Basin Technical Advisory Committee

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2025 Regional Water Management Plan

December 9, 2024

2025 Regional Water Management Plan

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Executive Summary

In December 2007, fourteen agencies adopted the Upper Santa Ana Watershed Integrated Regional Water Management Plan (Integrated Plan). This comprehensive water resources plan identifies various management strategies that will help ensure a reliable water supply for the San Bernardino, Yucaipa, Big Bear Valleys, and San Gorgonio Pass area. The Plan covers all, or portions of the cities and communities of San Bernardino, Riverside, Fontana, Rialto, Colton, Grand Terrace, Loma Linda, Highland, Redlands, Mentone, Yucaipa, Big Bear Lake, the San Timoteo Watershed, Beaumont, Banning, Cherry Valley and a large portion of the San Bernardino National Forest. Most of the planning area is within the boundaries of the San Bernardino Valley Municipal Water District (Valley District). The Integrated Plan was updated in 2020 as the Upper Santa Ana Watershed Integrated Regional Urban Water Management Plan (IRUWMP).

The Basin Technical Advisory Committee (BTAC), made up of water agency staff and other stakeholders, was formed to implement the Integrated Plan. Each year, the BTAC prepares its Regional Water Management Plan (RWMP) for consideration by the two Boards that make up the Western-San Bernardino Watermaster: Western Municipal Water District and San Bernardino Valley. The goal of the RWMP is to evaluate the three, general water management goals based on the Integrated Plan and the underlying agreements and judgments.

Goal	Description	Management Action(s)	Status
	**Manage Water Levels.** Water levels that are too high can cause liquefaction in an earthquake.	Recharge thresholds are set to maximize recharge while avoiding high groundwater	☑
	**Manage Santa Ana River Diversions.** Mitigate for San Bernardino Valley and Western Municipal Water District diversions that would have recharged the SBB and the Riverside North Basin.	A minimum of 17% of diversions shall be recharged in the SBB. Recharge in Riverside North tracked by Watermaster Table 17-C.	☑ ☑
	**Manage Contaminant Plumes.** We do not want management actions to cause additional spread of the existing contaminant plumes.	Recharge thresholds are set to reduce, or eliminate, any impacts to contaminant plumes.	☑

2025 Regional Water Management Plan

WATER RESOURCES AND FORECAST:

	2024	2025 Estimate
San Bernardino Basin Condition:		
Total Storage, as of March 2024 (acre-feet):	4,881,235	4,976,235
Estimated Storage Space Available (acre-feet)	(808,765)	(713,765)
Artificial recharge threshold in SBBA (no high groundwater or plume movement) (acre-feet)	625,000	424,000
Riverside North Basin Condition:	n/a	
Rialto-Colton Basin Condition:		
Total Storage, as of March 2024 (acre-feet):	1,520,028	
Estimated Storage Space Available, Fall 2024 (acre-feet)	(228,972)	
Average spring-high water level elevations for Rialto Basin Index Wells	Appendix D	
1961 Rialto Decree Extraction Limits (%)	49	
Yucaipa Basin Condition:		
Total Storage, as of March 2024 (acre-feet):	2,253,171	
Estimated Storage Space Available, Fall 2024 (acre-feet)	(542,829)	

USE OF AVAILABLE SAR DIVERSIONS AND SWP WATER

	2024	2025 Estimate
SBVMWD/WMWD Santa Ana River Diversions:	9,844	n/a
Direct delivery	None	None
Artificial Recharge (17% required by Riverside Agreement unless credits)	All	All
Exchange (long-term storage/banking, 40 cfs max)	None	None
Additional San Bernardino Basin pumping to lower water levels:	No	No
State Water Project Water:		
Supplies		
Carryover (acre-feet) from previous year	51,300	20,000
Kern-Delta Water Bank (5,000 af/yr maximum)	2,907	2,907
Entitlement (acre-feet) - Table A allocation (2024 - 40%, 2025 - 25%)	41,040	25,650
Yuba Accord, Article 21 and Transfers (acre-feet)	-	-
TOTAL STATE WATER PROJECT SUPPLIES	**95,247**	**48,557**
Demands:		
Estimated Direct Deliveries	26,300	18,500
Recharge of local groundwater basins (acre-feet)	44,594	14,000
CLAWA Sale (acre-feet)	200	200
Other Uses of available State Water Project Water:		
Short-term (carryover) storage to next year for direct deliveries (acre-feet)	11,132	13,000
Long-term storage/banking (acre-feet)	2,907	2,907
Sale outside of service area	8,000	-
TOTAL USE	**93,133**	**48,607**

Note: Initial Allocation released by DWR for 2025 is 5%; if final allocation is lower than 25%, deliveries will be adjusted accordingly with direct deliveries having the highest priority.

2025 Regional Water Management Plan (continued)

USE OF AVAILABLE SAR DIVERSIONS AND SWP WATER (Continued):

Artificial Recharge Targets (Local and Imported Water)

San Bernardino Basin [1,2]	Recommended Maximum (AF)	Estimated Recharge Capacity (AFY)*
1. Waterman Basins & 9. East Twin Creek Spreading Basin	54,625	29,160
2. Santa Ana Basins & 14. Weaver Basins (Recycled Water)	71,250	81,000
3. Mill Creek Basins	42,750	54,000
4. City of Redlands Spreading Basins	-	-
5. Bear Valley Spreading Basin	-	-
6. Santa Ana River Bottom	-	Variable
7. Patton Basin	-	-
8. EVWD Turnout	-	-
10. Badger Basins	8,313	900
11. Wiggins Basin	-	-
12. Devil Canyon & Sweetwater Basins	13,063	12,150
13. Gravel Pits	-	-
15. Others, including City Creek and streambeds	-	Variable
Sub-total SBBA	**190,000**	**177,210**

[1] Suggested maximum recharge values. See Appendix B.

[2] Due to shallwow groundwater levels in this area, exceeding this value may result in rejected recharge at this location.

*Assumes 75% firm capacity based on percolation rate and monthly capacity; equivalent to nine (9) months of continuous recharge

OTHER BASINS WITHIN SAN BERNARDINO VALLEY SERVICE AREA	Recommended Maximum (AF)	Estimated Recharge Capacity (AFY)
Rialto-Colton Basin*	7,000	None
Yucaipa Basin	8,000	8,000
Riverside North Basin - SBVMWD Recharge in Riverside North (Watermaster Table No. 17C)*	7,543	None
Other	-	-

*Recharge facilities for imported water are not currently in operation

Other Requirements

Water Level Requirements of Agreements met?	Yes	
Triennial water quality report provided to Regional Water Quality Control Board?	Submitted to RWQCB in Dec. 2021	Next report due in Dec. 2026

New for 2025

The following is the list of new content or changes made to the Regional Water Management Plan since last year:

1. **Pages 3 and 4 (Water Resources & Forecast, and BTAC Recommendations):** Few changes made to the Water Resources & Forecast table to summarize Basin conditions and outlook for all groundwater basins within the San Bernardino Valley service area.
2. **Appendix C (Water Level Data)**: A summary page has been added to show the status of all index wells.
3. **Appendices:** Reorganized and reduced from 11 to 5. Appendix F through J have been removed and some of the content were moved to A through E. For example, the previous Appendix D: Precipitation Data is now part of the new Appendix B: Annual Groundwater Management Plan for the San Bernardino Basin.

Definitions

Artificial recharge: Intentionally introducing water into the groundwater system by man-made means such as pouring water into pits and allowing it to percolate into the ground.

BTAC: Basin Technical Advisory Committee

Direct delivery: Any delivery that is made to benefit one single agency. Examples include deliveries to surface water treatment plants and for artificial recharge projects that recharge a specific well field owned by one agency.

SBB: San Bernardino Basin

Western Judgment: Western Municipal Water District of Riverside County, et al. vs. East San Bernardino County Water District, et al., 1969.

APPENDIX

A. SUMMARY OF COMPLIANCE WITH THE 1969 WESTERN JUDGMENT

TABLE NO. 18

SUMMARY OF COMPLIANCE WITH FOUR
PRINCIPAL PROVISIONS OF THE JUDGMENT

COMPLIANCE IN THE SAN BERNARDINO BASIN AREA

- PLAINTIFF EXTRACTIONS ARE LESS THAN THE MAXIMUM ALLOWABLE EXTRACTIONS

  During the five-year period 2019 through 2023 extractions by Plaintiffs did not exceed the five-year maximum allowable. (See page 2c of 2 of Table Nos. 10 through 13) Also, in calendar year 2023 extractions by each Plaintiff did not exceed the annual maximum allowable, which is 1.3 times the 2022 Adjusted Right. (See page 1c of 2 of Table Nos. 10 through 13)

- SAN BERNARDINO VALLEY IS NOT REQUIRED TO PROVIDE REPLENISHMENT

  For the period 1971 through 2023, San Bernardino Valley credits exceed obligation by 596,248 AF. (See Table No. 17)

COMPLIANCE IN THE COLTON AND RIVERSIDE BASIN AREAS

- WESTERN IS NOT REQUIRED TO PROVIDE REPLENISHMENT

  For the period 1971 through 2023, Western credits exceed obligations by 605,792 AF. (See Table No. 16)

- SAN BERNARDINO VALLEY IS NOT REQUIRED TO PROVIDE REPLENISHMENT FOR MAINTAINING GROUNDWATER LEVEL

  The average lowest water level in the three key wells for calendar year 2023 is 25.80 feet higher than the required minimum average level of 822.04 feet. (See Chapter V)

Minimum Groundwater Surface Elevations

Extractions from the Colton Basin Area and that portion of the Riverside Basin Area within San Bernardino County for use in San Bernardino Valley are not limited, provided that the average static groundwater surface elevation as measured at wells numbered 1S/4W-21Q03S, 1S/4W-29H01S, and 1S/4W-29Q01S is not less than 822.04 feet, as set forth in the Judgment. This elevation is determined each year by averaging the lowest static groundwater elevation occurring in each of the three wells at or near the same time of the year.

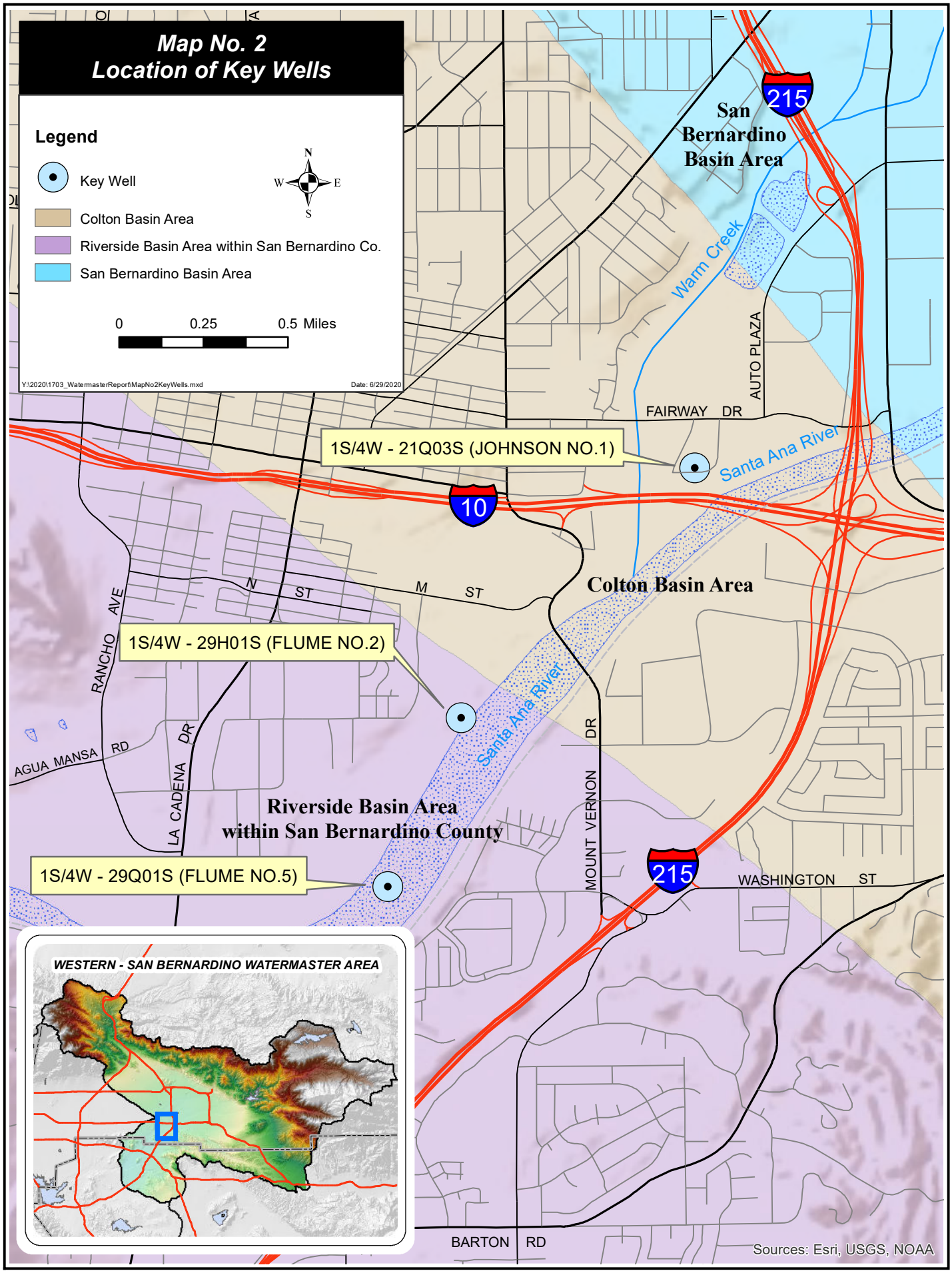
A map showing the locations and hydrographs of the calendar year 2023 static groundwater surface elevations in the three key wells are shown on the following pages. Data pertinent to the key wells as well as the records of historic water surface measurements are included in Report of Watermaster, Volume 8-2023 titled *Groundwater Surface Elevations in Wells Numbered 1S/4W-21Q03S, 1S/4W-29H01S, and 1S/4W-29Q01S Located Within the Colton Basin Area and Riverside Basin Area in San Bernardino County through December, 2023.*

The lowest static groundwater surface elevation measured in each of the three wells during calendar year 2023 is as follows:

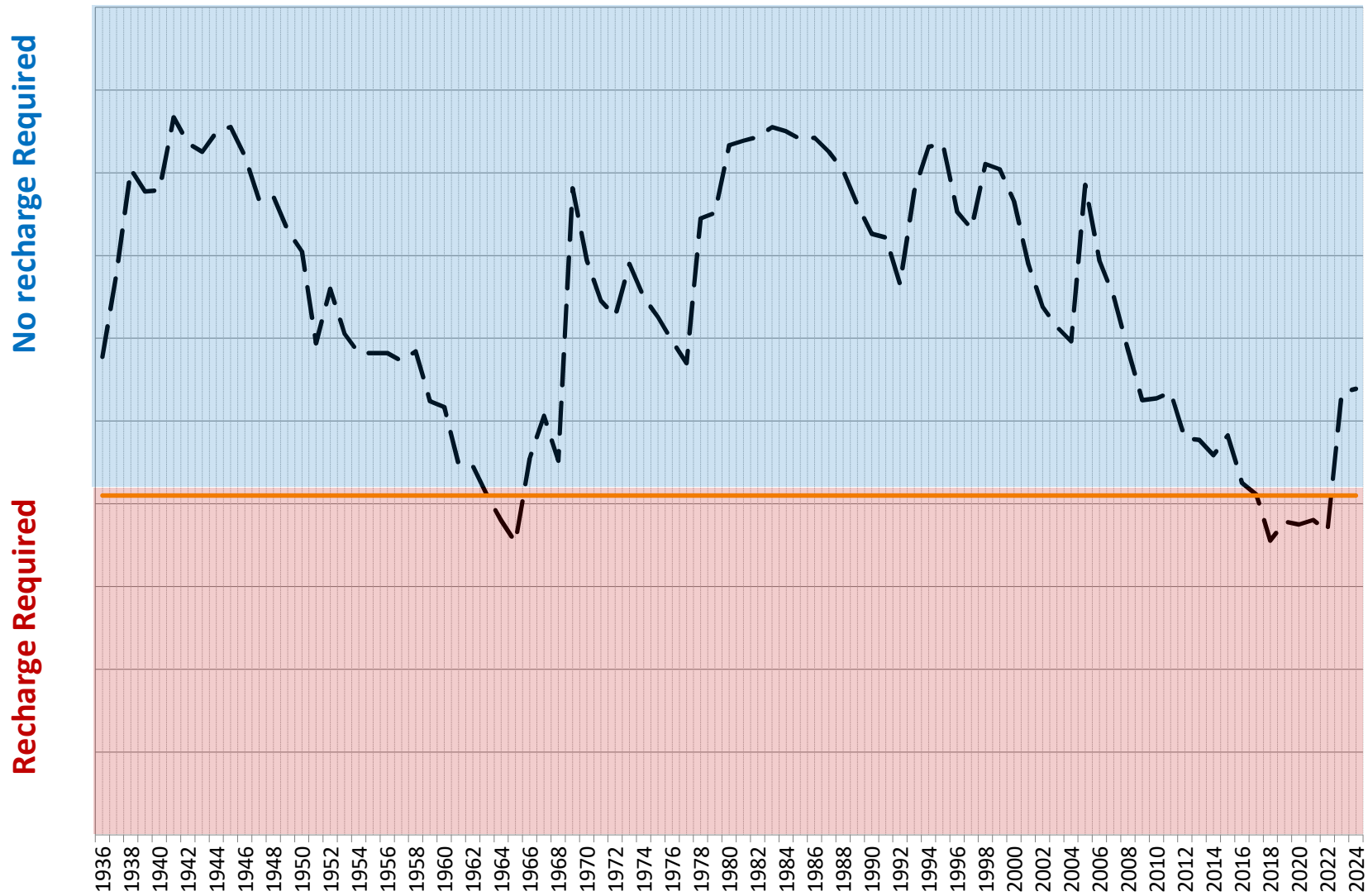
Well Number	Date of Measurement	Elevation of Water Surface
1S/4W-21Q03S (Johnson #1)	November 10, 2023	867.42
1S/4W-29H01S (Flume #2)	November 10, 2023	843.36
1S/4W-29Q01S (Flume #5)	November 10, 2023	832.73
	Average	847.84

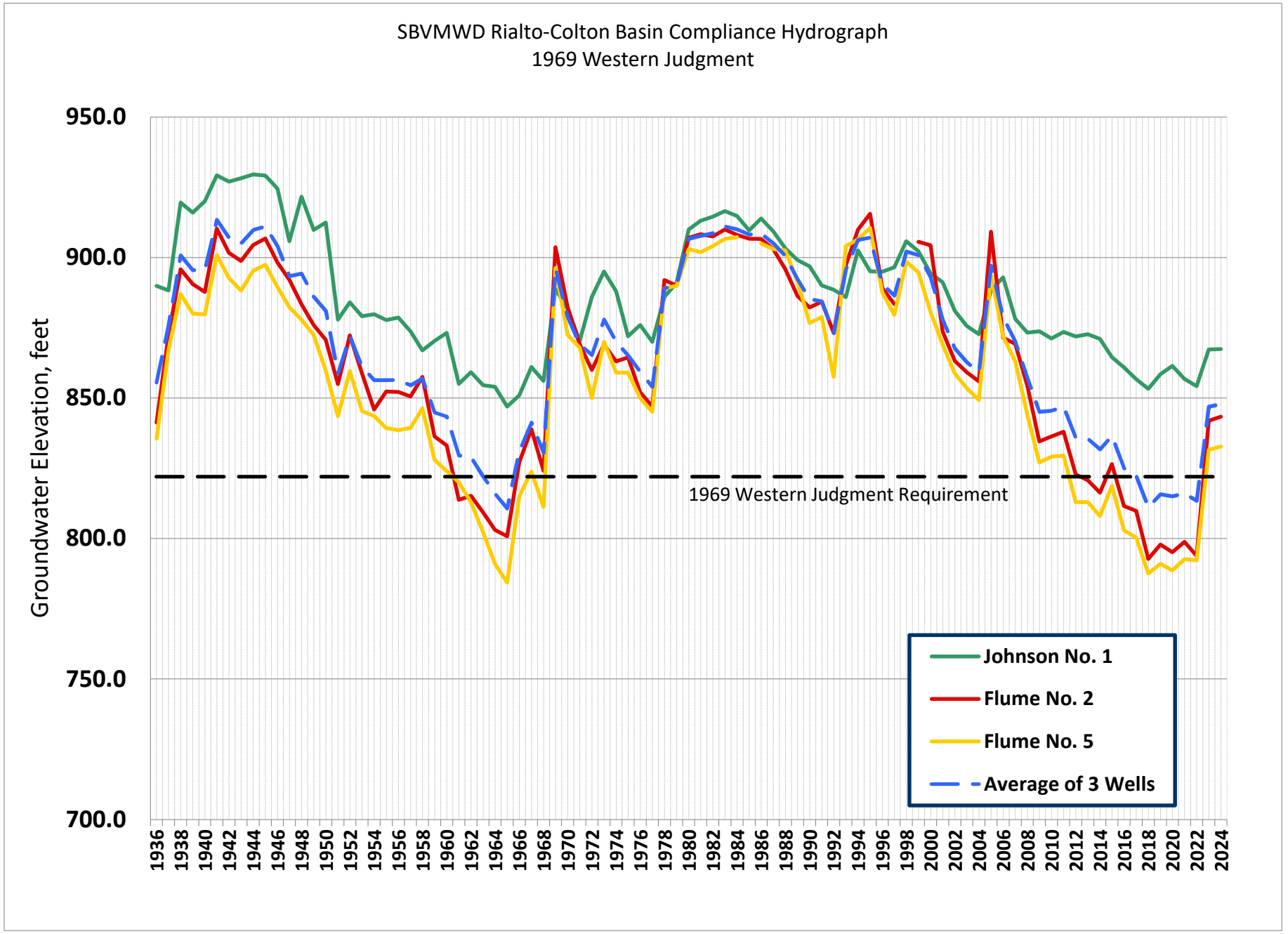
Thus, the lowest average fall water surface elevation for calendar year 2023 is 34.41 feet higher than the 2022 average of 813.43 and 25.80 feet higher than the 1963 average of 822.04. The Watermaster agencies have made progress on

devising a list of potential options, including but not limited to improving existing facilities, conducting necessary studies, obtaining environmental permits to facilitate wet water recharge in the Colton and Riverside Basin Areas, and the arrangements needed for Plaintiffs to transfer extractions from the Riverside Basin Area in San Bernardino County to the San Bernardino Basin Area as contemplated in Judgment Paragraph VIII (e) and presented in the Annual Report Modifications in this report. This work will facilitate 1) San Bernardino Valley to provide wet water recharge needed to maintain the 1963 average water level; and 2) transferring extractions by Plaintiffs to the San Bernardino Basin Area to the extent necessary to restore such water level. The draft of the list of potential options is in review between the Watermaster agencies.


Map No. 2
Location of Key Wells
Legend
Key Well
Colton Basin Area
Riverside Basin Area within San Bernardino Co.
San Bernardino Basin Area
N
W
E
S
0
0.25
0.5 Miles
Y:\2020\1703_WatermasterReport\MapNo2KeyWells.mxd
Date: 6/29/2020
San Bernardino Basin Area
215
Warm Creek
AUTO PLAZA
FAIRWAY DR
1S/4W - 21Q03S (JOHNSON NO.1)
Santa Ana River
10
Colton Basin Area
N ST
M ST
RANCHO AVE
1S/4W - 29H01S (FLUME NO.2)
AGUA MANSA RD
LA CADENA DR
Riverside Basin Area within San Bernardino County
MOUNT VERNON DR
1S/4W - 29Q01S (FLUME NO.5)
215
WASHINGTON ST
BARTON RD
Sources: Esri, USGS, NOAA
WESTERN - SAN BERNARDINO WATERMASTER AREA

Colton Basin Area and Riverside North Basin Area
Indicator for San Bernardino Entities




SBVMWD Rialto-Colton Basin Compliance Hydrograph
1969 Western Judgment
Groundwater Elevation, feet
950.0
900.0
850.0
800.0
750.0
700.0
1936
1938
1940
1942
1944
1946
1948
1950
1952
1954
1956
1958
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2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
1969 Western Judgment Requirement
Johnson No. 1
Flume No. 2
Flume No. 5
Average of 3 Wells

B. ANNUAL GROUNDWATER MANAGEMENT PLAN FOR THE SBBA

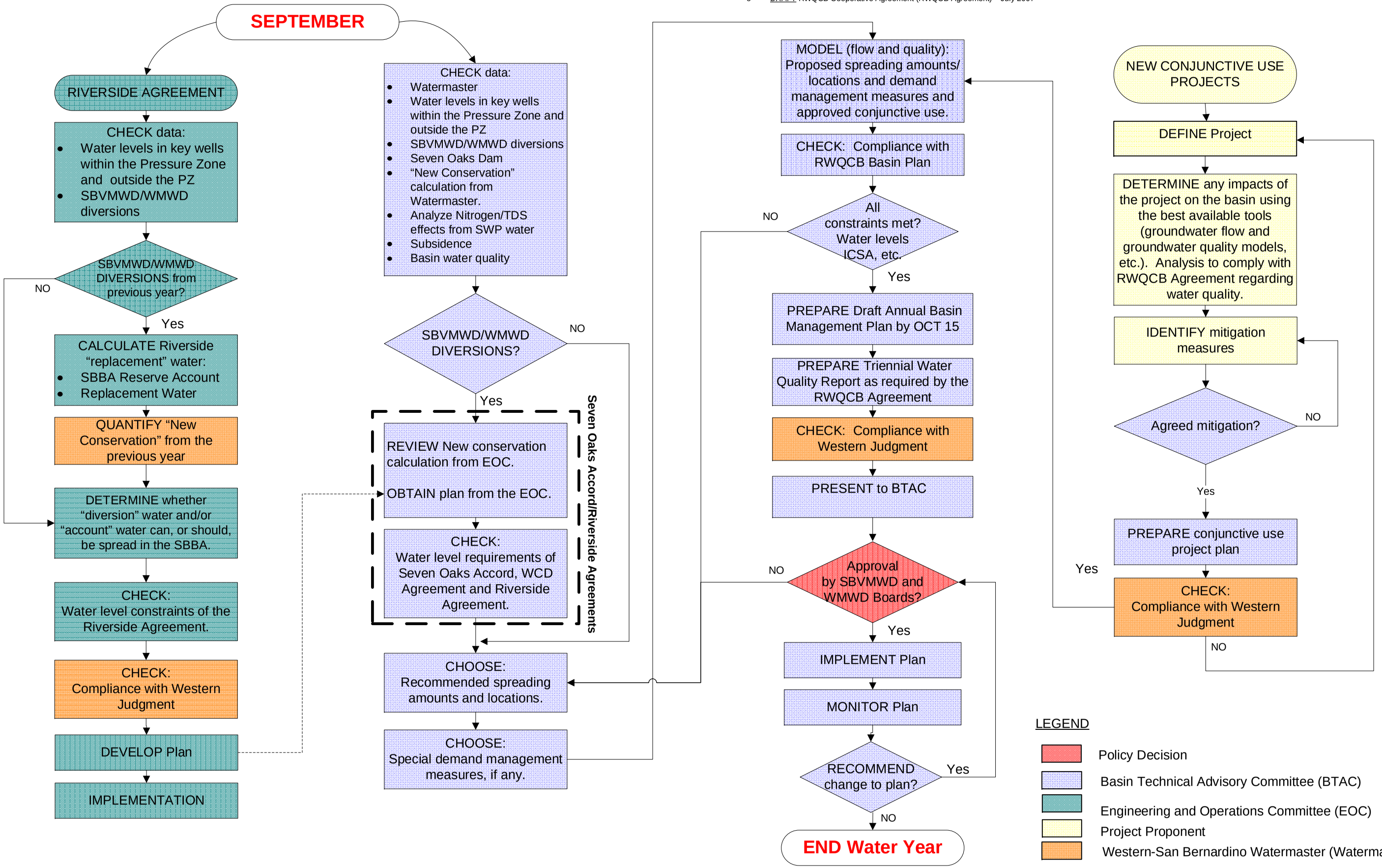
This Plan is a requirement of the 2005 Settlement Agreements

INTEGRATED REGIONAL WATER MANAGEMENT PLAN

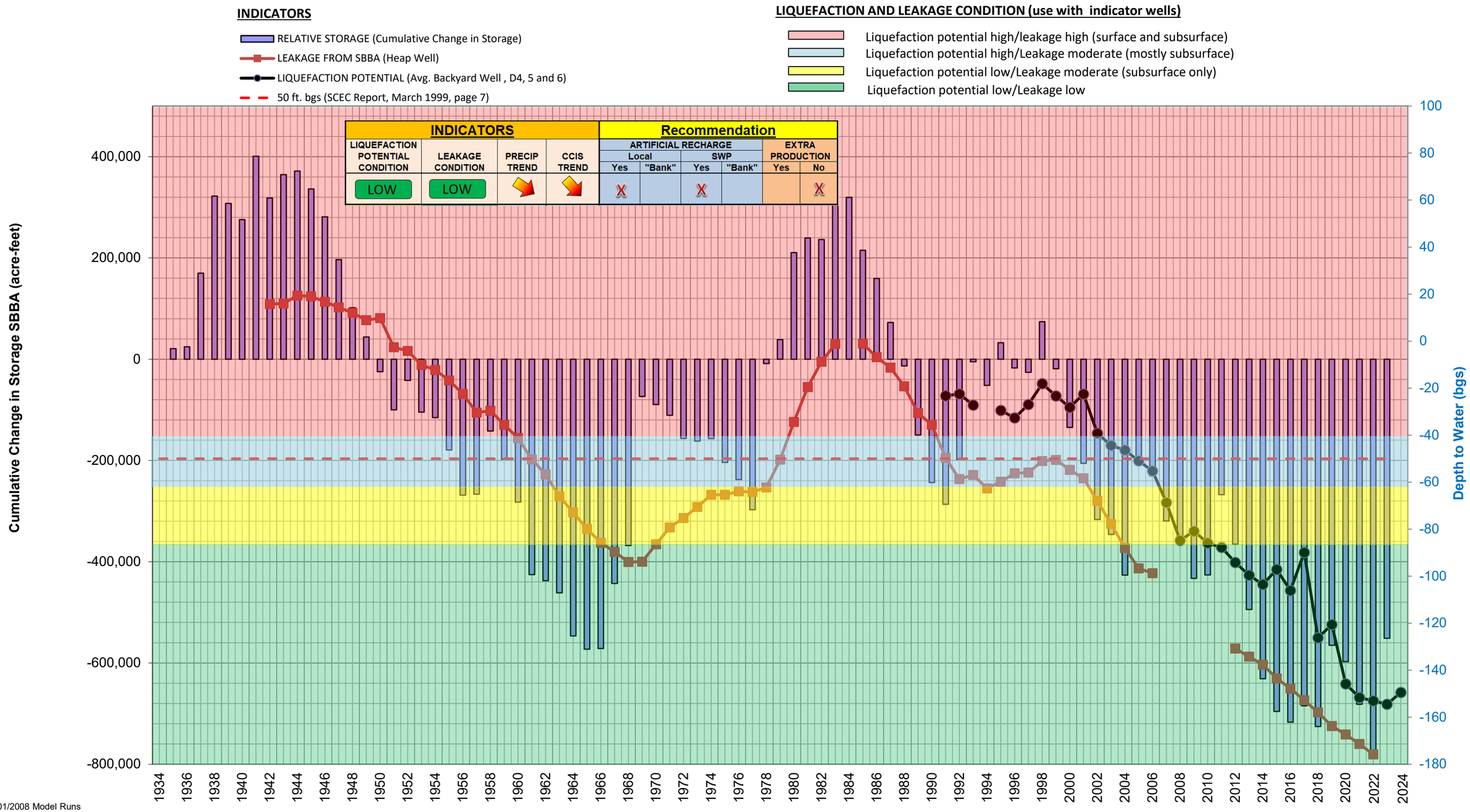
Process for Managing the San Bernardino Basin Area

Sources:

- Western Judgment – April 1969
- Seven Oaks Accord – July 2004
- Settlement Agreement Among SBVWCD, SBVMWD, and WMWD – August 2005
- MOU Among City of Riverside, SBVMWD, and WMWD – September 2005
- Agreement Among City of Riverside, SBVMWD and WMWD – March 2007
- Institutional Controls Settlement Agreement (ICSA)
- DRAFT RWQCB Cooperative Agreement (RWQCB Agreement) – July 2007

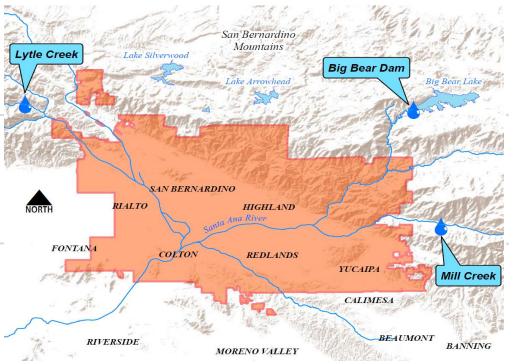


BTAC ANNUAL MANAGEMENT PLAN: SHOULD WE ARTIFICIALLY RECHARGE? DO WE NEED EXTRA PRODUCTION?



