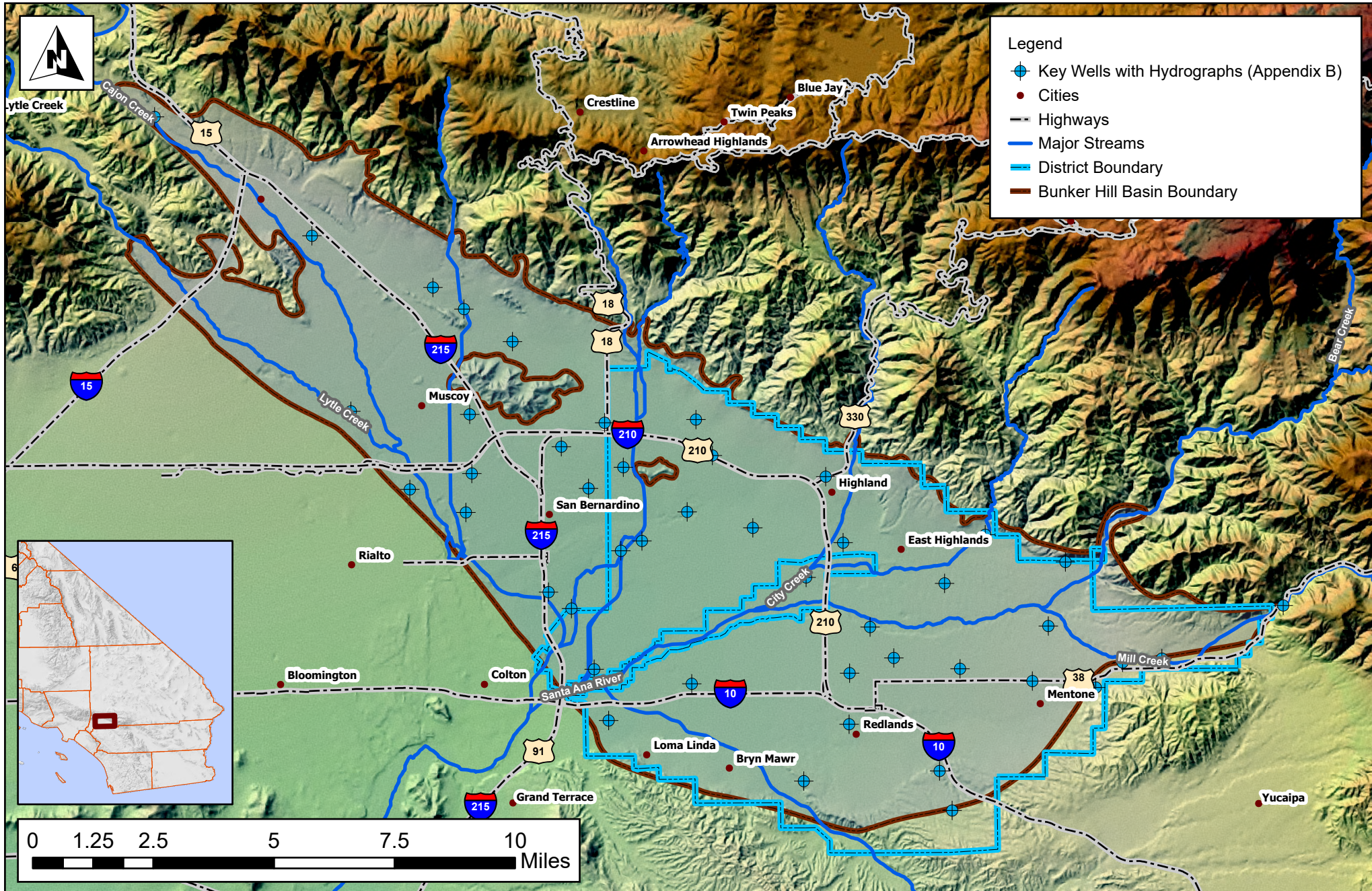


# Figure 7: Key Wells (Appendix B Hydrographs) 2023-2024 Engineering Investigation Report 2025

Coordinate System:  
 NAD 1983 StatePlane California V FIPS 0405 Feet  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 Source: SBVMWD, CASIL, SBVMWD  
 GIS Contact: Anna Frey  
 January 29, 2025



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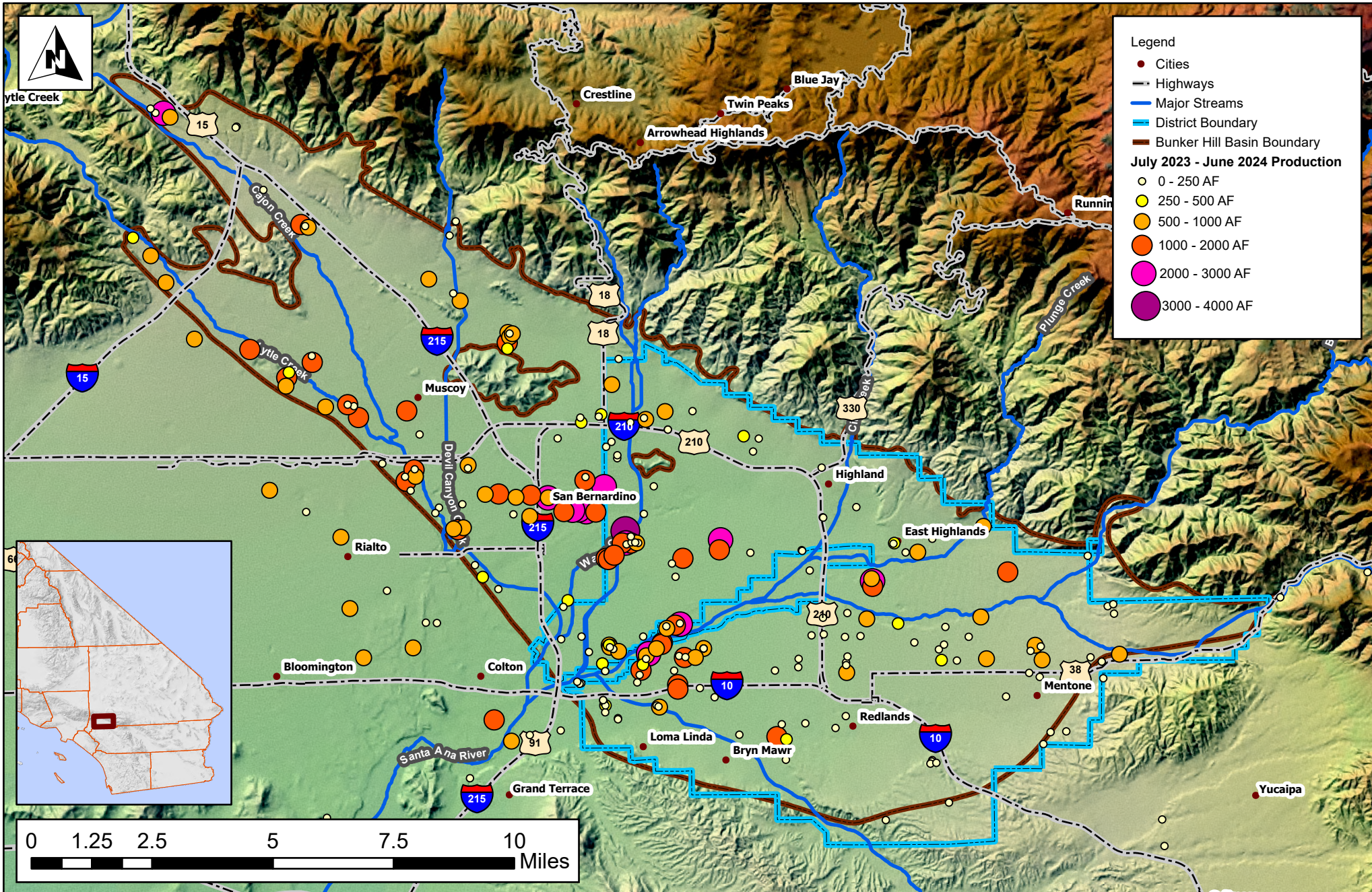


# Figure 8: Groundwater Production Bunker Hill Basin Total Well Production for July 2023 - June 2024 Engineering Investigation Report 2025

Coordinate System:  
NAD 1983 StatePlane California V FIPS 0405 Feet  
Projection: Lambert Conformal Conic  
Datum: North American 1983  
Source: SBVWCD, CASIL, SBVMWD  
GIS Contact: A. Frey  
January 29, 2025

