

SAN GABRIEL VALLEY BASIN SNMP PLATES



SOURCE : Regional Water Board Assistance in Guiding Salt and Nutrient Management Plan Development in the Los Angeles Region. June 28, 2012.



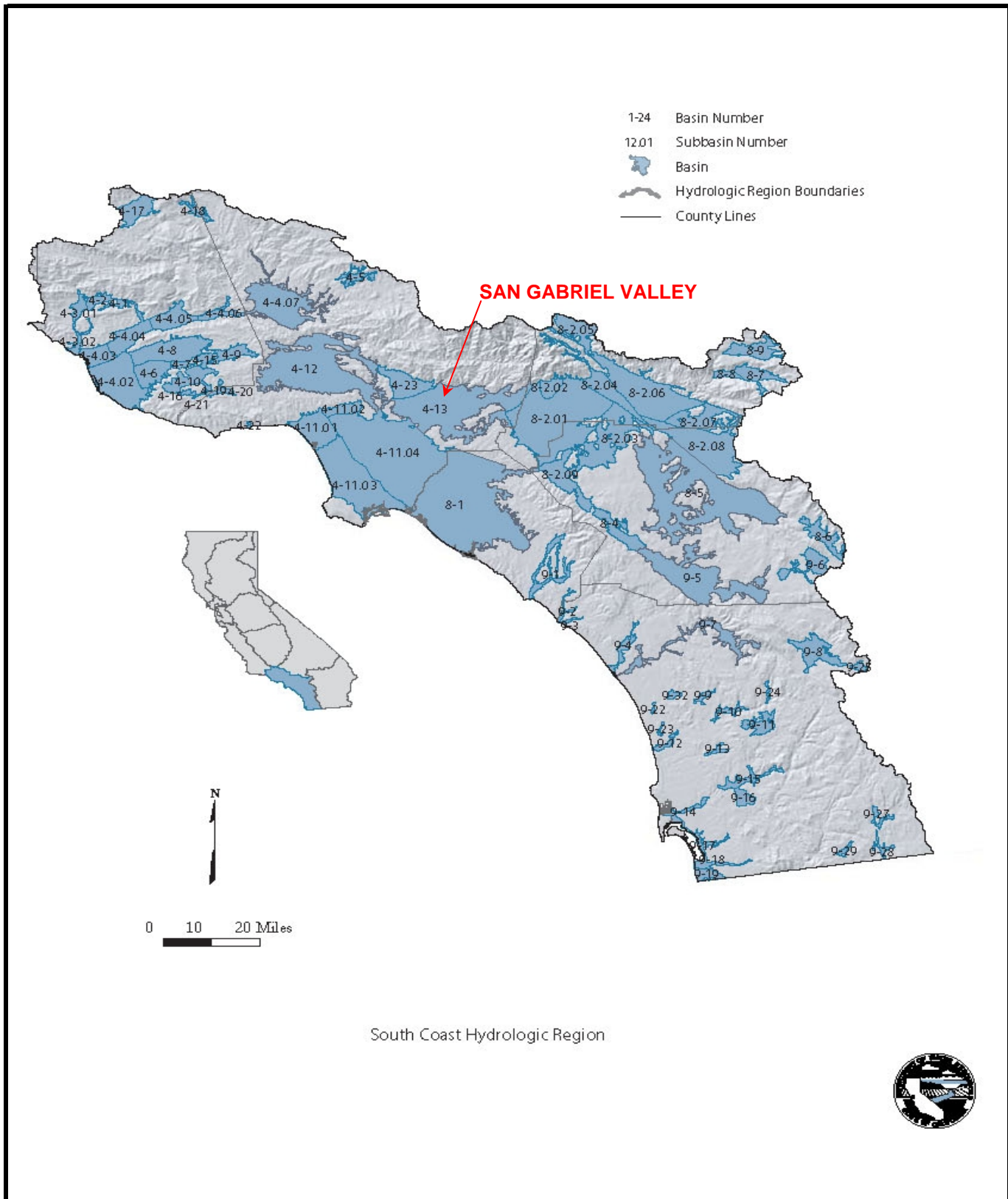
861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
 TEL: (626) 967-6202
 FAX: (626) 331-7065

2171 E Francisco Blvd., Suite K
 San Rafael California 94901

2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202

MAIN SAN GABRIEL BASIN WATERMASTER

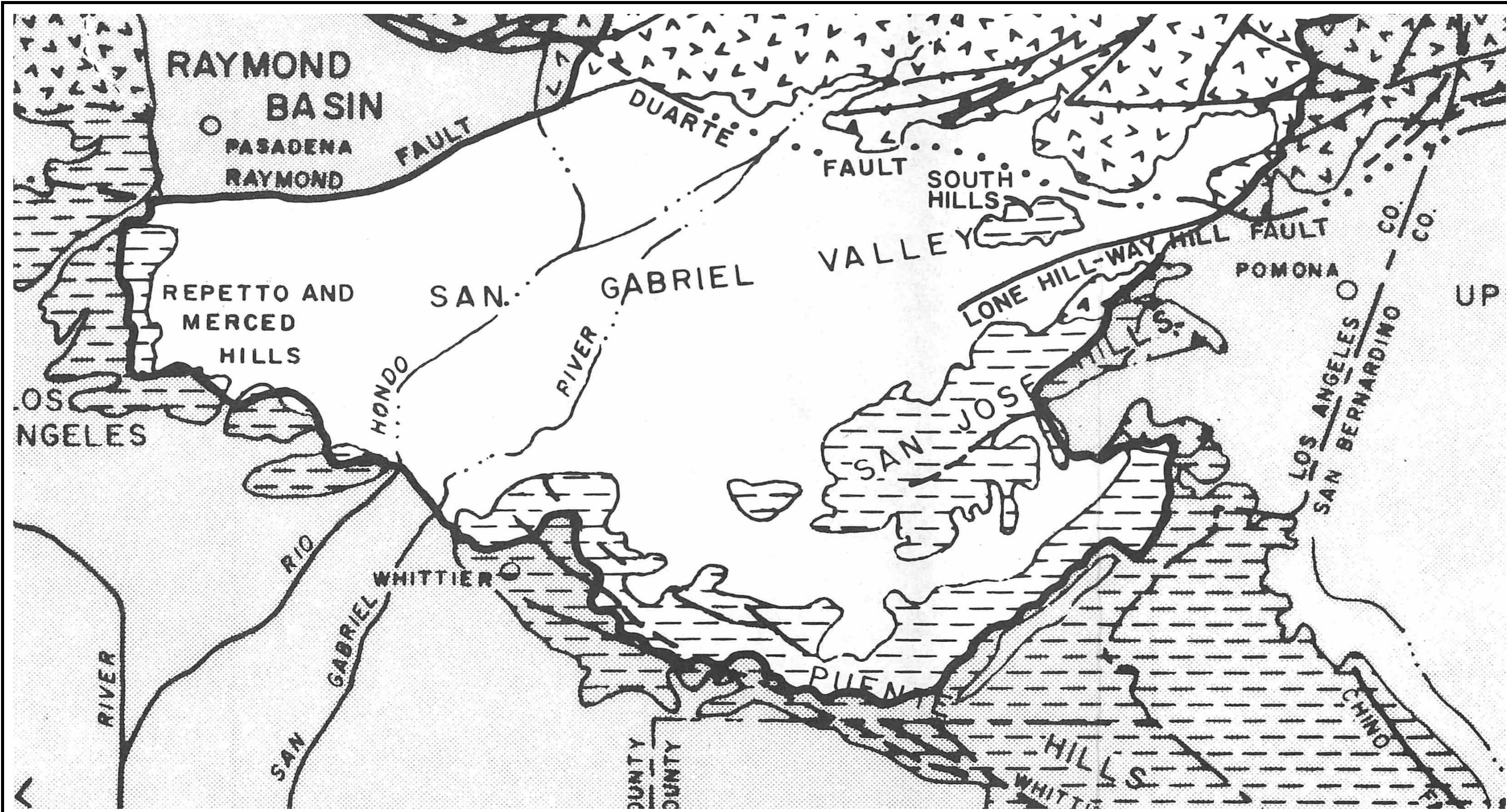
GROUNDWATER BASINS WITHIN THE LOS ANGELES REGION



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MAIN SAN GABRIEL BASIN WATERMASTER


SAN GABRIEL VALLEY IDENTIFIED BY THE
DEPARTMENT OF WATER RESOURCES



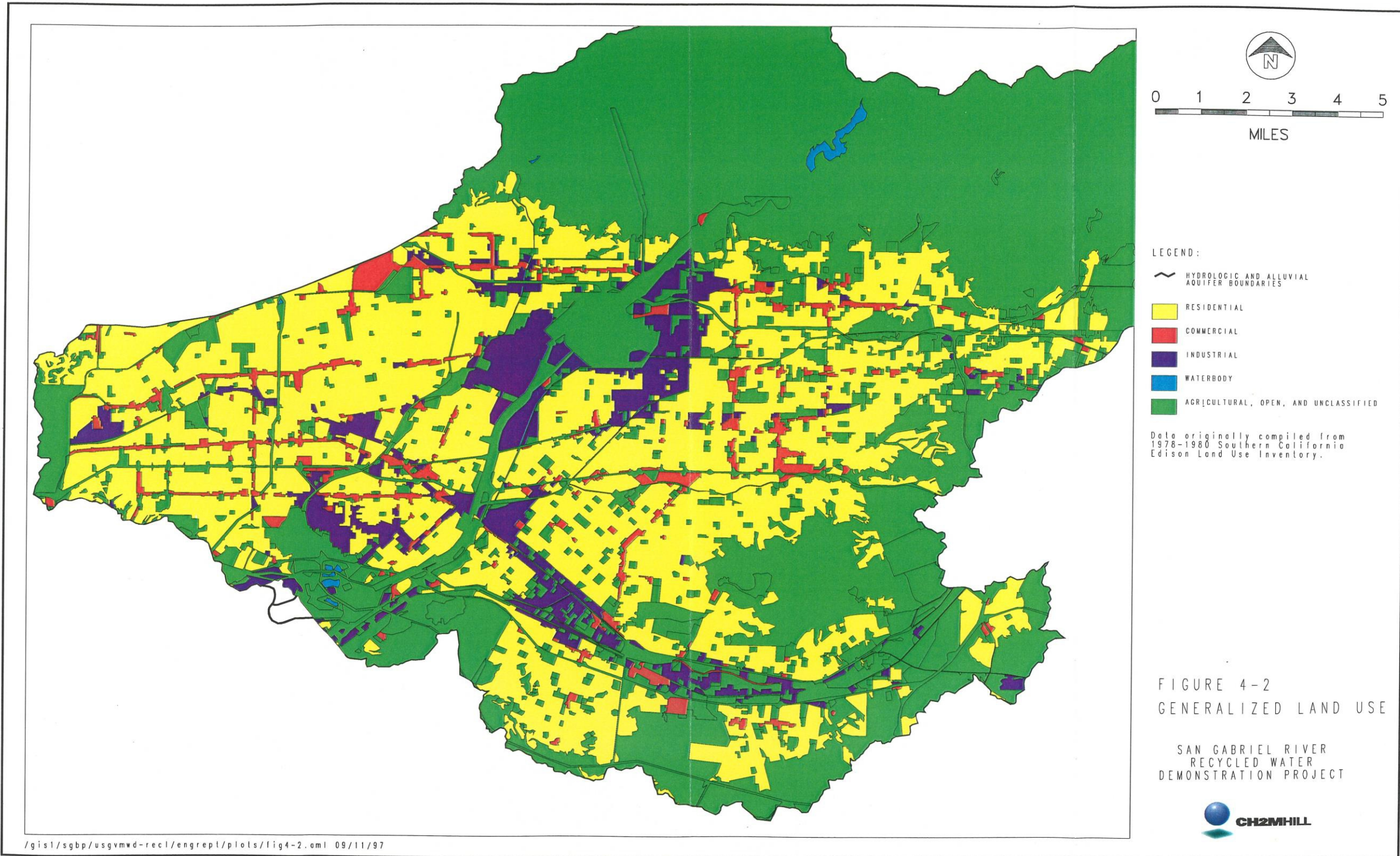
Source: Plate 1 - Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geohydrology. Bulletin No. 104-2. California Department of Water Resources. March 1966.