01/2008 Model Runs

San Bernardino Basin Three Station Pecipitation Index



CUMULATIVE DAILY/MONTHLY PRECIPITATION (INCHES)

WY 1992-93 (wettest), 76.9 inches

WY 2023-24, 31.5 inches

Safe Yield Average(1934-1960) 32.9

31.2

Historic Average (1931-Present)

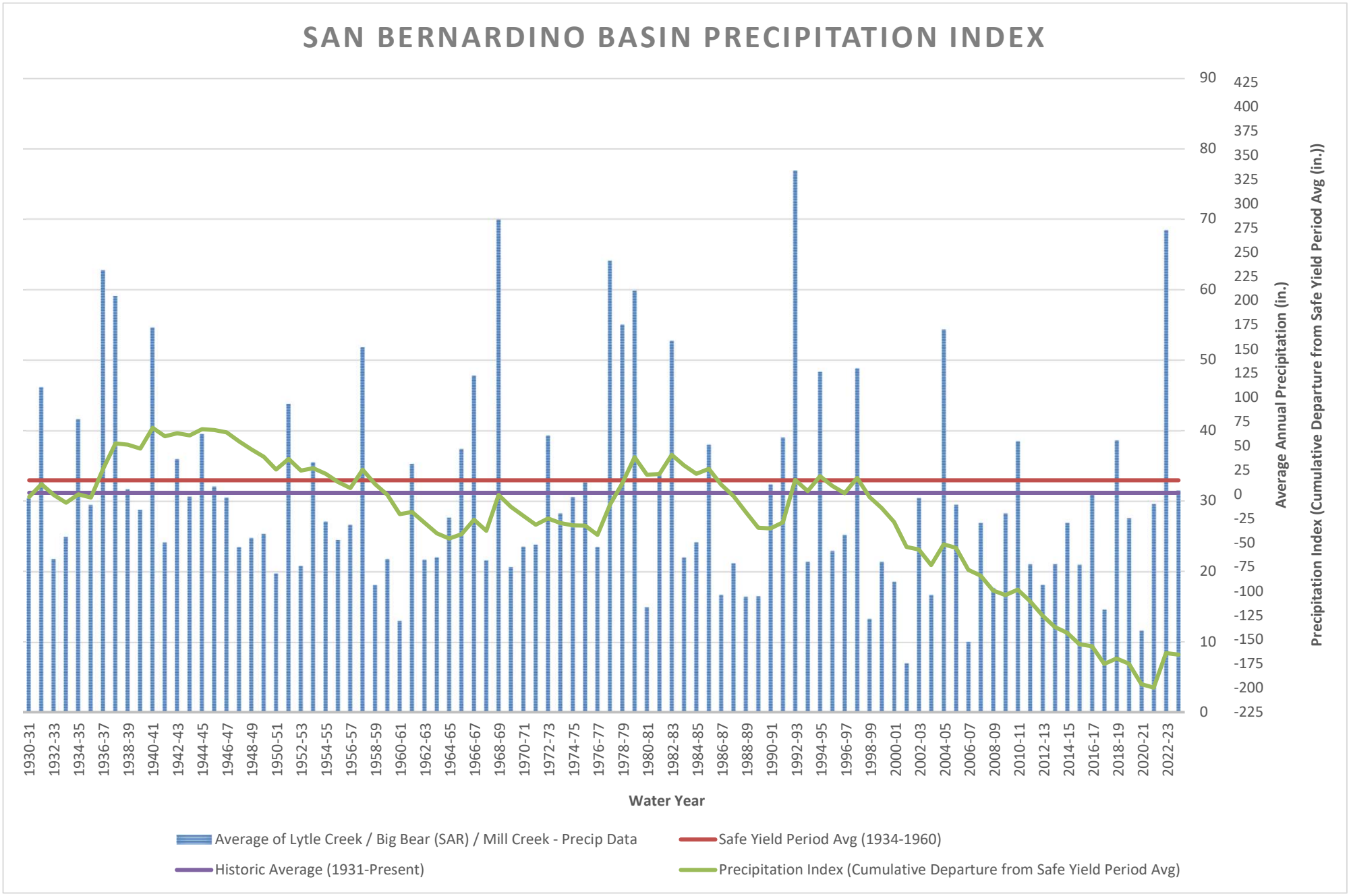
WY 2001-02 (driest), 7.02 inches

0 10 20 30 40 50 60 70 80

October November December January February March April May June July August September

WATER YEAR (OCTOBER - SEPTEMBER)

Historic Average (1931-Present) Safe Yield Average(1934 - 1960) 2023-24 2024-25 Current as of Oct 8, 2024

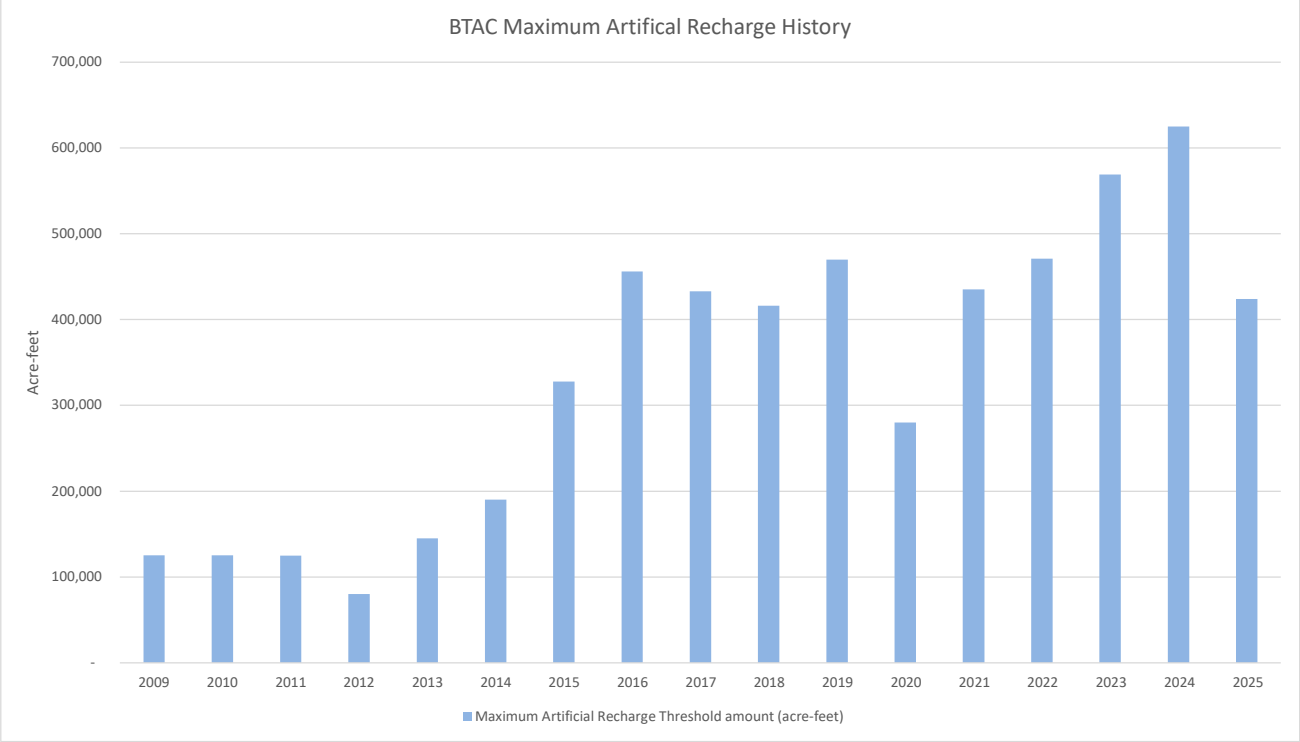

SAN BERNARDINO BASIN PRECIPITATION INDEX
Average Annual Precipitation (in.)
Precipitation Index (Cumulative Departure from Safe Yield Period Avg (in.))
Water Year
Average of Lytle Creek / Big Bear (SAR) / Mill Creek - Precip Data
Safe Yield Period Avg (1934-1960)
Historic Average (1931-Present)
Precipitation Index (Cumulative Departure from Safe Yield Period Avg)

Artificial Recharge Threshold in the San Bernardino Basin, 2025

Usable Storage		5,690,000
Water in Storage, 2024 Change in Storage Report		4,881,235
Space Available for Recharge		**808,765**
Preserve space for local rainfall		
Assume average year 2025	72,000	
Assume wet year 2026 (1969)	295,000	
		367,000
Anticipated imported water in 2025 for SBB Recharge	18,000	
		18,000
ESTIMATED SPACE FOR ARTIFICIAL RECHARGE		423,765

Artificial Recharge Threshold* **424,000 A/F**

Original modeling result from 2009 varies from 125,000 to 190,000 AF



ANNUAL ACCOUNTING FOR
RIVERSIDE BASIN MITIGATION ACCOUNT
RELATED TO SEVEN OAKS WATER CONSERVED
IN SAN BERNARDINO BASIN AREA

(All Values in Acre-Feet)

		Calendar Years				
		2019	2020	2021	2022	2023
MITIGATION ACCOUNT ADDITIONS	1					
Long Term Forecast Annual Average Amounts Included Pursuant to Footnote	2	483 12	483 12	483 12	483 12	483 12
Specific Year Amounts Included Pursuant to Footnote	3, 13	0	0	0	0	0
Total Mitigation Account Additions	4	483	483	483	483	483
ACCUMULATED MITIGATION ACCOUNT ADDITIONS	5	6,094	6,577	7,060	7,543	8,026
MITIGATION ACCOUNT EXTRACTIONS	6					
Extractions by City of Riverside	7	0	0	0	0	0
Extractions by Other Than Plaintiffs	8	0	0	0	0	0
Total Mitigation Account Extractions	9	0	0	0	0	0
ACCUMULATED MITIGATION ACCOUNT EXTRACTIONS	10	0	0	0	0	0
MITIGATION ACCOUNT BALANCE	11	6,094	6,577	7,060	7,543	8,026

ANNUAL ACCOUNTING FOR RIVERSIDE BASIN MITIGATION ACCOUNT RELATED TO SEVEN OAKS WATER CONSERVED IN SAN BERNARDINO BASIN AREA

1 *Pursuant to the 2013 Agreement Regarding Additional Extractions of New Conservation Water From the San Bernardino Basin Area (Basin) (2013 Agreement), any amount of replenishment in the Basin resulting from operation of Seven Oaks Dam and related diversion and spreading facilities that, in the absence of such operation, would have been replenished in the Riverside Basin, shall be included in a Riverside Basin Mitigation Account. Such water is referred to herein as Mitigation Water.*

2 *Equal annual average amounts of Mitigation Water determined on the basis of a long term forecast of Seven Oaks related conservation at the Santa Ana River Spreading Grounds. Pursuant to the 2013 Agreement, such forecasts are subject to periodic change and hence the otherwise equal annual amounts may change periodically.*

3 *Specific amounts of Mitigation Water resulting from a determination of prior years (1998-2012) new conservation and any determination of new conservation resulting from conservation through direct use, recharge in the Basin in areas other than the Santa Ana River Spreading Grounds and/or export from the Basin and subsequent return for direct use or recharge.*

4 *Long Term Forecast Annual Average Amounts plus Specific Year Amounts.*

5 *Accumulated amount of Mitigation Account Additions includes amounts accumulated prior to the current five-year period.*

6 *Pursuant to the 2013 Agreement, the City of Riverside may be required to extract San Bernardino Basin Area water that is included in the Mitigation Account and reduce extractions in its Flume Tract wells in the Riverside Basin by the same amount. Similarly, San Bernardino Valley may choose to extract water that is included in the Mitigation Account and deliver it for recharge in the Riverside Basin.*

7 *Amounts of Mitigation Water extracted by City of Riverside pursuant to the 2013 Agreement.*

8 *Amounts of Mitigation Water extracted by any producer other than Plaintiffs for delivery and recharge in the Riverside Basin.*

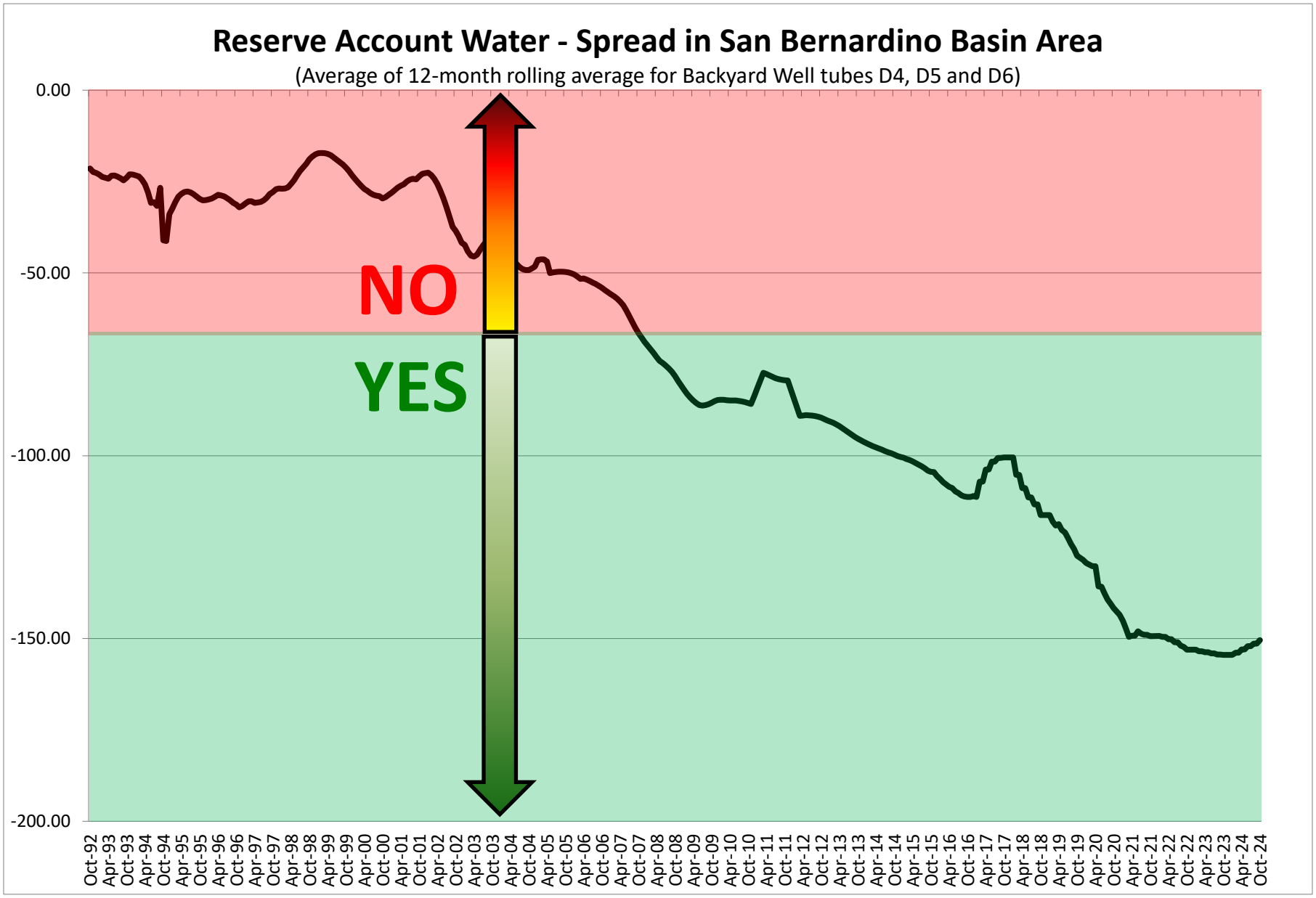
9 *Extractions by City of Riverside plus Extractions by Other Than Plaintiffs.*

10 *Accumulated amount of Mitigation Account Extractions includes amounts accumulated from 1971 to the current five-year period.*

11 *The amount of Mitigation Water Additions to the Mitigation Account minus the amount of Mitigation Water Extractions from the Mitigation Account by City of Riverside and by Other Than Plaintiffs in San Bernardino County.*

12 *Based on calculations by GEOSCIENCE/SAIC in an August 1, 2013 Technical Memorandum to Western and San Bernardino Valley, Watermaster determined that 483 acre-feet/year of Mitigation Water should be included in the Riverside Basin Mitigation Account based on the current maximum spreading grounds diversion rate of 195 cfs. Inclusion of such annual average amount of Mitigation Water continues annually until another long term forecast results in a change.*

13 *Based on calculations by GEOSCIENCE/SAIC in an August 1, 2013 Technical Memorandum to Western and San Bernardino Valley, Watermaster determined that during prior years 1998-2012, 2,713 acre-feet of Mitigation Water should be included in the Riverside Basin Mitigation Account.*



Riverside Agreement, Section 3.8.2

To: Basin Technical Advisory Committee (BTAC)

From: Management Tools Subcommittee

Subject: Subsidence

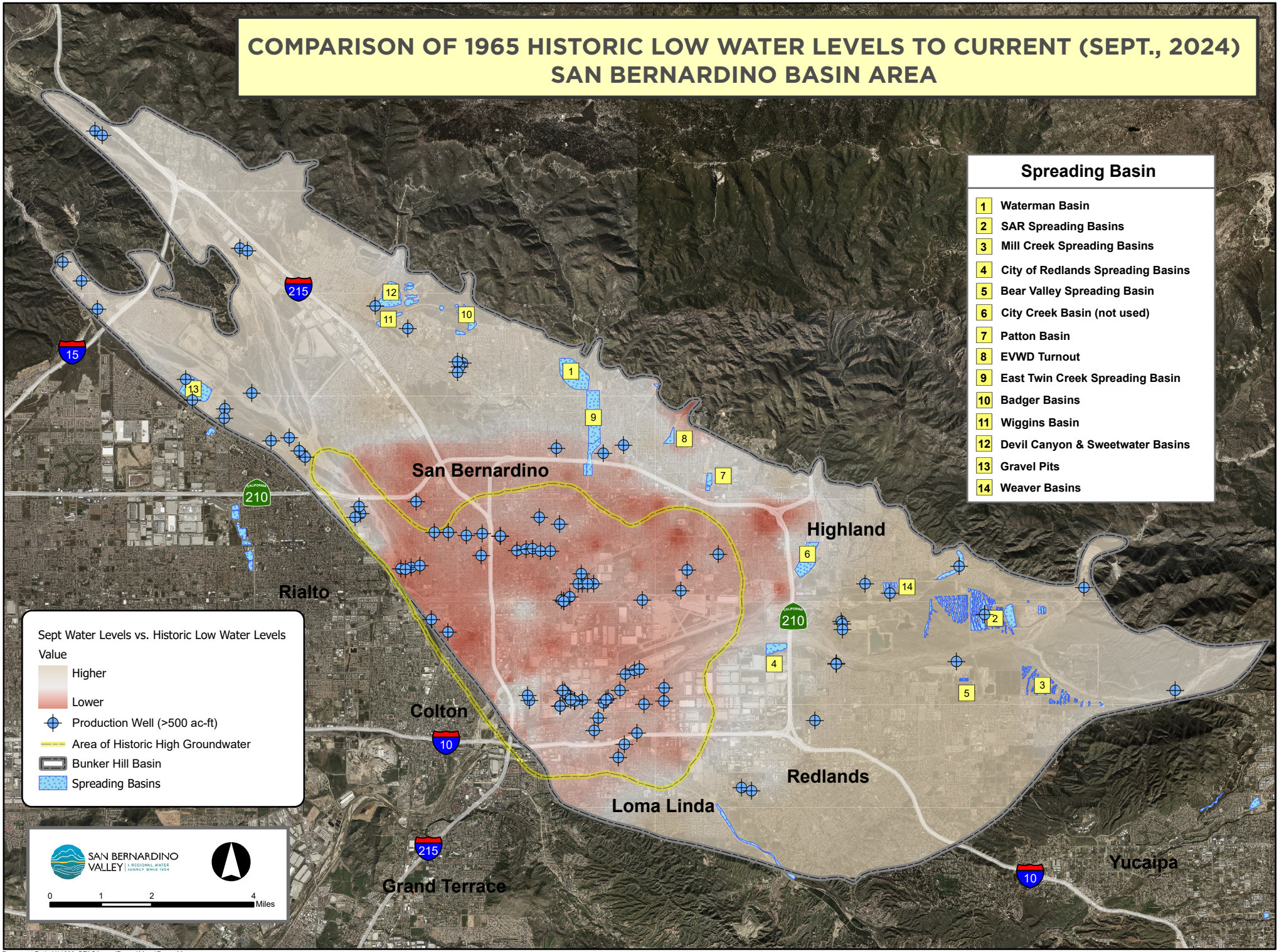
References:

a. USGS Fact Sheet 165-00, December 2000
b. Evaluation and Prediction of Subsidence, ASCE Conference, January 1978.
c. USGS Land Subsidence in the United States, Circular 1182, 1999.

The Management Tools Subcommittee (Subcommittee) references the above-mentioned documents regarding subsidence. According to these documents, most land subsidence occurs in clay layers that have been "newly" dewatered. Therefore, the "at risk areas" for subsidence in the San Bernardino Basin Area (SBBA) would generally be classified as any area where a clay layer has been dewatered below the lowest recorded water level.

The attached map shows any areas that are newly dewatered (experienced water levels below 1965 levels). Also attached is a cross-section through a portion of the newly dewatered area showing the anticipated geology. Since there is no one on the BTAC that feels qualified to make a determination regarding subsidence risk, it is left to the reader to draw their own conclusions from the provided data.

COMPARISON OF 1965 HISTORIC LOW WATER LEVELS TO CURRENT (SEPT., 2024)
SAN BERNARDINO BASIN AREA



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REGIONAL WATER MANAGEMENT PLAN

2024 Subsidence Risk Areas

Wells used in Cross Section A-A'

0 Meadowbrook Park
1 30th and Mt View
2 27th St and Acacia St
3 Hanford No 1
4 Lynwood Well
5 Waterman Avenue
6 Gilbert Street
7 Mill and D
8 Perris Hill No 5
9 31st and Mt View
10 23rd St and E St
11 7th St
12 10th and J St
13 17th and Sierra Way No 2
14 40th St
15 EPA Well No 1
16 EPA Well No 3
17 EPA Well No 5
18 Chandler
19 Backyard
20 East Twin (Inactive)
21 Sierra High School
22 Century Well

Subsidence Indicator Wells

- No Subsidence Risk
- Subsidence Risk
- Shallow Monitoring Wells
- Section Line A-A'
- AHHG Boundary
- Spreading Basins
- SBBA Boundary

Sept Water Levels vs. Historic Low Water Levels

Value

Higher

Lower

San Bernardino
Highland
Colton
Loma Linda
Redlands
Grand Terrace
Yuc

15 215 210 10

SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

0 0.75 1.5 3 Miles

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C. WATER LEVEL DATA

This is a requirement of the Seven Oaks Accord

Water Level Trends

San Bernardino Basin:

Well	Owner	Hydrograph Zone
#34	City of Redlands	Recharge
Thorne No. 9/3	City of Riverside	Recharge
Stewart No. 20	City of Riverside	Recharge
Cooley D	City of Riverside	Recharge
16th St.	City of San Bernardino	Recharge
19th St. No. 2	City of San Bernardino	Recharge
27th St.	City of San Bernardino	Recharge
Baseline & California	City of San Bernardino	Recharge
PaperBoard	City of San Bernardino	Recharge
Waterman Ave.	City of San Bernardino	Recharge
Plant No. 9A	East Valley Water District	Recharge
Tri City	East Valley Water District	Recharge
Plant No. 94	East Valley Water District	Recharge

Well	Owner	Hydrograph Zone
Plant No. 41	East Valley Water District	Near Recharge
Plant No. 102	East Valley Water District	Near Recharge

Well	Owner	Hydrograph Zone
Redlands Heights	City of Redlands	Target
#32	City of Redlands	Target
#35	City of Redlands	Target
Orange St.	City of Redlands	Target
East Lugonia #4	City of Redlands	Upper 20%
Devil Canyon No. 1	City of San Bernardino	Target
Devil Canyon No. 2	City of San Bernardino	Target
Newmark No. 1	City of San Bernardino	Target

Water Level Trends

Well	Owner	Hydrograph Zone
#16	City of Redlands	No Recharge
East Lugonia #3	City of Redlands	No Recharge
Agate #1	City of Redlands	No Recharge
Maguet #1	City of Redlands	No Recharge
Cajon Canyon	City of San Bernardino	No Recharge
Plant No. 142	East Valley Water District	No Recharge

Rialto-Colton Basin:

Well	Owner	Hydrograph Zone
City No. 1	City of Rialto	Target

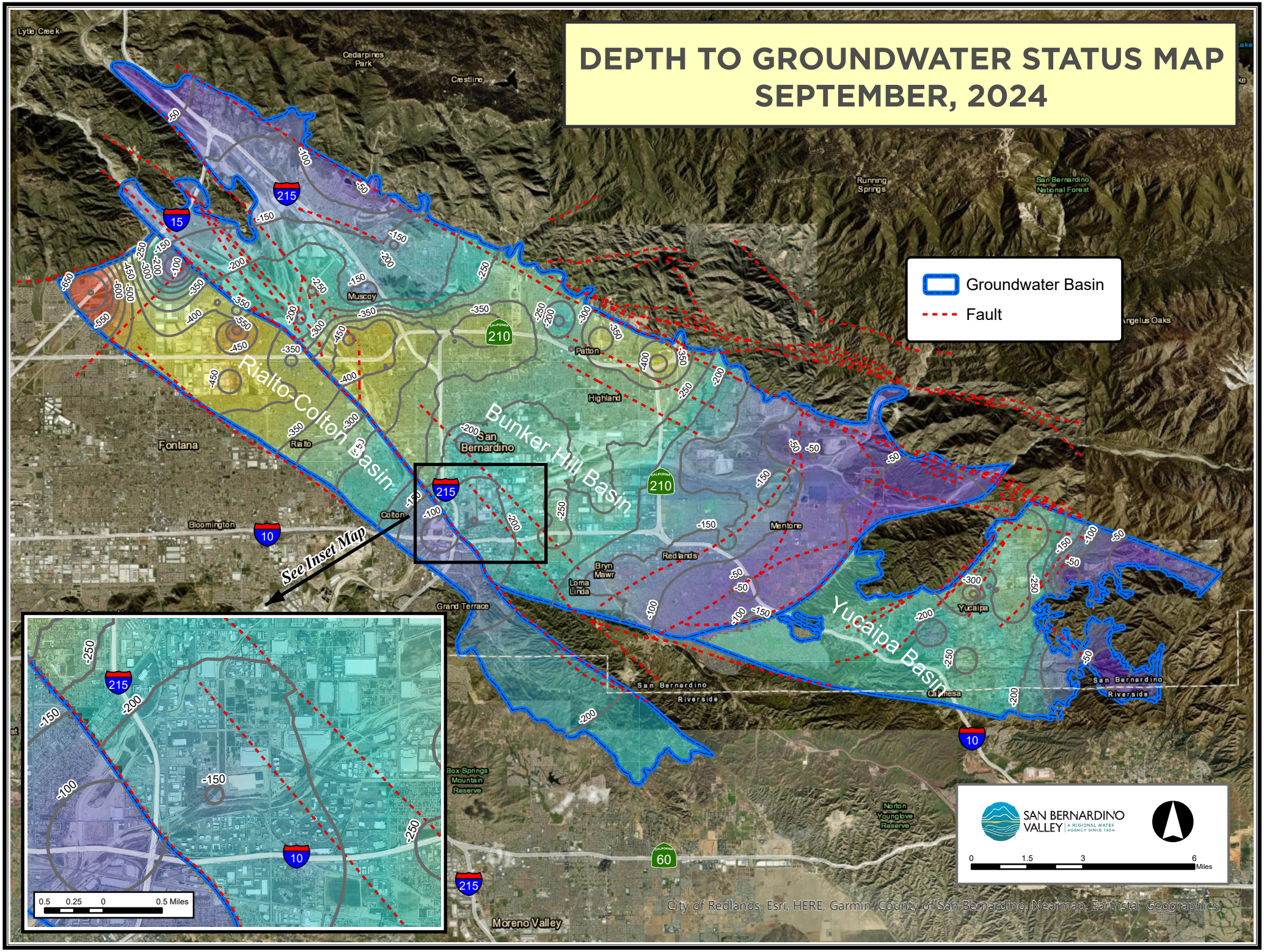
Riverside North:

- The average lowest water level in the three key wells for calendar year 2023 is 25.8 feet higher than the required minimum average level of 822.04 feet. According to Riverside Public Utilities, the water levels increased by 8 feet in August 2024 compared to the same period in 2023.