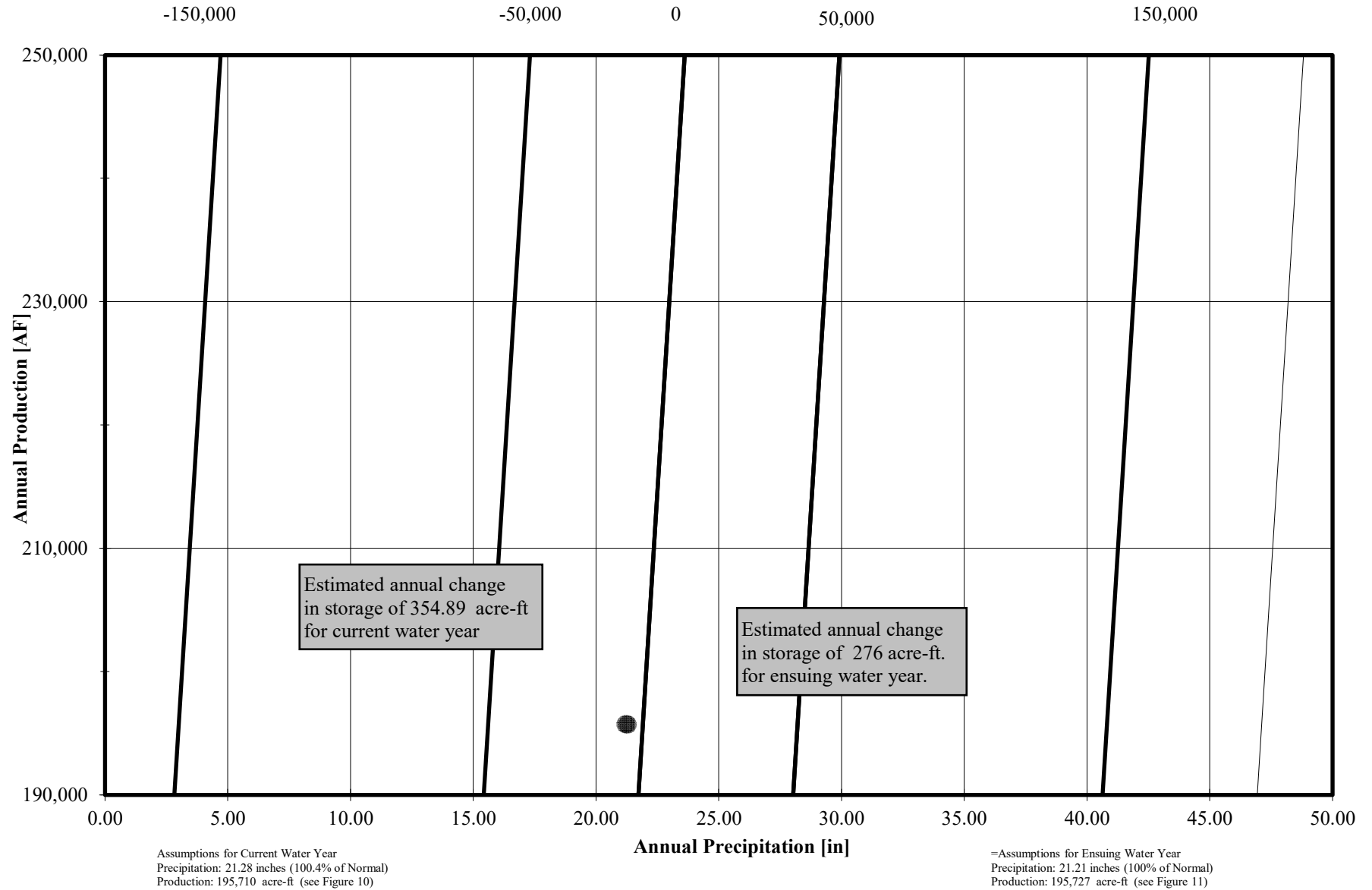


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# Prediction Chart for Annual Change in Storage

## Current and Ensuing Water Years

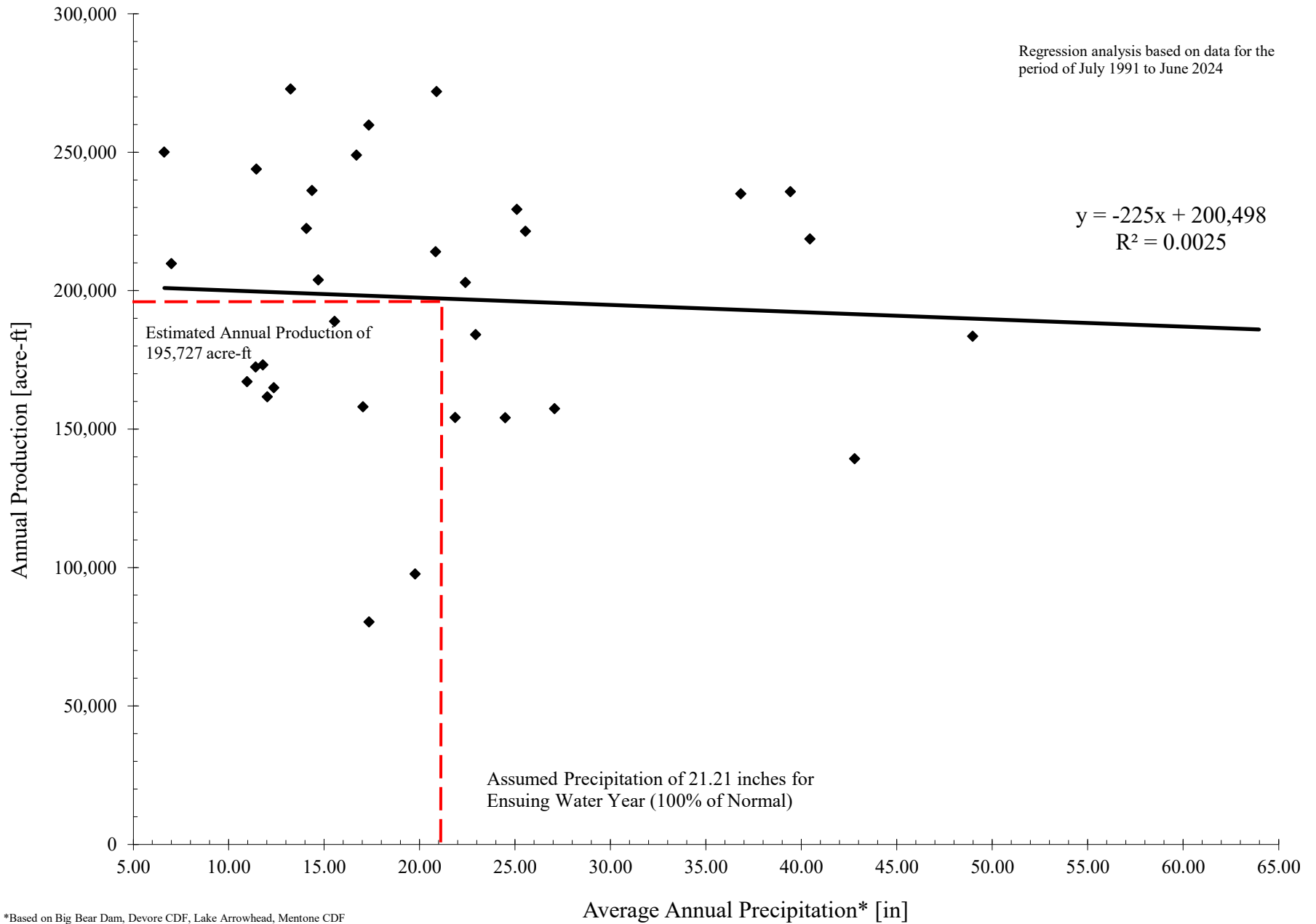


\* Based on Big Bear Dam, Devore CDF, Lake Arrowhead, Mentone CDF, Redlands Country Club, San Bernardino County Hospital, Santa Ana Powerhouse #3, and Yucaipa CDF.

$$\text{Change in Storage} = -118,957 + 8230 * \text{Precipitation} - 0.285 * \text{Production} \quad (R^2 = 0.0025)$$