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SAN GABRIEL VALLEY GROUNDWATER BASIN



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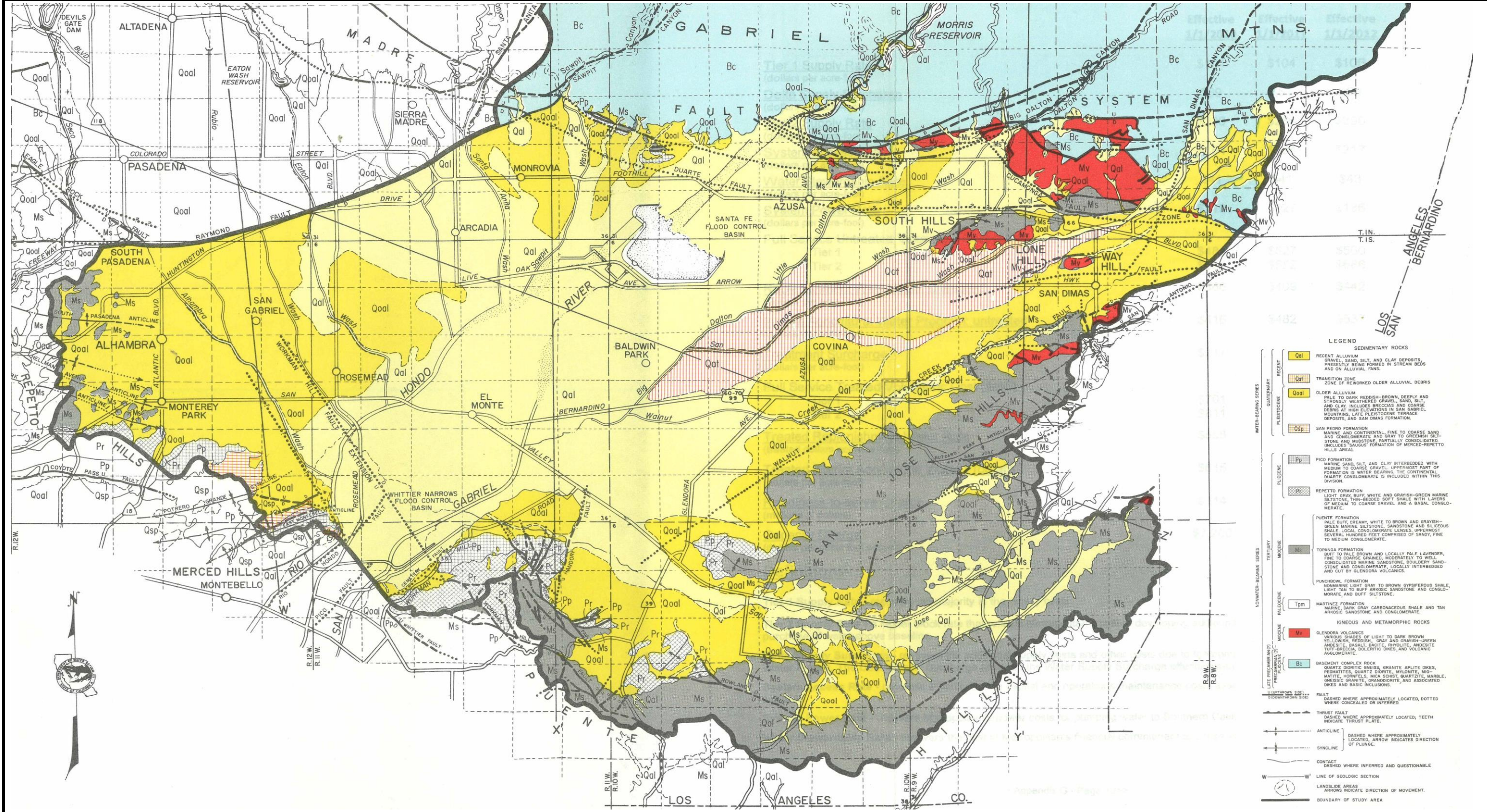
Source: Darft Engineering Report, San Gabriel Valley Recycled Water Demonstration Project. CH2M Hill. September 1997.

MAIN SAN GABRIEL BASIN WATERMASTER

GENERALIZED LAND USE IN THE SAN GABRIEL VALLEY



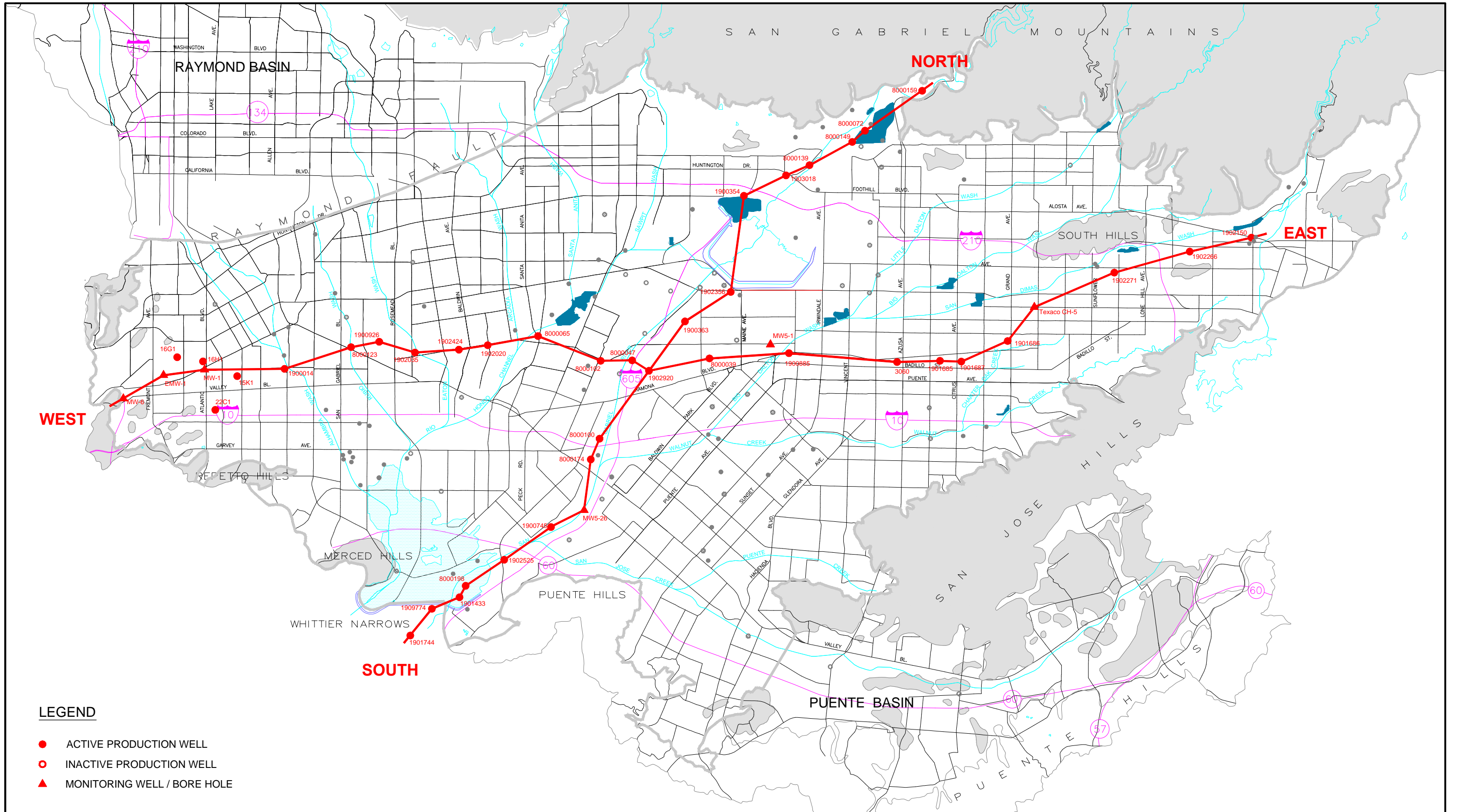
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Source: Plate 9A - Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geohydrology. Bulletin No. 104-2. California Department of Water Resources. March 1966.

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 GENERAL GEOLOGY OF THE SAN GABRIEL VALLEY



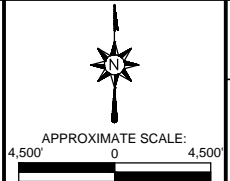
LEGEND

- ACTIVE PRODUCTION WELL
- INACTIVE PRODUCTION WELL
- ▲ MONITORING WELL / BORE HOLE

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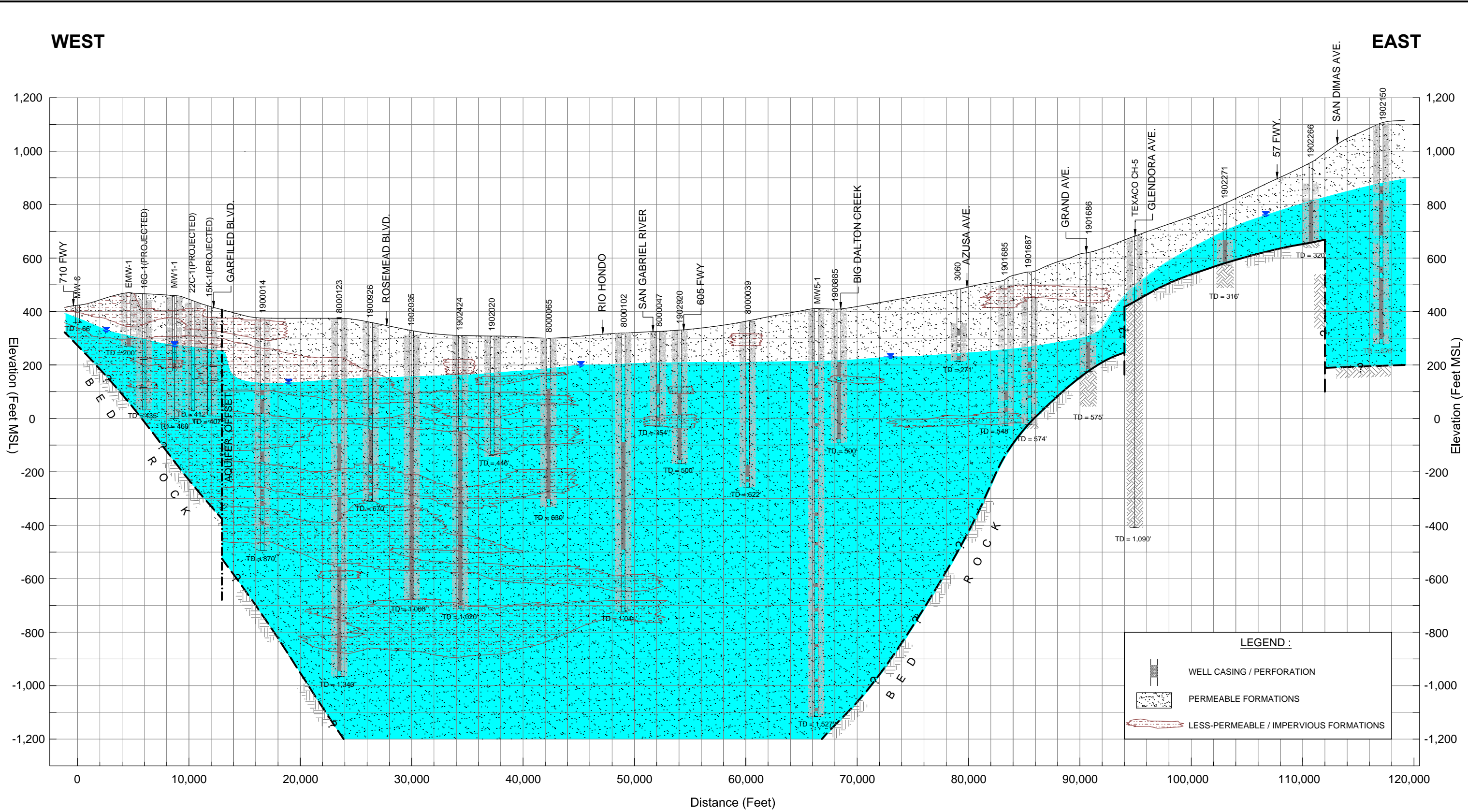
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MAIN SAN GABRIEL BASIN WATERMASTER

LOCATION OF CROSS SECTIONS



NOTE : SEE PLATE III.6a FOR CROSS SECTION LOCATION

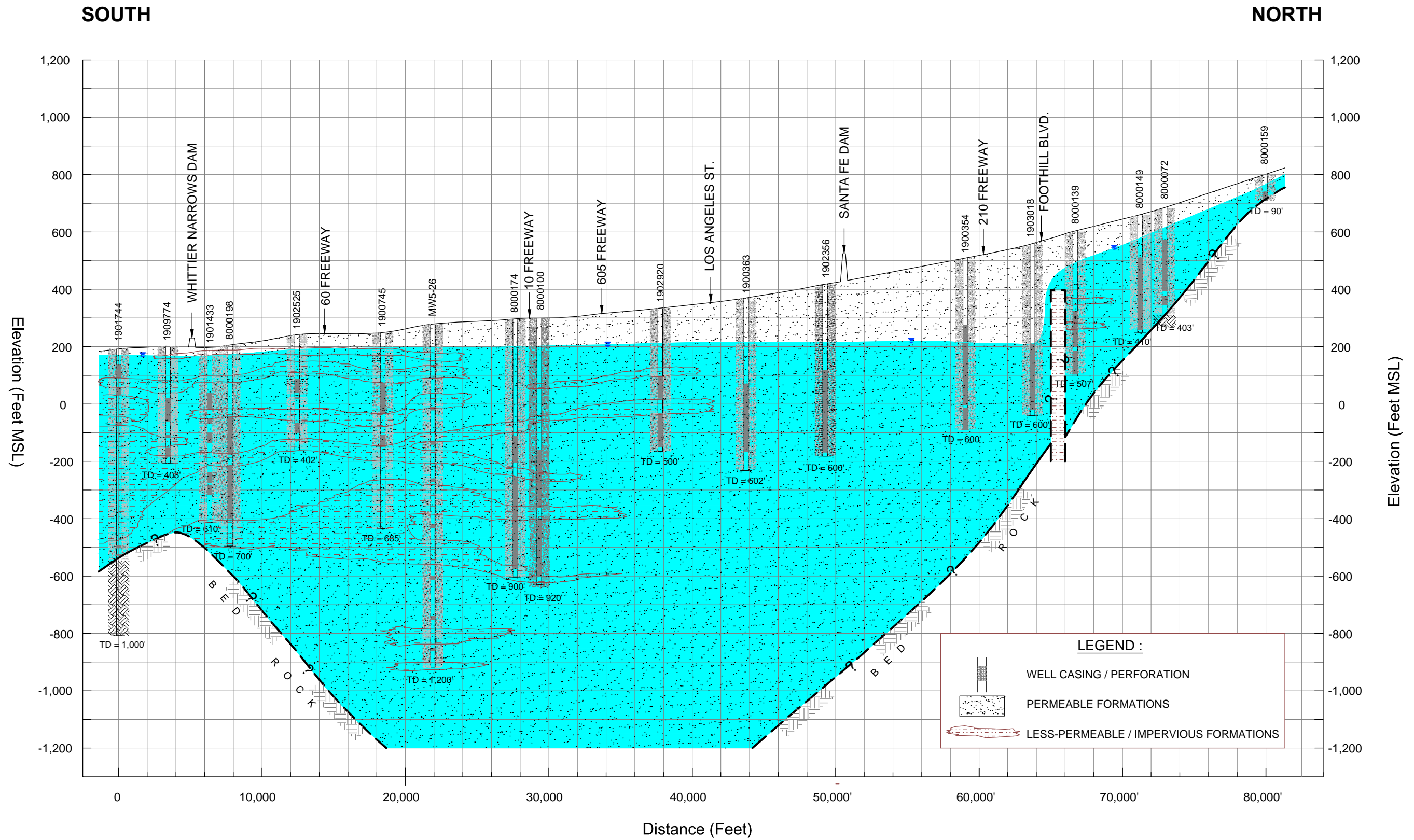
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MAIN SAN GABRIEL BASIN WATERMASTER