Yucaipa Basin:

Well	Owner	Hydrograph Zone
No. 5	Yucaipa Valley Water District	Target
No. 18	Yucaipa Valley Water District	Target
No. 44	Yucaipa Valley Water District	Target
No. 46	Yucaipa Valley Water District	Target
No. 53	Yucaipa Valley Water District	Target
No. 56	Yucaipa Valley Water District	Target

DEPTH TO GROUNDWATER STATUS MAP
SEPTEMBER, 2024



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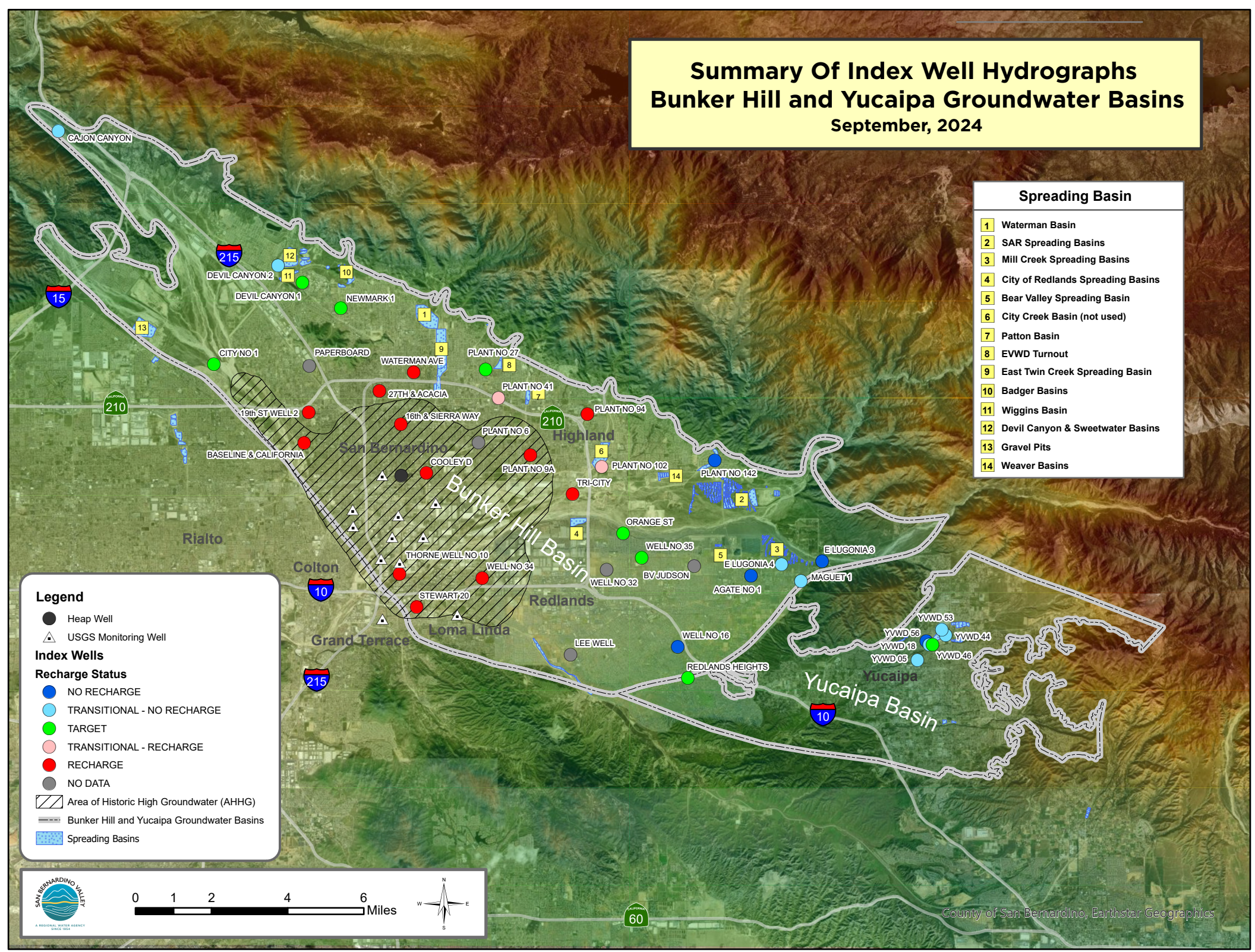

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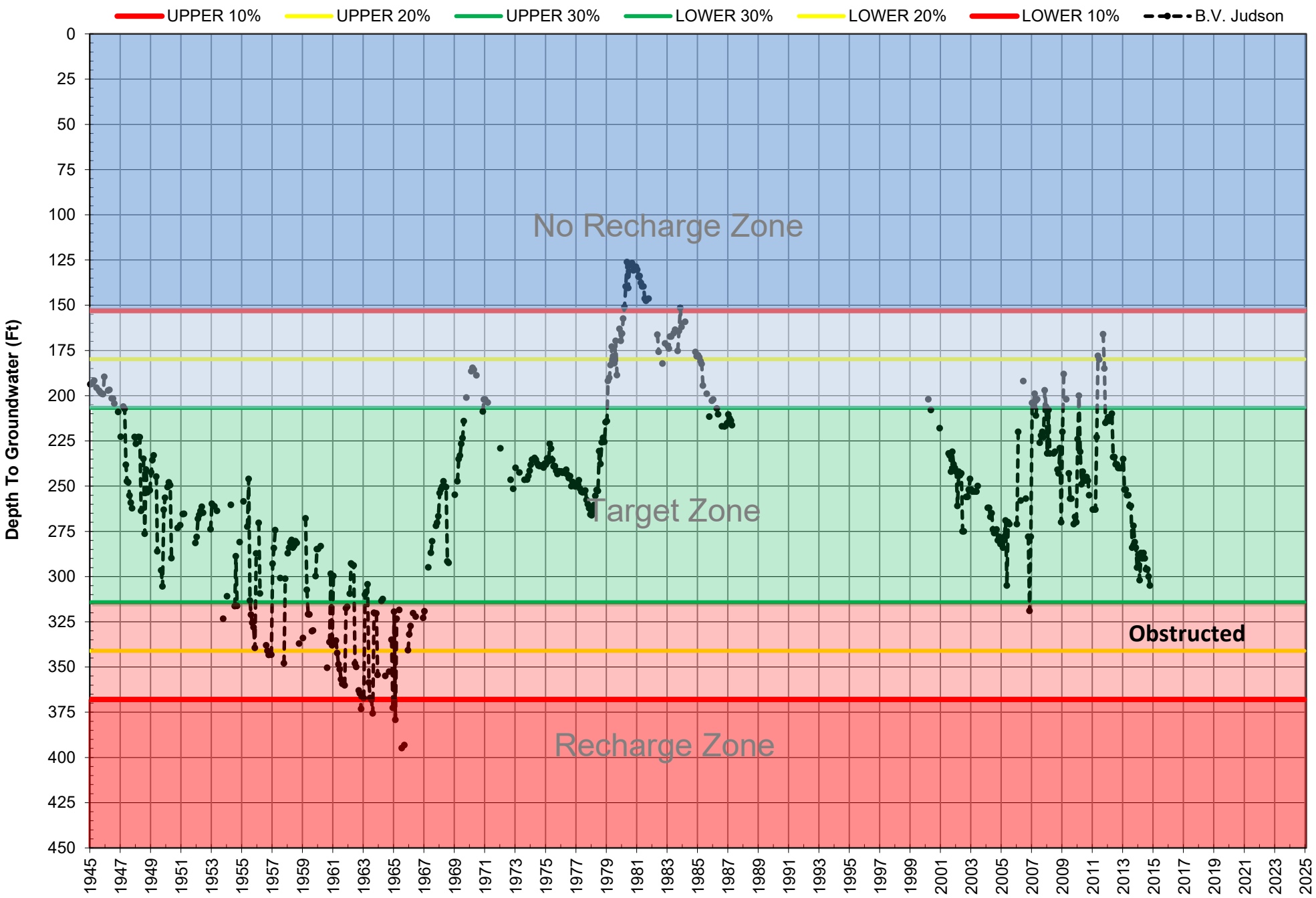
SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

B.V. Judson
Index Well Hydrograph

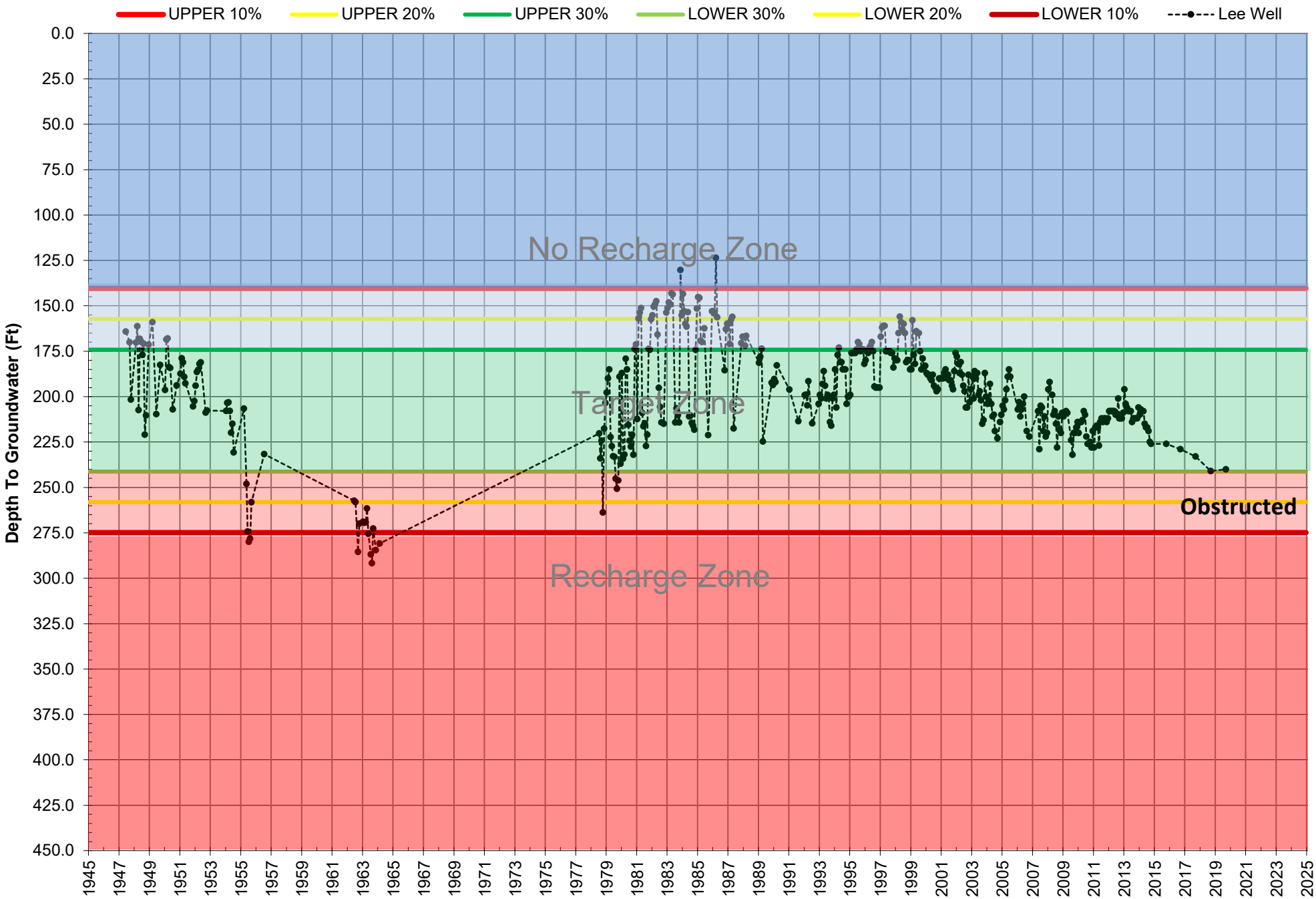
Bear Valley Mutual Water Co.



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Lee Well
Index Well Hydrograph

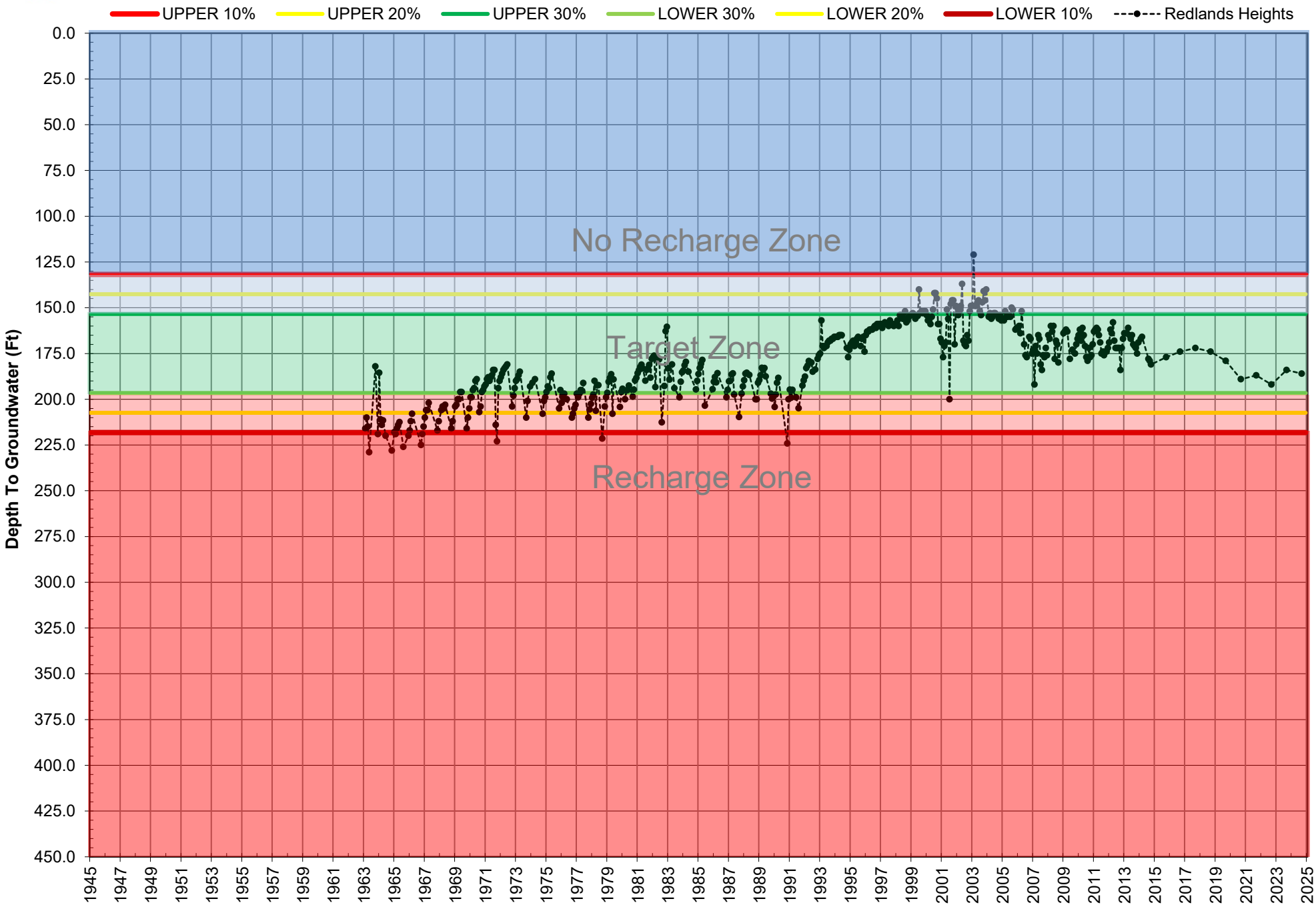
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Redlands Heights
Index Well Hydrograph

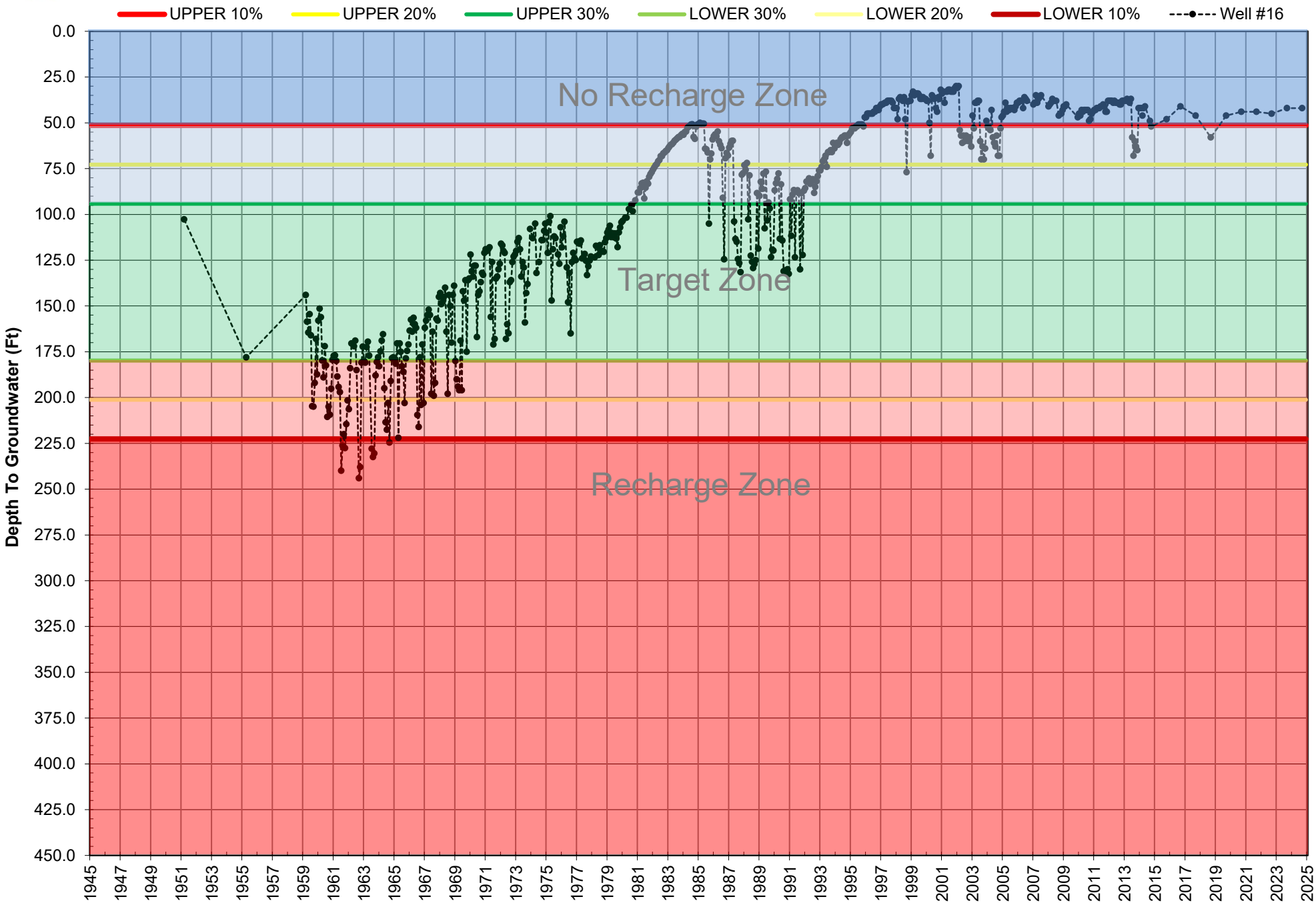
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #16
Index Well Hydrograph

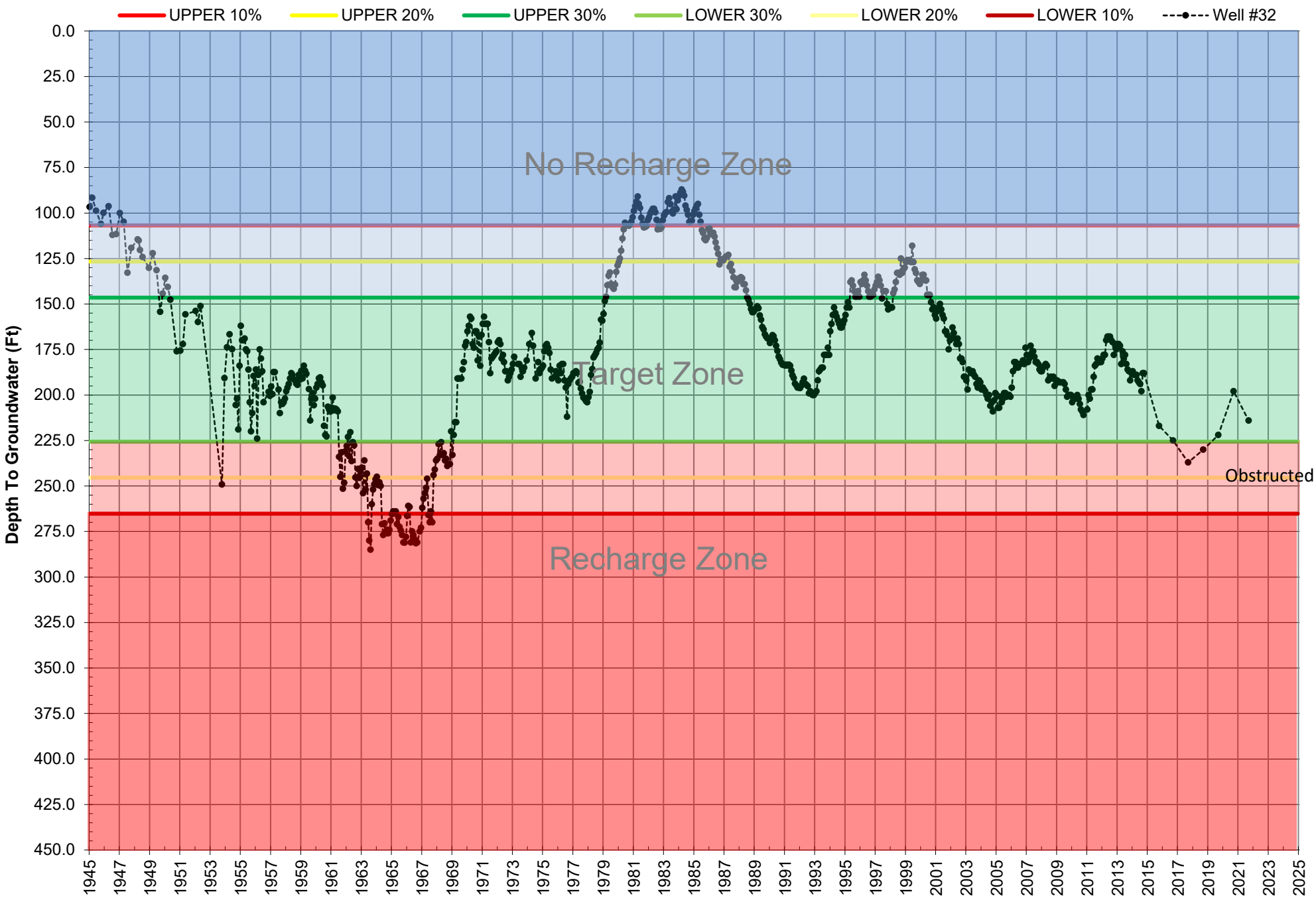
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #32
Index Well Hydrograph

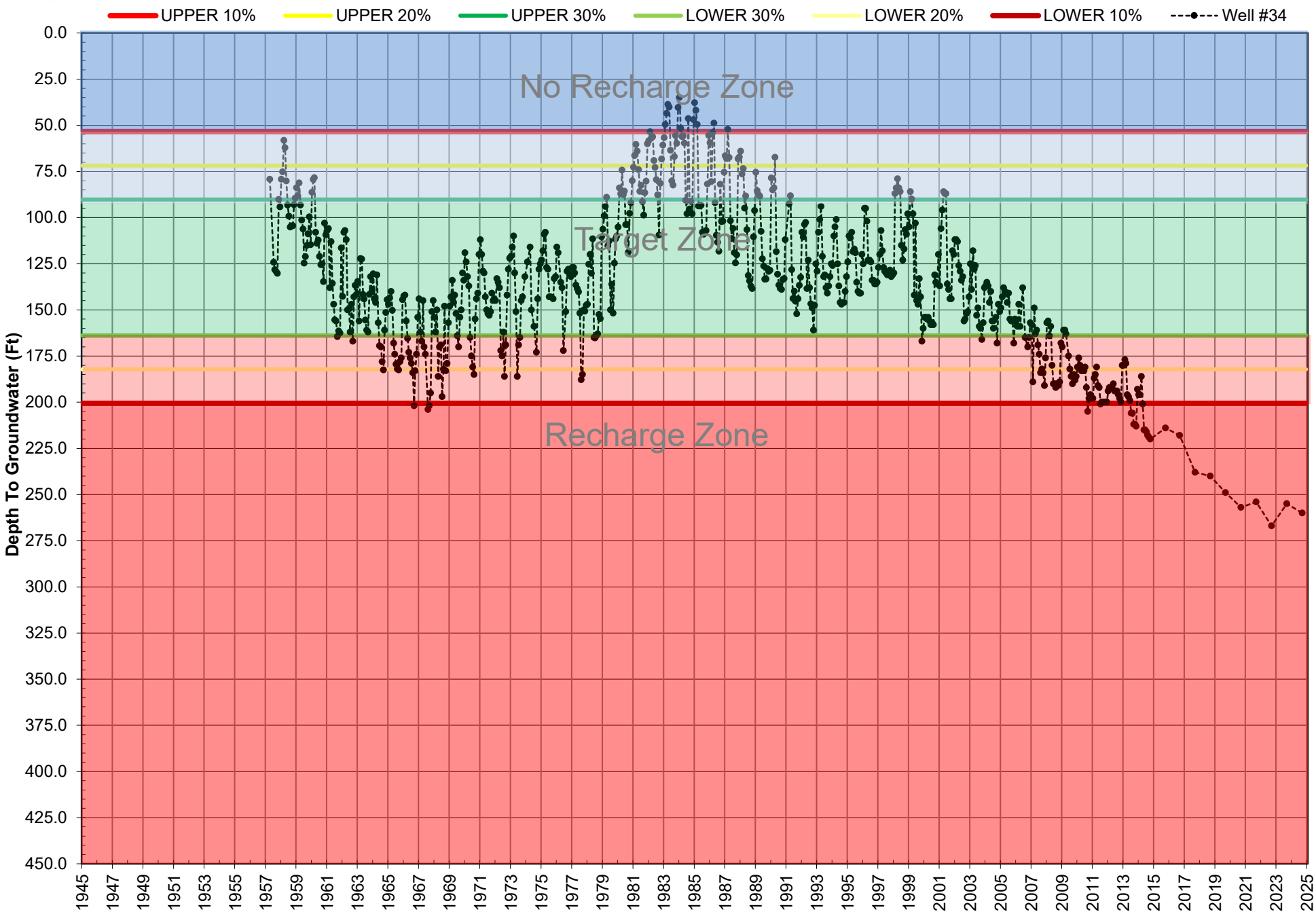
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #34
Index Well Hydrograph

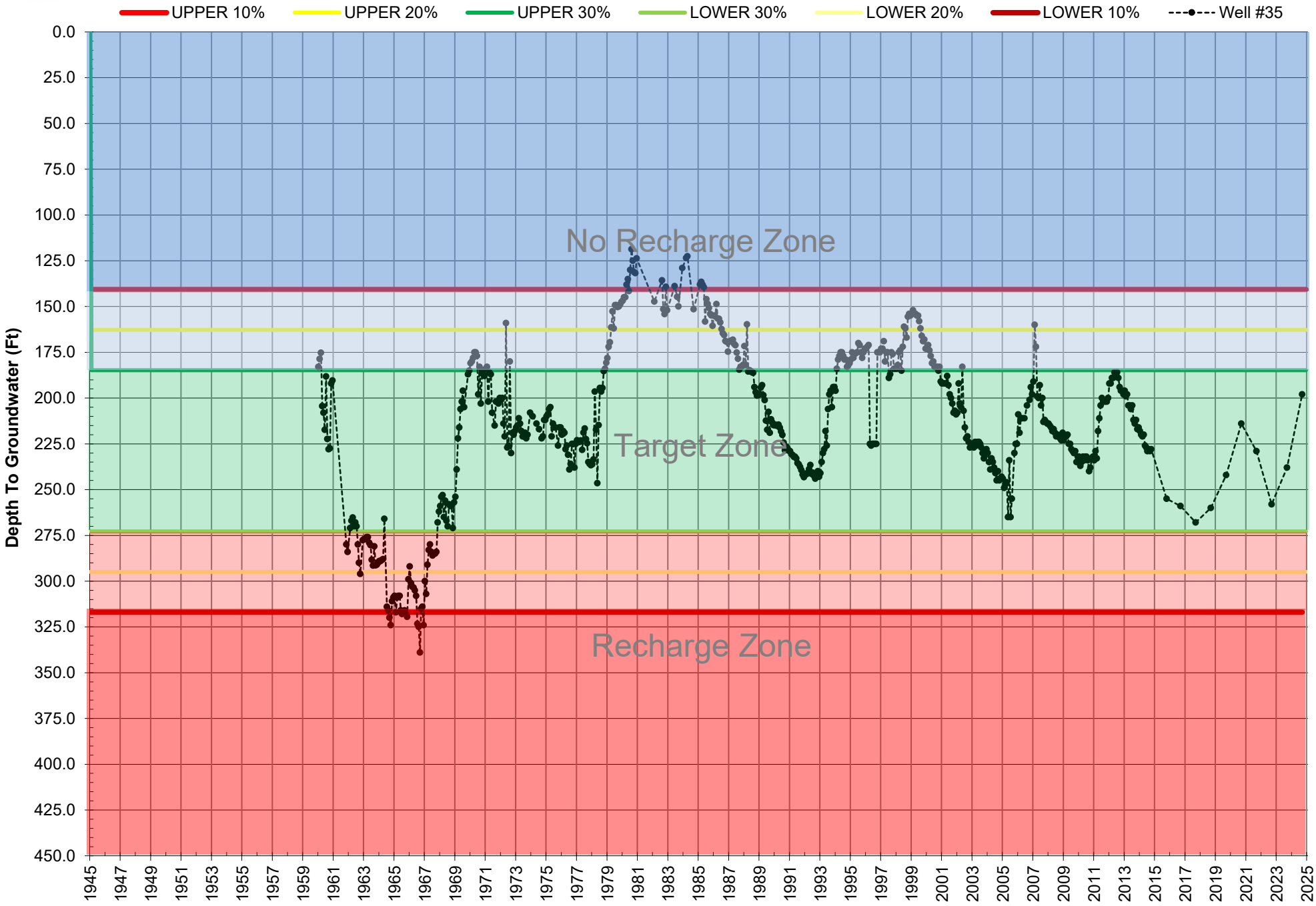
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #35
Index Well Hydrograph

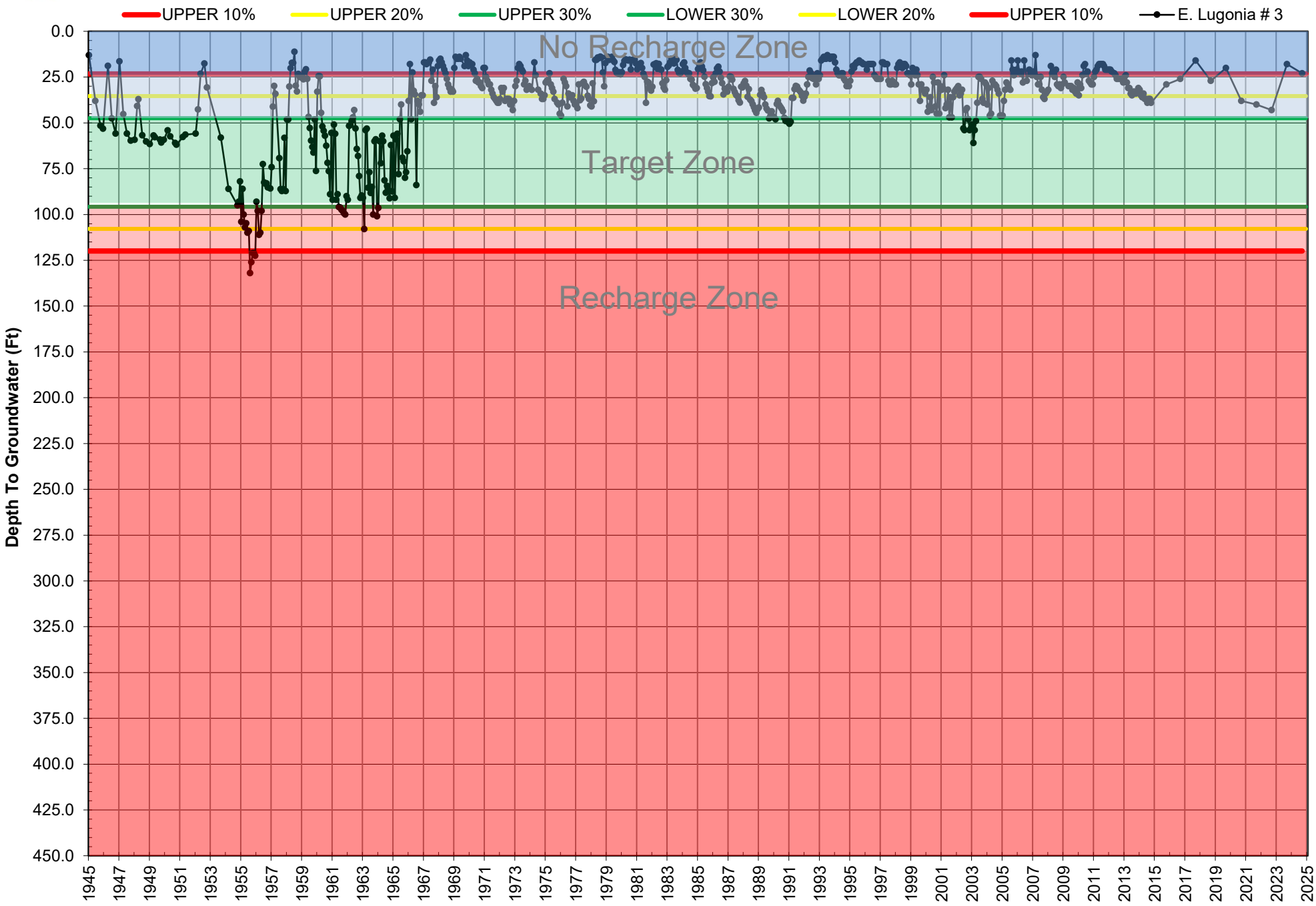
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

East Lugonia #3
Index Well Hydrograph

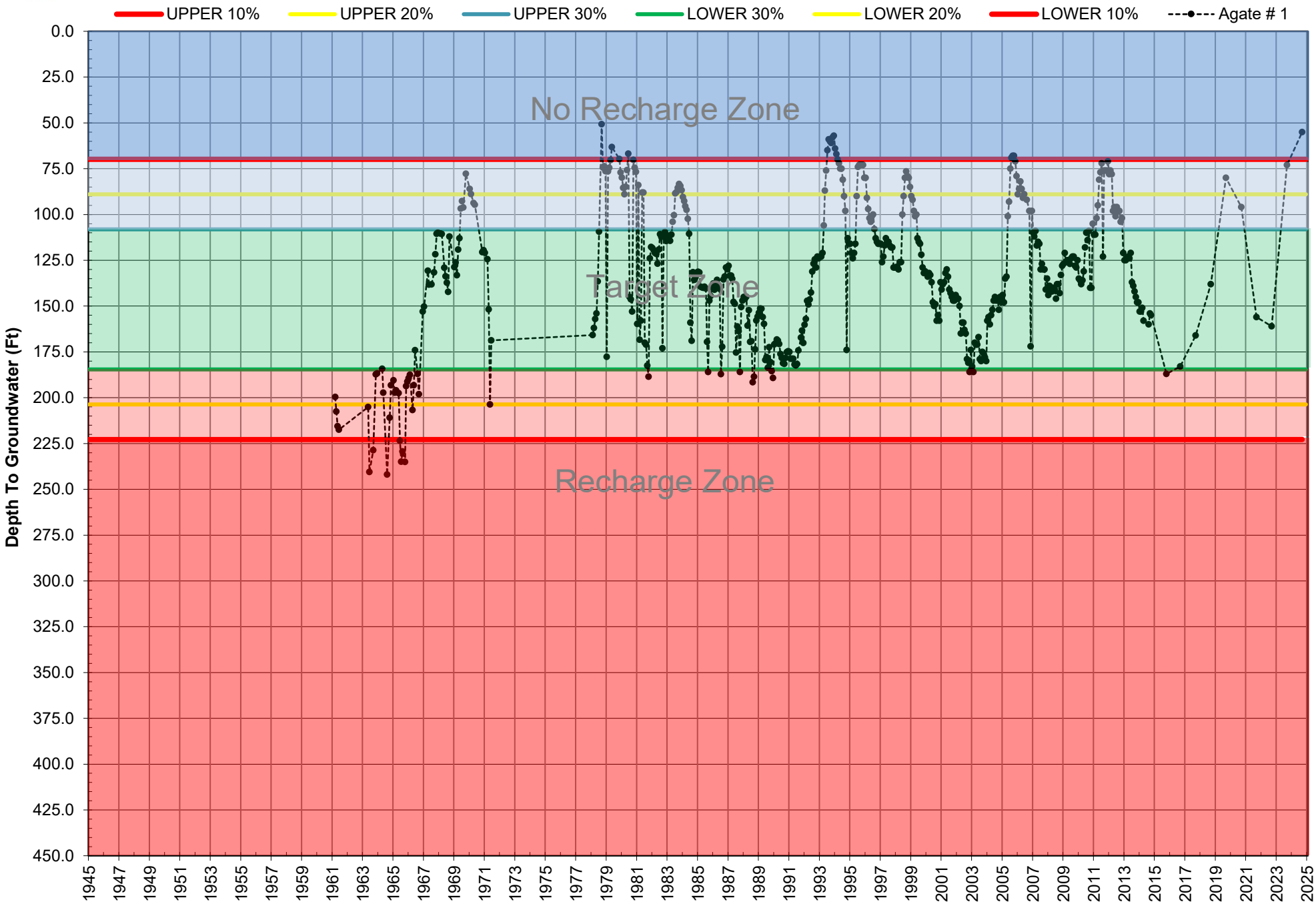
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Agate #1
Index Well Hydrograph