# Estimate of Production for Ensuing Water Year

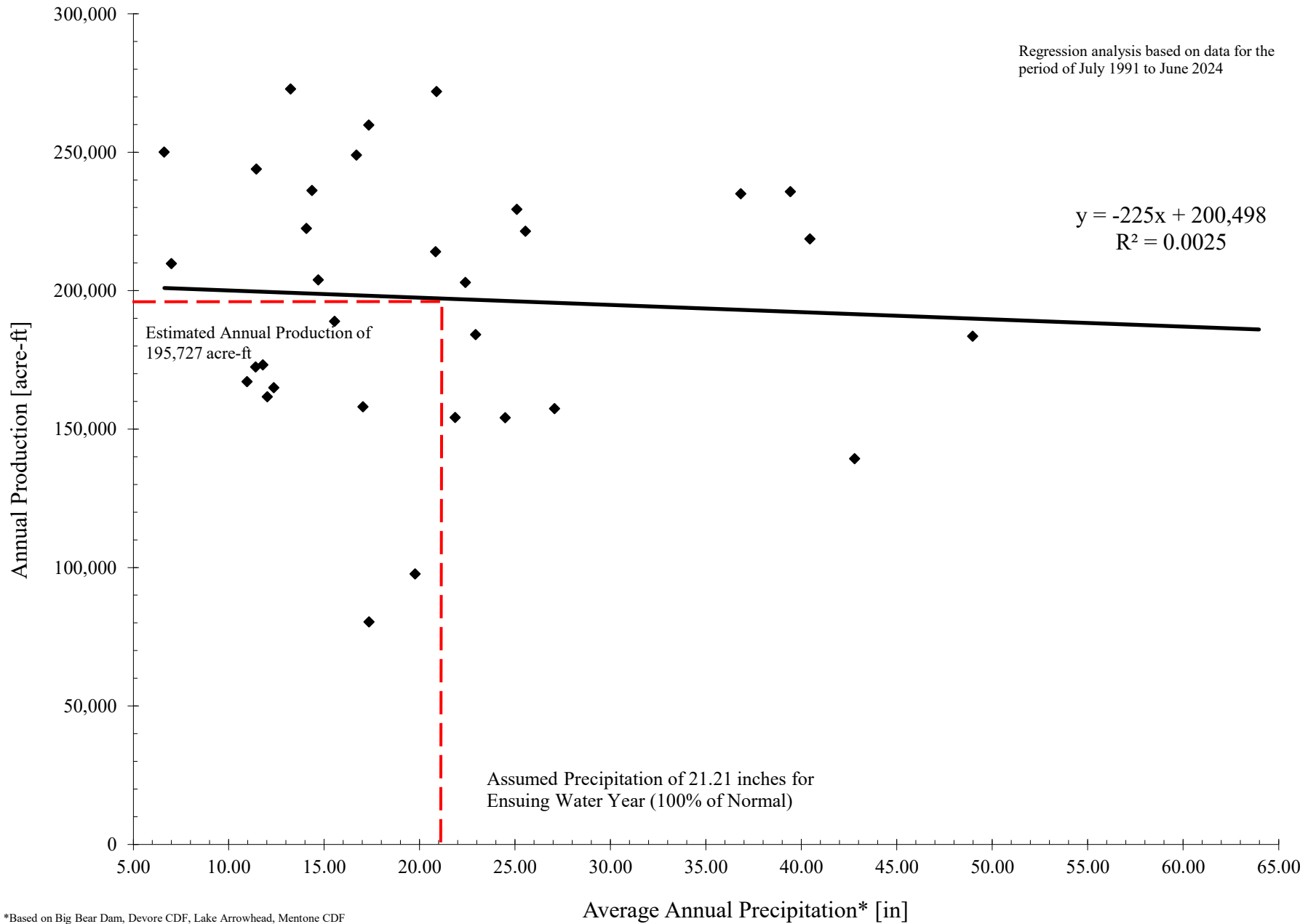
(July 2025 to June 2026)



\*Based on Big Bear Dam, Devore CDF, Lake Arrowhead, Mentone CDF, Redlands Country Club, San Bernardino County Hospital, Santa Ana Powerhouse #3, and Yucaipa CDF.

# Estimate of Production for Ensuing Water Year

(July 2025 to June 2026)



\*Based on Big Bear Dam, Devore CDF, Lake Arrowhead, Mentone CDF, Redlands Country Club, San Bernardino County Hospital, Santa Ana Powerhouse #3, and Yucaipa CDF.

# **Engineering Investigation of the Bunker Hill Basin 2023-2024**

## **Tables**



**San Bernardino Valley  
Water Conservation District**

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## Summary of Percentage of Normal Precipitation

1993  
to 2024  
(Water Year - Oct. to Sept.)