SAN GABRIEL GROUNDWATER BASIN - EAST WEST CROSS SECTION



NOTE : SEE PLATE III.6a FOR CROSS SECTION LOCATION

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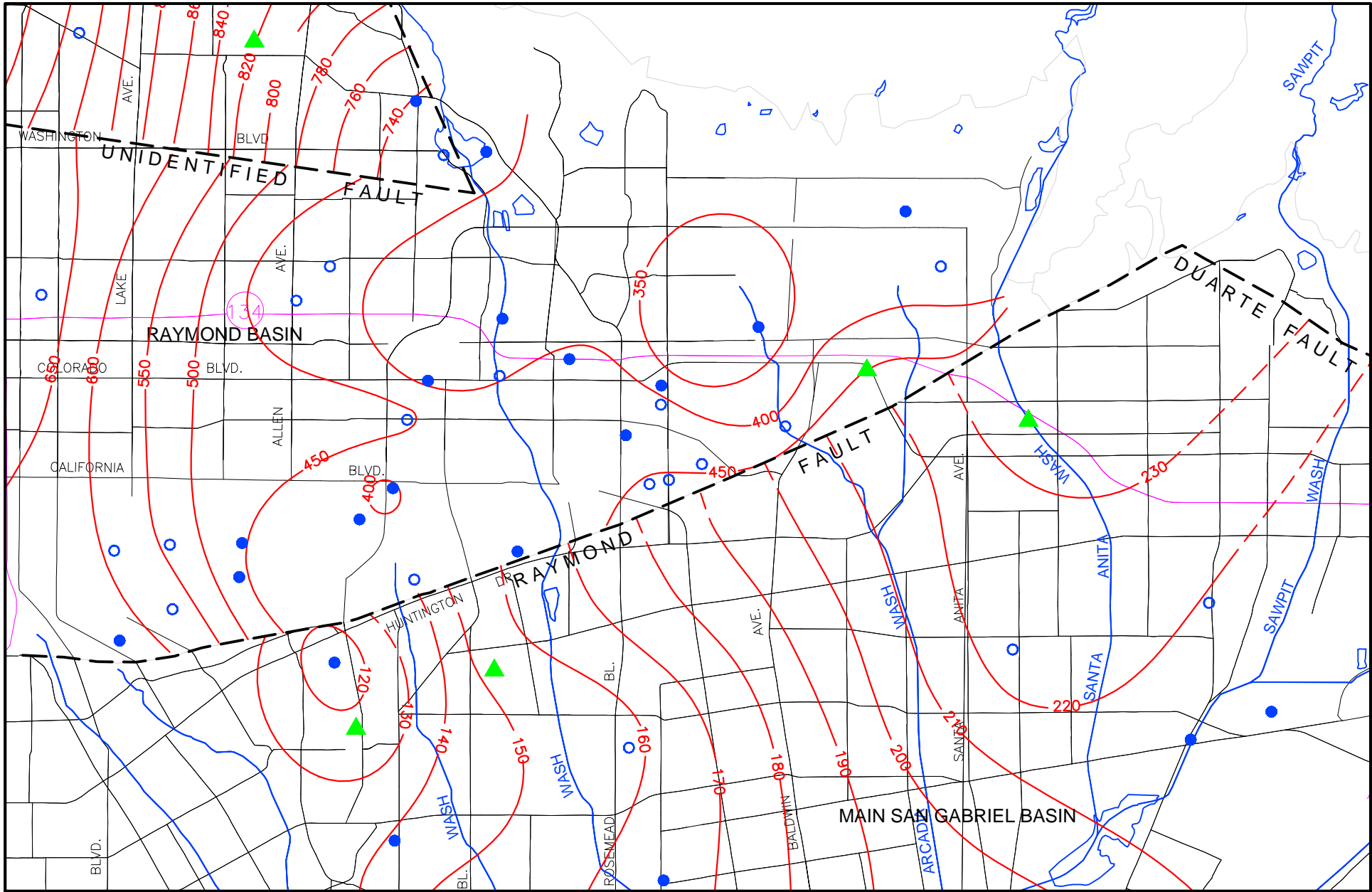
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MAIN SAN GABRIEL BASIN WATERMASTER

SAN GABRIEL GROUNDWATER BASIN - NORTH SOUTH CROSS SECTION



MAIN SAN GABRIEL BASIN WATERMASTER

**DIFFERENCES IN WATER LEVEL ELEVATIONS
ACROSS RAYMOND FAULT (OCTOBER 2007)**



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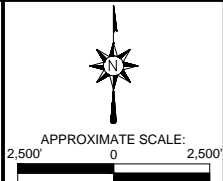
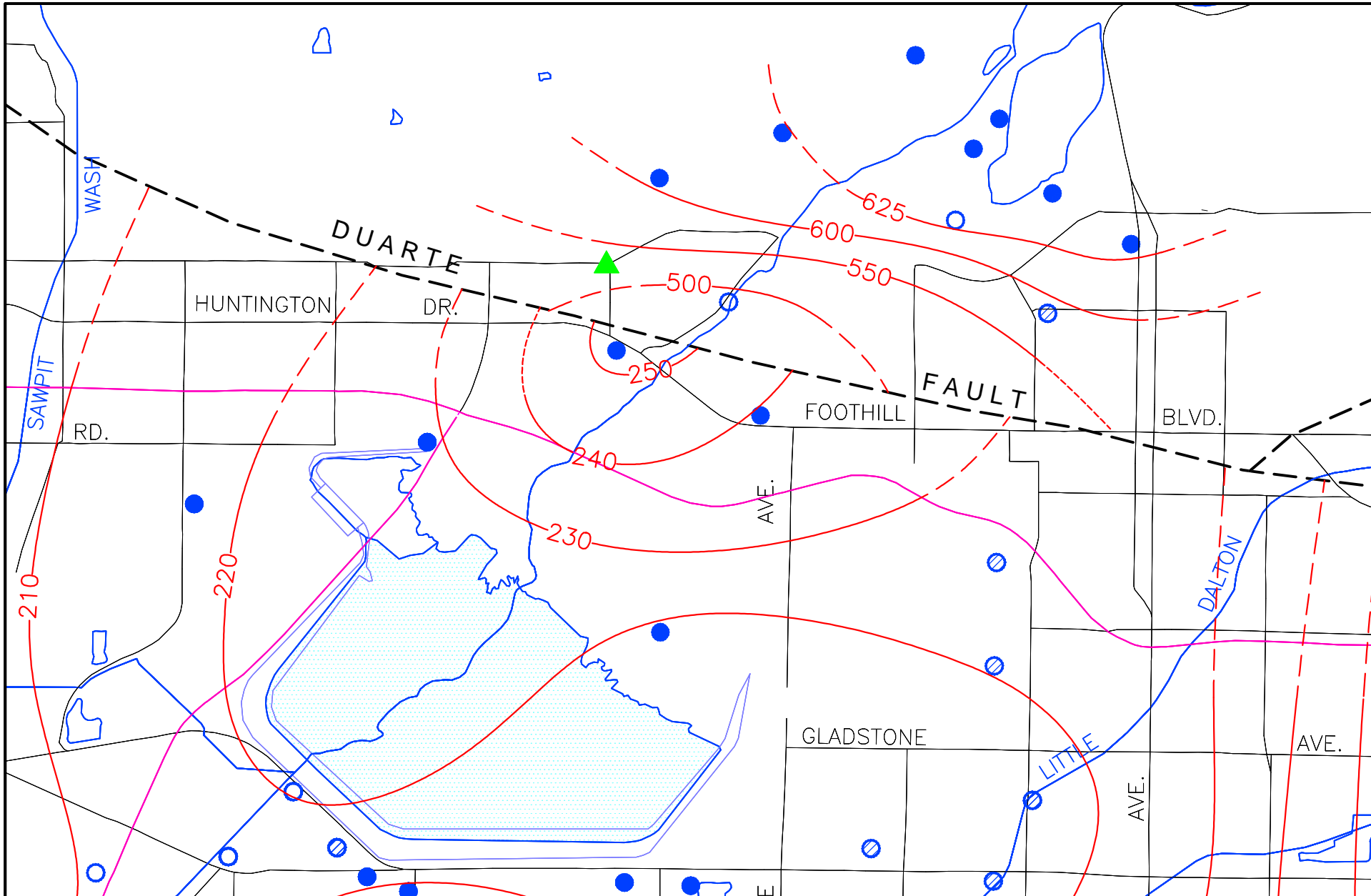


PLATE III.7



MAIN SAN GABRIEL BASIN WATERMASTER

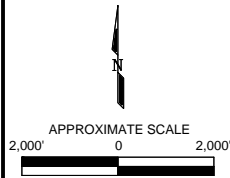
**DIFFERENCES IN WATER LEVEL ELEVATIONS
ACROSS DUARTE FAULT (JULY 2010)**

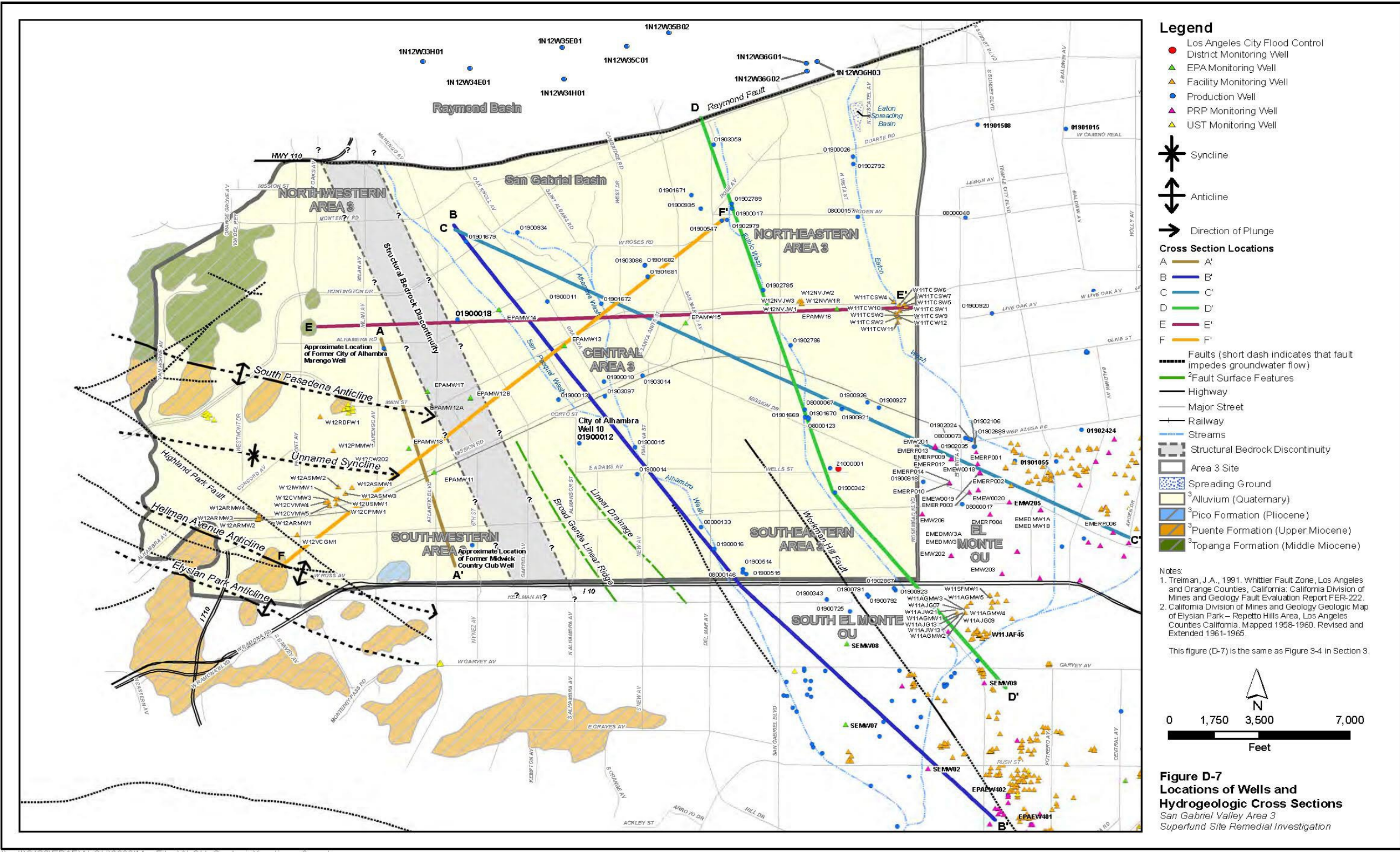


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- Legend**
- Los Angeles City Flood Control District Monitoring Well
 - ▲ EPA Monitoring Well
 - ▲ Facility Monitoring Well
 - Production Well
 - ▲ PRP Monitoring Well
 - ▲ UST Monitoring Well

- ✳ Syncline
 - ↕ Anticline
 - Direction of Plunge
- Cross Section Locations**
- A A'
 - B B'
 - C C'
 - D D'
 - E E'
 - F F'

- Faults (short dash indicates that fault impedes groundwater flow)
- Fault Surface Features
- Highway
- Major Street
- Railway
- Streams
- Structural Bedrock Discontinuity
- Area 3 Site
- Spreading Ground
- Alluvium (Quaternary)
- Pico Formation (Pliocene)
- Puente Formation (Upper Miocene)
- Topanga Formation (Middle Miocene)

Notes:

1. Treiman, J. A., 1991. Whittier Fault Zone, Los Angeles and Orange Counties, California: California Division of Mines and Geology Fault Evaluation Report FER-222.
2. California Division of Mines and Geology Geologic Map of Elysian Park - Repetto Hills Area, Los Angeles Counties California. Mapped 1958-1960. Revised and Extended 1961-1965.

This figure (D-7) is the same as Figure 3-4 in Section 3.