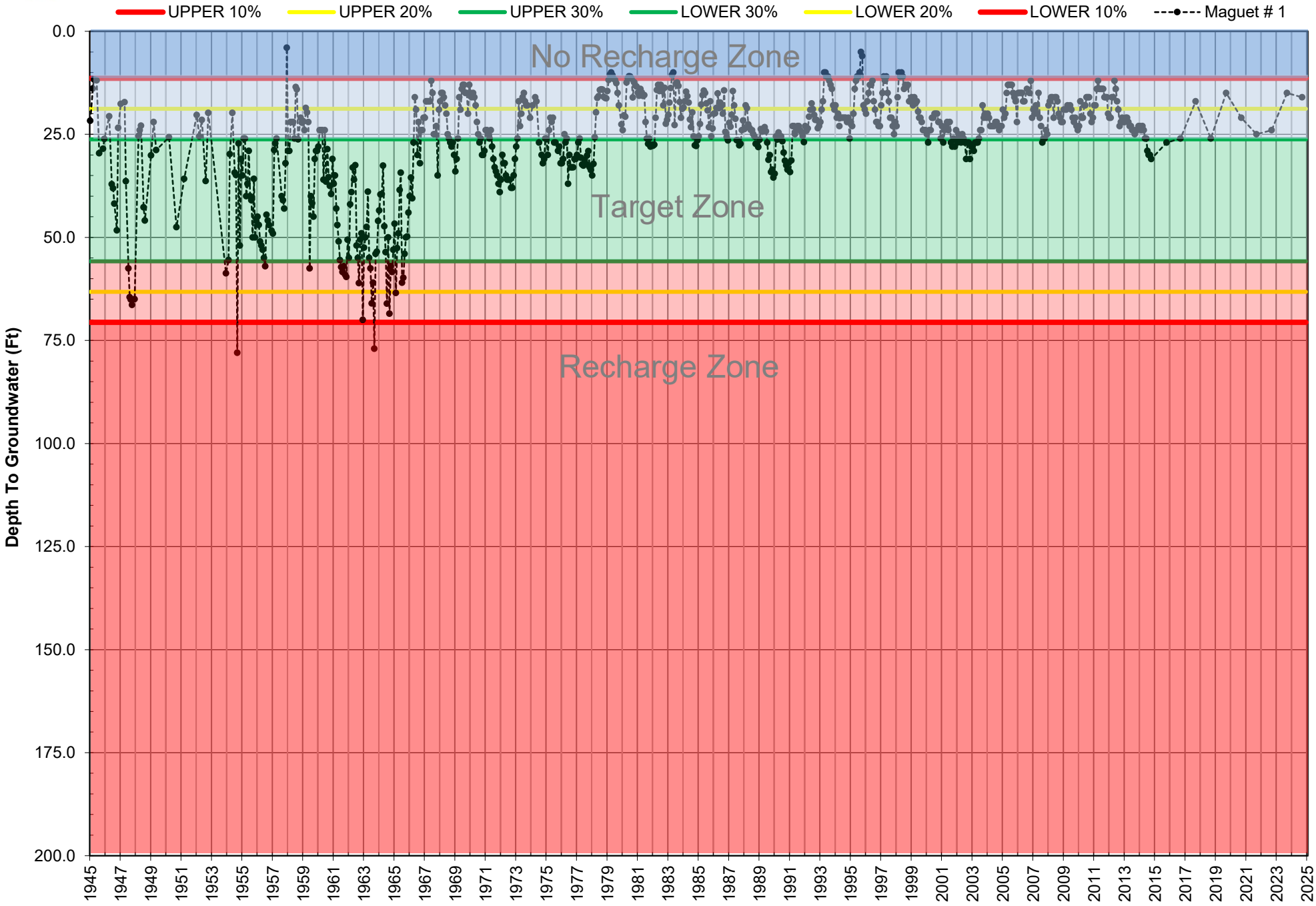
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Maguet #1
Index Well Hydrograph

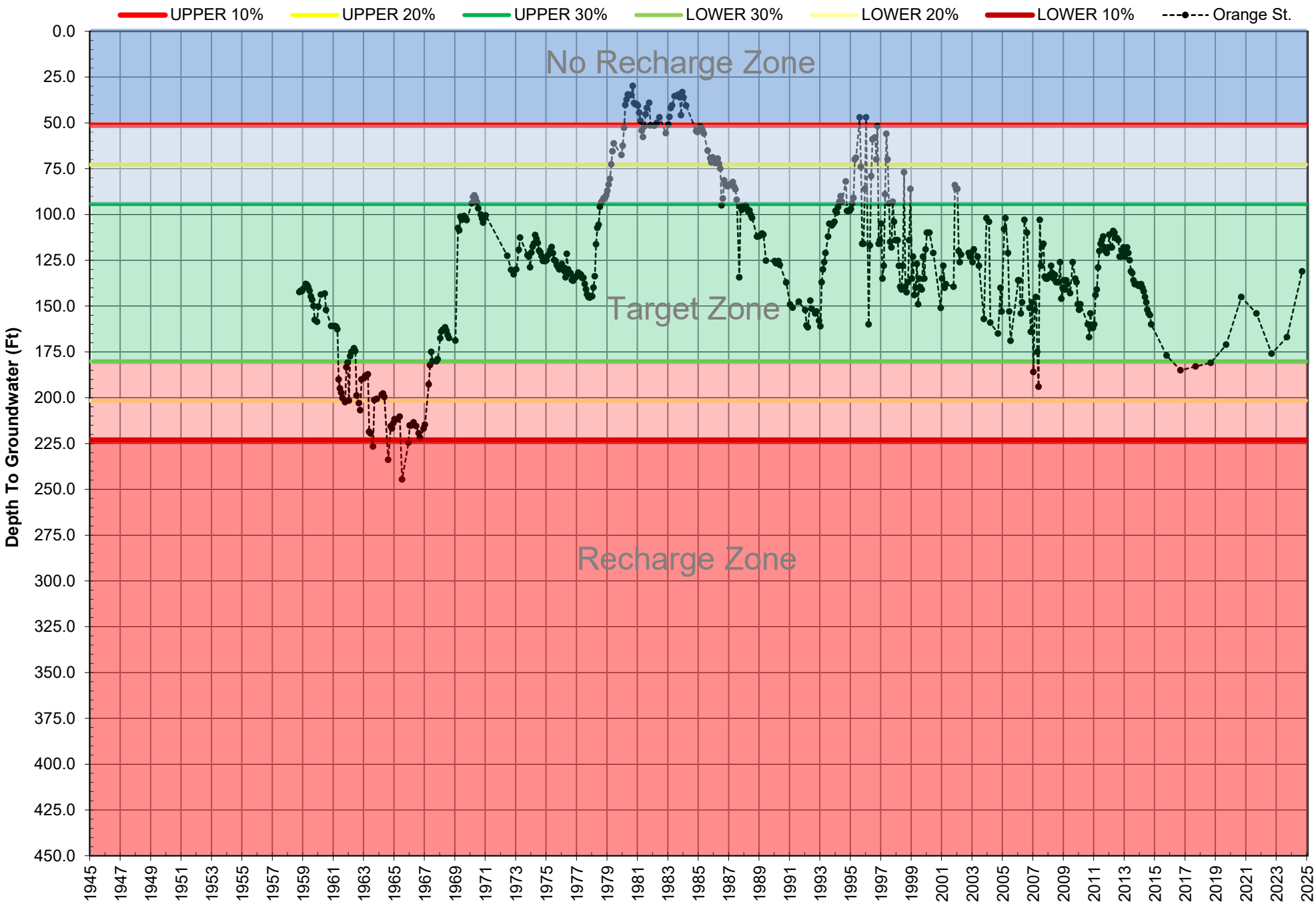
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Orange St.
Index Well Hydrograph

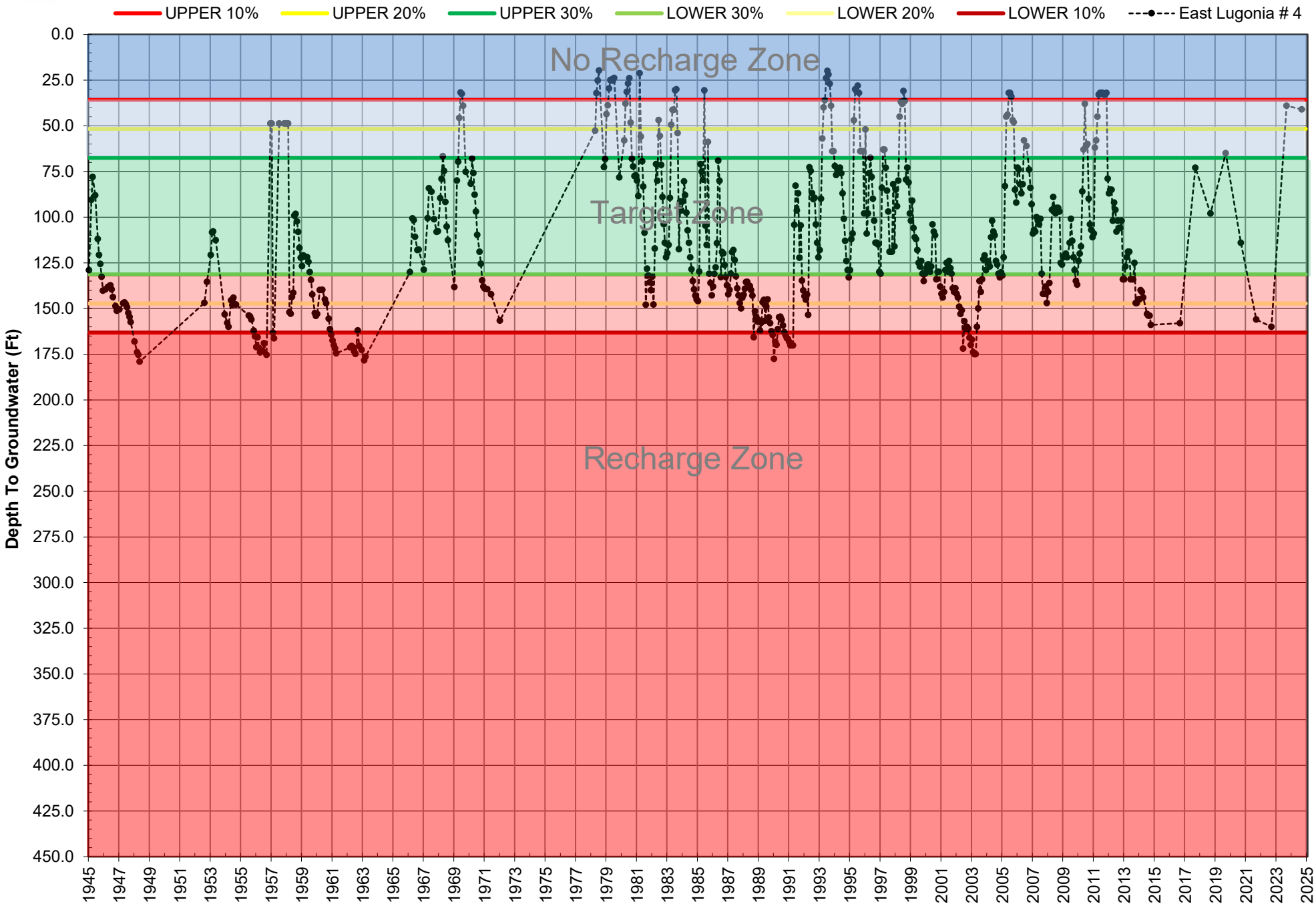
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

East Lugonia #4
Index Well Hydrograph

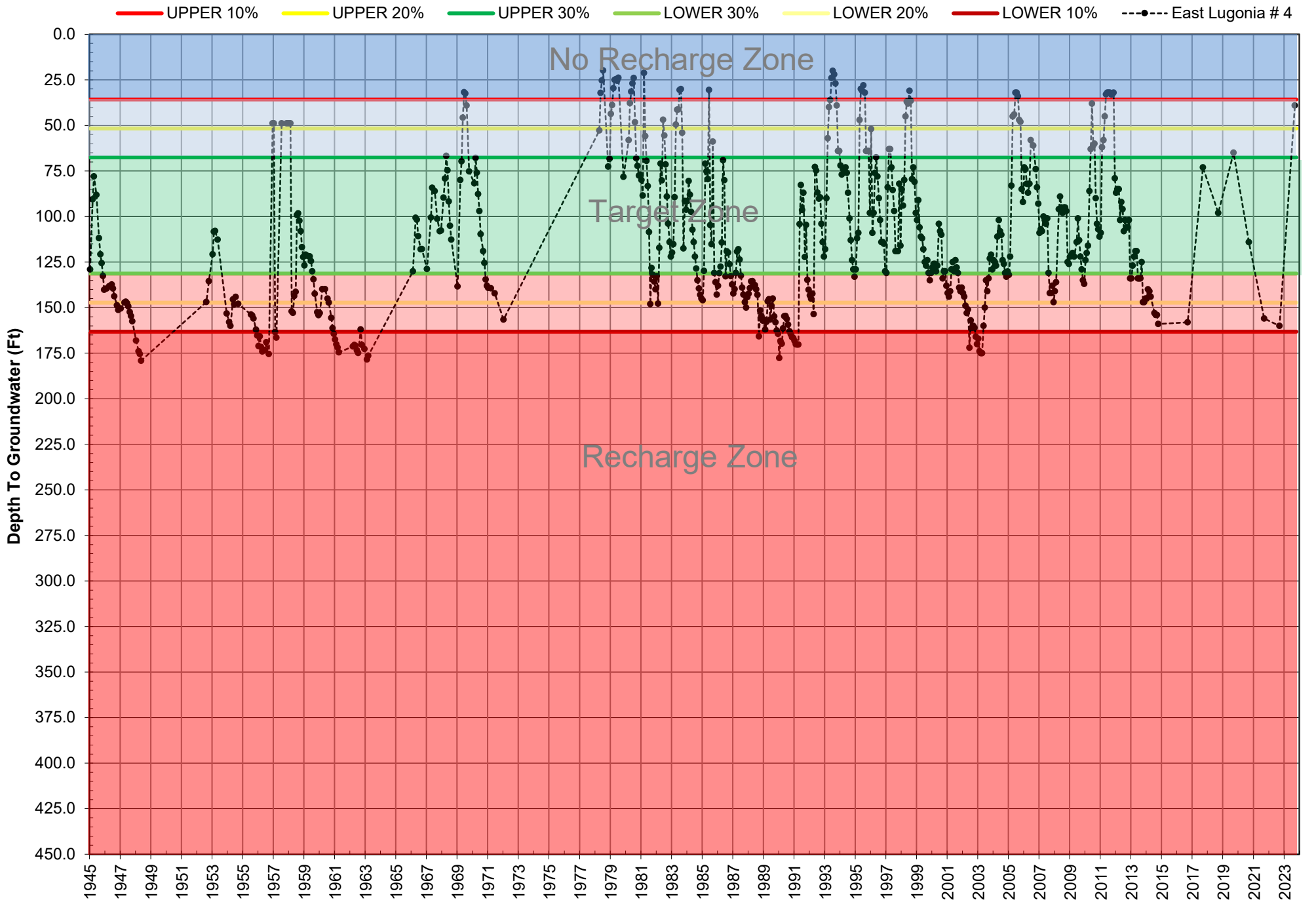
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

East Lugonia #4
Index Well Hydrograph

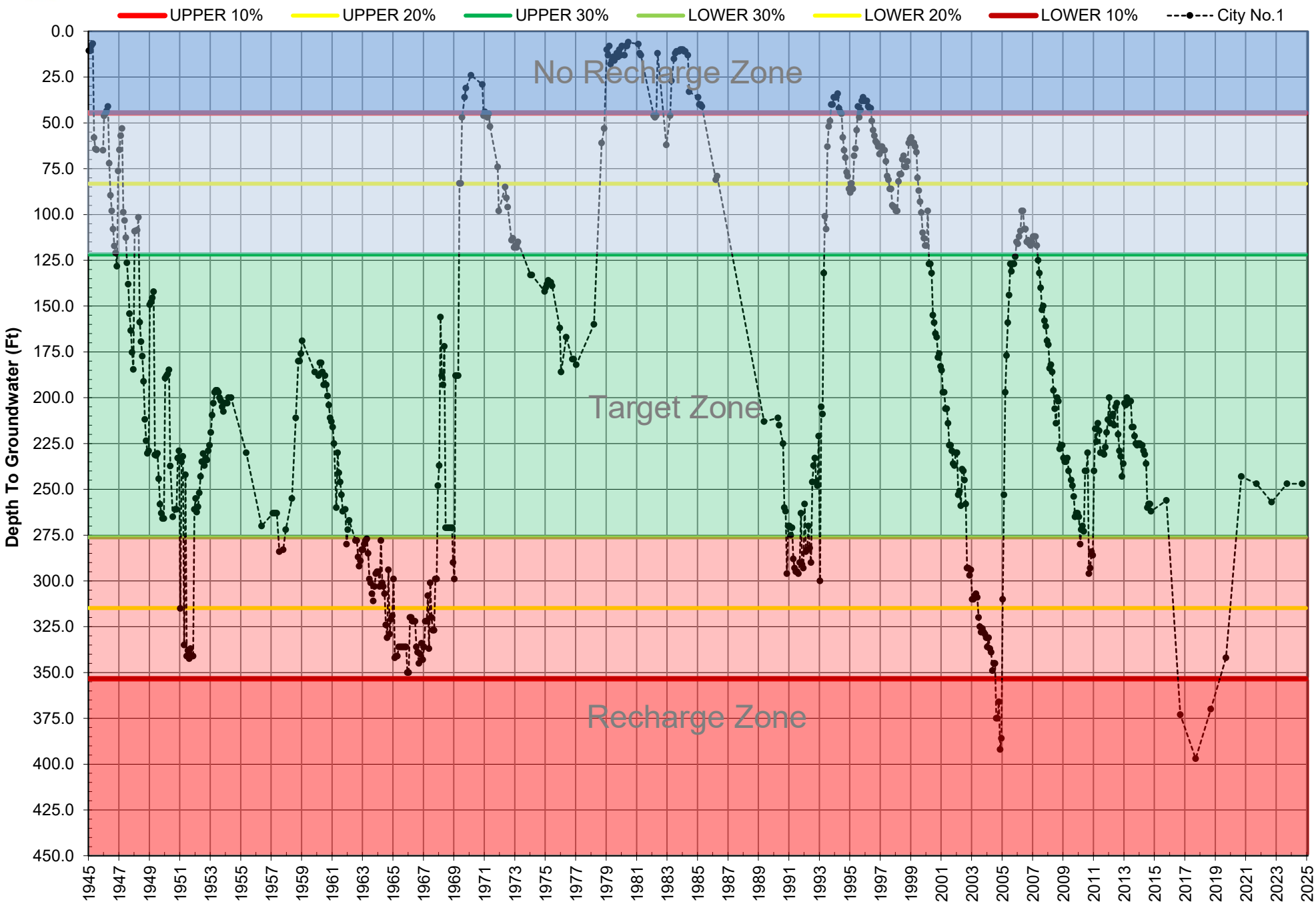
City of Redlands



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

City No. 1
Index Well Hydrograph

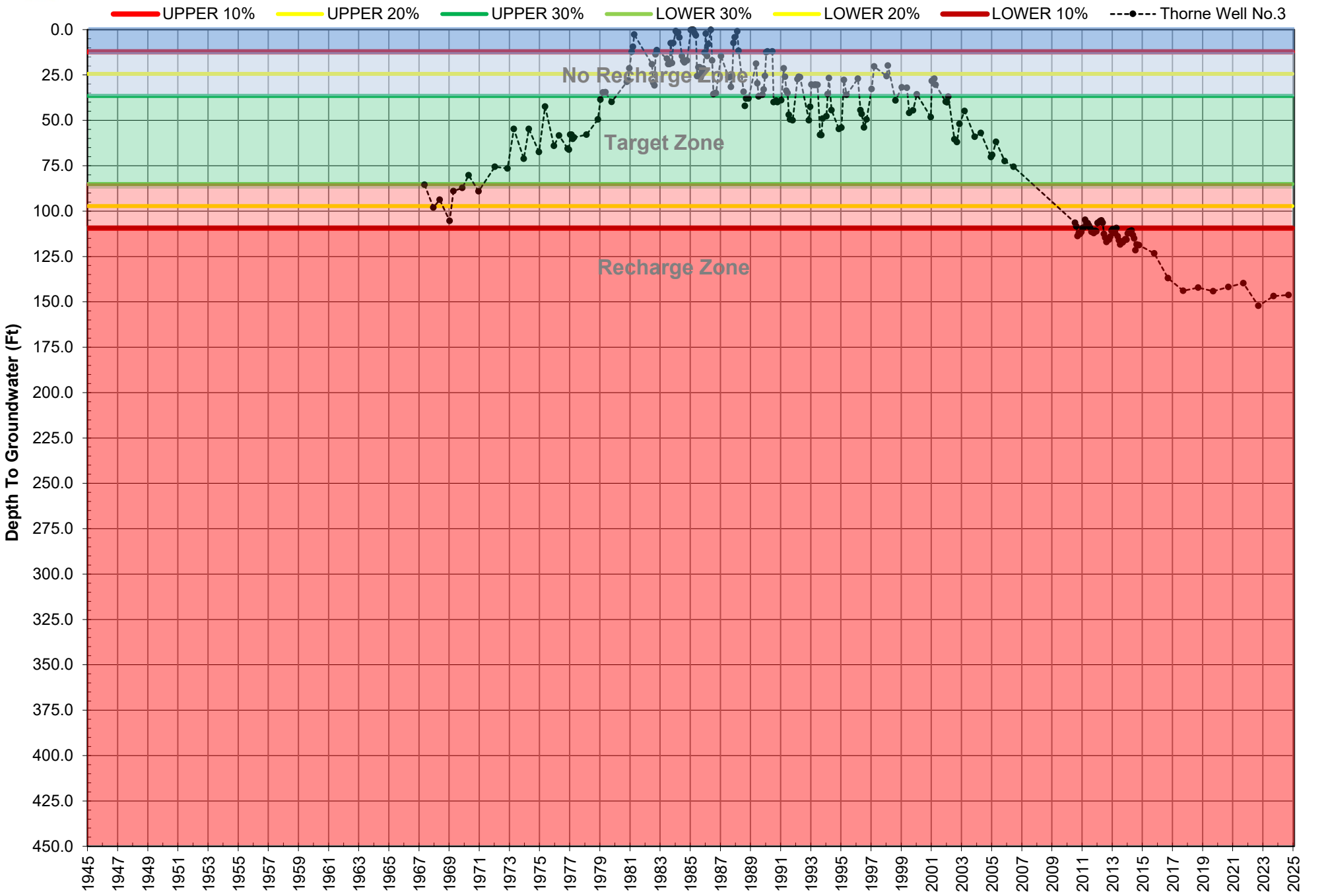
City of Rialto



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Thorne No. 9/3
Index Well Hydrograph

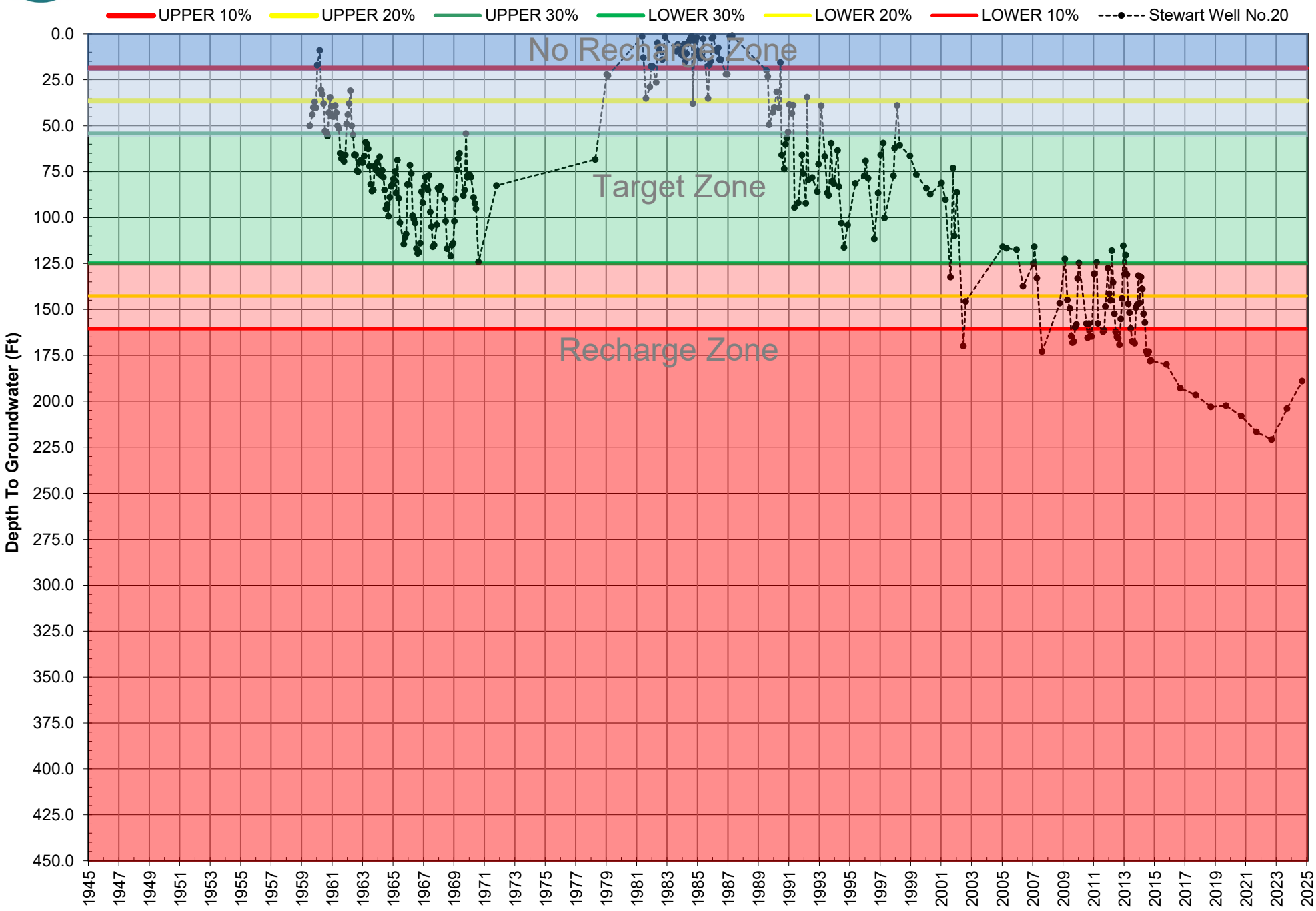
City of Riverside



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Stewart No. 20
Index Well Hydrograph

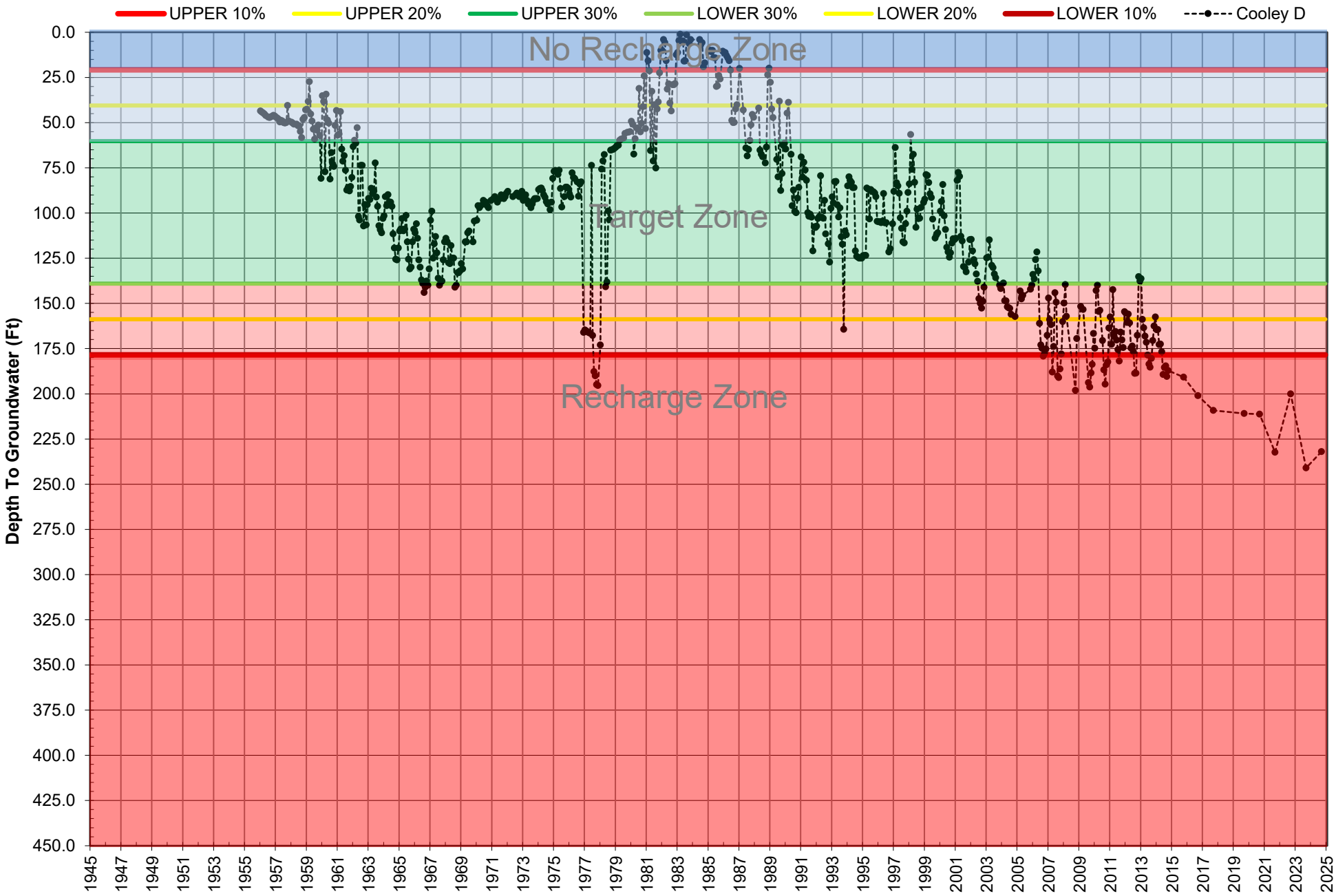
City of Riverside



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Cooley D
Index Well Hydrograph