| Station                       | Historic Annual Avg. [in] | 1993 -1994 [in] | 1994 -1995 [in] | 1995 -1996 [in] | 1996 -1997 [in] | 1997 -1998 [in] | 1998 -1999 [in] | 1999 -2000 [in] | 2000 -2001 [in] | 2001 -2002 [in] | 2002 -2003 [in] | 2003 -2004 [in] | 2004 -2005 [in] | 2005 -2006 [in] | 2006 -2007 [in] | 2007 -2008 [in] | 2008 -2009 [in] | 2009 -2010 [in] | 2010 -2011 [in] | 2011 -2012 [in] | 2012 -2013 [in] | 2013 -2014 [in] | 2014 -2015 [in] | 2015 -2016 [in] | 2016 -2017 [in] | 2017 -2018 [in] | 2018 -2019 [in] | 2019 -2020 [in] | 2020 -2021 [in] | 2021 -2022 [in] | 2022 -2023 [in] | 2023 -2024 [in] | Each Station 30 Yr. Avg. [in.] |
|-------------------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------------------|
| Big Bear City                 | 14.42                     | 10.28           | 19.41           | 13.28           | 11.59           | 20.64           | 7.42            | 5.15            | 0.01            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 10.21           | 14.62           | 19.55           | 25.33           | 16.27           | 10.46           | 8.54            | 9.28            | 11.18           | 21.09           | 7.79            | 23.37           | 7.73            | 8.89            | 19.09           | 23.2            |                 | 10.81           |                                |
| Big Bear Dam                  | 34.02                     | 27.60           | 52.40           | 24.40           | 18.60           | 54.30           | 14.20           | 20.60           | 21.40           | 9.20            | 38.10           | 19.60           | 59.10           | 26.40           | 10.30           | 23.10           | 19.70           | 26.00           | 20.20           | 10.44           | 5.19            | 11.72           | 20.40           | 17.32           | 19.88           | 31.27           | 50.19           | 45.73           | 20.21           | 43.89           | 85.84           | 34.80           | 28.45                          |
| Camp Angelus                  | 24.90                     | 17.20           | 46.70           | 26.00           | 30.50           | 55.30           | 16.10           | 21.10           | 21.51           | 7.70            | 35.40           | 13.20           | 35.20           | 41.90           | 0.00            | 2.70            | 18.00           | 18.80           | 1.70            | 16.82           | 9.03            | 10.62           | 41.01           | 11.22           | 36.29           | 16.45           | 45.56           | 27.92           | 12.80           | 24.20           | 148.50          |                 | 26.98                          |
| Crafton Hills                 | 13.63                     | 11.26           | 27.22           | 9.13            | 16.67           | 25.55           | 7.29            | 6.40            | 10.49           | 2.46            | 17.57           | 9.47            | 31.39           | 11.45           | 3.34            | 13.34           | 9.90            | 17.80           | 24.52           | 9.57            | 9.69            | 6.55            | 13.06           | 10.56           | 19.12           | 6.27            | 18.26           | 17.32           | 7.81            | 10.3            | 23.4            | 9.15            | 13.43                          |
| Del Rosa Ranger Station       | 18.01                     | 12.30           | 27.69           | 14.21           | 17.31           | 37.26           | 8.30            | 12.73           | 16.60           | 6.09            | 19.69           | 13.02           | 38.55           | 17.40           | 8.77            | 17.80           | 13.61           | 22.01           | 30.84           | 11.68           | 2.22            | 4.54            | 6.75            | 6.32            | 24.37           | 9.06            | 27.381          | 15.87           | 10.35           | 16.21           | 36.99           | 14.93           | 16.80                          |
| Devore CDF                    | 26.49                     | 19.66           | 39.77           | 23.96           | 33.10           | 52.69           | 13.61           | 8.04            | 15.52           | 10.90           | 35.35           | 16.44           | 60.36           | 24.80           | 8.86            | 25.22           | 16.51           | 34.12           | 43.20           | 17.47           | 14.50           | 13.81           | 18.14           | 15.29           | 35.05           | 12.21           | 39.471          | 22.03           | 8.35            | 20.29           | 54.43           | 1.71            | 24.35                          |
| Fallsvale                     | 30.04                     | 52.00           | 54.90           | 22.10           | 33.80           | 53.00           | 16.30           | 19.20           | 15.30           | 6.50            | 37.50           | 19.80           | 59.70           | 26.90           | 11.10           | 29.30           | 25.00           | 2.85            | 29.51           | 22.90           | 14.10           | 26.30           | 25.58           | 22.314          | 47.64           | 20.77           | 48.7            | 39.96           | 15.39           | 35.24           | 59.79           | 54.7            | 30.59                          |
| Lake Arrowhead                | 37.49                     | 10.04           | 62.60           | 32.70           | 36.50           | 72.80           | 18.10           | 25.80           | 28.60           | 10.70           | 36.50           | 22.70           | 66.40           | 29.50           | 13.60           | 40.40           | 30.30           | 46.00           | 37.76           | 25.10           | 21.30           | 26.70           | 14.73           | 24.3            | 48.81           | 17.27           | 50.816          | 40.3            | 29.07           | 46.64           | 102.73          | 51.1            | 36.12                          |
| Loma Linda FD                 | 11.09                     | 10.81           | 21.17           | 8.85            | 9.78            | 22.74           | 5.12            | 7.74            | 6.38            | 2.45            | 14.48           | 8.06            | 22.59           | 11.06           | 3.51            | 9.64            | 8.95            | 13.10           | 18.24           | 6.79            | 6.42            | 9.06            | 9.50            | 7.86            | 16.13           | 5.91            | 17.36           | 15.17           | 7.16            | 8               | 20.48           | 13.93           | 11.23                          |
| Lytte Creek at Foothill       | 12.99                     | 9.16            | 25.51           | 12.23           | 13.83           | 25.84           | 6.25            | 9.81            | 12.12           | 4.00            | 13.60           | 7.16            | 27.23           | 11.22           | 3.84            | 11.89           | 8.12            | 13.03           | 21.63           | 6.90            | 4.51            | 8.34            | 10.18           | 7.04            | 18.247          | 4.99            | 15.32           | 10.79           | 6.68            | 10.04           | 19.74           |                 | 11.97                          |
| Lytte Creek Fire Station      | 23.25                     | 20.50           | 47.57           | 24.49           | 23.10           | 52.18           | 11.81           | 20.40           | 18.34           | 4.47            | 16.96           | 12.09           | 44.11           | 18.92           | 4.22            | 21.89           | 3.32            | 0.00            | 28.46           | 8.18            | 7.33            | 8.03            | 9.07            | 13.57           | 31.02           | 11.902          | 36.02           | 24.46           | 6.77            | 16.88           | 46.43           | 0.38            | 19.12                          |
| Mentone CDF                   | 12.29                     | 11.68           | 23.25           | 9.42            | 15.50           | 27.09           | 4.28            | 9.08            | 10.16           | 4.06            | 15.00           | 10.38           | 24.94           | 11.01           | 5.41            | 10.76           | 9.39            | 14.96           | 17.77           | 7.90            | 7.33            | 3.11            | 0.89            | 8.57            | 15.14           | 5.28            | 16.22           | 14.37           | 7.01            | 6.86            | 4.82            | 5.58            | 10.88                          |
| Oak Glen                      | 24.05                     | 18.76           | 57.92           | 20.04           | 30.39           | 49.46           | 11.32           | 17.12           | 11.24           | 6.72            | 14.28           | 18.39           | 34.14           | 22.58           | 9.71            | 27.54           | 18.11           | 29.72           | 36.82           | 15.13           | 15.69           | 14.07           | 20.54           | 18.78           | 16.04           | 7.44            | 34.06           | 23.05           | 8.88            | 15.01           | 35.45           | 15.29           | 21.73                          |
| Redlands - Roth               | 11.44                     | 10.06           | 20.49           | 8.08            | 10.77           | 22.29           | 6.46            | 7.41            | 10.38           | 3.35            | 12.18           | 9.16            | 24.43           | 9.52            | 3.31            | 9.46            | 8.91            | 15.12           | 17.38           | 4.34            | 1.54            | 2.08            | 2.72            | 1.7             | 14.42           | 5.43            | 14.74           | 13.776          | 6.63            | 6.07            | 19.53           | 10.52           | 10.07                          |
| Redlands Country Club         | 12.29                     | 11.90           | 15.76           | 0.65            | 9.03            | 17.22           | 6.30            | 5.68            | 9.96            | 3.97            | 16.45           | 11.58           | 29.37           | 10.30           | 4.13            | 11.93           | 11.35           | 17.25           | 22.33           | 8.84            | 8.82            | 6.92            | 10.37           | 8.61            | 16.9            | 5.53            | 16.12           | 6.27            | 6.23            | 8.64            | 22.12           | 9.57            | 11.29                          |
| San Bernardino CDF            | 16.63                     | 4.46            | 20.29           | 15.77           | 16.17           | 34.32           | 9.30            | 13.62           | 16.61           | 5.29            | 13.14           | 11.54           | 37.28           | 16.39           | 6.33            | 18.91           | 10.73           | 20.45           | 27.94           | 10.63           | 7.69            | 11.30           | 11.19           | 10.91           | 23.3            | 7.99            | 23.48           | 13.65           | 8.88            | 4.62            | 21.58           | 1.48            | 14.69                          |
| San Bernardino Co. Hospital   | 16.04                     | 12.40           | 25.94           | 11.94           | 17.80           | 32.67           | 8.02            | 11.09           | 2.43            | 3.60            | 17.06           | 10.49           | 29.89           | 13.20           | 4.68            | 12.81           | 9.96            | 17.03           | 21.76           | 9.58            | 9.36            | 10.97           | 10.97           | 8.96            | 19.15           | 6.67            | 5.7             | 13.18           | 12.84           | 11.41           | 23.58           | 20.44           | 13.73                          |
| Santa Ana Pumphouse #3        | 15.91                     | 14.00           | 24.85           | 11.05           | 16.60           | 27.95           | 7.01            | 6.78            | 8.63            | 3.23            | 18.24           | 9.40            | 27.65           | 11.78           | 6.13            | 10.73           | 9.75            | 14.58           | 20.18           | 8.62            | 9.12            | 7.42            | 9.57            | 9.29            | 16.47           | 6.762           | 20.07           | 14.98           | 8.62            | 5.94            | 19.13           | 5.32            | 12.58                          |
| Yucaipa CDF                   | 15.30                     | 10.00           | 14.70           | 10.89           | 16.06           | 24.70           | 7.63            | 11.10           | 9.92            | 5.66            | 19.47           | 11.84           | 32.70           | 13.14           | 6.56            | 14.67           | 12.11           | 18.79           | 25.09           | 11.80           | 5.25            | 4.45            | 12.49           | 11.11           | 17.18           | 6.47            | 20.341          | 14.7            | 6.06            | 9.99            | 29.63           | 15.68           | 13.88                          |
| Yucaipa Valley Water District | 15.29                     | 11.35           | 28.54           | 10.19           | 16.93           | 28.60           | 9.87            | 9.63            | 9.65            | 5.27            | 19.50           | 11.10           | 32.73           | 12.52           | 5.53            | 14.79           | 10.47           | 17.68           | 22.74           | 10.80           | 9.60            | 7.58            | 12.39           | 10.31           | 18.38           | 6.48            | 19.73           | 16.53           | 5.14            | 9.71            | 24.58           | 9.71            | 14.13                          |

|                   |      |     |      |     |      |      |     |     |     |     |      |     |      |     |     |     |     |     |      |     |     |     |     |     |      |     |      |      |     |     |      |     |     |
|-------------------|------|-----|------|-----|------|------|-----|-----|-----|-----|------|-----|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|------|-----|------|------|-----|-----|------|-----|-----|
| Percent of Normal | 100% | 79% | 170% | 80% | 102% | 191% | 50% | 64% | 66% | 27% | 106% | 64% | 186% | 88% | 31% | 87% | 70% | 98% | 128% | 62% | 46% | 52% | 70% | 61% | 123% | 52% | 141% | 103% | 53% | 85% | 213% | 84% | 92% |
|-------------------|------|-----|------|-----|------|------|-----|-----|-----|-----|------|-----|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|------|-----|------|------|-----|-----|------|-----|-----|

|                       |       |
|-----------------------|-------|
| Total Station Average | 19.28 |
|-----------------------|-------|