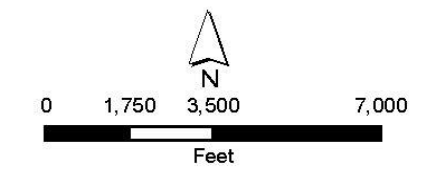



Figure D-7
Locations of Wells and Hydrogeologic Cross Sections
 San Gabriel Valley Area 3
 Superfund Site Remedial Investigation

\\galt\GIS2\EPAF\ALOU\2008\MapFiles\ALOU_GeologicXsection_V3.mxd



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MAIN SAN GABRIEL BASIN WATERMASTER

STRUCTURAL BEDROCK DISCONTINUITY INTERPRETED BY U.S. ENVIRONMENTAL PROTECTION AGENCY

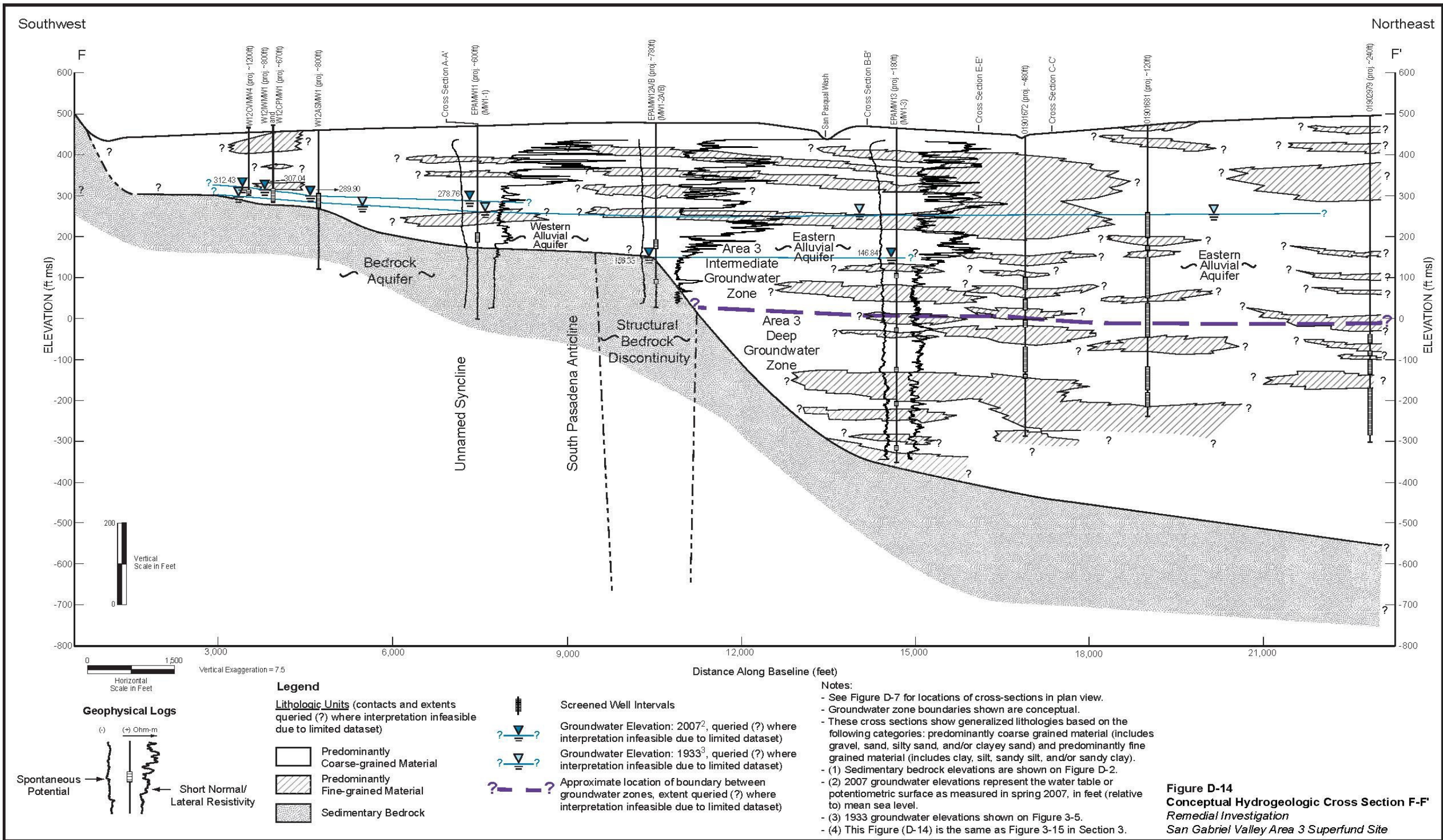


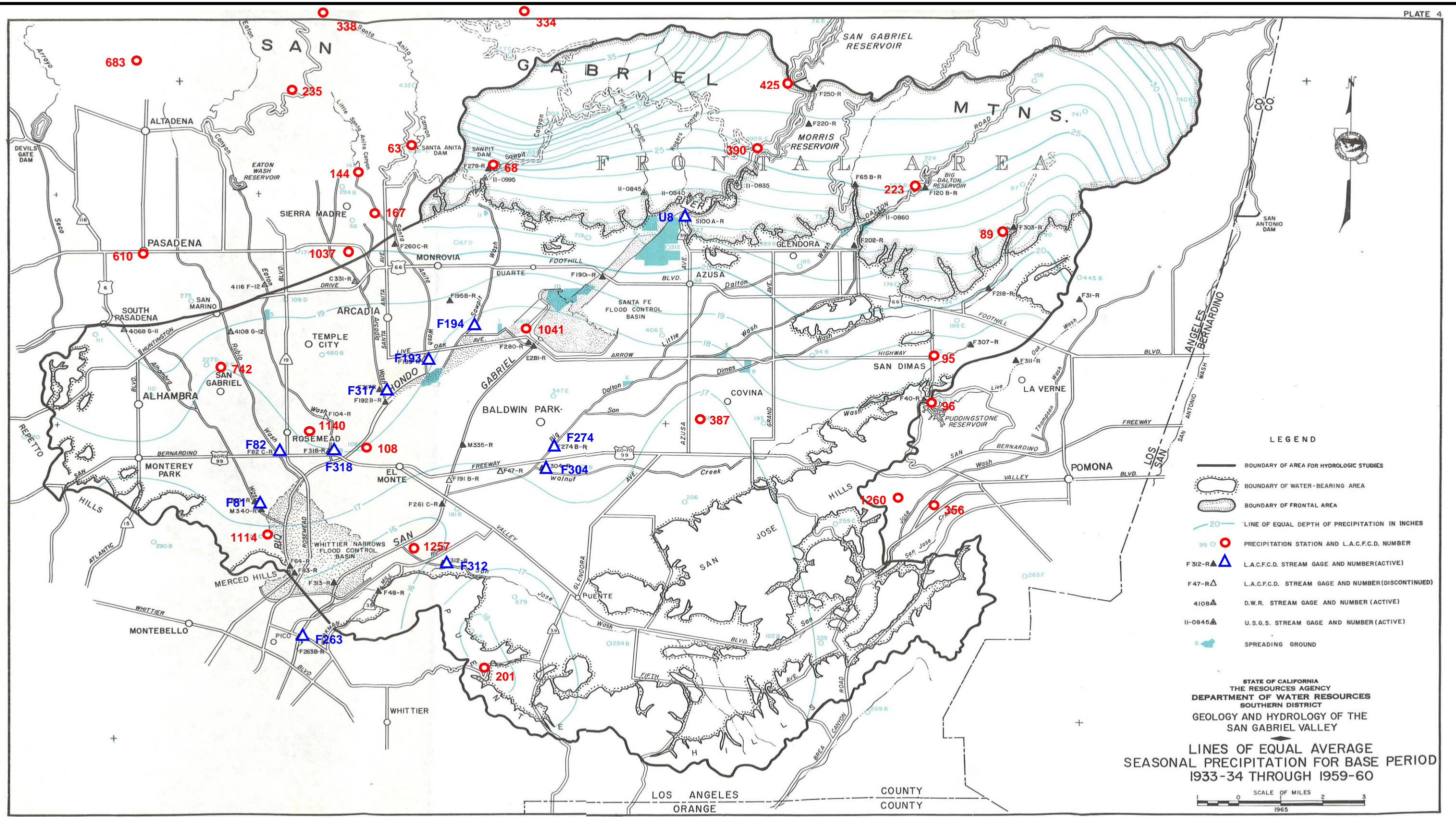
Figure D-14
Conceptual Hydrogeologic Cross Section F-F'
 Remedial Investigation
 San Gabriel Valley Area 3 Superfund Site



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STRUCTURAL BEDROCK DISCONTINUITY INTERPRETED BY U.S. ENVIRONMENTAL PROTECTION AGENCY