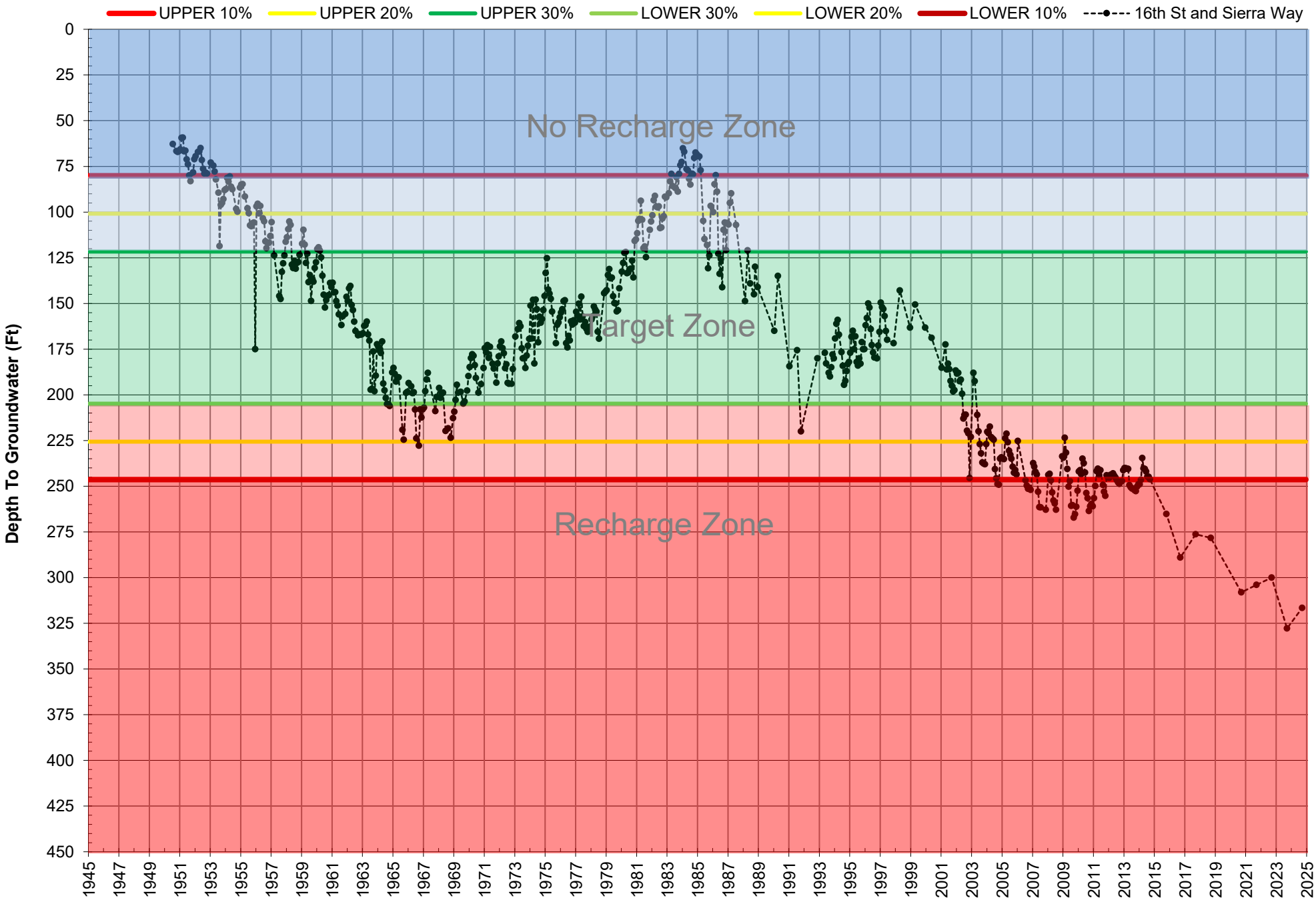
City of Riverside



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

16th St.
Index Well Hydrograph

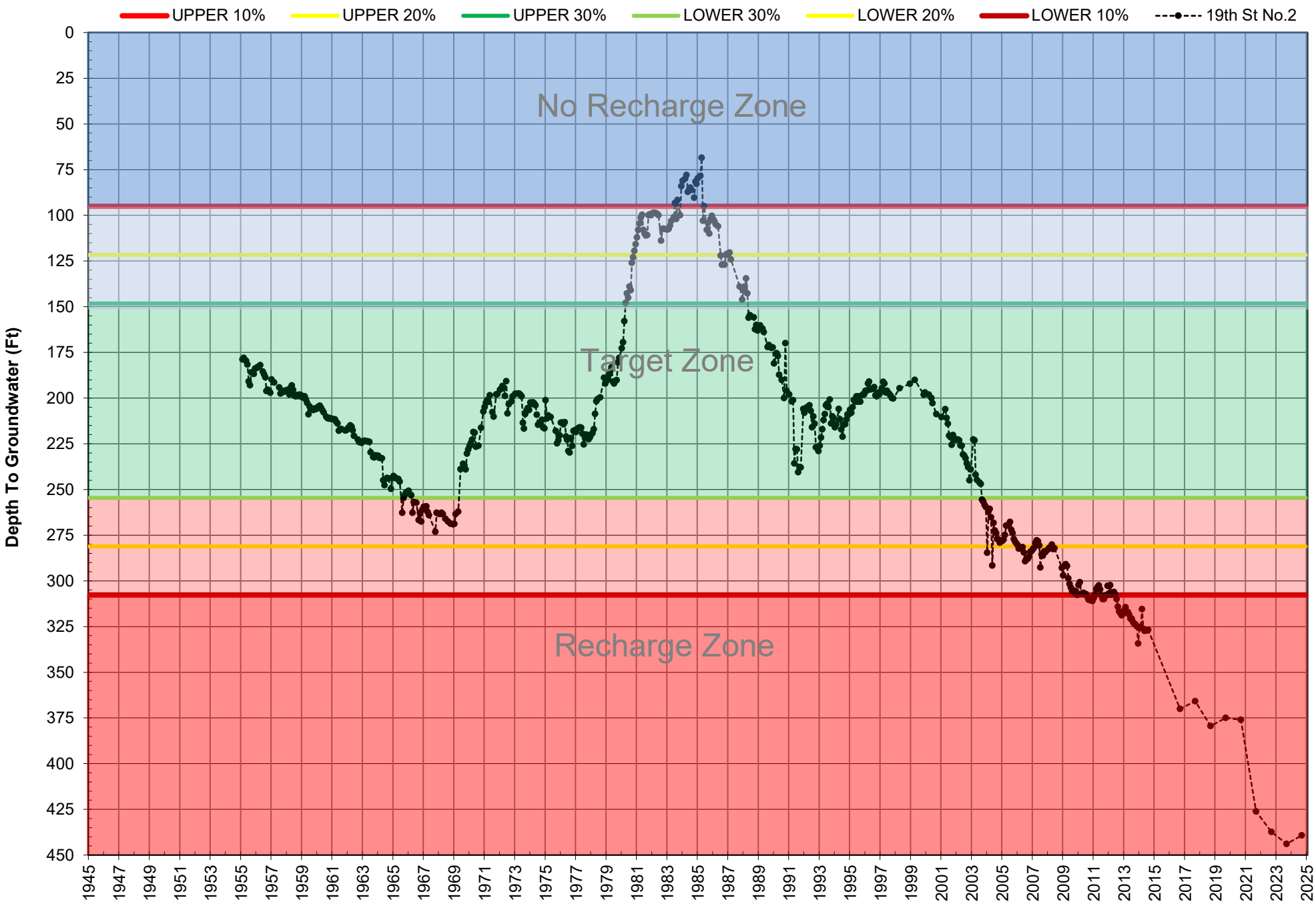
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

19th St. No. 2
Index Well Hydrograph

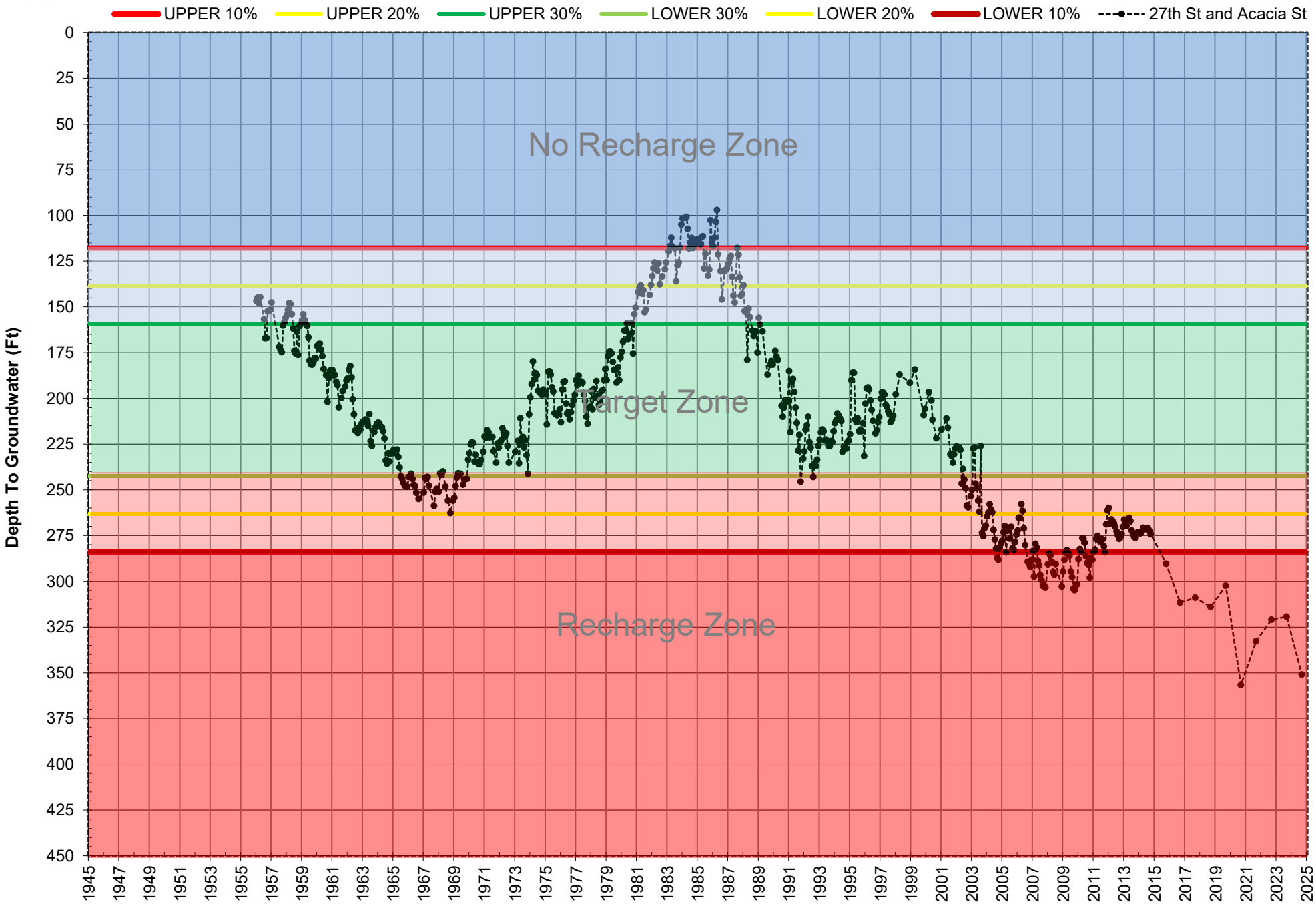
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

27th St.
Index Well Hydrograph

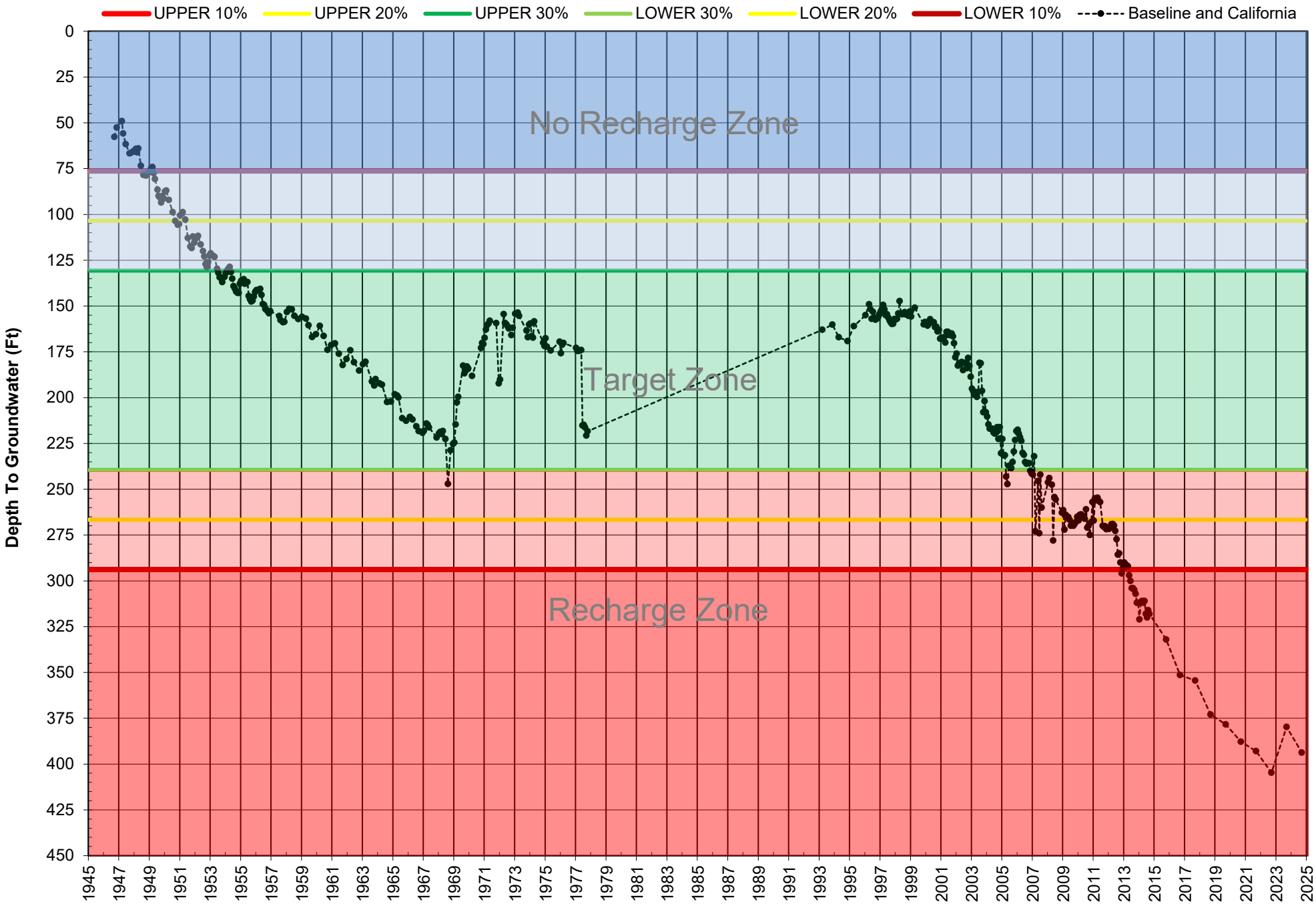
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Baseline & California
Index Well Hydrograph

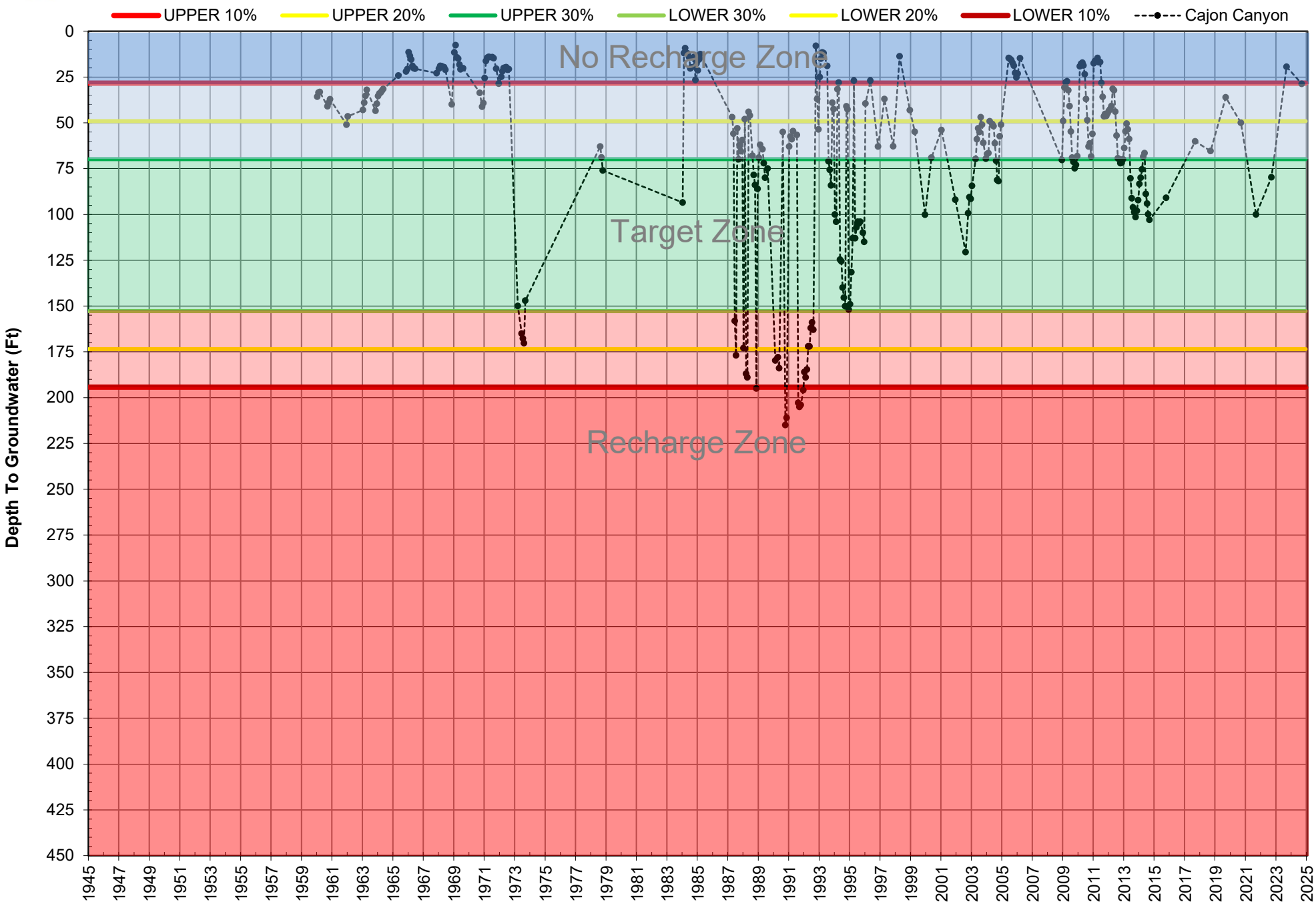
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Cajon Canyon
Index Well Hydrograph

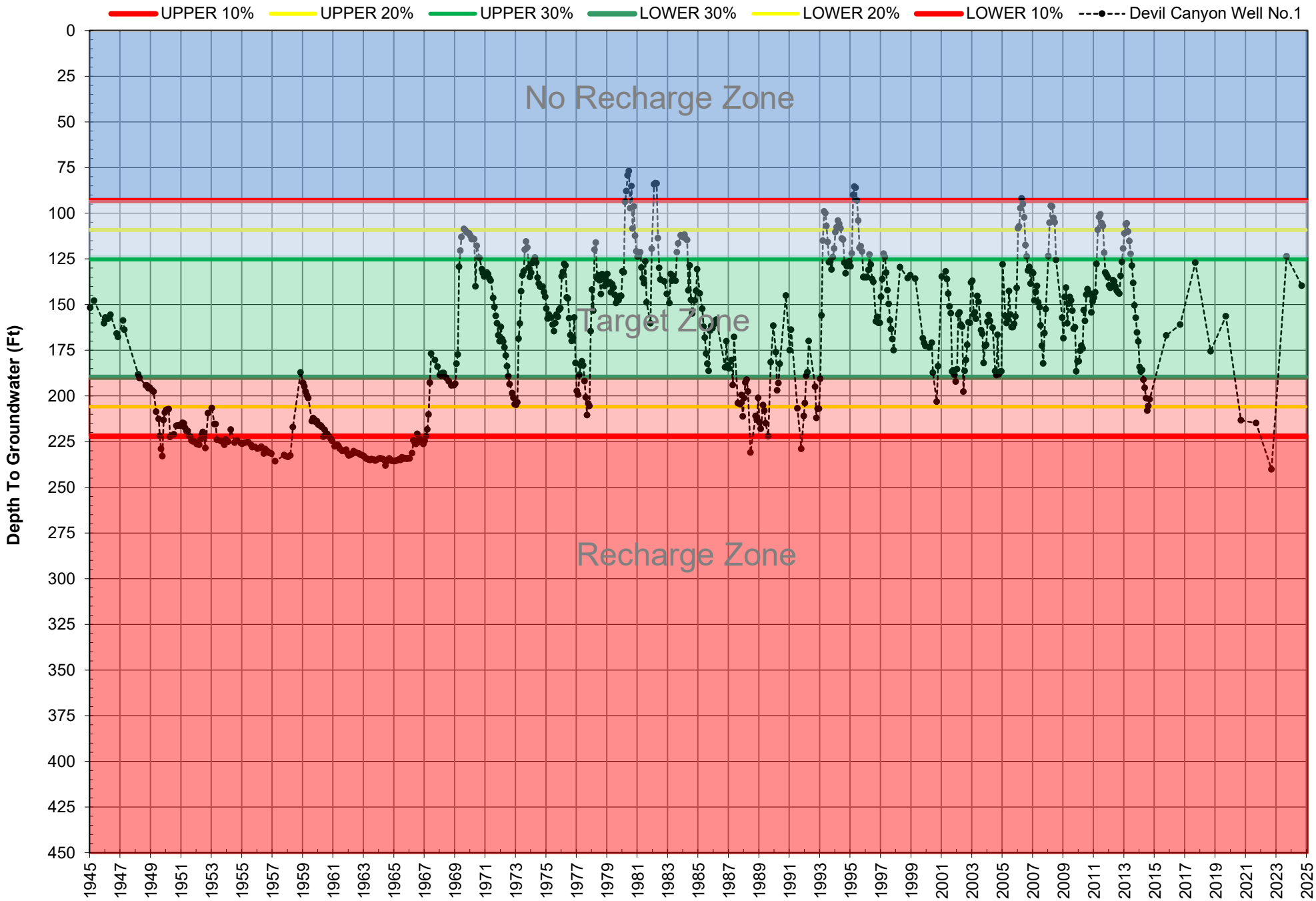
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Devil Canyon No. 1
Index Well Hydrograph

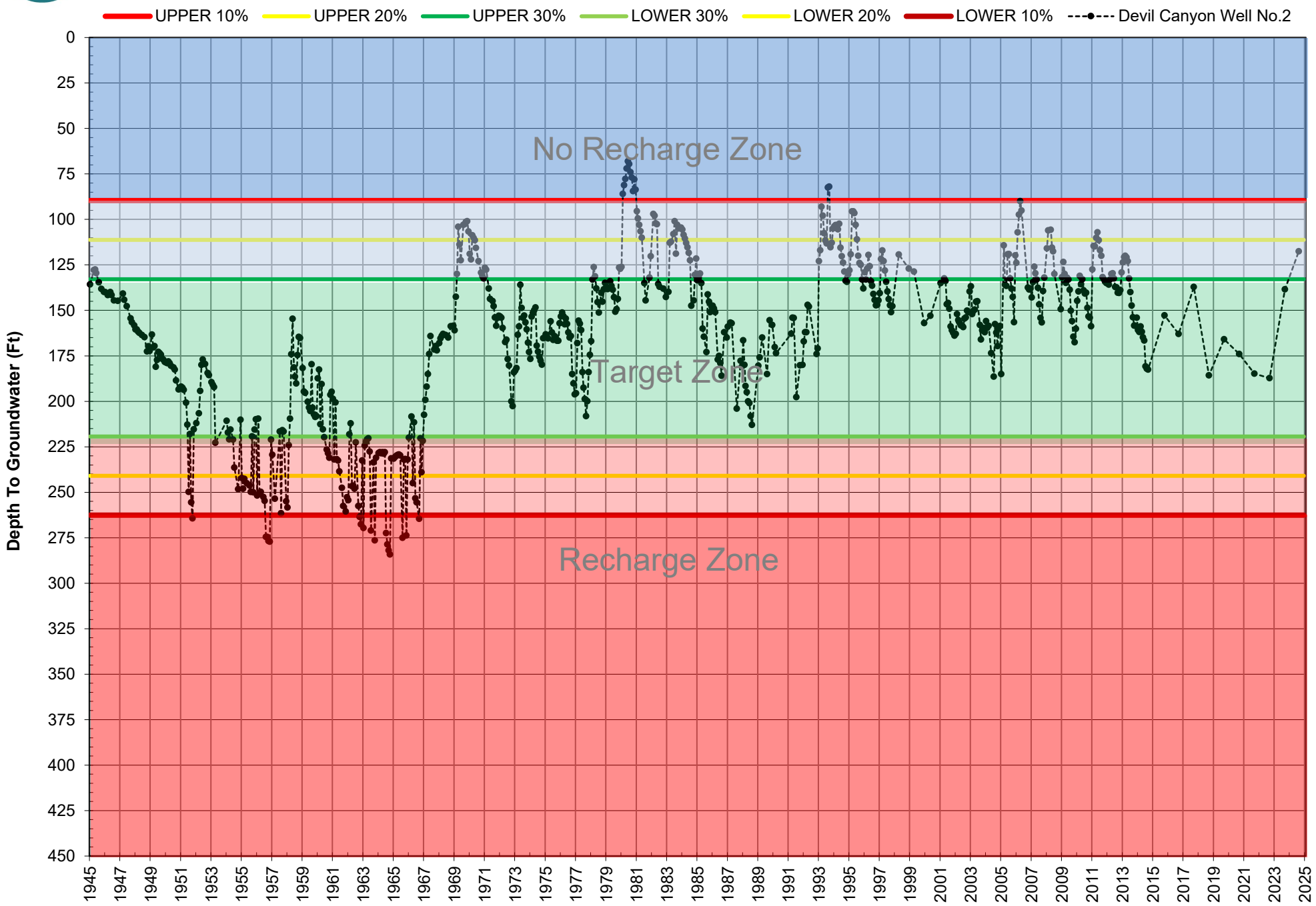
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Devil Canyon No. 2
Index Well Hydrograph

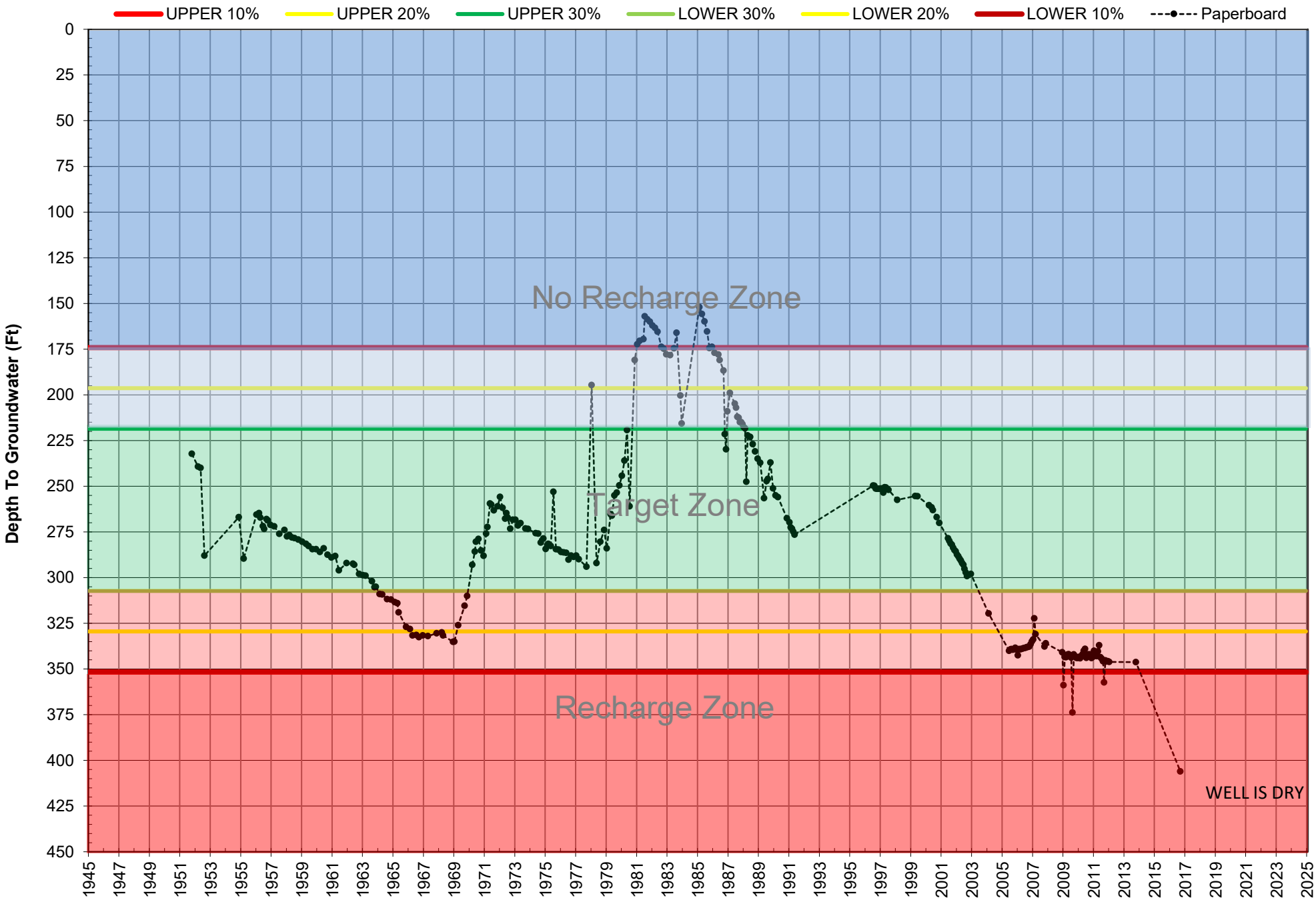
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

PaperBoard
Index Well Hydrograph

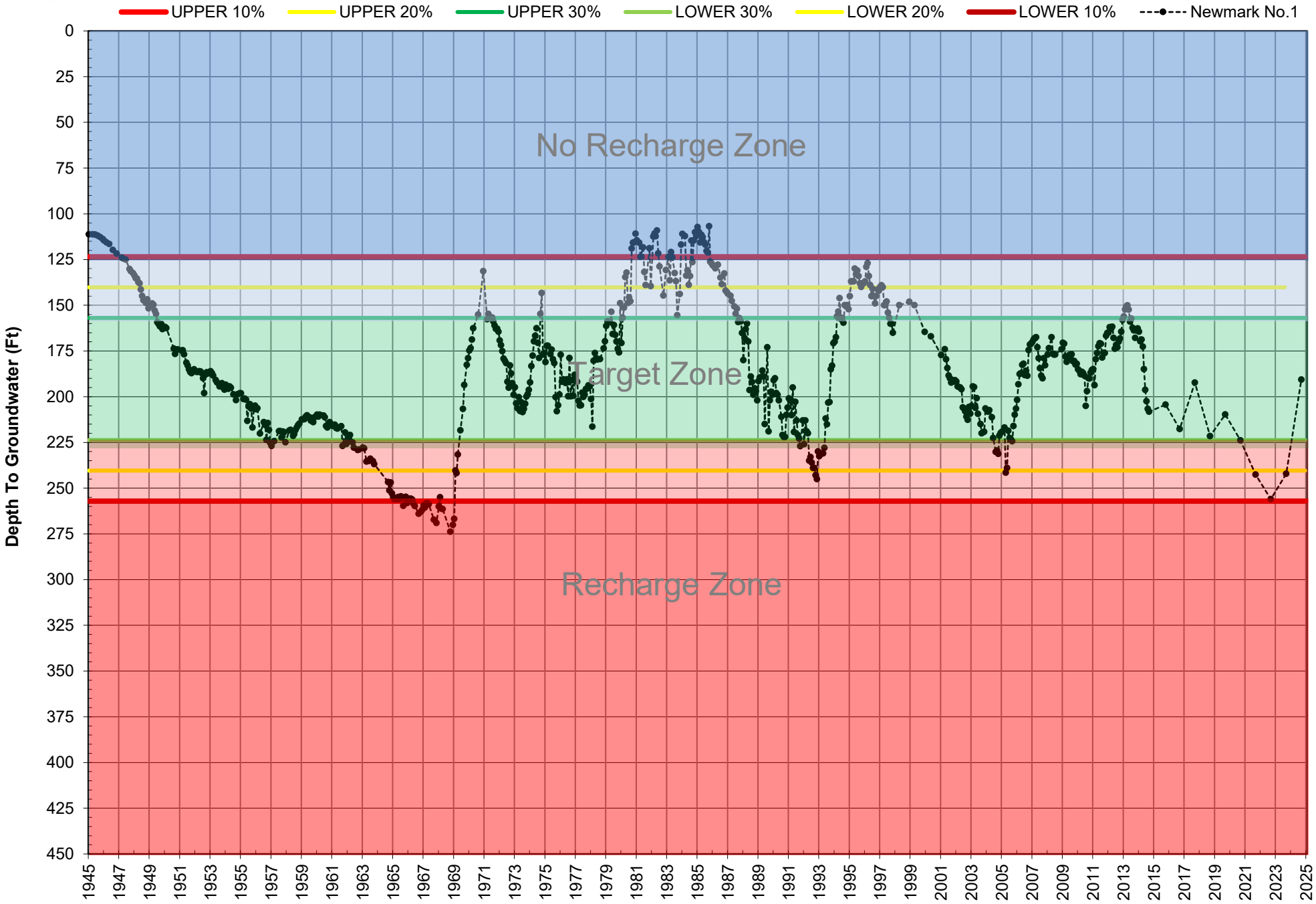
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Newmark No. 1
Index Well Hydrograph