Source: San Bernardino County Department of Transportation/Flood Control

## Change in Groundwater Levels in Key Wells

Fall 2023 to Fall 2024

| WCD Code | Recordation Number | State Well Number | Well Name              | Owner Or Measuring Agency               | 2023 Depth To Water (ft) | 2024 Depth To Water (ft) | Difference Fall 2023 to Fall 2024 |
|----------|--------------------|-------------------|------------------------|---|--------------------------|--------------------------|-----------------------------------|
| 1865     | 3601675            | 1N4W25A01S        | 27                     | East Valley Water District              | 189.0                    | 189.0                    | 0.0                               |
| 1984     | 3602113            | 1N3W30N01S        | 41                     | East Valley Water District              | 308.0                    | 231.0                    | 77.0                              |
| 1364     | 3600026            | 1S3W04J01S        | 102                    | East Valley Water District              | 260.0                    | 243.0                    | 17.0                              |
| 1401     | 3600220            | 1S3W01H01S        | 142 Mt. Harrison       | East Valley Water District              | 150.0                    | 106.0                    | 44.0                              |
| 1660     | 3601184            | 1N3W33F01S        | 94 Corwin              | East Valley Water District              | 418                      | 424.0                    | -6.0                              |
| 1851     | 3601660            | 1S3W06H04S        | 9A                     | East Valley Water District              | 262.0                    | 256.0                    | 6.0                               |
| 1010     | 9900021            | 1S3W09E02S        | Tri-City Concrete      | East Valley Water District              | 254.0                    | 245.0                    | 9.0                               |
| 2271     | 3602855            | 1S4W25D07S        | Anderson III           | Loma Linda University                   | 237                      | 240.0                    | -3.0                              |
| 1727     | 3601308            | 1S2W19K01S        | Agate #1               | Redlands, City of                       | 71.0                     | 74.0                     | -3.0                              |
| 1708     | 3601283            | 1S2W22C02S        | E. Lugonia #2          | Redlands, City of                       |                          |                          |                                   |
| 1712     | 3601287            | 1S2W21B02S        | E. Lugonia #3          | Redlands, City of                       | 23.0                     | 29.0                     | -6.0                              |
| 1714     | 3601290            | 1S2W21D01S        | E. Lugonia #6          | Redlands, City of                       | 23.0                     | 51.0                     | -28.0                             |
| 1970     | 3602065            | 1S3W32J02S        | Lee Well               | Redlands, City of                       |                          |                          |                                   |
| 1706     | 3601281            | 1S2W36F01S        | Maguet #1              | Redlands, City of                       | 15.0                     | 20.0                     | -5.0                              |
| 1709     | 3601284            | 1S2W21E01S        | Maguet #2              | Redlands, City of                       | 36.0                     | 44.0                     | -8.0                              |
| 1707     | 3601282            | 1S1W08H01S        | Mill Creek #1          | Redlands, City of                       |                          |                          |                                   |
| 1819     | 3601586            | 1S3W15F01S        | Orange Street          | Redlands, City of                       | 164.0                    | 131.0                    | 33.0                              |
| 1591     | 3600918            | 2S3W01E01S        | Redlands Heights       | Redlands, City of                       | 184.0                    | 177.0                    | 7.0                               |
| 1718     | 3601294            | 1S3W35G09S        | Well #13               | Redlands, City of                       | 61.0                     | 64.0                     | -3.0                              |
| 1720     | 3601296            | 1S3W35H03S        | Well #16               | Redlands, City of                       | 43.0                     | 44.0                     | -1.0                              |
| 1722     | 3601298            | 1S3W21H01S        | Well #32               | Redlands, City of                       |                          |                          |                                   |
| 1723     | 3601299            | 1S4W24K01S        | Well #34               | Redlands, City of                       | 256.0                    | 236.0                    | 20.0                              |
| 1964     | 3602032            | 1S3W22A02S        | Well #35               | Redlands, City of                       | 234.0                    | 189.0                    | 45.0                              |
| 1725     | 3601301            | 1S3W28H01S        | Well #41               | Redlands, City of                       |                          |                          |                                   |
| 1702     | 3601263            | 1N5W23Q01S        | City 1                 | Rialto, City of                         | 247.0                    | 392.0                    | -145.0                            |
| 1668     | 3601225            | 1S4W02P02S        | Cooley D               | Riverside, City of                      | 235.1                    | 234.1                    | 1.0                               |
| 1662     | 3601218            | 1S4W14P02S        | Raub 1                 | Riverside, City of                      |                          |                          |                                   |
| 1677     | 3601234            | 1S4W27A19S        | Stewart 19             | Riverside, City of                      |                          |                          |                                   |
| 1744     | 3601431            | 1S4W27H01S        | Stewart 20             | Riverside, City of                      | 190.5                    | 192.0                    | -1.4                              |
| 1767     | 3601478            | 1S4W22B03S        | Thorn 10               | Riverside, City of                      |                          |                          |                                   |
| 1683     | 3601240            | 1S4W22H04S        | Warren 1               | Riverside, City of                      |                          | 172.5                    |                                   |
| 1554     | 3600787            | 1S4W23A02S        | 26-1                   | Riverside, City Of-Gage Canal           | 198.0                    | 199.0                    | -1.0                              |
| 2291     | 229101             | 1S2W07B01S        | SBVWCD #1              | San Bernardino Valley Water Cons. Dis   | 96.5                     | 77.4                     | 19.2                              |
| 2290     | 229001             | 1S2W07K01S        | SBVWCD #2              | San Bernardino Valley Water Cons. Dis   | 29.8                     | 18.4                     | 11.4                              |
| 2286     | 228601             | 1S3W12J01S        | SBVWCD #3              | San Bernardino Valley Water Cons. Dis   | 68.3                     | 23.8                     | 44.6                              |
| 2288     | 228801             | 1S3W11H01S        | SBVWCD #4              | San Bernardino Valley Water Cons. Dis   | 109.0                    | 82.3                     | 26.7                              |
| 1525     | 3600725            | 1N4W34G01S        | 17th & Sierra Way #2   | San Bernardino, City of                 |                          |                          |                                   |
| 1517     |                    | 1N4W32D03S        | 19th Street No. 1      | San Bernardino, City of                 | 392.0                    | 9999.0                   | -9607.0                           |
| 1520     | 3600720            | 1N4W27M02S        | 27th Street Well       | San Bernardino, City of                 | 323.8                    | 332.2                    | -8.4                              |
| 1519     | 3600719            | 1N4W27G01S        | 30th & Mtn. View       | San Bernardino, City of                 | 388.3                    | 369.4                    | 18.9                              |
| 1979     | 3602081            | 1N4W27B01S        | 31st & Mtn. View       | San Bernardino, City of                 | 386.8                    | 370.0                    | 16.8                              |
| 2066     | 3602422            | 1S4W02K08S        | Antil Well #6          | San Bernardino, City of                 | 260.5                    | 9999.0                   | -9738.5                           |
| 2062     | 3602400            | 1N4W32N01S        | Baseline Well          | San Bernardino, City of                 | 352.3                    | 393.1                    | -40.8                             |
| 1510     | 3600710            | 2N5W19K02S        | Cajon Canyon Well      | San Bernardino, City of                 | 13.5                     | 30.1                     | -16.6                             |
| 1910     | 3601844            | 1N5W03H02S        | Cajon Well #2          | San Bernardino, City of                 |                          |                          |                                   |
| 2115     | 3602821            | 1N5W03A02S        | Cajon Well #3          | San Bernardino, City of                 | 119.1                    | 128.9                    | -9.8                              |
| 2008     | 3602206            | 1N4W06H02S        | Devil Canyon #3        | San Bernardino, City of                 | 22.3                     | 23.0                     | -0.7                              |
| 2007     | 3602205            | 1N4W06H01S        | Devil Canyon #4        | San Bernardino, City of                 | 34.0                     | 34.7                     | -0.7                              |
| 3139     | G363790            | 1N04W32PS         | EPA Extract Well 112   | San Bernardino, City of                 |                          | 580.0                    |                                   |
| 1537     | 3600737            | 1S4W10N06S        | Mill & D               | San Bernardino, City of                 | 238.8                    | 243.2                    | -4.4                              |
| 1514     | 3600714            | 1N4W16E01S        | Newmark #1             | San Bernardino, City of                 | 219.5                    | 184.6                    | 34.9                              |
| 1516     | 3600716            | 1N4W16E03S        | Newmark #3             | San Bernardino, City of                 | 223.8                    | 192.5                    | 31.3                              |
| 1647     | 3601115            | 1N4W26P03S        | Perris Hill #5         | San Bernardino, City of                 |                          |                          |                                   |
| 2448     | 9900045            | 1S4W23H           | Brier/Gould/Tippecanoe | San Bernardino, City of / shallow wells |                          |                          |                                   |
|          |                    | 1S04W22C          | Wastewater N MW #1     | San Bernardino, City of / shallow wells |                          |                          |                                   |
| 1936     | 3601944            | 1N5W23Q01S        | 2/Lower 7              | West Valley Water District              | 210.0                    | 141.0                    | 69.0                              |
| 1419     | 3603769            | 1N5W25E01S        | 5A/Lower 5             | West Valley Water District              | 211.0                    |                          |                                   |
| 1612     | 3600997            | 1N5W36H04S        | 7/Lord 7               | West Valley Water District              | 484                      |                          |                                   |