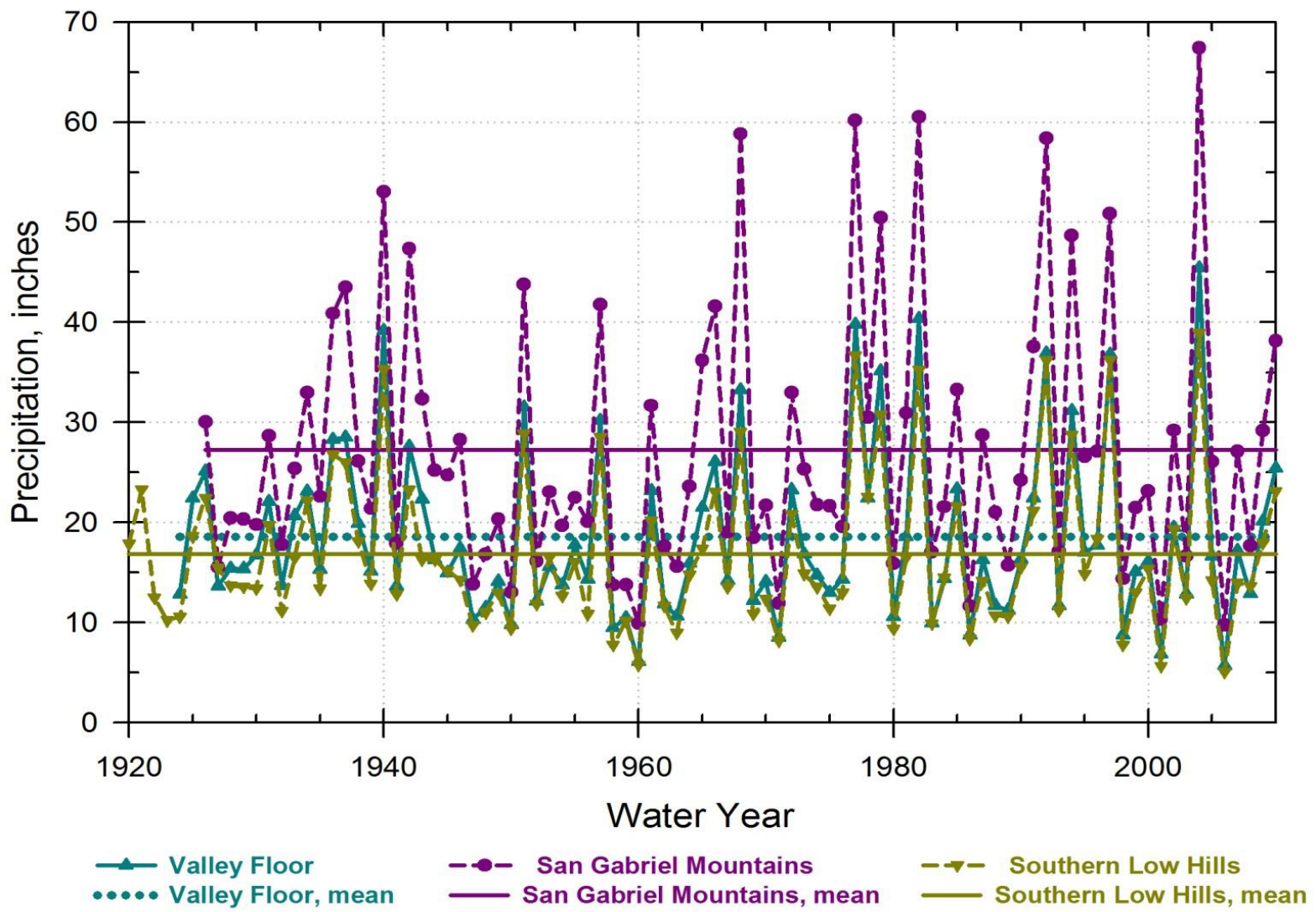


MAIN SAN GABRIEL BASIN WATERMASTER

HYDROLOGY OF THE SAN GABRIEL BASIN WATERSHED



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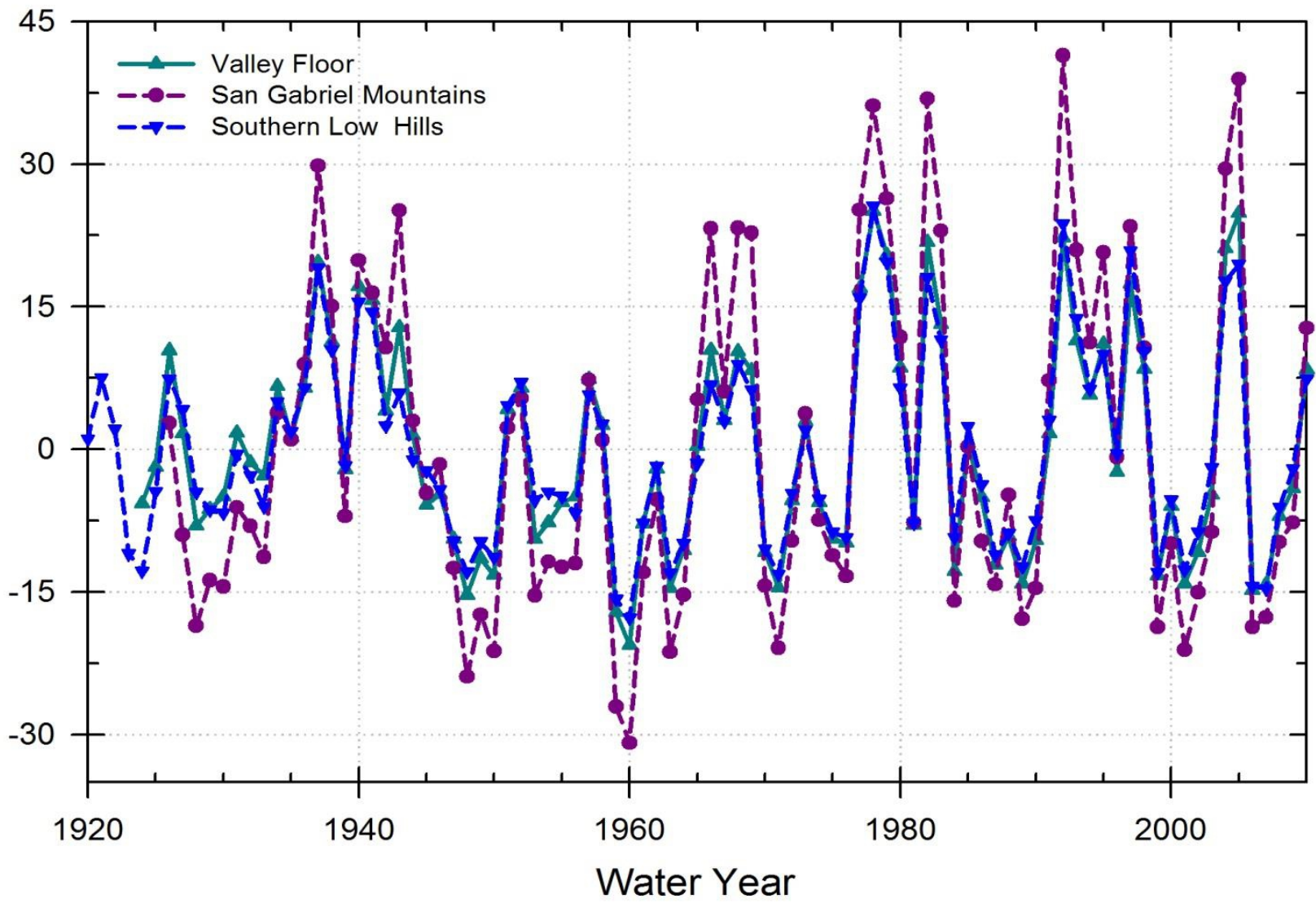
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MAIN SAN GABRIEL BASIN WATERMASTER

PRECIPITATION IN THE SAN GABRIEL RIVER AND RIO HONDO WATERSHED

PLATE III.11a

Cumulative Departure from Mean Precipitation, inches

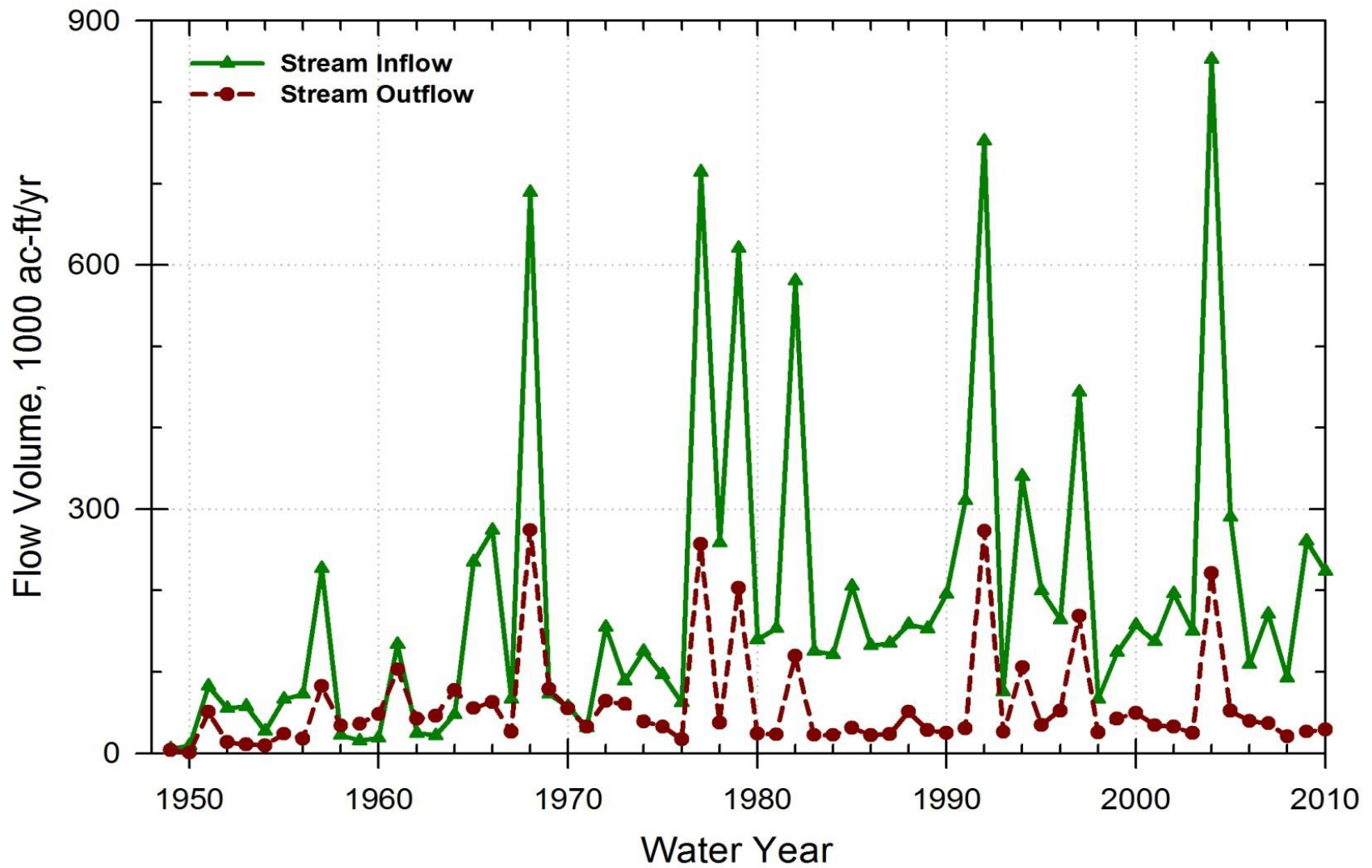


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MAIN SAN GABRIEL BASIN WATERMASTER

CUMULATIVE DEPARTURE OF PRECIPITATION IN THE SAN GABRIEL RIVER AND RIO HONDO WATERSHED

PLATE III.11b

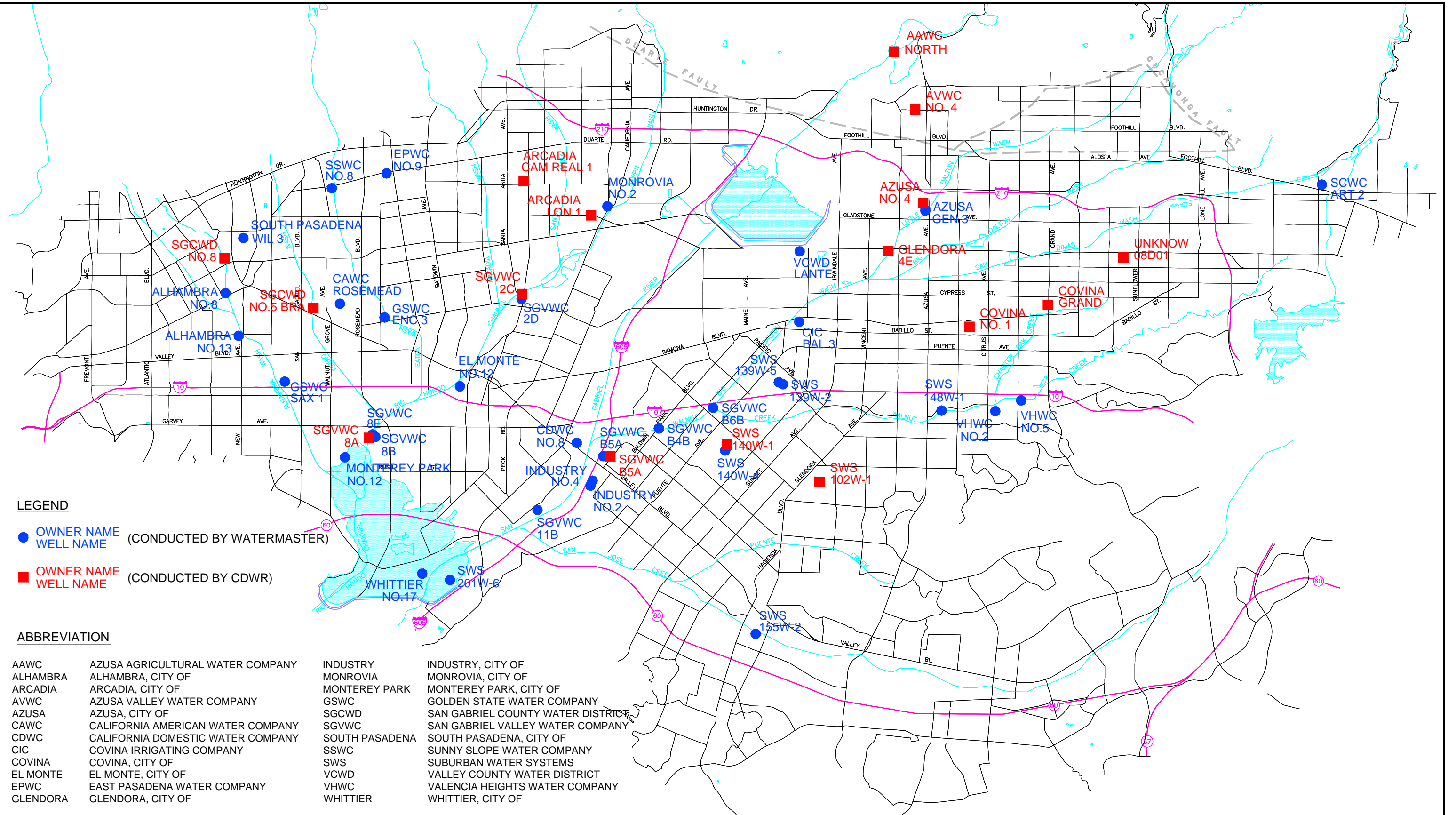


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MAIN SAN GABRIEL BASIN WATERMASTER

SAN GABRIEL BASIN STREAM INFLOW AND OUTFLOW

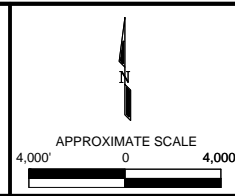
PLATE III.12



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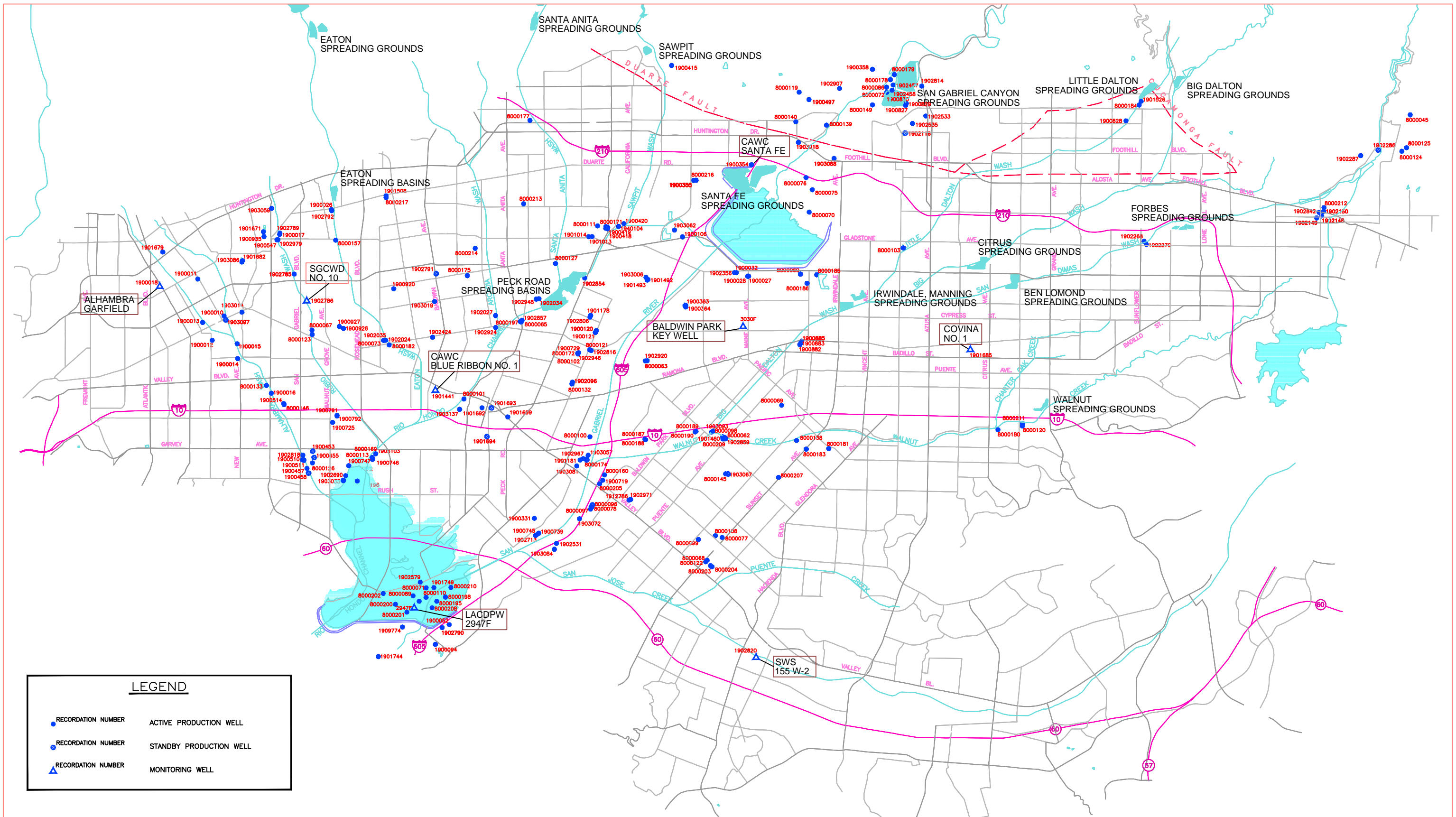
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MAIN SAN GABRIEL BASIN WATERMASTER