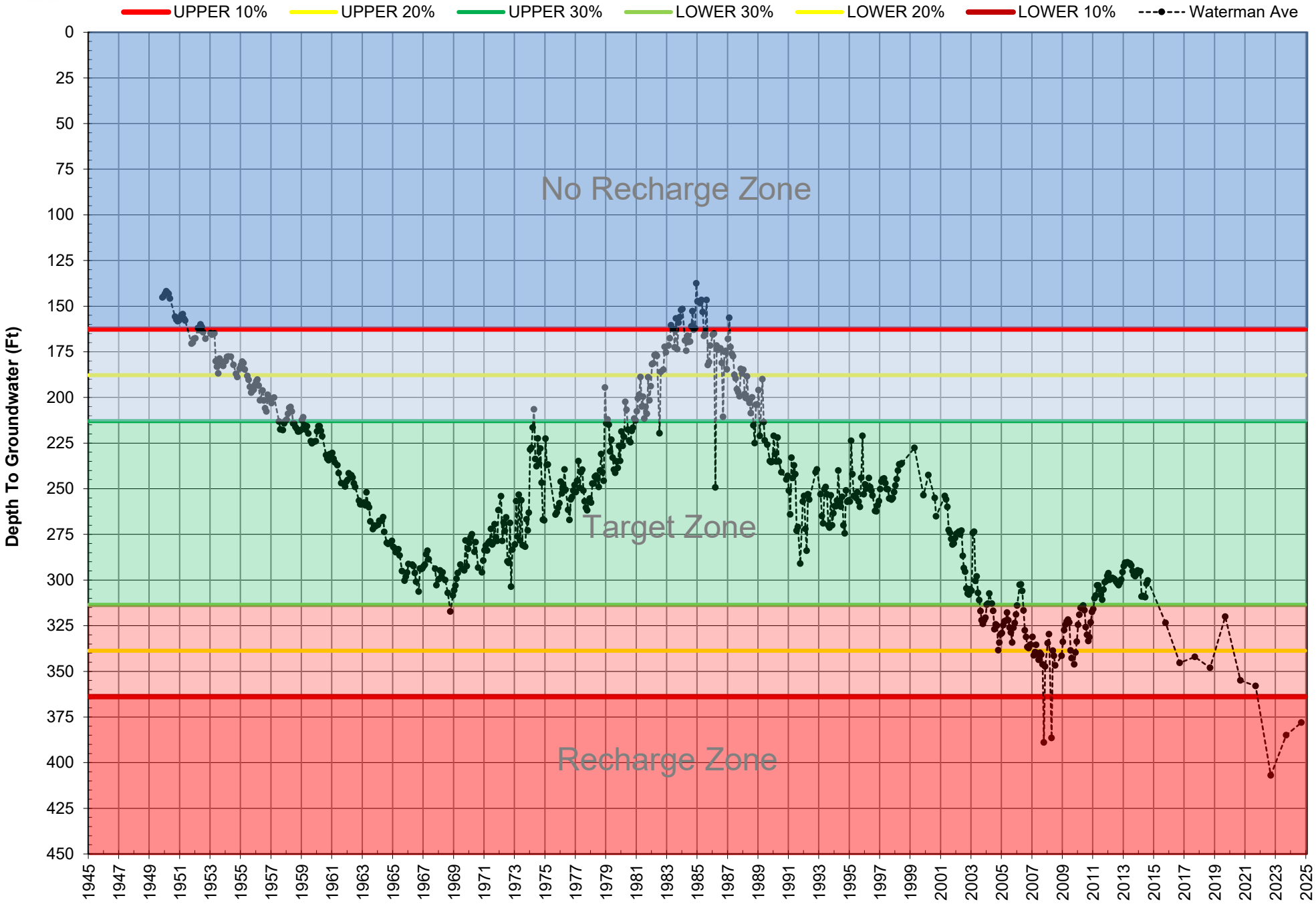
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Waterman Ave.
Index Well Hydrograph

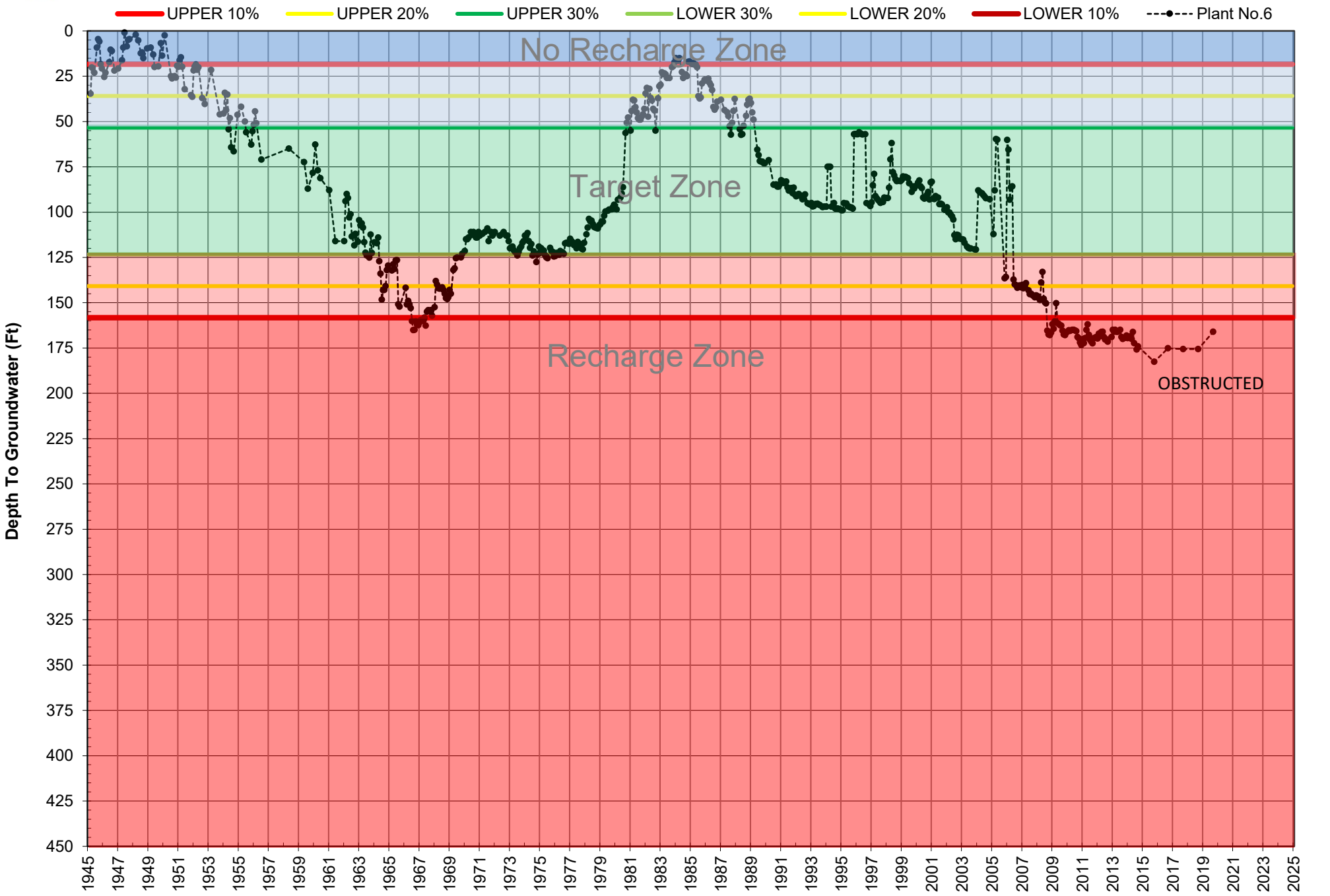
City of San Bernardino



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Plant No. 6
Index Well Hydrograph

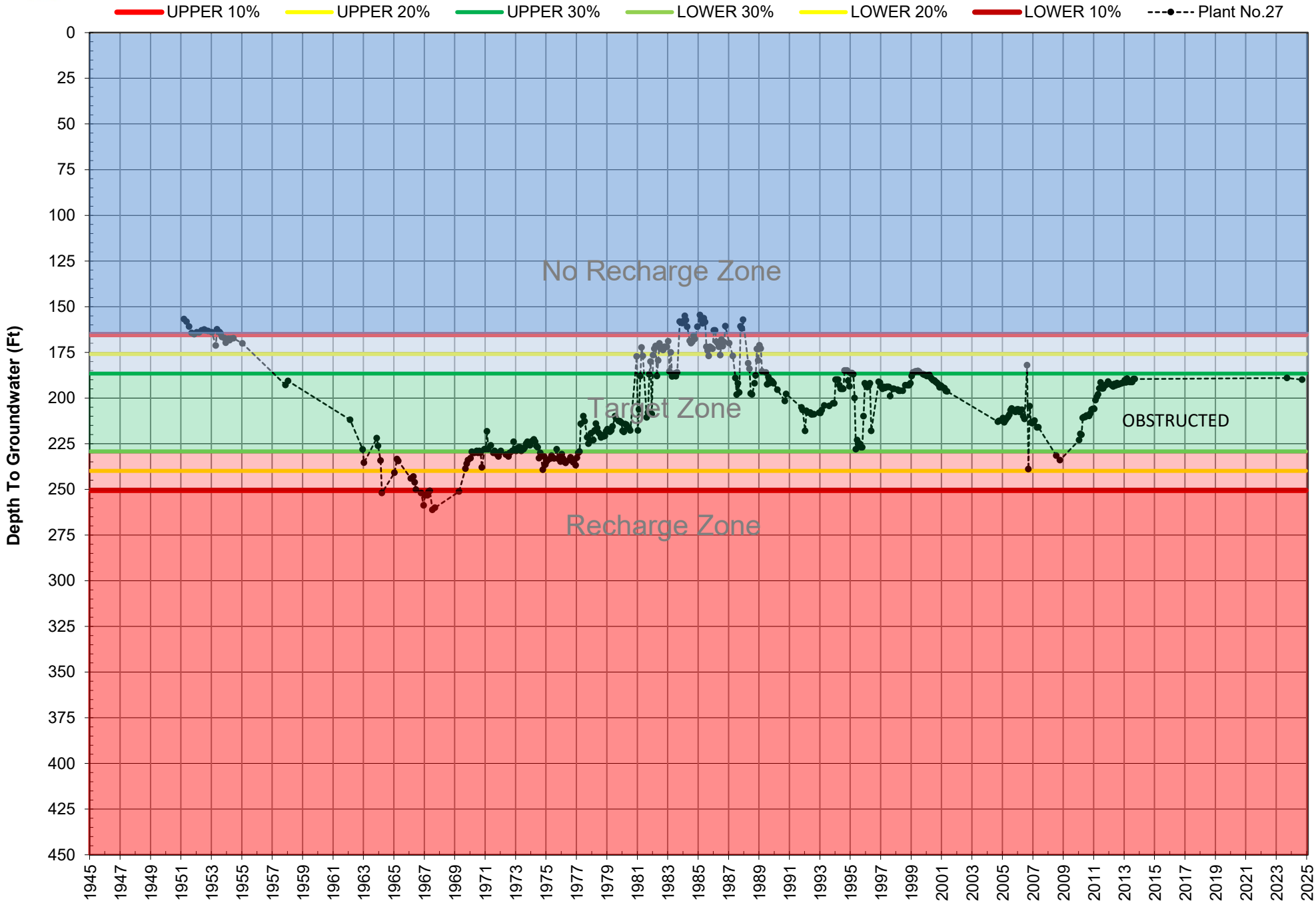
East Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Plant No. 27
Index Well Hydrograph

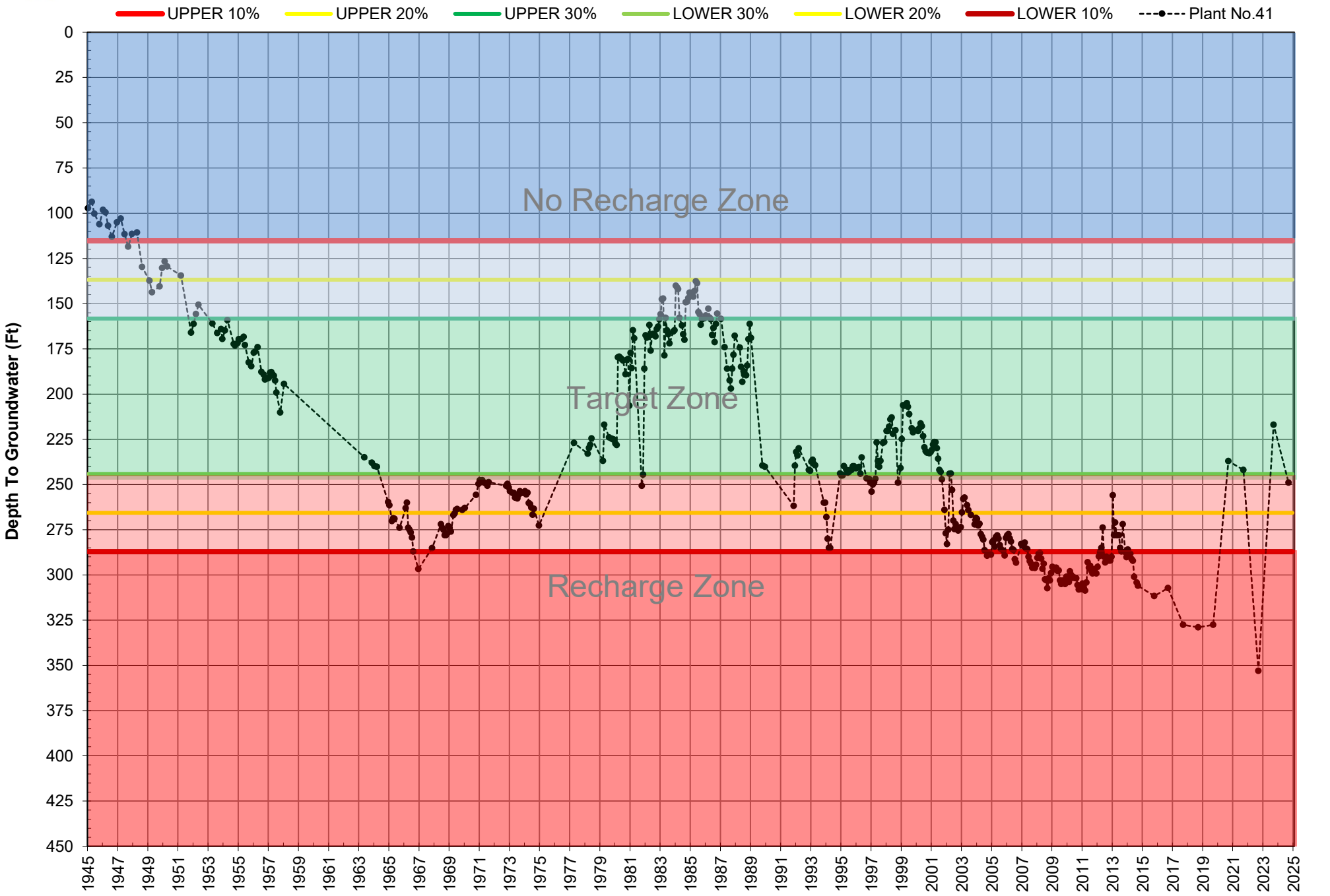
East Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Plant No. 41
Index Well Hydrograph

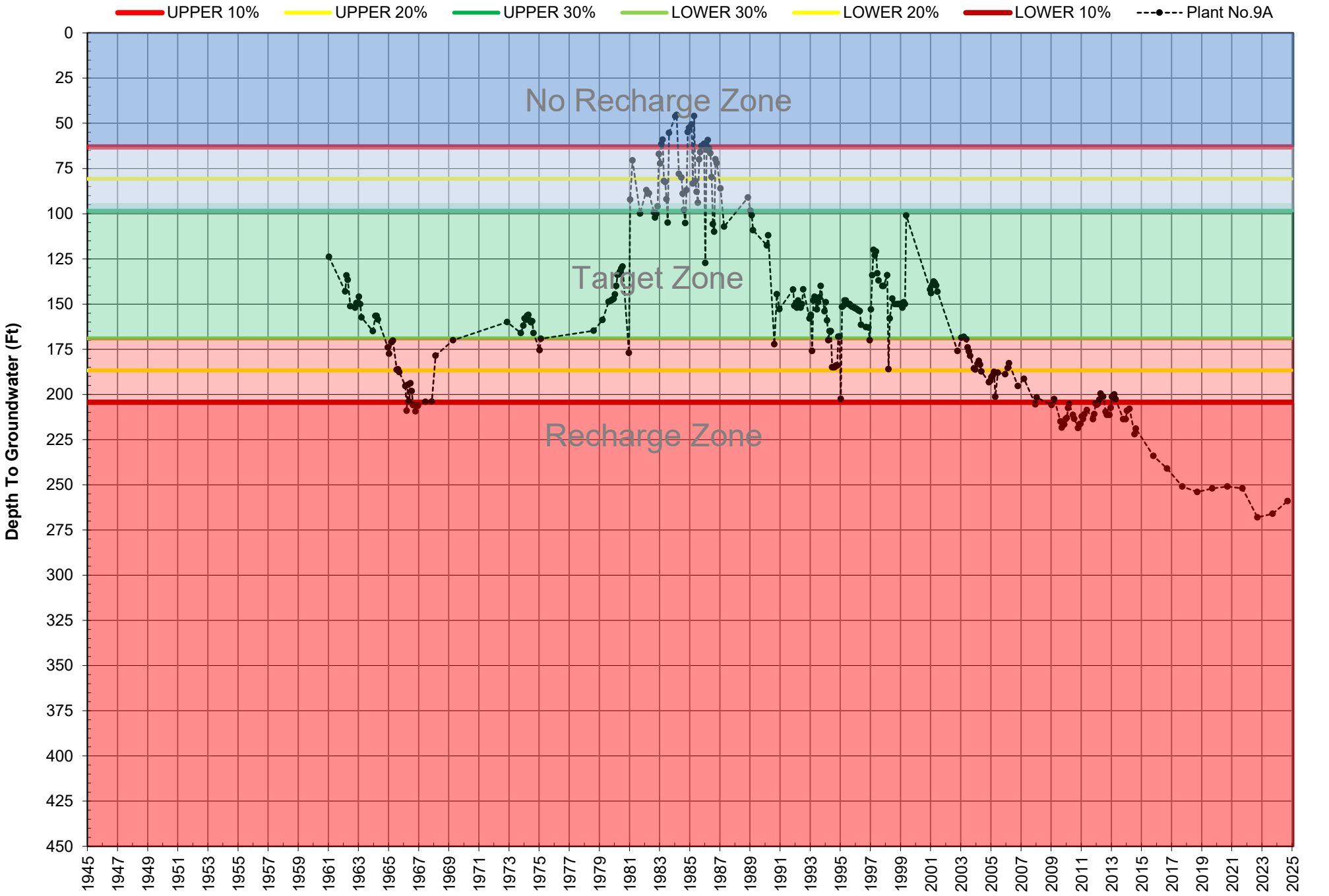
East Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Plant No. 9A
Index Well Hydrograph

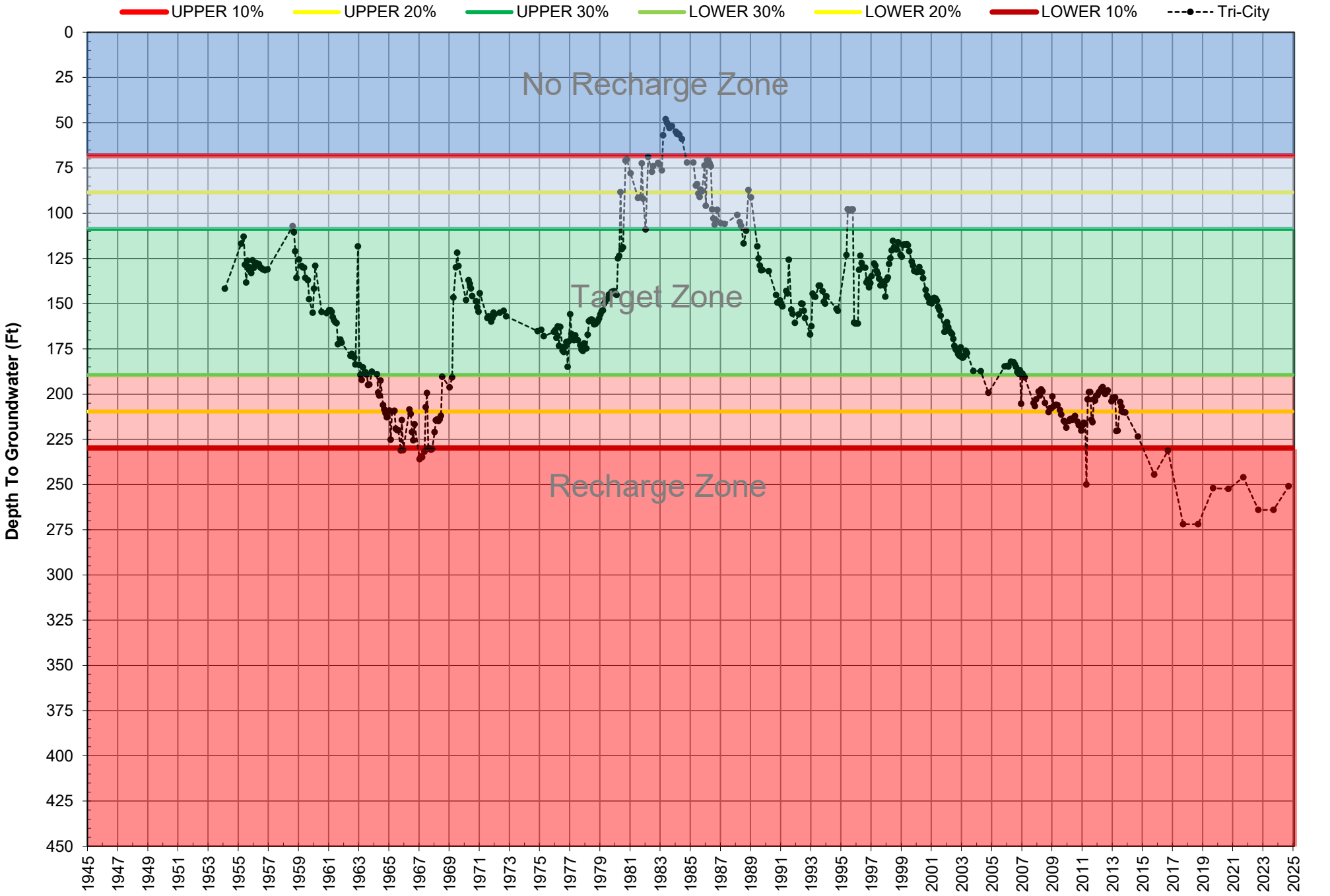
East Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Tri City
Index Well Hydrograph

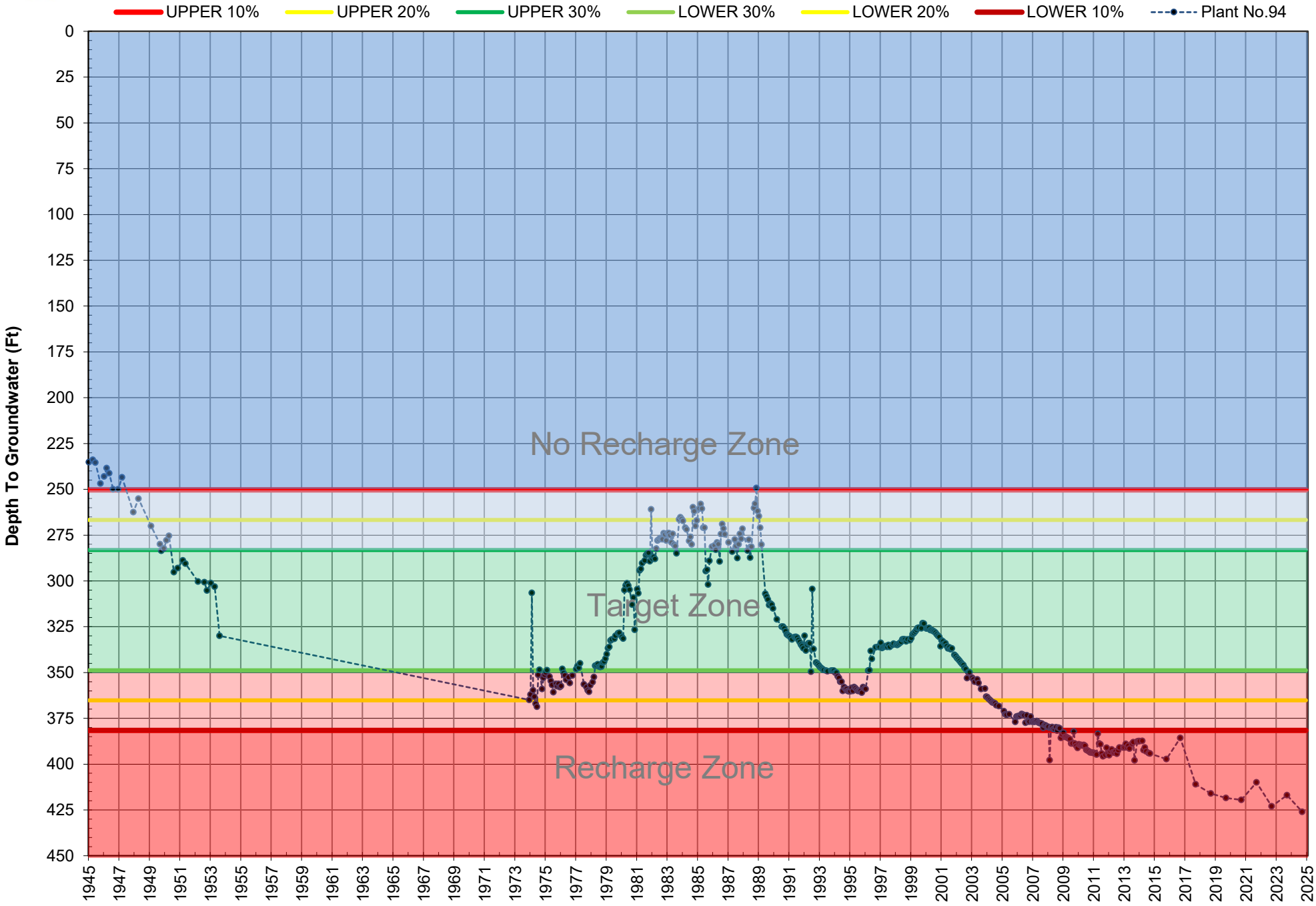
East Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Plant No. 94
Index Well Hydrograph

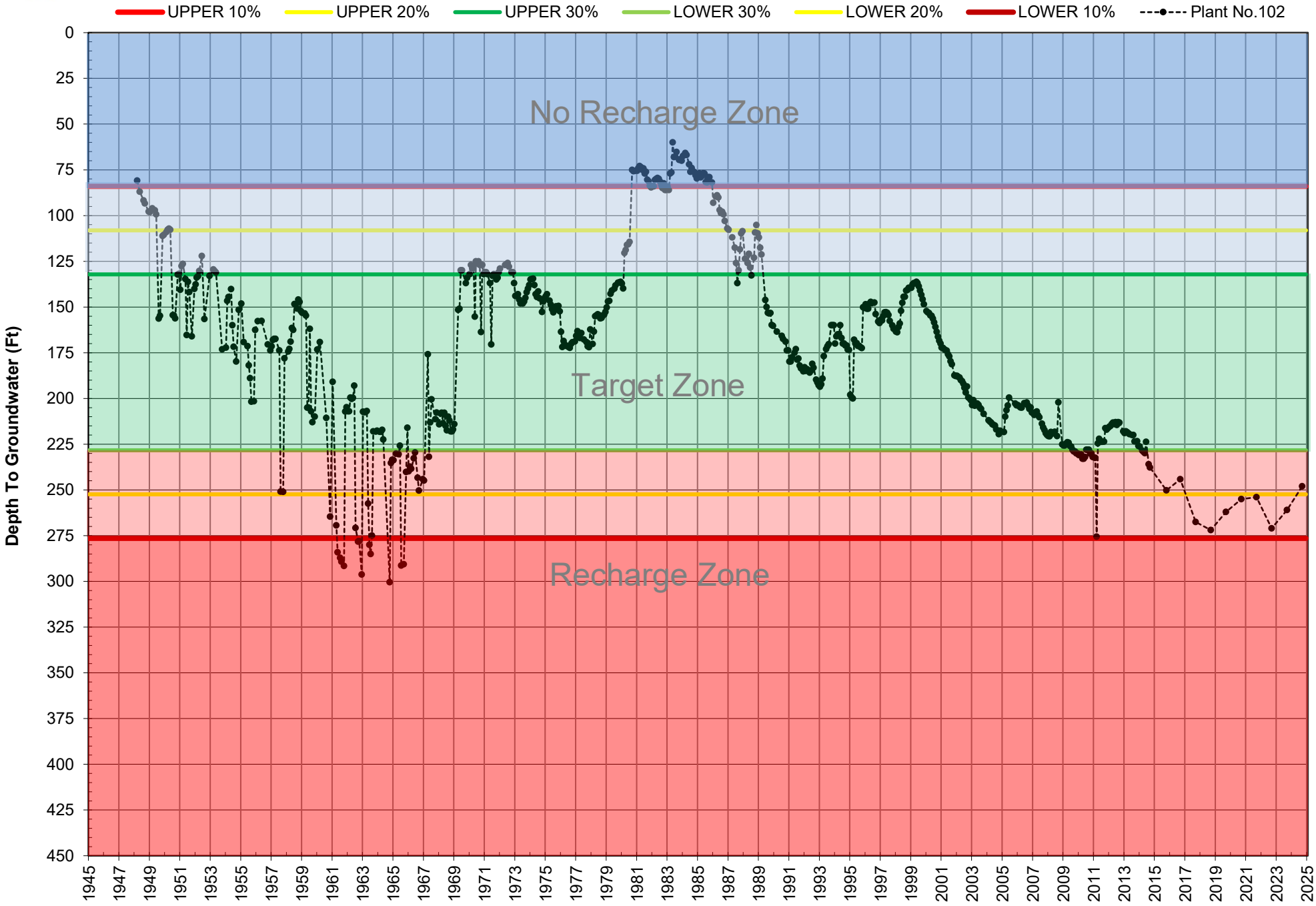
East Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Plant No. 102
Index Well Hydrograph

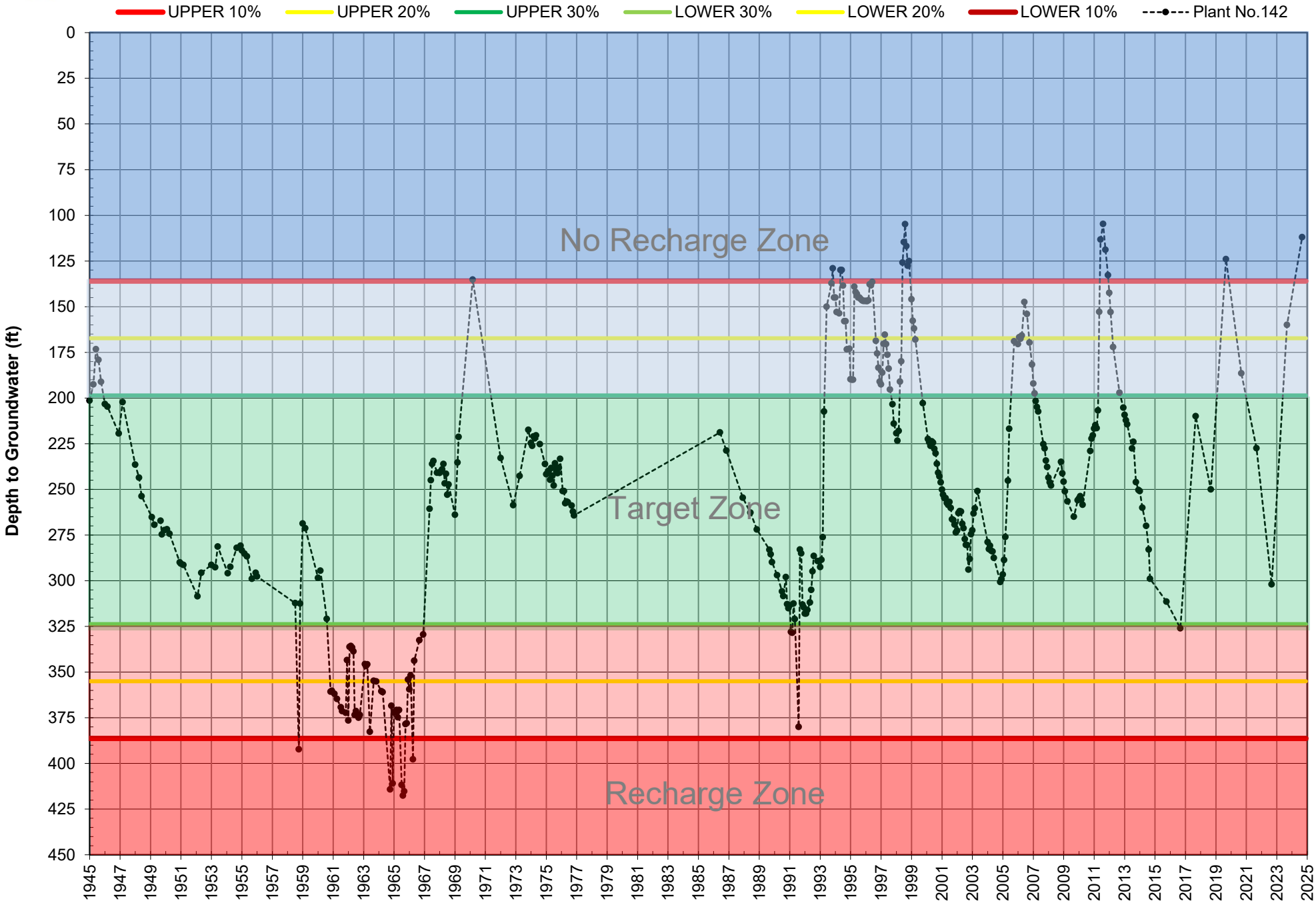
East Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Plant No. 142
Index Well Hydrograph