# Annual Change in Storage for Bunker Hill Basin

Fall 2023 to Fall 2024

| Sub-area                                      | [1]<br>Annual Change<br>in Water Level<br>2024<br>[ft] | [2]<br>Area<br>[acres] | [3]<br>Storativity (S) | [4]<br>Annual Change<br>in Storage**<br>[acre-ft] |
|---|--|------------------------|------------------------|---|
| Bunker Hill I - Northeast of 215 Freeway      | -3.6   | 7,795                  | 0.11                   | -3,069  |
| Bunker Hill I - Southwest of 215 Freeway      | 20.3   | 11,714                 | 0.09                   | 21,387  |
| Bunker Hill II - West of Mentone Fault        | 21.4   | 35,206                 | 0.06                   | 45,304  |
| Bunker Hill II - East of Mentone Fault, North | -10.6  | 8,584                  | 0.13                   | -11,801   |
| Bunker Hill II - East of Mentone Fault, South | 1.0  | 2,507                  | 0.13                   | 326   |
| Lytle Basin - Northwest of Barrier J          | -9.3   | 1,924                  | 0.13                   | -2,334  |
| Lytle Basin - Southeast of Barrier J          | 42.5   | 5,237                  | 0.07                   | 15,590  |
| Pressure Zone - North of Santa Ana Wash       | 9.6  | 11,920                 | 0.02                   | 2,298   |
| Pressure Zone - Santa Ana Wash                | 4.7  | 6,686                  | 0.02                   | 626   |

|                |               |
|----------------|---------------|
| <b>Total =</b> | <b>68,326</b> |
|----------------|---------------|

[1] Based on average changes in water level within each Sub-area

[2] Estimated using GIS

[3] Based on data from Hardt and Hutchinson (1980).

S, storativity: The amount of water stored or released per unit area of aquifer given unit head change.

[4] = [1] x [2] x [3]

\*A positive sign denotes an increase in water level and a negative sign represents a decline in water level.

# Accumulated Change in Storage for Bunker Hill Basin

1989 to 2024 (Based on "Zero Year" of 1993)

| Year | Accumulated Storage<br>[acre-ft] |
|------|----------------------------------|
| 1989 | -58,000                          |
| 1990 | -170,700                         |
| 1991 | -196,000                         |
| 1992 | -191,000                         |
| 1993 | 0                                |
| 1994 | -50,000                          |
| 1995 | 41,100                           |
| 1996 | -43,100                          |
| 1997 | -75,500                          |
| 1998 | 40,400                           |
| 1999 | -85,700                          |
| 2000 | -131,100                         |
| 2001 | -212,200                         |
| 2002 | -301,500                         |
| 2003 | -338,800                         |
| 2004 | -406,900                         |
| 2005 | -183,100                         |
| 2006 | -245,500                         |
| 2007 | -359,400                         |
| 2008 | -362,000                         |
| 2009 | -397,600                         |
| 2010 | -340,623                         |
| 2011 | -224,603                         |
| 2012 | -314,377                         |
| 2013 | -444,322                         |
| 2014 | -535,877                         |
| 2015 | -583,447                         |
| 2016 | -566,555                         |
| 2017 | -522,930                         |
| 2018 | -570,718                         |
| 2019 | -418,310                         |
| 2020 | -486,185                         |
| 2021 | -580,031                         |
| 2022 | -651,262                         |
| 2023 | -424,456                         |
| 2024 | -356,130                         |

Note: A negative sign indicates a decline in storage and a positive sign represents an increase in storage.

# Production for Sub-basins of Bunker Hill Basin

Preceding Water Year (July 2023 to June 2024)

| Sub-area                                      | Production<br>July 2023 to June 2024<br>[acre-ft] <sup>2</sup> |
|---|--|
| Bunker Hill I - Northeast of Interstate 215   | 4,755  |
| Bunker Hill I - Southwest of Interstate 215   | 7,609  |
| Bunker Hill II - West of Mentone Fault        | 22,920   |
| Bunker Hill II - East of Mentone Fault, North | 3,841  |
| Bunker Hill II - East of Mentone Fault, South | 575  |
| Lytle Basin - Northwest of Barrier J          | 1,688  |
| Lytle Basin - Southeast of Barrier J          | 13,640   |
| Pressure Zone - North of Santa Ana Wash       | 43,717   |
| Pressure Zone - Santa Ana Wash                | 27,384   |
| <b>Total</b>                                  | <b>126,128</b>   |

Notes: 182 Wells Used in these Calculations

1 - Refer to Appendix C for Well Values Compiled for Estimate.

2 - Estimated for Water Year July 2023-June 2024 production.

*Data Sources: 15 Primary Water Purveyors,*  
as well as San Bernardino Watermaster, and SBVMWD.

# Estimates of Percentage of Normal Precipitation for Previous Water Year

July 2023 to June 2024

|                                | [0]                           |           | [1]                       | [2]                            | [3]         | [4]                      | [5]                            | [6]         | [7]                       |
|--------------------------------|-------------------------------|-----------|---------------------------|--------------------------------|-------------|--------------------------|--------------------------------|-------------|---------------------------|
|                                | July to June                  |           | Season - July to December |                                |             | Season - January to June |                                |             | Jul. 2023-<br>Jun. 2024   |
| Station                        | Historic<br>Average<br>Annual | 2023-2024 | Historic<br>Average       | Sum<br>Jul 2023 to<br>Dec 2024 | % of Normal | Historic<br>Average      | Sum<br>Jan 2023 to<br>Jun 2024 | % of Normal | Water Year<br>% of Normal |
|                                | [inches]                      | [inches]  | [inches]                  | [inches]                       | [%]         | [inches]                 | [inches]                       | [%]         | [%]                       |
| Big Bear Dam                   | 31.88                         | 39.70     | 10.80                     | 11.25                          | 104%        | 21.08                    | 28.45                          | 135%        | 125%                      |
| Devore CDF                     | 26.30                         | 7.62      | 8.56                      | 6.49                           | 76%         | 17.75                    | 1.13                           | 6%          | 29%                       |
| Camp Angelus                   | 23.78                         | -         | 7.81                      | -                              | -           | 15.97                    | -                              | -           | -                         |
| Lake Arrowhead                 | 37.57                         | 63.26     | 12.25                     | 18.16                          | 148%        | 25.32                    | 45.10                          | 178%        | 168%                      |
| Mentone CDF                    | 12.13                         | 7.23      | 3.82                      | 2.86                           | 75%         | 8.31                     | 4.37                           | 53%         | 60%                       |
| Redlands Country Club          | 12.36                         | 12.44     | 4.00                      | 3.68                           | 92%         | 8.36                     | 8.76                           | 105%        | 101%                      |
| San Bernardino County Hospital | 15.54                         | 23.05     | 4.95                      | 4.71                           | 95%         | 10.59                    | 18.34                          | 173%        | 148%                      |
| Santa Ana Pumphouse #3         | 16.00                         | 7.31      | 5.32                      | 3.69                           | 69%         | 10.68                    | 3.62                           | 34%         | 46%                       |
| Yucaipa CDF                    | 15.30                         | 19.39     | 5.00                      | 5.80                           | 116%        | 10.30                    | 13.59                          | 132%        | 127%                      |

|                   |              |              |
|-------------------|--------------|--------------|
| <b>Avg (in) =</b> | <b>21.21</b> | <b>22.50</b> |
|-------------------|--------------|--------------|

|                  |              |
|------------------|--------------|
| <b>Average =</b> | <b>97.0%</b> |
|------------------|--------------|

|                  |               |
|------------------|---------------|
| <b>Average =</b> | <b>102.0%</b> |
|------------------|---------------|

|                          |               |
|--------------------------|---------------|
| <b>2023-24 Average =</b> | <b>100.4%</b> |
|--------------------------|---------------|