LOCATIONS OF AQUIFER PERFORMANCE TESTS



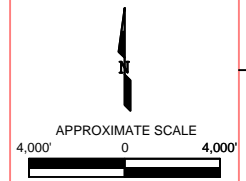
LEGEND

- RECORDATION NUMBER ACTIVE PRODUCTION WELL
- RECORDATION NUMBER STANDBY PRODUCTION WELL
- ▲ RECORDATION NUMBER MONITORING WELL

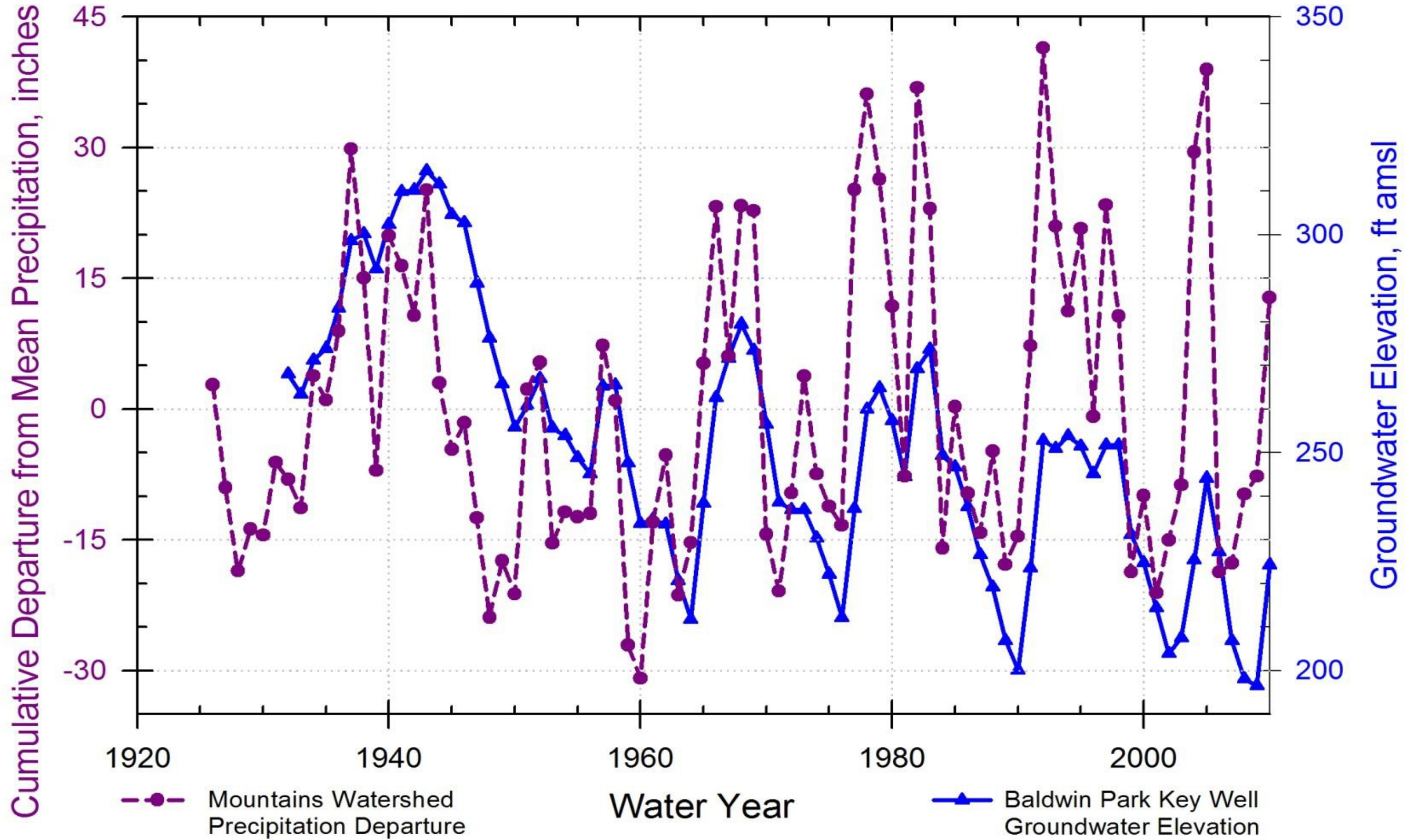
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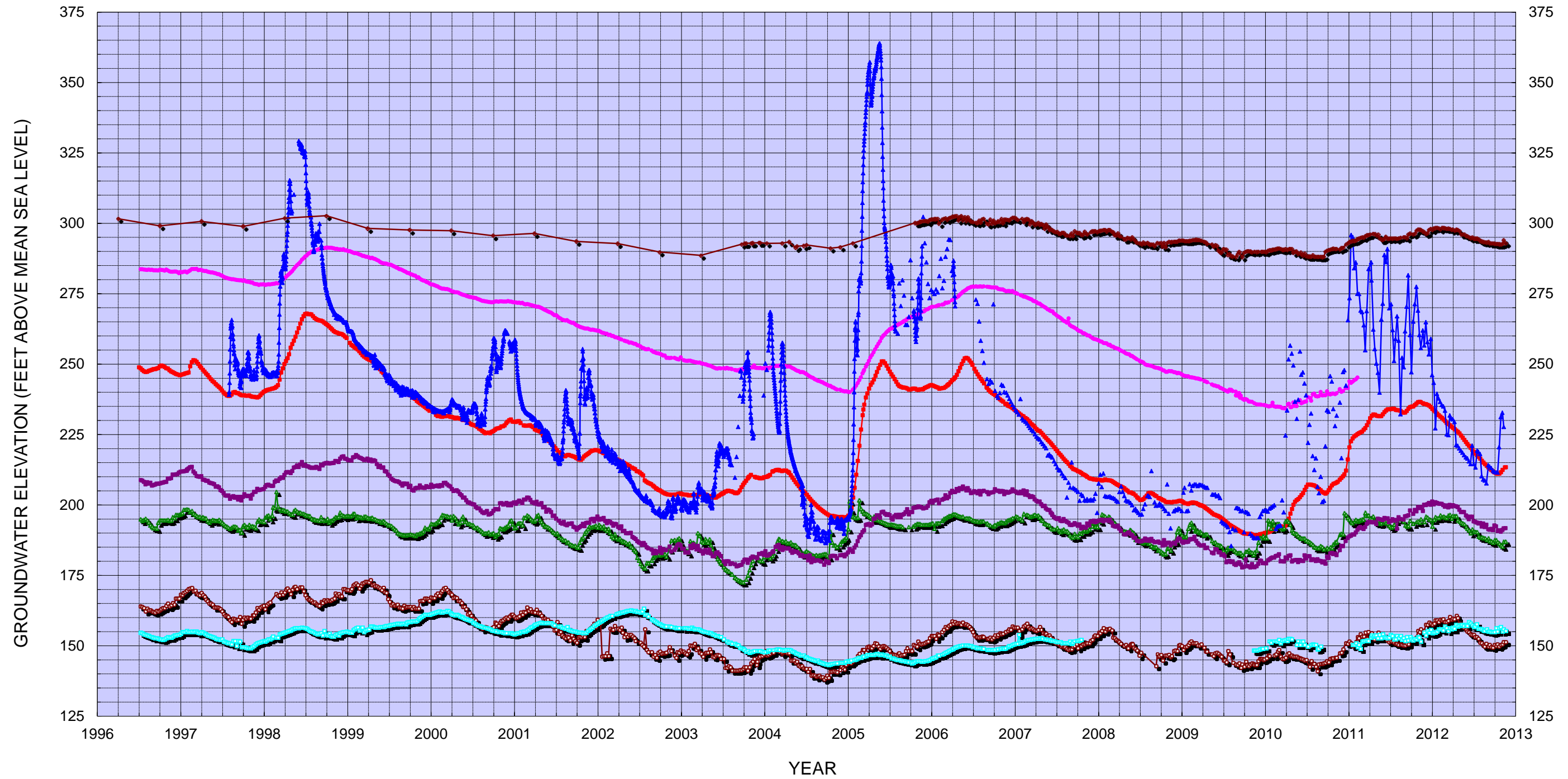
MAIN SAN GABRIEL BASIN WATERMASTER
LOCATION OF WELLS AND SPREADING GROUNDS / BASINS




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MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER ELEVATION AT BALDWIN PARK KEY WELL AND CUMULATIVE DEPARTURE FROM MEAN PRECIPITATION (MOUNTAINS WATERSHED)



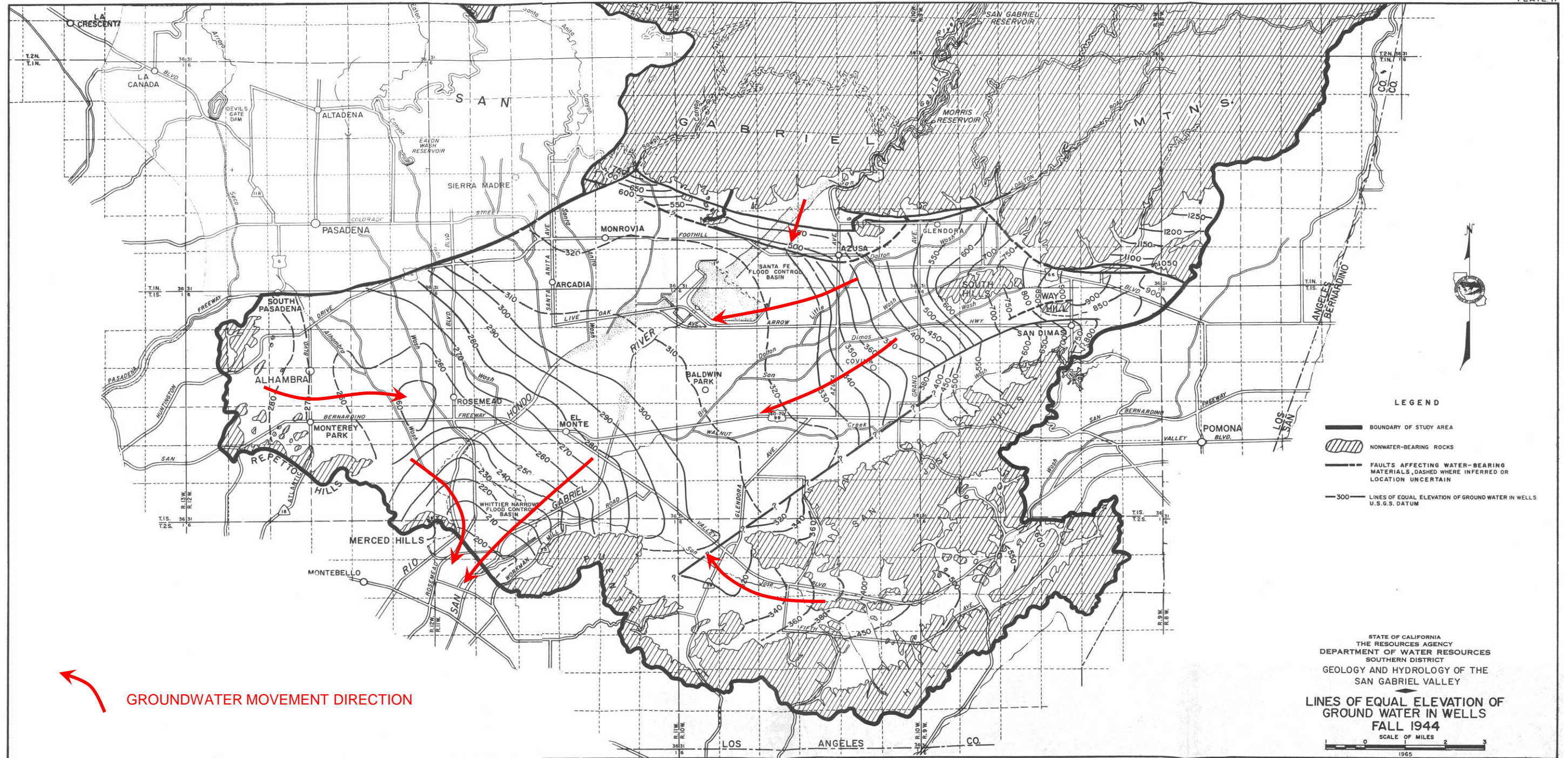
—●— COVINA NO. 1	—●— BALDWIN PARK KEY WELL	—●— LACDPW 2947F	—●— CAWC SANTA FE
—●— CAWC BLUE RIBBON NO. 1	—●— SGCWD NO. 10	—●— ALHAMBRA GARFIELD	—●— SWS 155W-2



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MAIN SAN GABRIEL BASIN WATERMASTER