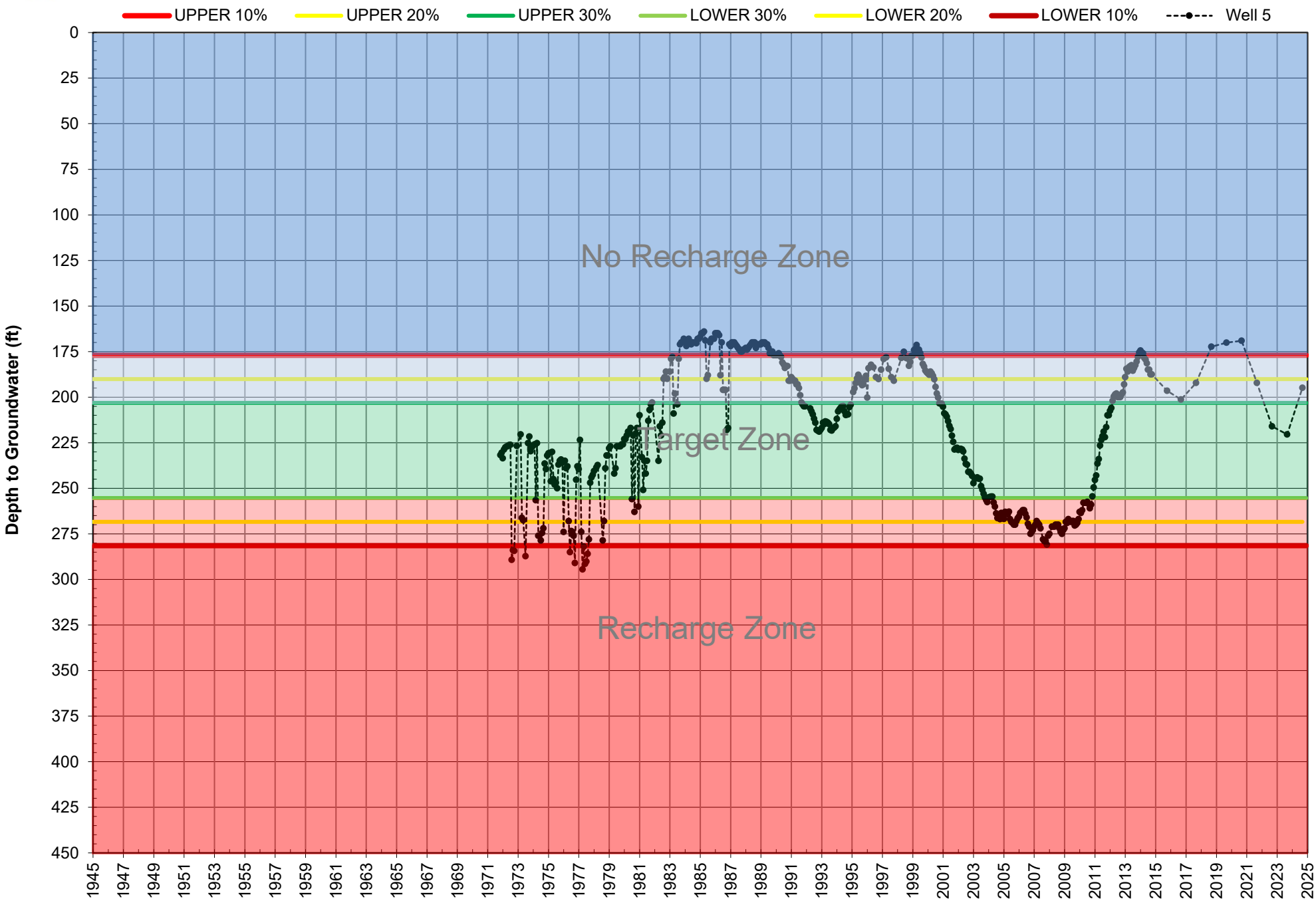
East Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #5
Index Well Hydrograph

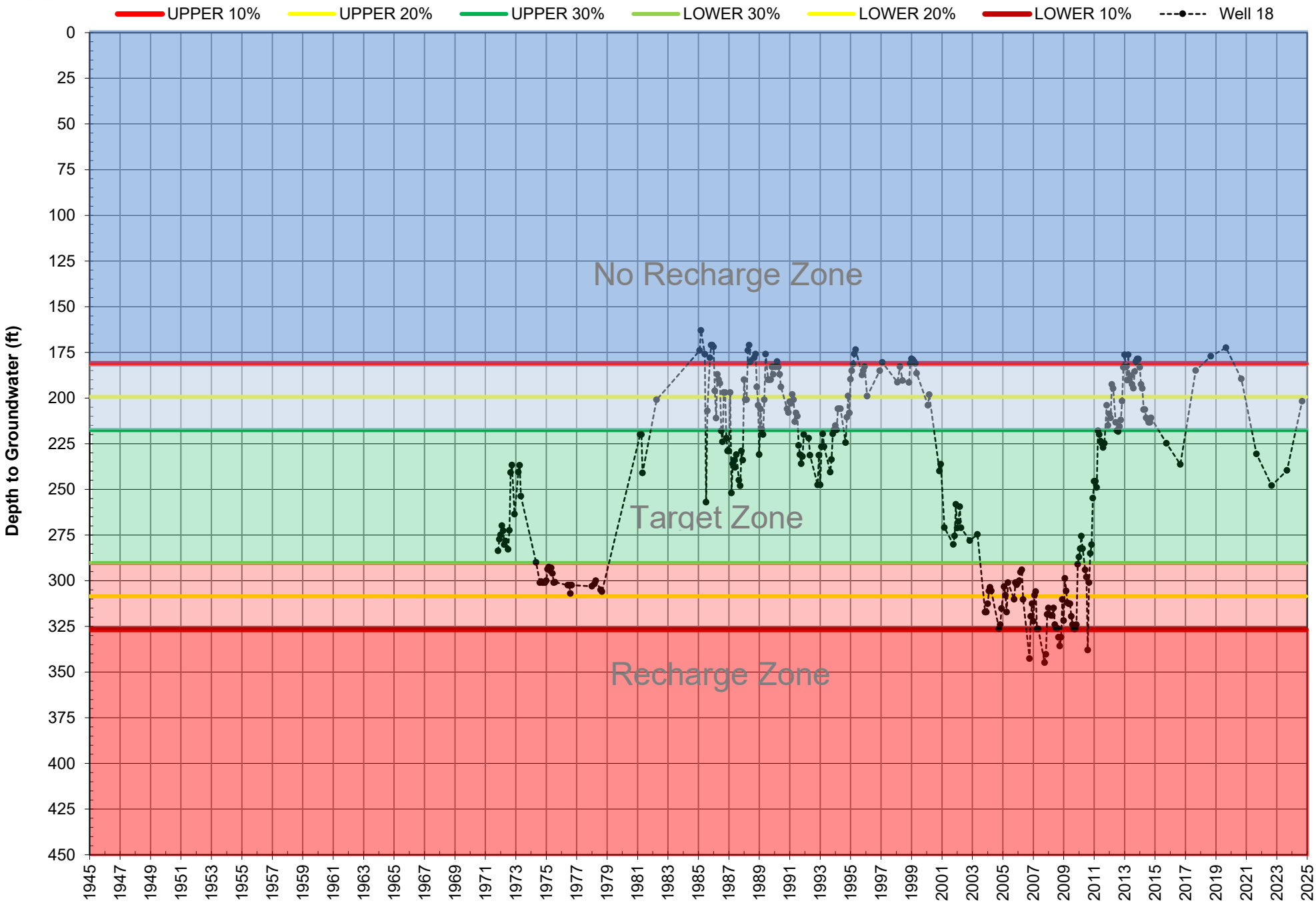
Yucaipa Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #18
Index Well Hydrograph

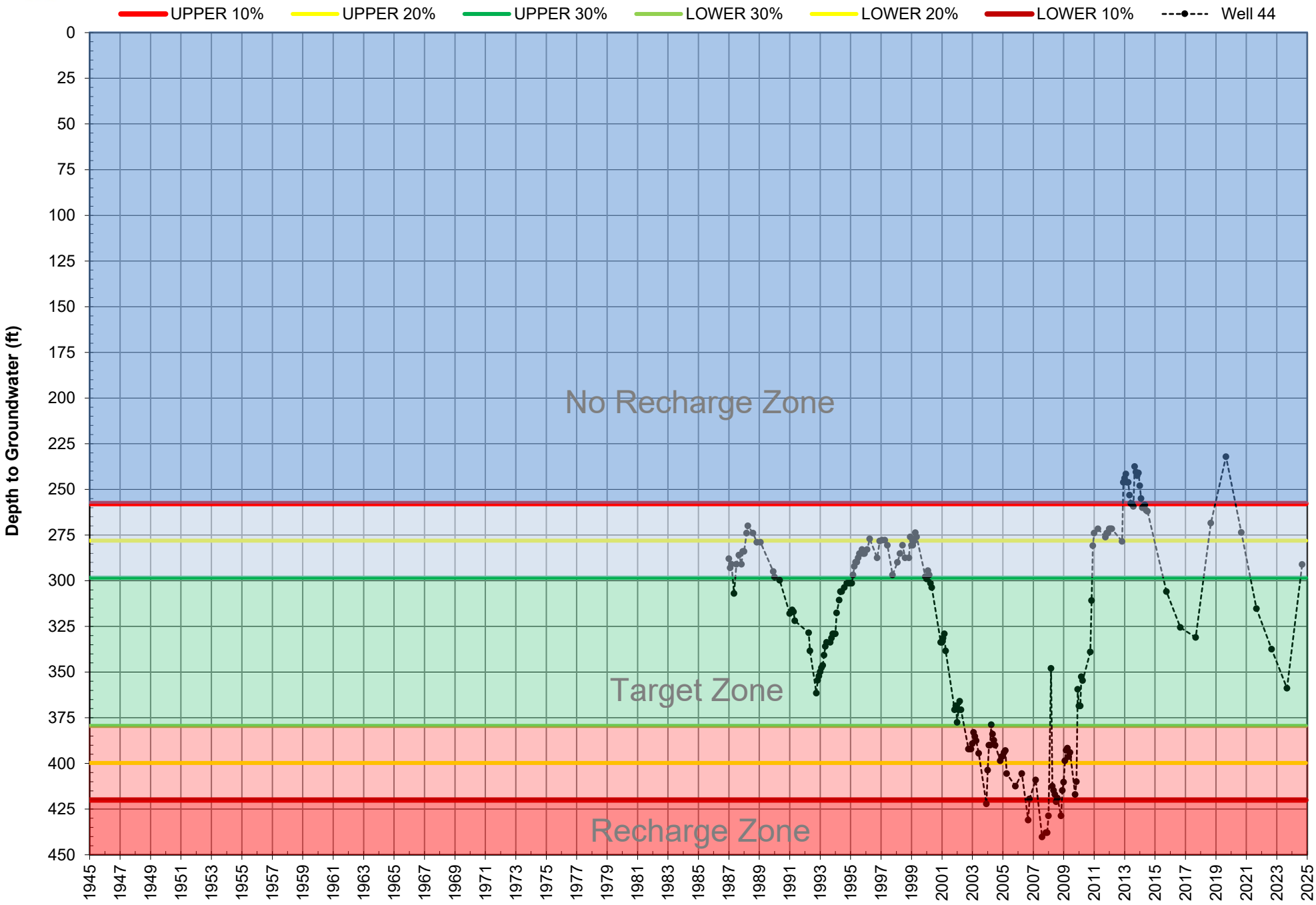
Yucaipa Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #44
Index Well Hydrograph

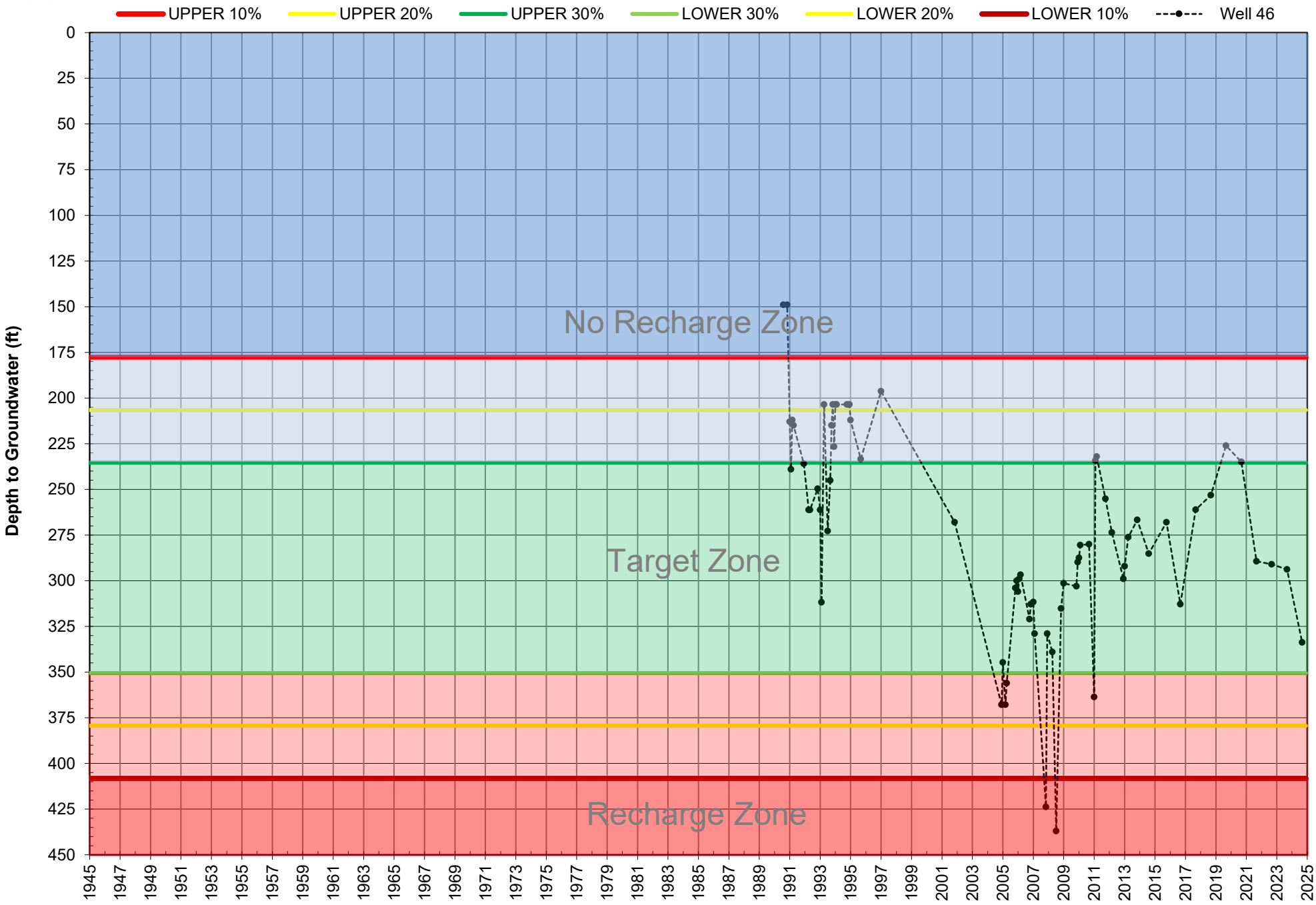
Yucaipa Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #46
Index Well Hydrograph

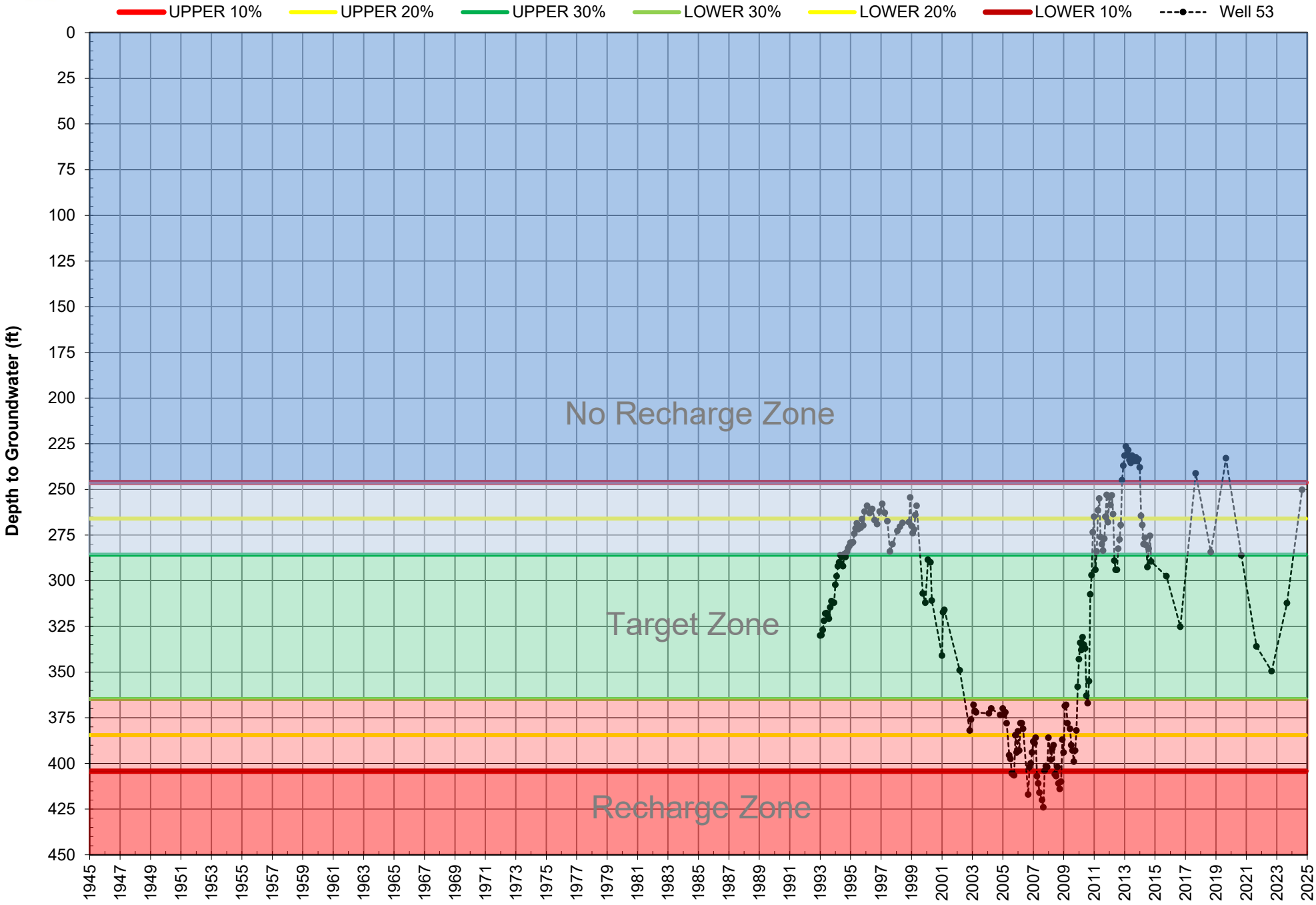
Yucaipa Valley Water District



SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #53
Index Well Hydrograph

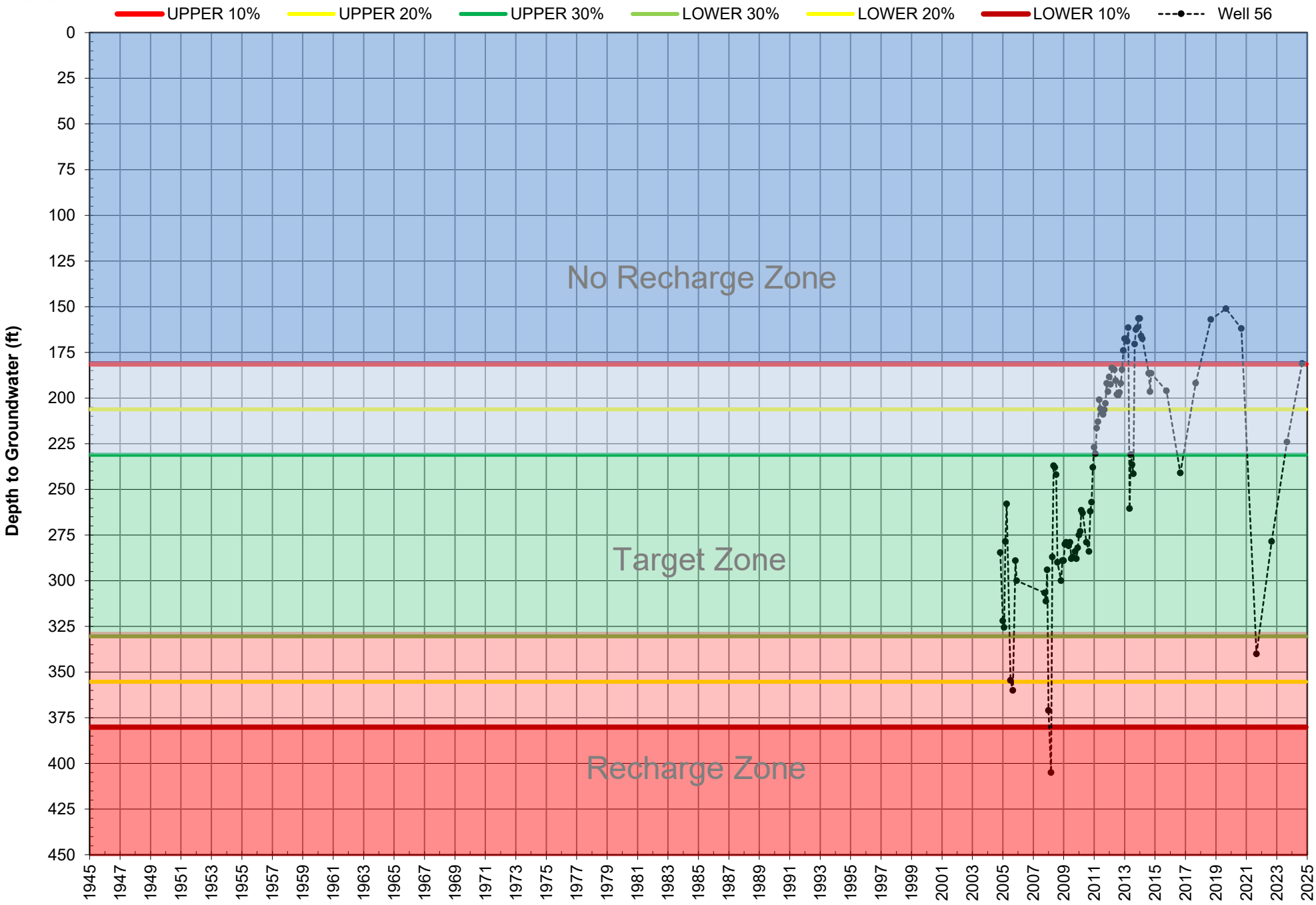
Yucaipa Valley Water District



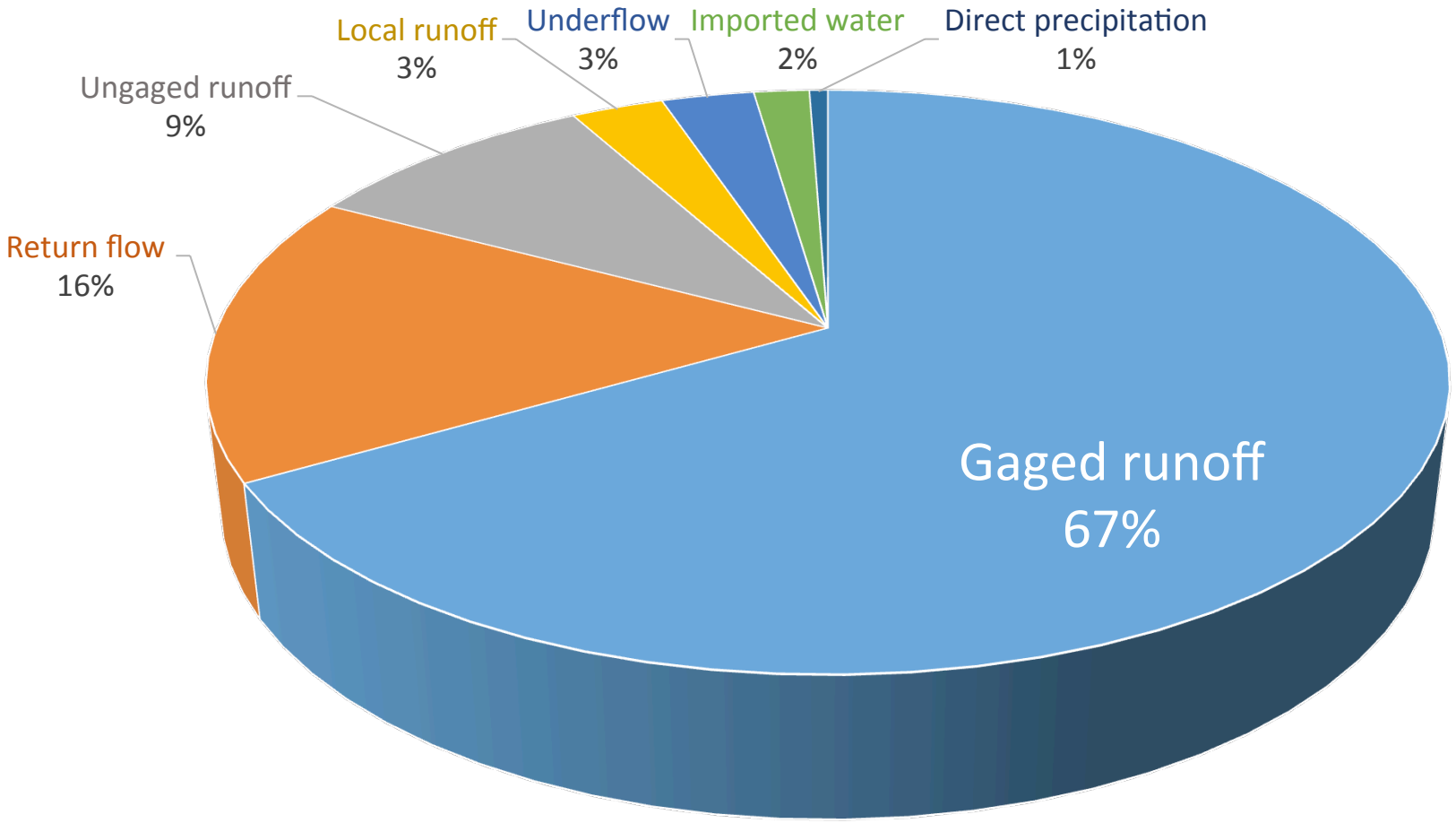
SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

Well #56
Index Well Hydrograph

Yucaipa Valley Water District



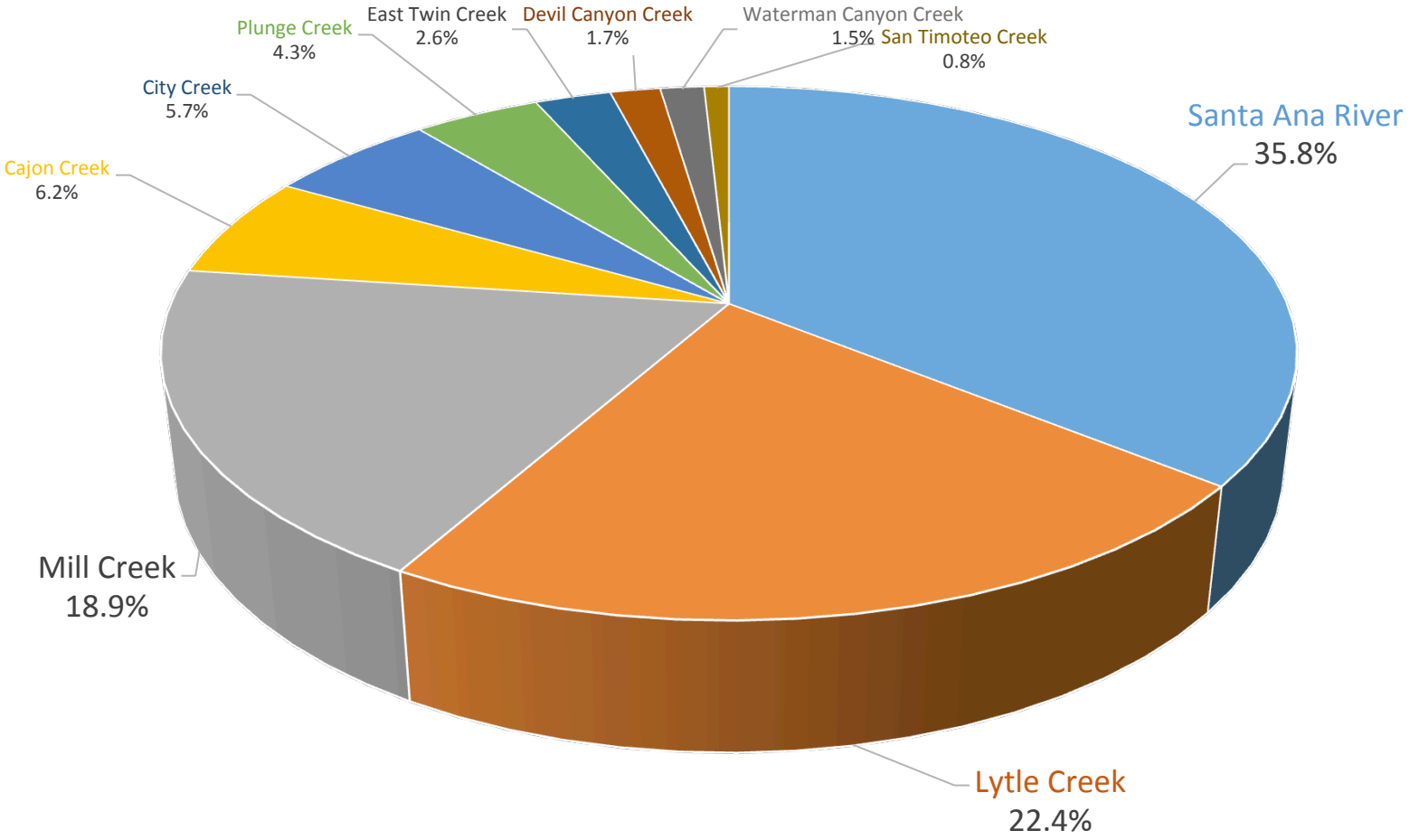
Average Recharge for the SBB (1945-1998)



Most (67%) of the recharge is from gaged runoff.

Source: USGS Professional Paper 1734

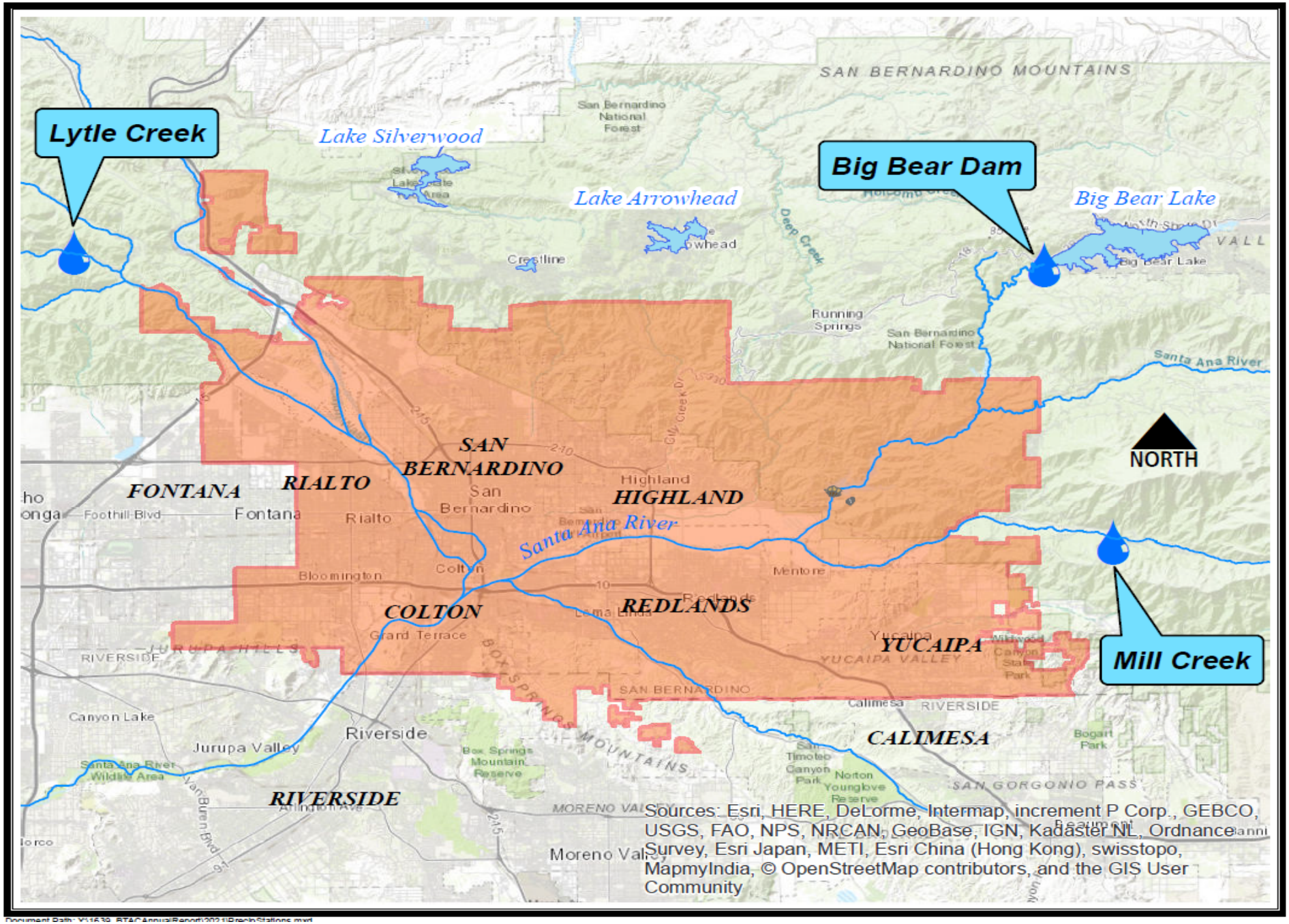
Average Annual Discharge of Gaged Streams Flowing into the SBB (1945-1998)



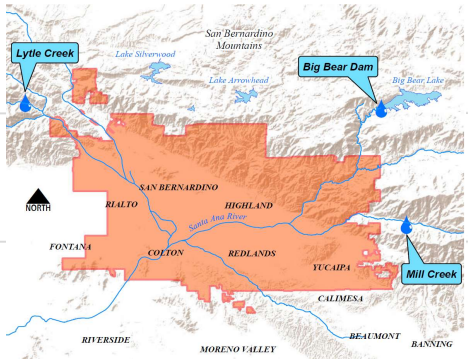
The Santa Ana River, Lytle Creek and Mill Creek contribute approximately 50% of the recharge (77% x 67%).