[1], [4]: Based on data provided by San Bernardino County Department of Transportation/Flood Control

[3] = ([2] / [1]) x 100

[5] = [0] - [2]

[6] = ([5] / [4]) x 100

[7] = (( [2] + [5] ) / ([1] + [4])) x 100

# Average Annual Change in Storage for Bunker Hill Basin

Fall 2014 to Fall 2024

(The Immediate Past 10 Water Years)

| Sub-area                                 | [1]<br>Average<br>Change in 10<br>Years<br>in Water<br>Level*<br>[ft] | [2]<br>Area<br>[acres] | [3]<br>Storativity<br>(S) | [4]<br>Average<br>Annual<br>Change in<br>Storage**<br>[acre-ft] |
|--|---|------------------------|---------------------------|---|
| Bunker Hill I - Southwest of 215 Freeway | -2.26   | 11,714                 | 0.09                      | -2,331  |
| Bunker Hill I - Northeast of 215 Freeway | 1.52  | 7,795                  | 0.11                      | 1,300   |
| Bunker Hill II - West of Mentone Fault   | 3.00  | 35,206                 | 0.06                      | 6,224   |
| Bunker Hill II - East of Mentone Fault   | 5.15  | 11,091                 | 0.13                      | 7,420   |
| Lytle Basin - Southeast of Barrier J     | 7.70  | 5,237                  | 0.07                      | 2,824   |
| Lytle Basin - Northwest of Barrier J     | 1.51  | 1,924                  | 0.13                      | 377   |
| Pressure Zone - North of Santa Ana Wash  | 1.73  | 11,920                 | 0.02                      | 413   |
| Pressure Zone - Santa Ana Wash           | -3.24   | 6,686                  | 0.02                      | -433  |

|                       |
|-----------------------|
| <b>Total = 15,793</b> |
|-----------------------|

[1] Based on average annual changes in water level within each Sub-area over last 10 years.

[2] Estimated using GIS.

[3] Based on data from Hardt and Hutchinson (1980).

S storativity: The amount of water stored or released per unit area of aquifer given unit head change.

[4] = [1] x [2] x [3]

\*A positive sign is an increase in water level and a negative sign is a decline in water level.

# Summary of Surface Distribution Water for Bunker Hill Basin

1995 to 2024

| Streamflow Diversions                    | 1996<br>[acre-ft] | 1997<br>[acre-ft] | 1998<br>[acre-ft] | 1999<br>[acre-ft] | 2000<br>[acre-ft] | 2001<br>[acre-ft] | 2002<br>[acre-ft] | 2003<br>[acre-ft] | 2004<br>[acre-ft] | 2005<br>[acre-ft] | 2006<br>[acre-ft] | 2007<br>[acre-ft] | 2008<br>[acre-ft] | 2009<br>[acre-ft] | 2010<br>[acre-ft] |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Lytile Creek</b>                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Fontana Union WC                         | 10,730            | 7,266             | 8,626             | 9,695             | 4,131             | 5,829             | 2,906             | 3,029             | 3,774             | 4,439             | 12,203            | 6,516             | 6,727             | 5,776             | 10,052            |
| Mount Vernon WC                          | 0                 | 0                 | 0                 | 312               | 786               | 778               | 975               | 1,442             | 754               | 70                | 250               | 437               | 927               | 1,132             | 167               |
| Rialto, City of                          | 1,070             | 393               | 896               | 1,461             | NA                | 1,305             | 1,143             | 726               | 1,707             | 1,209             | 1,448             | 1,160             | 1,165             | 1,135             | 1,000             |
| San Bernardino, City of                  | 2,400             | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 580               | 5                 | 254               | 483               | 498               | 450               | 450               |
| West Valley Water District               | 3,686             | 4,079             | 3,696             | 3,408             | 3,047             | 3,175             | 2,573             | 2,380             | 4,710             | 2,079             | 3,081             | NA                | 3,369             | 2,435             | 3,322             |
| <b>Subtotal</b>                          | <b>17,886</b>     | <b>11,738</b>     | <b>13,218</b>     | <b>14,876</b>     | <b>7,964</b>      | <b>11,087</b>     | <b>7,597</b>      | <b>7,577</b>      | <b>11,525</b>     | <b>7,802</b>      | <b>17,236</b>     | <b>8,596</b>      | <b>12,686</b>     | <b>10,928</b>     | <b>14,991</b>     |
| <b>Mill Creek</b>                        |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Redlands, City of                        | 12,250            | 10,250            | 11,224            | 11,951            | 8,852             | 9,496             | 5,867             | 12,541            | 10,168            | 12,574            | 15,409            | 9,607             | 12,332            | 7,785             | 10,076            |
| SBVWCD Mill Creek Spreading              | 3,791             | 5,576             | 17,227            | 2,025             | 3,868             | 3,337             | 352               | 4,489             | 3,089             | 29,138            | 9,510             | 1,531             | 3,810             | 4,450             | 8,891             |
| <b>Subtotal</b>                          | <b>16,041</b>     | <b>15,826</b>     | <b>28,451</b>     | <b>13,976</b>     | <b>12,720</b>     | <b>12,833</b>     | <b>6,219</b>      | <b>17,030</b>     | <b>13,257</b>     | <b>41,712</b>     | <b>24,919</b>     | <b>11,138</b>     | <b>16,142</b>     | <b>12,235</b>     | <b>18,967</b>     |
| <b>Bunker Hill Creeks</b>                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arrowhead Water & Power West Twin Crk    |                   |                   |                   |                   |                   |                   |                   |                   | 50                | 50                | 50                | 50                | 40                | 40                | 40                |
| Arrowhead Water & Power East Twin Crk    | 3,273             | 4,451             | 9,734             | 2,276             | 1,420             | 1,339             | 616               |                   | 2,500             | 1,750             | 1,700             | 1,725             | 3                 | 0                 | 0                 |
| Devore Water Company Kimbark Lower Cajon |                   |                   |                   |                   |                   |                   |                   |                   | 29                | 97                | 80                | 62                | 68                | 51                | 56                |
| <b>Subtotal</b>                          | <b>3,273</b>      | <b>4,451</b>      | <b>9,734</b>      | <b>2,276</b>      | <b>1,420</b>      | <b>1,339</b>      | <b>616</b>        | <b>0</b>          | <b>2,579</b>      | <b>1,897</b>      | <b>1,830</b>      | <b>1,837</b>      | <b>111</b>        | <b>91</b>         | <b>96</b>         |
| <b>Santa Ana River</b>                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Bear Valley Mutual WC                    | 38,252            | 31,479            | 36,632            | 30,245            | 29,498            | 26,301            | 23,458            | 12,633            | 11,227            | 12,516            | 17,689            | 11,560            | 13,519            | 7,303             | 7,000             |
| Redlands Water Co                        |                   | 760               |                   |                   |                   |                   |                   |                   | 588               | 981               | 1,044             | 884               | 625               | 654               | 629               |
| SBVWCD SAR Spreading                     | 13,331            | 10,361            | 40,346            | 6,167             | 5,085             | 3,315             | 1,371             | 12,330            | 5,669             | 27,841            | 14,476            | 4,002             | 17,550            | 8,456             | 21,662            |
| <b>Subtotal</b>                          | <b>51,583</b>     | <b>42,600</b>     | <b>76,978</b>     | <b>36,412</b>     | <b>34,583</b>     | <b>29,616</b>     | <b>24,829</b>     | <b>24,963</b>     | <b>17,484</b>     | <b>41,338</b>     | <b>33,209</b>     | <b>16,446</b>     | <b>31,694</b>     | <b>16,413</b>     | <b>29,291</b>     |
| <b>Imported Water Spreading</b>          |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Sweetwater basin                         | 96                | 0                 | 4                 | 0                 | 4,194             | 1,725             | 6,559             | 4,654             | 2,684             | 2,420             | 2,414             | 5,205             | 4,994             | 3,002             | 3,983             |
| Badger Basin                             | 0                 | 0                 | 0                 | 0                 | 4                 | 0                 | 0                 | 0                 | 4                 | 0                 | 0                 | 0                 | 0                 | 0                 |                   |
| Waterman Basin                           | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 3,528             | 250               | 0                 | 0                 | 0                 | 39                | 9,216             | 9,368             | 12,499            |
| SBVWCD Santa Ana Basins                  | 0                 | 0                 | 0                 | 0                 | 99                | 7,153             | 6,853             | 2,229             | 924               | 2,117             | 3,782             | 1,994             | 56                | 1,689             | 14                |
| SBVWCD Mill Creek Basins                 |                   |                   |                   |                   |                   | 1,462             | 1,696             |                   |                   |                   |                   | 0                 |                   | 1,022             | 665               |
| <b>Subtotal</b>                          | <b>96</b>         | <b>0</b>          | <b>4</b>          | <b>0</b>          | <b>4,297</b>      | <b>10,340</b>     | <b>18,636</b>     | <b>7,133</b>      | <b>3,612</b>      | <b>4,537</b>      | <b>6,196</b>      | <b>7,238</b>      | <b>14,266</b>     | <b>15,081</b>     | <b>17,161</b>     |