HYDROGRAPH OF GROUNDWATER ELEVATION AT WELLS IN THE MAIN SAN GABRIEL BASIN



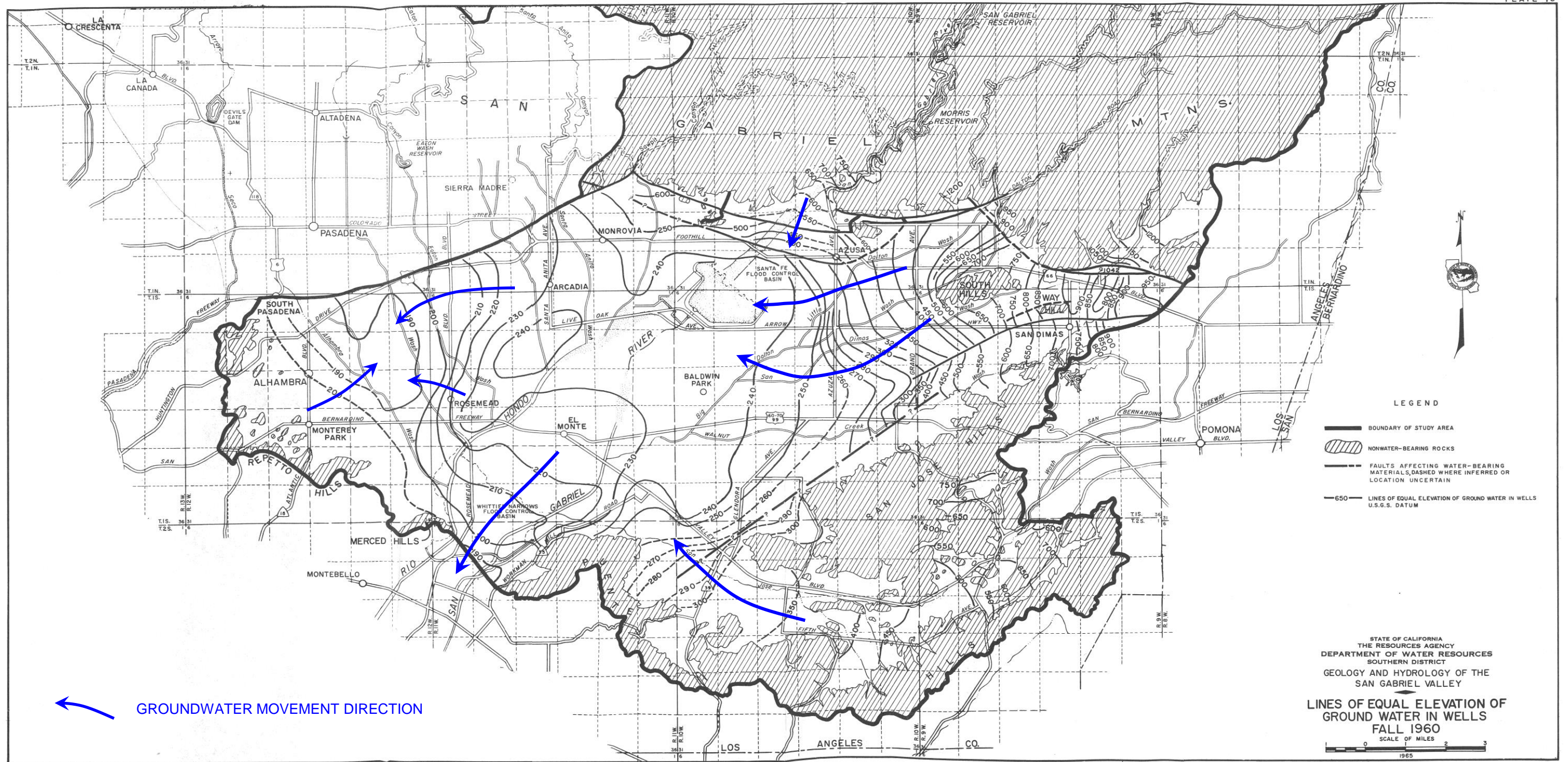
Source: Plate 17 - Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geohydrology. Bulletin No. 104-2. California Department of Water Resources. March 1966.

MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER MOVEMENT PRIOR TO DEVELOPMENT



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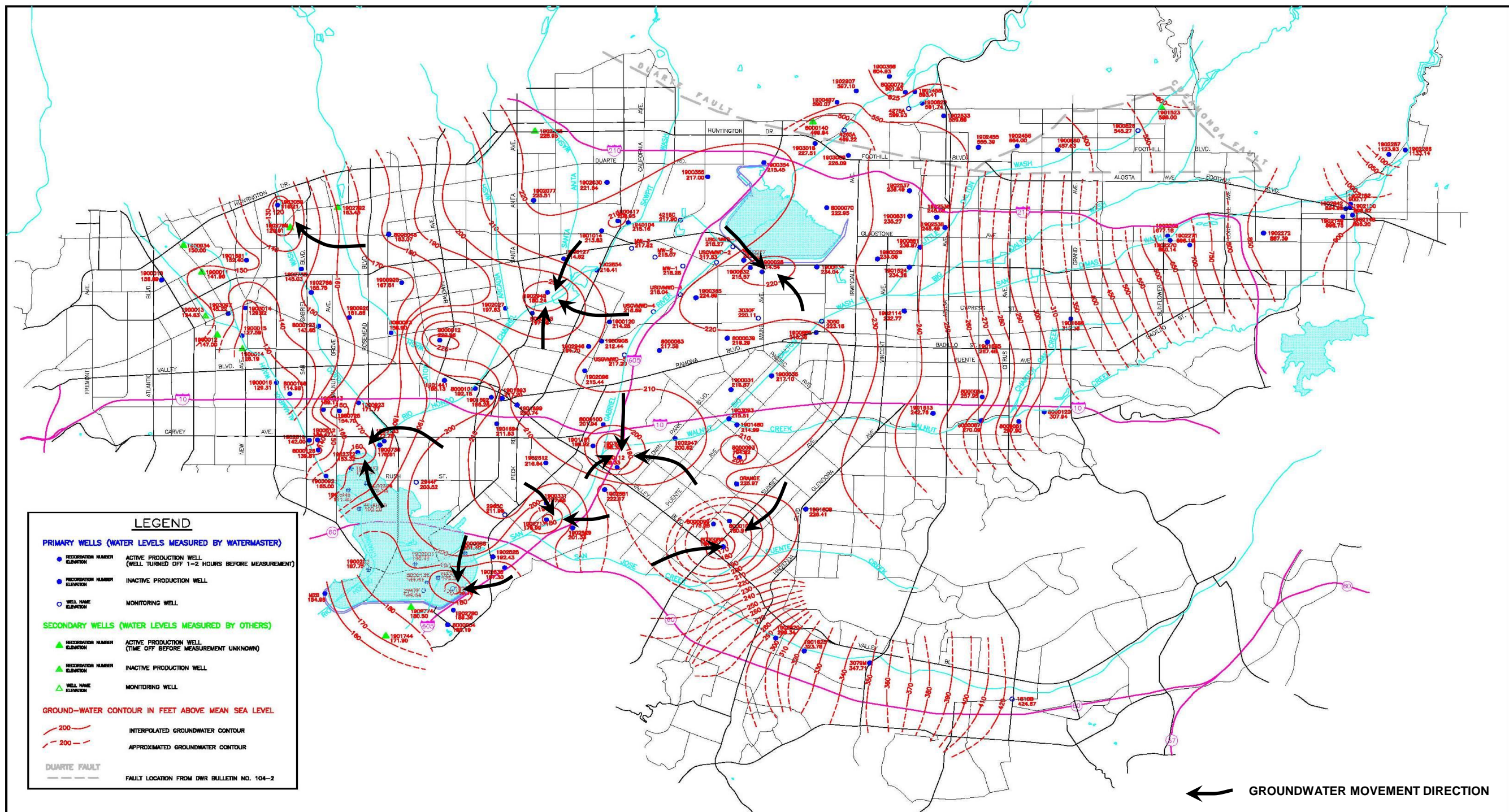
Source: Plate 18 - Planned Utilization of Ground Water Basins, San Gabriel Valley, Appendix A: Geohydrology. Bulletin No. 104-2. California Department of Water Resources. March 1966.



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MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER MOVEMENT DURING EARLY DEVELOPMENT



LEGEND

PRIMARY WELLS (WATER LEVELS MEASURED BY WATERMASTER)

- RECORDATION NUMBER ELEVATION ACTIVE PRODUCTION WELL (WELL TURNED OFF 1-2 HOURS BEFORE MEASUREMENT)
- RECORDATION NUMBER ELEVATION INACTIVE PRODUCTION WELL
- WELL NAME ELEVATION MONITORING WELL

SECONDARY WELLS (WATER LEVELS MEASURED BY OTHERS)

- ▲ RECORDATION NUMBER ELEVATION ACTIVE PRODUCTION WELL (TIME OFF BEFORE MEASUREMENT UNKNOWN)
- ▲ RECORDATION NUMBER ELEVATION INACTIVE PRODUCTION WELL
- ▲ WELL NAME ELEVATION MONITORING WELL

GROUND-WATER CONTOUR IN FEET ABOVE MEAN SEA LEVEL

- 200 — INTERPOLATED GROUNDWATER CONTOUR
- - - 200 - - - APPROXIMATED GROUNDWATER CONTOUR

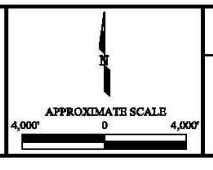
DUARTE FAULT
FAULT LOCATION FROM DWR BULLETIN NO. 104-2

← GROUNDWATER MOVEMENT DIRECTION

3104 EAST GARVEY AVENUE
WEST COVINA, CALIFORNIA 91791
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FAX: (626) 331-7085

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San Rafael California 94901

2851 W Guadalupe Rd., Suite A208
Mesa Arizona 85202



MAIN SAN GABRIEL BASIN WATERMASTER
GROUNDWATER CONTOUR MAP FOR SAN GABRIEL BASIN - JULY 2001

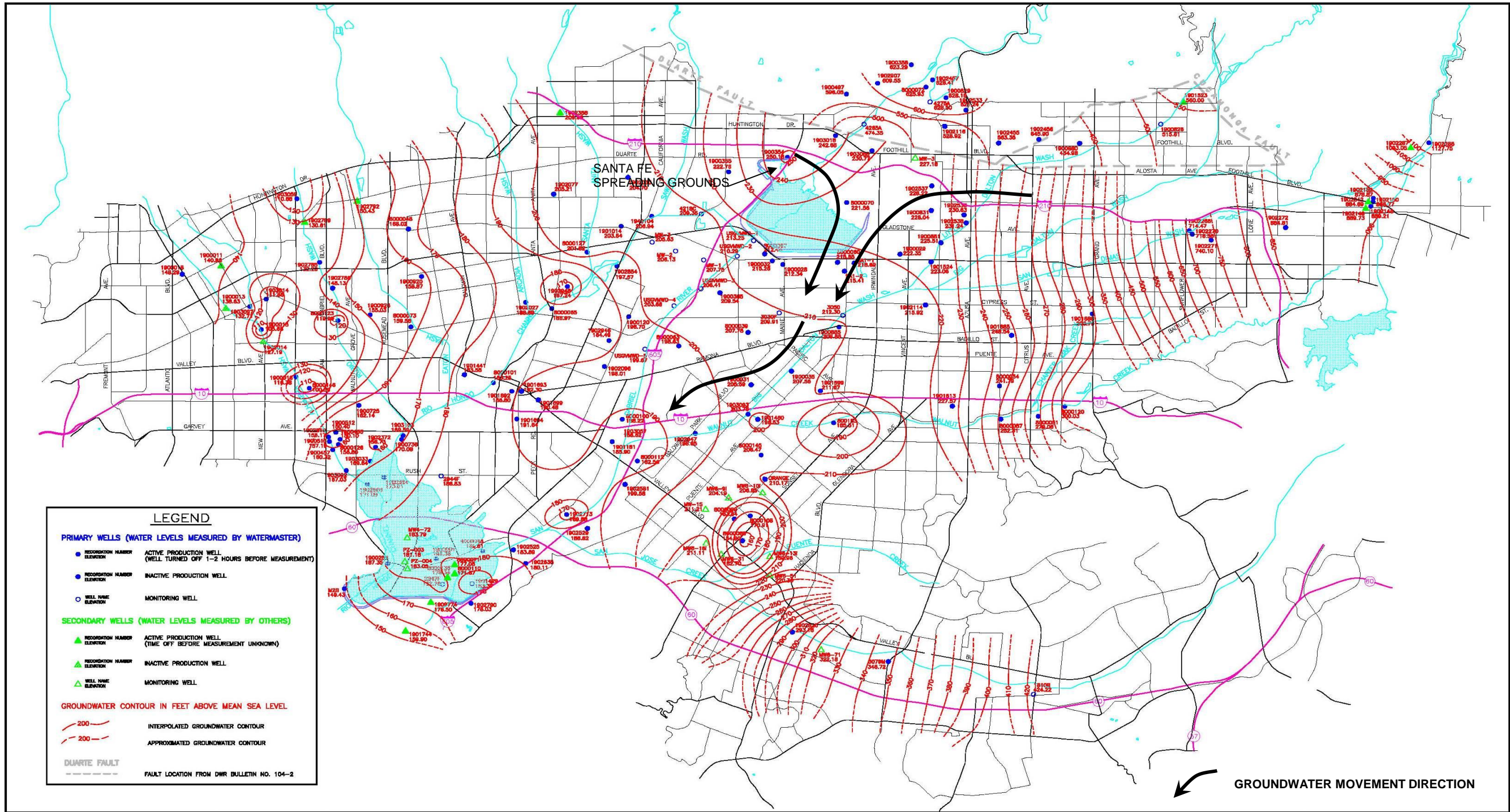


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MAIN SAN GABRIEL BASIN WATERMASTER
GROUNDWATER MOVEMENT AFFECTED BY GROUNDWATER EXTRACTION



LEGEND

PRIMARY WELLS (WATER LEVELS MEASURED BY WATERMASTER)

- RECORD NUMBER ELEVATION ACTIVE PRODUCTION WELL (WELL TURNED OFF 1-2 HOURS BEFORE MEASUREMENT)
- RECORD NUMBER ELEVATION INACTIVE PRODUCTION WELL
- WELL NAME ELEVATION MONITORING WELL

SECONDARY WELLS (WATER LEVELS MEASURED BY OTHERS)

- ▲ RECORD NUMBER ELEVATION ACTIVE PRODUCTION WELL (TIME OFF BEFORE MEASUREMENT UNKNOWN)
- ▲ RECORD NUMBER ELEVATION INACTIVE PRODUCTION WELL
- ▲ WELL NAME ELEVATION MONITORING WELL

GROUNDWATER CONTOUR IN FEET ABOVE MEAN SEA LEVEL

- 200 — INTERPOLATED GROUNDWATER CONTOUR
- - - 200 - - - APPROXIMATED GROUNDWATER CONTOUR

--- DUARTE FAULT --- FAULT LOCATION FROM DWR BULLETIN NO. 104-2

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APPROXIMATE SCALE
 4,000' 0 4,000'