Source: USGS Professional Paper 1734

Precipitation Index: Average of Gages in Lytle, Santa Ana and Mill Creek Watersheds



San Bernardino Basin Three Station Pecipitation Index



CUMULATIVE DAILY/MONTHLY PRECIPITATION (INCHES)

WY 1992-93 (wettest), 76.9 inches

WY 2018-19, 37.38 inches

Safe Yield Average(1934-1960) 32.9

Historic Average (1931-Present) 31.1

WY 2019-20, 28.09 inches

WY 2021-22, 29.48 inches

WY 2017-18, 14.61 inches

WY 2020-21, 11.64 inches

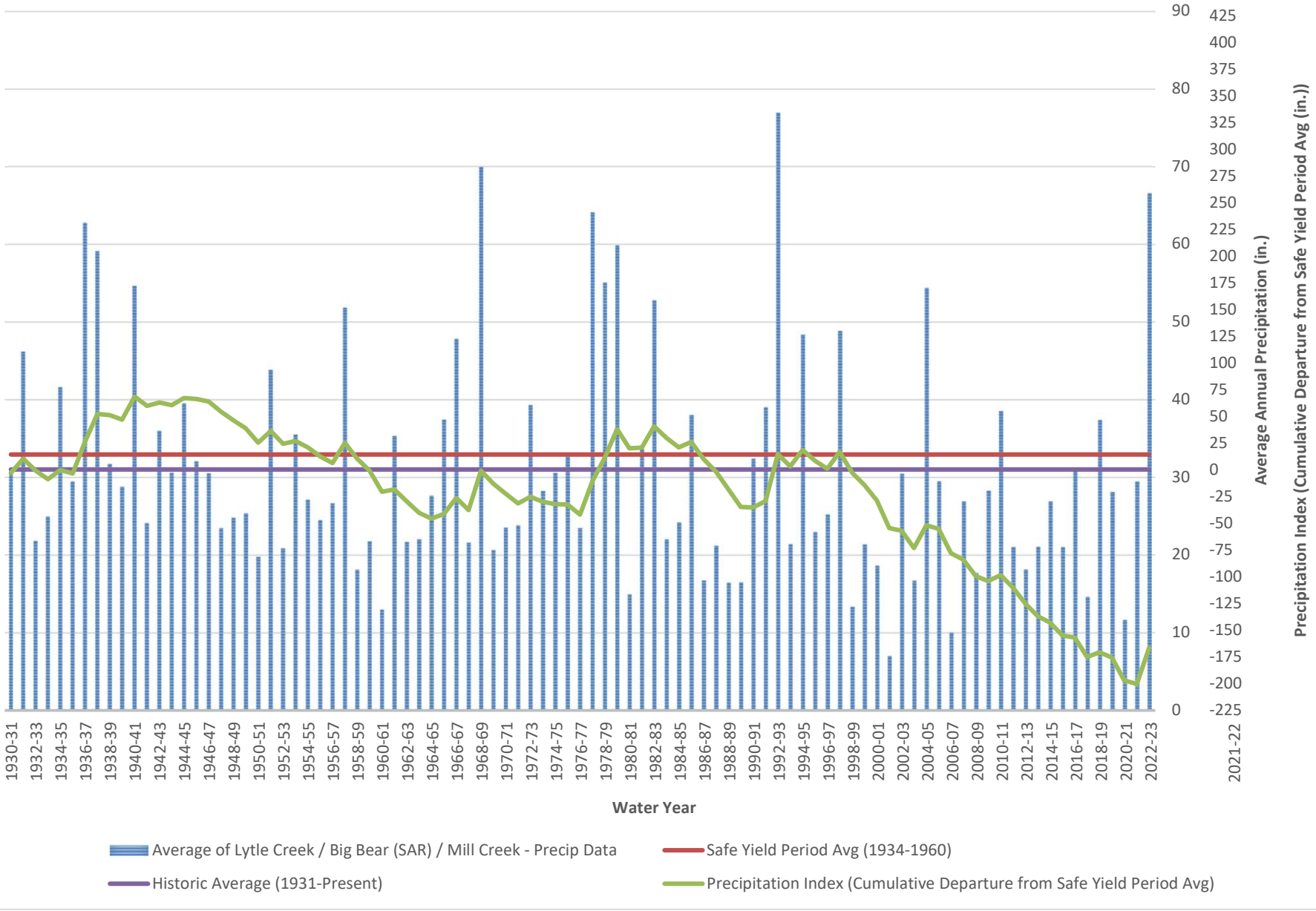
WY 2001-02 (driest), 7.02 inches

WATER YEAR (OCTOBER - SEPTEMBER)

Historic Average (1931-Present) | Safe Yield Average(1934 - 1960) | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24

Current as of Nov. 29, 2023

SAN BERNARDINO BASIN PRECIPITATION INDEX



D. SUMMARY OF RIALTO-COLTON, RIVERSIDE NORTH, AND YUCAIPA BASINS

SAN BERNARDINO VALLEY | A REGIONAL WATER AGENCY SINCE 1954

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
380 East Vanderbilt Way
San Bernardino, CA 92408
909.387.9200 | sbvmwd.com

June 5, 2024

Sent via email

Mr. Brian Dickinson Director of Public Works and Utility Services City of Colton 150 South Tenth Street Colton, CA 92324-3406	Telephone	(909) 370-6196
Mr. Martin E. Zvirbulis Vice President – Water Resources Fontana Water Company Post Office Box 987 Fontana, CA 92334	Telephone	(909) 822-2201
Ms. Toyasha Sebbag Assistant to the City Manager City of Rialto 150 S. Palm Avenue Rialto, CA 92376-5842	Telephone	(909) 820-2525 Ext. 2062
Ms. Stephanee Valencia Operations Supervisor Veolia Water/Rialto Water Services 325 West Rialto Avenue Rialto, CA 92376	Telephone	(909) 301-1338
Mr. John Thiel General Manager West Valley Water District Post Office Box 920 Rialto, CA 92377-0920	Telephone	(909) 875-1804

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SAN BERNARDINO VALLEY
MUNICIPAL WATER DISTRICT
380 East Vanderbilt Way
San Bernardino, CA 92408
909.387.9200 | sbvmwd.com

Ladies and Gentlemen:

On December 22, 1961, a DECREE, a stipulated judgment, was entered for The Lytle Creek Water and Improvement Company, a corporation, vs. Fontana Ranchos Water Company, a corporation, et al., San Bernardino County Superior Court Case Number 81264. Several of the stipulating parties requested San Bernardino Valley Municipal Water District (San Bernardino Valley) to monitor the compliance with the Decree.

The Decree specifies that each of three (3) index wells in the Rialto Basin shall be measured in March, April, and May of each year. The enclosed table illustrates the measurements of the Rialto Basin index wells for each of the months of March 2024, April 2024, and May 2024 for the October 1, 2023 through September 30, 2024 water year. These measurements are furnished by the respective owner of each of the index wells.

In March 2024, West Valley Water District (WVWD) experienced issues measuring water levels in one of the three index wells, Willow Street Well (1S/5W-2K1, Well No. 11). In accordance with Section 6 of the Decree, WVWD approached the stipulating parties to discuss the best approach forward. The parties, including the City of Colton, Fontana Water Company, the City of Rialto, and WVWD agreed to forgo the March water level measurements in the well, mainly because the April and May water levels have historically been higher than the March water levels. Subsequently in late April 2024, WVWD cleared the blockage in the sounding tube and air vent in the well so it could continue to serve as an index well. As a result, WVWD was able to collect the April and May water level measurements for the Willow Street Well.

The water level elevations above mean sea level, the apparent spring-high water level elevation for each well, and the average of the elevations of the spring-high water level elevations are shown in the attached table and figure. The average of the spring-high water level elevations determined in accordance with the Decree is 921.0 feet above mean sea level for the October 1, 2023 through September 30, 2024 year.

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Paragraph 7 of the Decree sets forth specified limits on the amount of groundwater extractions allowed by the stipulating parties from the Rialto Basin based on the average of the elevations of the spring-high water level elevations. The average of the elevations of the spring-high water level elevations for the October 1, 2023 through September 30, 2024 water year is 921.0 feet above mean sea level, or 48.7 feet below elevation 969.7 feet above mean sea level. Paragraph 7 of the Decree specifies that for this condition; "*... the amount of water which the stipulating parties shall be entitled to pump from the Basin during such year shall be reduced one percent (1%) for each one (1) foot that the said average is below 969.7 feet above mean sea level...*" Accordingly, the amounts of water to which the stipulating parties are respectively entitled to extract from the Basin as specified in Paragraph 5 of the decree, should be reduced by forty-nine percent (49%) for the October 1, 2023 through September 30, 2024 water year.

If you have any questions, please contact me at (909) 387-9256 or Michael Plinski at (909) 387-9230.

Sincerely,

Heather Dyer, M.S., MBA
CEO/General Manager

Enclosure:
Table – Average of Spring–High Water Surface Elevations of Rialto Basin Index Wells
Figure – Average of Spring-High Water Surface Elevations of Rialto Basin Index Wells

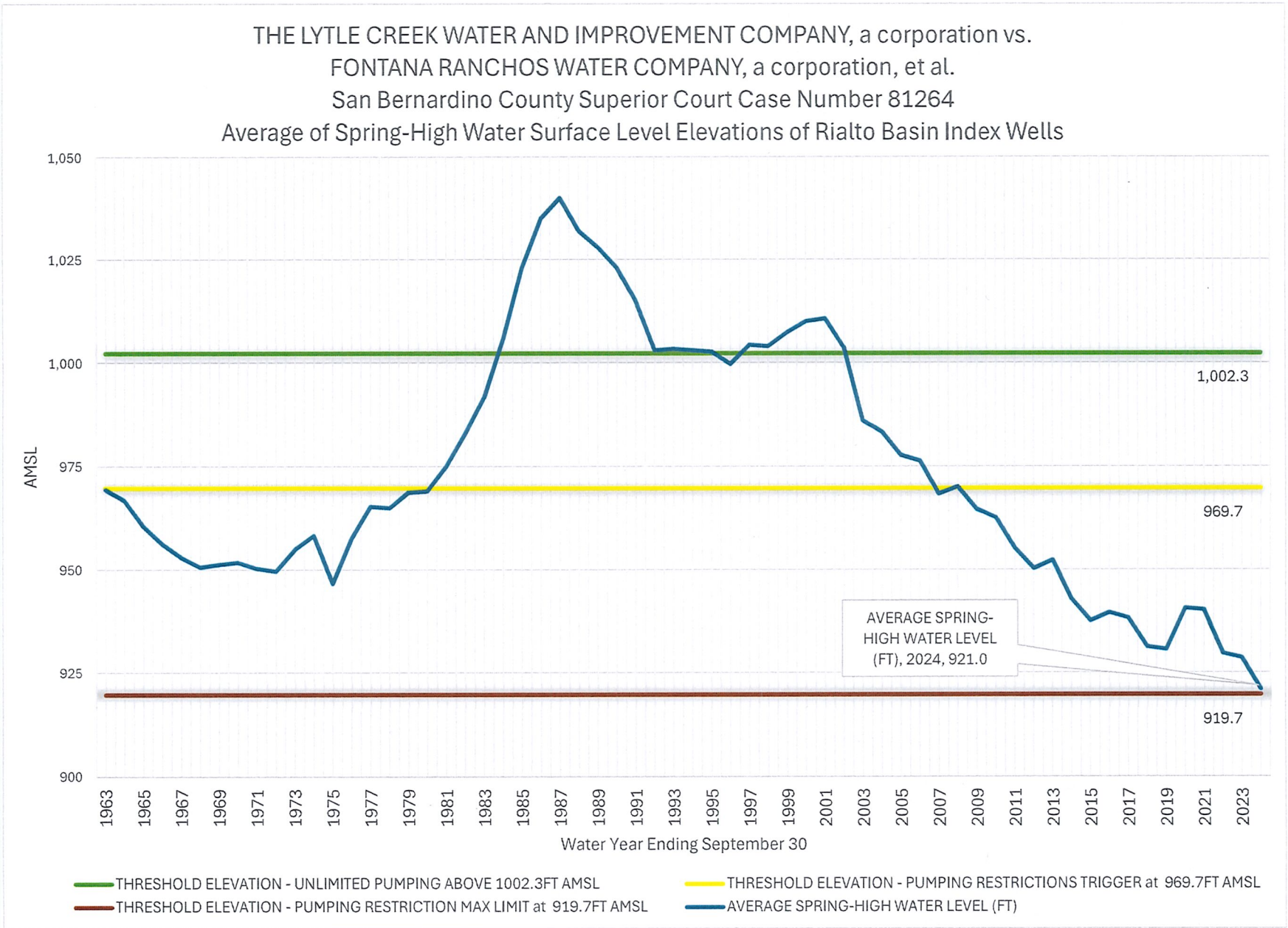
THE LYTLE CREEK WATER AND IMPROVEMENT COMPANY, a corporation vs.
FONTANA RANCHOS WATER COMPANY, a corporation, et al.
San Bernardino County Superior Court Case Number 81264

Rialto Basin Index Wells

	City of Rialto		WSBCWD No. 11		WSBCWD No. 16	
Well Name:	Duncan Well		Willow Street Well		Boyd Well	
State Well No:	1S/5W-3A1		1S/5W-2K1		1S/5W-12L1	
Elevation:	1352.79		1287.00		1177.19	
	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation
2024						
March	415.00	937.79	---*	---*	284.00	893.19
April	415.00	937.79	359.00	928.00	280.00	897.19
May	415.00	937.79	359.00	928.00	283.00	894.19
"spring-high water level"		937.79		928.00		897.19

Average elevation of "spring-high water level"	920.99

* Please note West Valley Water District (WVWD) experienced issues measuring the March 2024 water level in Willow Street Well (1S/5W-2K1, Well No. 11). All stipulating parties agreed to forgo the March water level measurements in the well. In April 2024, WVWD cleared the blockage in the sounding tube and air vent so the well could continue to serve as an index well.


THE LYTLE CREEK WATER AND IMPROVEMENT COMPANY, a corporation vs.
FONTANA RANCHOS WATER COMPANY, a corporation, et al.
San Bernardino County Superior Court Case Number 81264
Average of Spring-High Water Surface Level Elevations of Rialto Basin Index Wells
AMSL
1,050
1,025
1,000
975
950
925
900
1,002.3
969.7
919.7
AVERAGE SPRING-HIGH WATER LEVEL (FT), 2024, 921.0
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023
Water Year Ending September 30
THRESHOLD ELEVATION - UNLIMITED PUMPING ABOVE 1002.3FT AMSL
THRESHOLD ELEVATION - PUMPING RESTRICTIONS TRIGGER at 969.7FT AMSL
THRESHOLD ELEVATION - PUMPING RESTRICTION MAX LIMIT at 919.7FT AMSL
AVERAGE SPRING-HIGH WATER LEVEL (FT)

CALIFORNIA DEPARTMENT OF WATER RESOURCES
SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE
715 P Street, 8th Floor | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

May 24, 2024

Mark Iverson
Yucaipa Subbasin – Plan Manager
32352 Avenue D
Yucaipa, CA 92399
m.iverson@westernheights.org

RE: Review of Annual Report for the Yucaipa Subbasin, Water Year 2023

Dear Mark Iverson,

As the basin point of contact for the groundwater sustainability plan (GSP) in the Yucaipa Subbasin (Subbasin), this letter is to inform you that the Department of Water Resources (Department) has completed the review of the annual report for the Subbasin for Water Year 2023 and determined that no further information or action is required at this time.

The Sustainable Groundwater Management Act (SGMA) requires on every April 1 following the adoption of a GSP that an annual report be submitted to the Department providing updated information about the Basin (Wat. Code § 10728). The required contents of annual reports are further specified in the GSP Regulations (23 CCR § 356.2). Once an annual report has been submitted, the Department is required: to notify the submitting agency of receipt within 20 days, review the information to determine whether the basin's GSP is being implemented in a manner likely to achieve its established sustainability goal, and notify the submitting agency in writing if additional information is required (23 CCR § 355.8).

The submitted information appears to largely satisfy the requirements of the GSP Regulations (23 CCR § 356.2) and no additional information is required at this time. The Department previously conducted a comprehensive evaluation of the GSP for the Subbasin and issued an assessment determining that the GSP is likely to achieve the sustainability goal for the Subbasin. The Department has determined that for the period of time covered in the annual report, it appears the GSP continues to be implemented in a manner consistent with achieving the Subbasin's sustainability goal as described in the GSP. The Department reached this conclusion after reviewing information in the annual report, any public comments submitted to the Department regarding this annual report, and other relevant information regarding Subbasin conditions available to the Department.

In making this determination, the Department recognizes that achieving SGMA's goal of sustainable groundwater management is a significant and new statutory and policy

directive. GSAs must and will continue to improve their understanding of and ability to manage their Subbasin as GSP implementation under SGMA progresses. Consequently, the Department's review of this and other annual reports noted information contained in the annual report may not precisely match the schedules, projections, or estimates reported in the initial GSP as approved by the Department because of numerous factors over which the GSA has varying levels of knowledge and control (e.g., annual hydrology, actions of other private or public entities, unforeseen delays or events, and unexpected physical or geologic processes, etc.).

The approved GSP for the Subbasin is still in the early years of its implementation and it is State policy that sustainable groundwater management is best achieved locally through the development, implementation, and updating of plans and programs (Wat. Code §113, §10720.1). Accordingly, for this Subbasin, the Department concluded that any discrepancies between information in the annual report and the GSP as approved by the Department, did not at this time create an appreciable concern regarding GSP implementation and its continued likelihood of achieving the Subbasin's sustainability goal.

The Department anticipates conducting a more thorough review of GSP implementation as part of its periodic review of the GSP, which, in contrast to annual report reviews that consider information about only one year, will look at the periodic evaluation and the collective annual reports that provide the Department with numerous years of reporting data to better assess trends, issues or conditions of concern in the basin, and whether GSP implementation remains on track to achieve sustainability.

Please contact the assigned DWR basin point-of-contact or sgmps@water.ca.gov if you have questions about this notice or the annual reporting process. The Department looks forward to receiving your Water Year 2024 Annual Report by April 1, 2025.

Thank You,

Paul Gosselin

Paul Gosselin
Deputy Director
Sustainable Groundwater Management

E. SUMMARIES OF VARIOUS LEGAL AGREEMENTS AND JUDGMENTS

San Bernardino Basin Area Governance

The Western Judgment identifies regional representative agencies to be responsible, on behalf of the numerous parties bound thereby, for implementing the replenishment obligations and other requirements of the judgment. The representative entities for the Western Judgment are San Bernardino Valley and Western. The court-appointed Watermaster includes a representative from San Bernardino Valley and Western. The basin management process is managed under the authority of San Bernardino Valley and Western Boards of Directors with inputs from other significant producers.

Basin Technical Advisory Committee (BTAC)

The Integrated Plan established the BTAC membership as the staff representatives from plaintiffs and non-plaintiffs of the Western Judgment. Since the Integrated Plan was adopted, the BTAC has unanimously decided to include any other agencies that wish to participate in the development of the regional water management plan. The BTAC meets as often as needed to effectively "operate" the regional water resources within the San Bernardino Valley service area on a real-time basis and to address any other technical issues related to basin management. The BTAC strives to make decisions by consensus.

SBBA Basin Management Strategy

The Basin Management Objectives (BMOs) formulated for the SBBA are the driving force in developing strategies for the basin management plan. The BMOs are as follows:

- Improve water supply reliability during droughts,
- Protect water quality,
- Reduce risk of liquefaction, and
- Avoid impact from and to the contaminant plumes.

To ensure adequate reliable water supply for the communities in the Upper Santa Ana River (SAR) watershed during a prolonged drought, the overall basin management strategy will be to operate the basin under the "Tilted Basin Concept" such that the basin would begin a drought period in "as full as possible" condition. Keeping the basin relatively full and operating a conjunctive management program according to the "Tilted Basin Concept" also provides the added flexibility to reduce imports from the SWP when water quality is less desirable. This overarching management strategy will be followed by the BTAC as they draft the basin management plan. Some of the specific management strategies that could contribute to improving water supply reliability during a drought are as follows:

- Retailers could take direct deliveries of SWP water when available instead of producing water from their wells. This reduces the amount of water withdrawn from the groundwater basin, which is equivalent to recharging the basin. This strategy will

require participation by the water agencies and may require the construction of new water treatment plants or upgrades to existing plants.

- Recharge as much SWP water as possible when available. This will likely result in spreading water in wet years, and may also require upgrading the existing spreading grounds.

- Prepare, to the extent possible, for the high groundwater condition that may be created by maintaining a "full basin" when a wet year arrives.

    - Implement an agreement(s) with groundwater producers within the AHHG, or Area of Historic High Groundwater (AHHG, see "Summary of Index Well Hydrographs, Bunker Hill and Yucaipa Groundwater Basins" map in Appendix D), to maximize production from the AHHG as much as practicable during unacceptably high groundwater level conditions.

    - Construct additional facilities to pump and convey large quantities of water from the AHHG for use outside the AHHG.

The San Bernardino Basin Area Management Plan will be developed in consideration of this overall management strategy and the BMOs.

SBBA Basin Management Requirements (Legal Agreements)

The annual basin management plan for the SBBA will meet the requirements identified in the following legal documents:

1. Western Judgment – April 1969
2. Seven Oaks Accord – July 2004
3. Settlement Agreement between SBVWCD, Valley District, and Western – August 2005
4. MOU between City of Riverside, Valley District, and Western – September 2005
5. Agreement between City of Riverside, Valley District, and Western – March 2007
6. Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Uses of Imported Water in the Santa Ana River Basin, June 2007
7. Consent Decree, City of San Bernardino v. United States of America, CV 96-8867 and CV 96-5205 (Consolidated).

A summary of the pertinent basin management information from each of these documents is provided below.

1) Western Judgment

a) **Natural Safe Yield** - established at 232,100 acre-feet per year. The Plaintiffs' (Western entities) rights are capped at 27.95 percent of the natural safe yield, or 64,862 acre-feet, notwithstanding any Additional Extraction Agreements or "new conservation," as defined

in the judgment. The Non-Plaintiffs' (San Bernardino Valley entities) rights are unlimited provided that an equal amount of basin replenishment occurs to offset any amount that the Non-Plaintiff production exceeds—72.05 percent of the natural safe yield, or 167,238 acre-feet. An annual report, entitled *Annual Report of the Western-San Bernardino Watermaster*, provides an "accounting" of basin extractions.

b) **Replenishment** – San Bernardino Valley is responsible for replenishing the SBBA for that amount of Non-Plaintiff extractions exceeding safe yield. The replenishment obligation may be met by any of the following means:

   i) Return flow from excess extractions;

   ii) Replenishment provided in excess of that required;

   iii) Amounts extracted without replenishment obligations (i.e., Additional Production Agreement);

   iv) That amount of water extracted below the natural safe yield; and

   v) Return flow from imported water.

c) **New Conservation** is defined in the 1969 Judgment as "any increase in replenishment from natural precipitation which results from operation of works and facilities not now in existence." The judgment contemplated that the parties would develop facilities that would result in the capture of more natural runoff. Construction of the Seven Oaks Dam within the SAR has provided such an opportunity, and San Bernardino Valley and Western have obtained a water right from the SWRCB and are developing the facilities necessary to capture SAR water that was not historically captured. The parties under the Western Judgment had their adjusted extraction rights increased to include a proportionate share of the New Conservation made available by the construction of Seven Oaks Dam.

2) Seven Oaks Accord

a) **Groundwater Spreading/Management Program** (GMP) – Requires San Bernardino Valley and Western to develop and manage a groundwater spreading program in cooperation with other parties, "That is intended to maintain groundwater levels at the specified wells at relatively constant levels, in spite of the inevitable fluctuations due to hydrologic variation." Specific requirements of the Seven Oaks Accord are as follows:

   i) GMP shall identify target water-level ranges in the specified "index wells" subject to the requirement that such spreading will not worsen high groundwater levels in the AHHG.

   ii) Thresholds of significance in terms of SAR water diverted by San Bernardino Valley and Western and spreading by all parties should be observed (see sidebar). See Appendix I of the Accord.

iii) The determination as to whether a certain groundwater management action will "worsen" high groundwater levels in the AHHG is made through the use of the integrated surface and groundwater models.

iv) GMP must be "adopted" within five years of the date the SWRCB grants a permit to San Bernardino Valley/Western, which was granted in 2010.

v) Redlands, East Valley, and Bear Valley Mutual agree to limit spreading to conform to the annual GMP.

3) San Bernardino Valley Water Conservation District Settlement Agreement

a) Annual Groundwater Management Plan – San Bernardino Valley and Western will consult with SBVWCD in the development of the GMP.

b) An interim GMP could be developed prior to the completion of the model being developed for the San Bernardino Basin Area.

c) GMP objectives to be achieved simultaneously include:

i) Maximize the quantity of water spread in the SAR spreading grounds.

ii) Establish and maintain a shallowest target of 50 feet depth to water within the AHHG.

iii) Maintain groundwater levels in the Forebay Area within 10 feet of the levels that would have occurred in the absence of SAR diversions by San Bernardino Valley and Western. Quantifying the difference between diversions and no diversions will be accomplished using the groundwater flow model developed for the SBBA.

iv) Otherwise avoid significant impacts on the environment.

d) Set as a goal to coordinate the San Bernardino Consent Decree management plan with the GMP.

e) No spreading will take place without authorization by the GMP.

4) Riverside MOU

a) Basin Management Account – Established with funds and future revenues from the SBVWCD "to fund recharge efforts in the basin."

b) San Bernardino Valley and Western are required to exercise SBVWCD water rights in a manner that:

i) Maintains groundwater levels for the benefit of the production wells in the geographic area historically served by the SBVWCD at relatively constant levels.

ii) Maximizes the use of native water supplies to replenish the SBBA without causing high groundwater problems in the artesian zone and without causing the migration of contaminant plumes that would result in significant degradation of the water quality in any domestic well.

c) San Bernardino Valley will spread sufficient water to ensure that groundwater supplies necessary to support the safe yield of the SBBA are maintained pursuant to the Judgment.

5) Riverside Agreement

a) This agreement establishes the Seven Oaks Dam Water Diversions Engineering and Operations Committee (EOC) to develop and implement procedures to:

i) Maintain the groundwater levels in the Index Wells at relatively constant levels, in spite of fluctuations due to hydrologic variation.

ii) Minimize such fluctuations (reduce highs and lows).

iii) Provide water "accounts" to Riverside to offset the loss of recharge to the SBBA and/ or Riverside North due to Western/San Bernardino Valley's SAR water diversions.

(1) "Reserve Account" is initially established as 38 percent of the total volume of water diverted from the SAR by San Bernardino Valley and Western pursuant to the SWRCB water right permit. To be recharged in the SBBA either directly or through an exchange.

(2) "Replacement water" varies from 0 to 6 percent of the flow at the E Street Bridge. Water to be recharged into the Riverside North basin.

iv) Develop recommendations to the Western Judgment Watermaster regarding the classification of diverted SAR water as either New Conservation or existing safe yield of the SBBA.

b) EOC will meet no later than six months after the SWRCB grants permits to San Bernardino Valley and Western to develop the initial procedures. Ongoing, the EOC will meet no later than October 1 of each year. The EOC shall meet on a regular basis to effectively operate, on a real-time basis, a program to achieve the objectives listed above. EOC decisions will be implemented once approved by the EOC and will be provided to the BTAC for inclusion in the Annual San Bernardino Basin Area Management Plan. The tasks of the EOC could be covered at the BTAC meetings, realizing that most of the members of the BTAC have no standing in this agreement and the decisions of the EOC are not subject to review by BTAC or any of the BTAC members.

c) Water levels at the index wells outside the AHHG must be maintained at no lower than 10 feet, on average, during a repeat of the 39-year base period. San Bernardino Valley will commence spreading to maintain these levels.

d) If the 12-month rolling averages of the Backyard Well ports D4, D5, and D6 are 50 feet bgs or greater, San Bernardino Valley and Western will recharge water from the Reserve Account.

6) Consent Decree, City of San Bernardino March 23, 2005

a) The City of San Bernardino Municipal Water Department (SBMWD) is a party to a consent decree entered in March 2005. The Consent Decree obligates the SBMWD to

operate and maintain a system of wells and treatment plants known as the Newmark Groundwater Contamination Superfund Site (Newmark Site). The Newmark Site specifically treats groundwater contaminated with TCE and perchloroethylene (PCE).

b) The SBMWD is required by the terms of the Consent Decree, entered on March 23, 2005, to enact institutional controls and implement an ordinance providing for the protection and management of the Interim Remedy set forth in the Record of Decisions and Explanation of Significant Differences prepared by the Environmental Protection Agency (EPA).

7) City of San Bernardino Ordinance No. MC-1221 and Institutional Controls Settlement Agreement (ICSA)

a) Ordinance No. MC-1221 – This ordinance establishes the management zone boundaries within the City of San Bernardino for water spreading and water extraction activities.

i) The Consent Decree requires that the City of San Bernardino adopt and enforce an ordinance to ensure that activities occurring in the management zone, including, but not limited to, development, digging, drilling, boring or reconstruction of wells, extraction of groundwater from wells, and spreading of recharge water, do not interfere or cause pass-through of contaminants from the Newmark and Muscoy Operable Units. The ordinance was approved on March 20, 2006, by the Mayor and City Council.

ii) The Interim Remedy requires the extraction of contaminated groundwater from the Bunker Hill Groundwater Basin and within the Newmark and Muscoy Operable Units, and treatment of the groundwater to meet all State of California (State) and federal permits and requirements for drinking water.

iii) Unless a permit issued by the SBMWD pursuant to the provisions outlined in the ordinance is first obtained, it shall be unlawful for any person, as principal, agent, or employee to spread (artificial recharge) or extract (well pumping) within the Management Zones as defined in the ordinance.

b) Institutional Controls Settlement Agreement (ICSA)

i) An agreement (ICSA) has been executed to develop and adopt a successor agreement, titled Institutional Controls Groundwater Management Program (ICGMP), between the following parties:

(1) City of San Bernardino Municipal Water Department

(2) San Bernardino Valley Municipal Water District

(3) Western Municipal Water District

(4) City of Riverside

(5) West Valley Water District

(6) East Valley Water District

(7) City of Colton

(8) Riverside Highland Water Company

ii) The parties identified above will not be subject to the provisions of City of San Bernardino Ordinance No. MC-1221 as long as each is a party to the ICSA and, subsequently, the ICGMP Agreement.

8) Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Uses of Imported Water in the Santa Ana River Basin

a) Requires the preparation of a triennial water quality report, limited to nitrogen and total dissolved solids (TDS), which analyzes whether the recharge of imported water had any adverse impact on compliance with Salinity Objectives established in the Water Quality Control Plan for the Santa Ana River Basin. The first report is due August 2009 and then every three years thereafter, which was changed to every five years in 2021.

b) Requires any party that is serving as a lead agency for a project involving the recharge of imported water to analyze any adverse impacts on Salinity Objectives as part of the California Environmental Quality Act (CEQA) review process. Said analysis must be made with a groundwater quality model listed in the agreement.

Development of Annual Management Plan for the SBBA

Considering the provisions of the above judgments and agreements, a process was developed for managing the SBBA (see Appendix B). This process is intended to be flexible and will be modified, as needed. The main purpose in developing a process is to ensure that management of the SBBA is in compliance with the provisions of the applicable judgment and agreements and to provide a cooperative forum among the water agencies to engage in developing solutions.