| Streamflow Diversions                 | 2011<br>[acre-ft] | 2012<br>[acre-ft] | 2013<br>[acre-ft] | 2014<br>[acre-ft] | 2015<br>[acre-ft] | 2016<br>[acre-ft] | 2017<br>[acre-ft] | 2018<br>[acre-ft] | 2019<br>[acre-ft] | 2020<br>[acre-ft] | 2021<br>[acre-ft] | 2022<br>[acre-ft] | 2023<br>[acre-ft] | 2024<br>[acre-ft] | Avg.<br>[acre-ft] |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Lytile Creek</b>                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Fontana Union WC                      | 18,037            | 7,656             | 3,775             | 3,586             | 3,407             | 3,236             | 3,075             | 2,921             | 3,087             | 5,479             | 3,813             | 1,967             | 6,057             | 15,135            | 6,308             |
| Mount Vernon WC                       | 685               | 578               | 520               | 468               | 421               | 379               | 341               | 307               | 276               | 276               | 276               | 276               | 276               | 276               | 462               |
| Rialto, City of                       | 1,148             | 1,319             | 996               | 1,020             | 871               | 1,041             | 1,206             | 1,133             | 950               | 1,509             | 1,230             | 1,529             | 904               | 1,059             | 1,133             |
| San Bernardino, City of               | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 | 1,853             | 0                 | 0                 | 910               | 1,871             | 336               |
| West Valley Water District            | 3,382             | 2,954             | 2,369             | 3,810             | 3,389             | 1,737             | 2,516             | 2,291             | 5,717             | 3,851             | 2,807             | 3,372             | 3,773             | 4,250             | 3,259             |
| <b>Subtotal</b>                       | <b>23,252</b>     | <b>12,507</b>     | <b>7,660</b>      | <b>8,884</b>      | <b>8,088</b>      | <b>6,393</b>      | <b>7,138</b>      | <b>6,652</b>      | <b>10,030</b>     | <b>12,968</b>     | <b>8,126</b>      | <b>7,144</b>      | <b>11,921</b>     | <b>22,591</b>     | <b>11,498</b>     |
| <b>Mill Creek</b>                     |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Redlands, City of                     | 13,492            | 6,085             | 7,041             | 4,657             | 3,912             | 4,400             | 6,121             | 5,818             | 5,650             | 6,045             | 5,459             | 5,285             | 12,079            |                   | 8,801             |
| SBVWCD MC                             | 16,185            | 4,666             | 1,734             | 888               | 1,080             | 1,057             | 5,395             | 1,998             | 9,324             | 5,373             | 2,027             | 1,910             | 16,631            |                   | 6,048             |
| <b>Subtotal</b>                       | <b>29,677</b>     | <b>10,751</b>     | <b>8,775</b>      | <b>5,545</b>      | <b>4,992</b>      | <b>5,457</b>      | <b>11,515</b>     | <b>7,816</b>      | <b>14,974</b>     | <b>11,418</b>     | <b>7,486</b>      | <b>7,195</b>      | <b>28,710</b>     | <b>0</b>          | <b>14,849</b>     |
| <b>Bunker Hill Creeks</b>             |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arrowhead Water & Power West Twin Crk | 46                | 46                | 41                | 46                | 46                | 46                | 47                | 47                | 47                | 47                | 47                | 47                | 47                | 47                | 46                |
| Arrowhead Water & Power East Twin Crk | 1,097             | 1,097             | 987               | 889               | 800               | 720               | 648               | 583               | 525               | 472               | 425               | 383               | 383               | 383               | 1,435             |
| Devore Water Company Kimbark          | 78                | 37                | 33                | 63                | 63                | 63                | 63                | 63                | 63                | 63                | 63                | 63                | 63                | 59                | 61                |
| <b>Subtotal</b>                       | <b>1,221</b>      | <b>1,180</b>      | <b>1,062</b>      | <b>997</b>        | <b>908</b>        | <b>828</b>        | <b>757</b>        | <b>693</b>        | <b>634</b>        | <b>582</b>        | <b>535</b>        | <b>492</b>        | <b>493</b>        | <b>489</b>        | <b>1,542</b>      |
| <b>Santa Ana River</b>                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Bear Valley Mutual WC                 | 14,673            | 12,583            | 8,440             | 5,011             | 3,900             | 3,590             | 6,823             | 6,189             | 7,387             | 11,225            | 8,277             | 2,399             | 4,894             |                   | 14,454            |
| Redlands Water Co                     | 739               | 4,917             | 2,036             | 5,201             | 5,629             | 6,957             | 6,059             | 5,845             | 5,032             | 5,796             | 3,610             | 2,807             | 3,249             |                   | 3,050             |
| SBVWCD SAR Spreading                  | 36,801            | 9,073             | 5,519             | 1,537             | 2,982             | 2,766             | 20,924            | 2,618             | 35,688            | 18,377            | 5,194             | 8,245             | 48,894            |                   | 13,949            |
| <b>Subtotal</b>                       | <b>52,213</b>     | <b>26,573</b>     | <b>15,995</b>     | <b>11,749</b>     | <b>12,511</b>     | <b>13,312</b>     | <b>33,806</b>     | <b>14,651</b>     | <b>48,108</b>     | <b>35,398</b>     | <b>17,081</b>     | <b>13,451</b>     | <b>57,037</b>     | <b>0</b>          | <b>31,452</b>     |
| <b>Imported Water Spreading</b>       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Sweetwater basin                      | 4,457             | 6,413             | 4,514             | 1,672             | 4,933             | 6,286             | 6,083             | 1,683             | 2,819             | 1,446             | 0                 | 2                 | 3,529             |                   | 3,063             |
| Badger Basin                          | 1,649             | 2,875             | 404               | 0                 | 0                 | 3,429             | 3,322             | 466               | 0                 | 0                 | 0                 | 0                 | 442               |                   | 466               |
| Waterman Basin                        | 10,667            | 14,089            | 7,533             | 0                 | 4,543             | 12,799            | 19,108            | 9,902             | 22,480            | 5,316             | 0                 | 0                 | 11,516            |                   | 5,459             |
| SBVWCD Santa Ana Basins               | 1,515             | 603               | 2                 | 19                | 61                | 5,399             | 22,087            | 3,608             | 19,327            | 0                 | 0                 | 0                 | 7,768             |                   | 3,118             |
| SBVWCD Mill Creek Basins              | 711               | 510               | 0                 | 0                 | 0                 | 500               | 3,916             | 468               | 10,643            | 171               | 0                 | 0                 | 7,986             |                   | 1,653             |
| <b>Subtotal</b>                       | <b>18,999</b>     | <b>24,490</b>     | <b>12,453</b>     | <b>1,691</b>      | <b>9,537</b>      | <b>28,413</b>     | <b>54,516</b>     | <b>16,127</b>     | <b>55,269</b>     | <b>6,933</b>      | <b>0</b>          | <b>2</b>          | <b>31,241</b>     | <b>0</b>          | <b>13,759</b>     |

Assumed as average and are provisional data.

|                |               |
|----------------|---------------|
| <b>Total =</b> | <b>73,101</b> |
| '24 Total =    | 23,080        |

**Surface Diversions, comments:**

The amount of water for surface distribution for the ensuing water year (October 1, 2024 to September 30, 2025) was estimated based on the average surface for the Santa Ana River, Bunker Hill Creeks, Mill Creek, and Lytle Creek for the period of 1990 to 2025. As shown in Table 8 above, the average surface diversion for the Santa Ana River, Bunker Hill Creek, Mill Creek, and Lytle Creek, including Department of Water Resources purchased water, between 1995 to 2025 was 37,003; 2,512; 17,549; 11,679 acre-feet respectively.