F:\JOBS\1205\1205-87\BGWEMP\01-04con.DWG

MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER CONTOUR MAP FOR SAN GABRIEL BASIN - JANUARY 2004

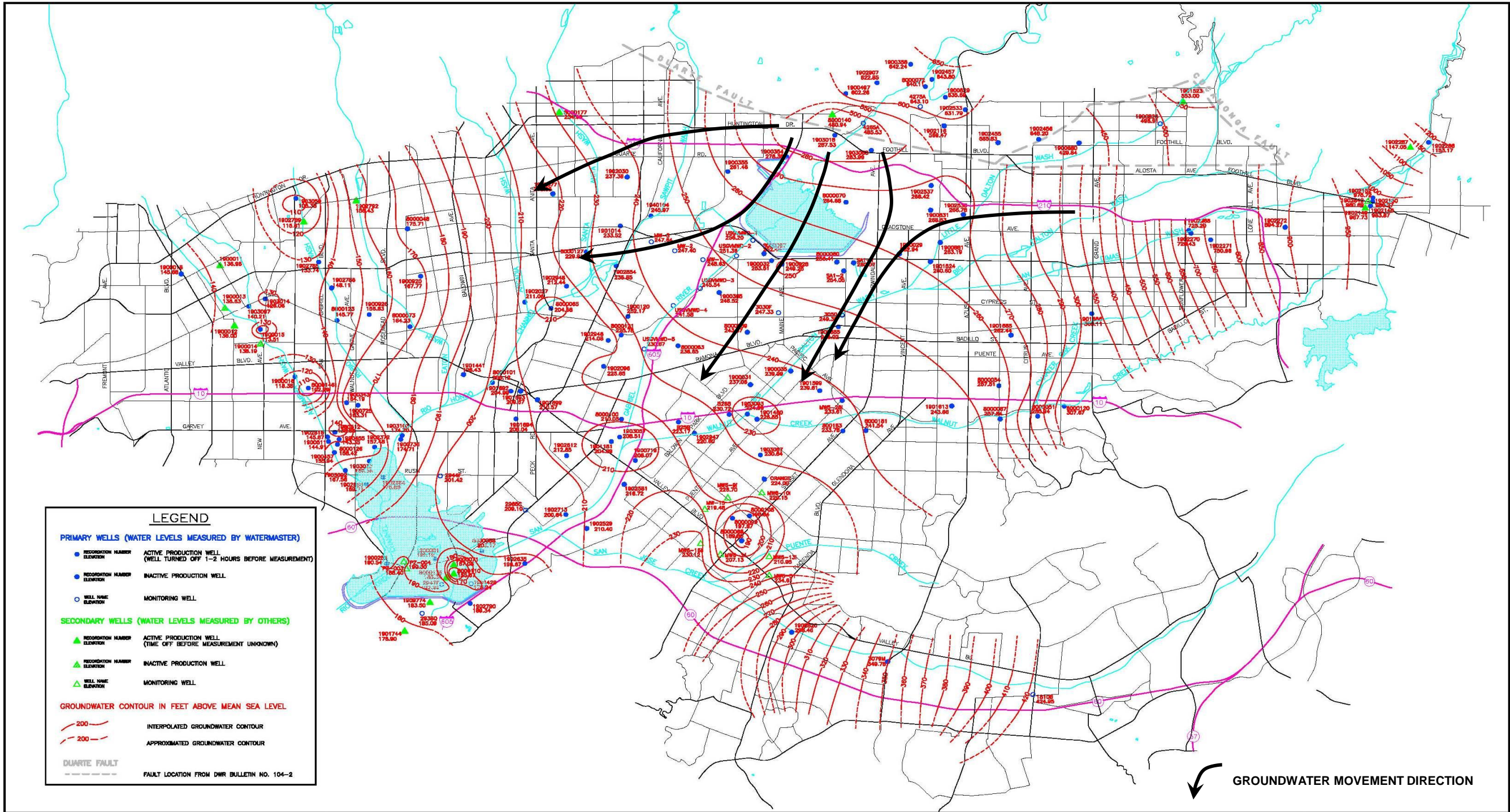
Main San Gabriel Basin WATERMASTER



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MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER MOVEMENT AFFECTED BY GROUNDWATER RECHARGE AT SANTA FE SPREADING GROUNDS



LEGEND

PRIMARY WELLS (WATER LEVELS MEASURED BY WATERMASTER)

- RECORDATION NUMBER ELEVATION ACTIVE PRODUCTION WELL (WELL TURNED OFF 1-2 HOURS BEFORE MEASUREMENT)
- RECORDATION NUMBER ELEVATION INACTIVE PRODUCTION WELL
- WELL NAME ELEVATION MONITORING WELL

SECONDARY WELLS (WATER LEVELS MEASURED BY OTHERS)

- ▲ RECORDATION NUMBER ELEVATION ACTIVE PRODUCTION WELL (TIME OFF BEFORE MEASUREMENT UNKNOWN)
- ▲ RECORDATION NUMBER ELEVATION INACTIVE PRODUCTION WELL
- ▲ WELL NAME ELEVATION MONITORING WELL

GROUNDWATER CONTOUR IN FEET ABOVE MEAN SEA LEVEL

- 200 — INTERPOLATED GROUNDWATER CONTOUR
- - - 200 - - - APPROXIMATED GROUNDWATER CONTOUR

--- DUARTE FAULT
FAULT LOCATION FROM DWR BULLETIN NO. 104-2

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Mesa Arizona 85202

APPROXIMATE SCALE
4,000' 0 4,000'

MAIN SAN GABRIEL BASIN WATERMASTER
GROUNDWATER CONTOUR MAP FOR SAN GABRIEL BASIN - JULY 2005

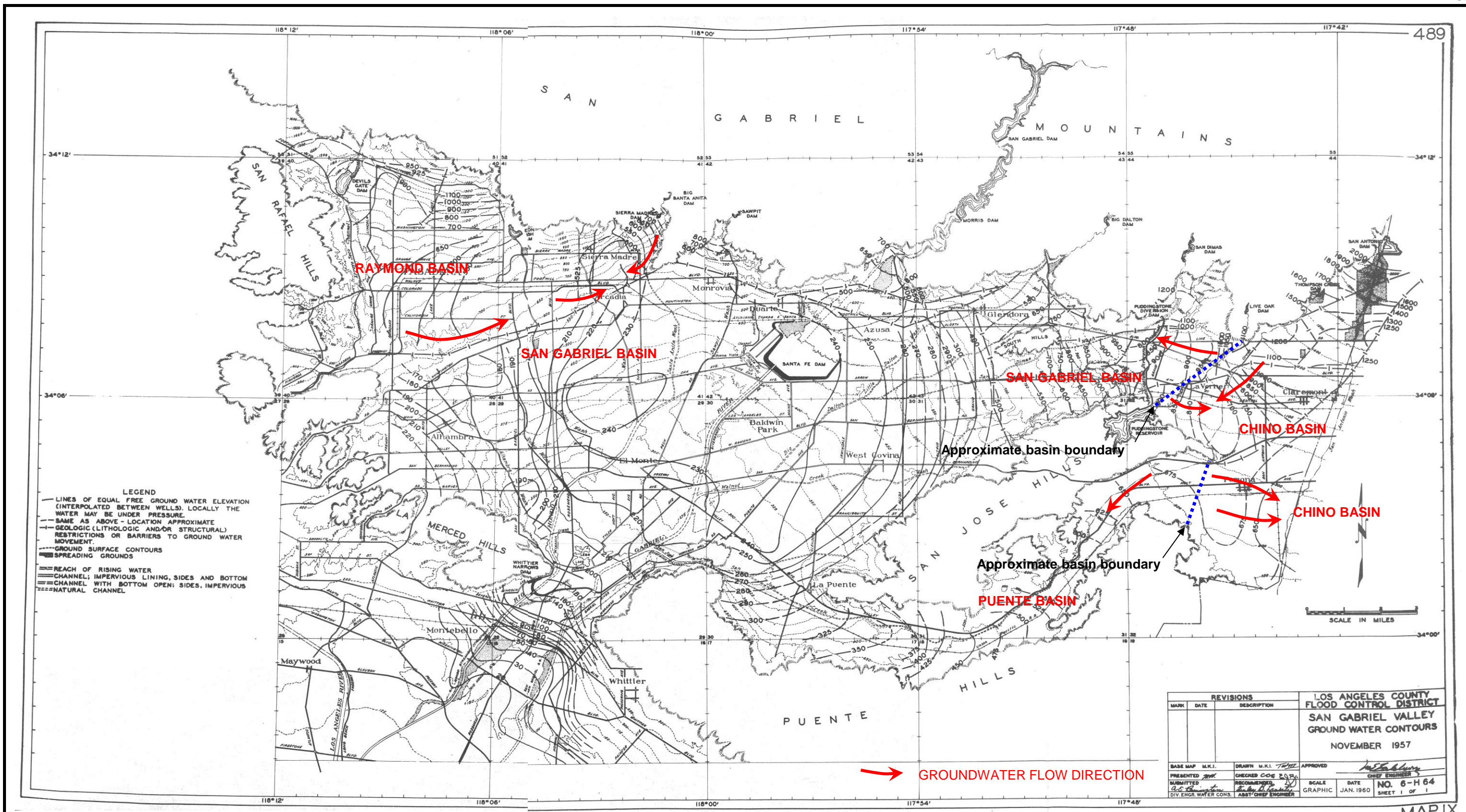


MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER MOVEMENT AFFECTED BY GROUNDWATER CASCADING ACROSS DUARTE FAULT



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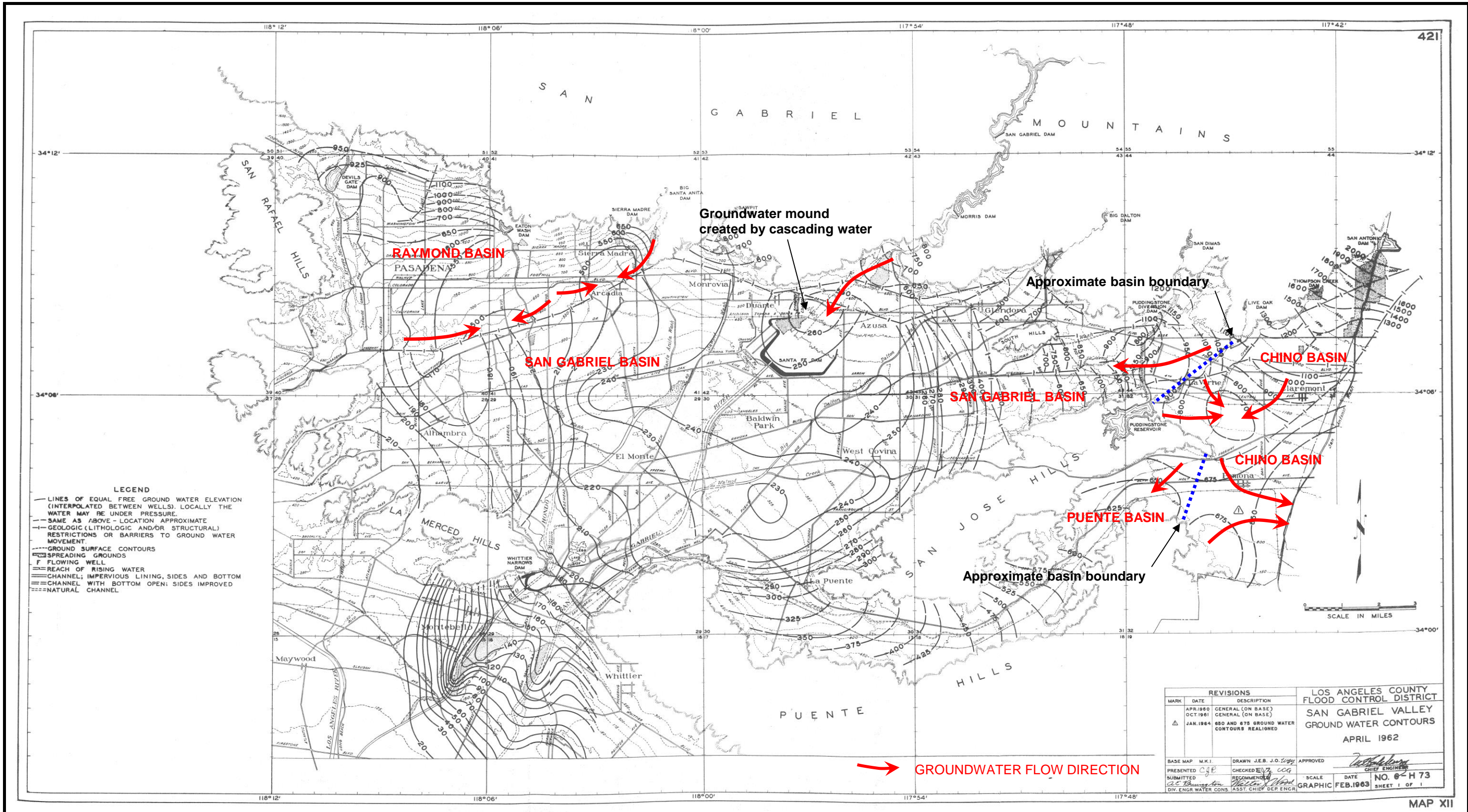
REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT	
MARK	DATE	DESCRIPTION	SAN GABRIEL VALLEY GROUND WATER CONTOURS	
			NOVEMBER 1957	
BASE MAP	M.K.I.	DRAWN M.K.I.	APPROVED	<i>[Signature]</i> CHIEF ENGINEER
PRESENTED	<i>[Signature]</i>	CHECKED C.O.E.	SCALE	DATE
REVISIONS	<i>[Signature]</i>	RECOMMENDED	GRAPHIC	JAN. 1960
DIV. ENGR. WATER CONS.		ASST. CHIEF ENGINEER		NO. 6-H 64 SHEET 1 OF 1

MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER CONTOURS FOR NOVEMBER 1957 PREPARED BY LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS



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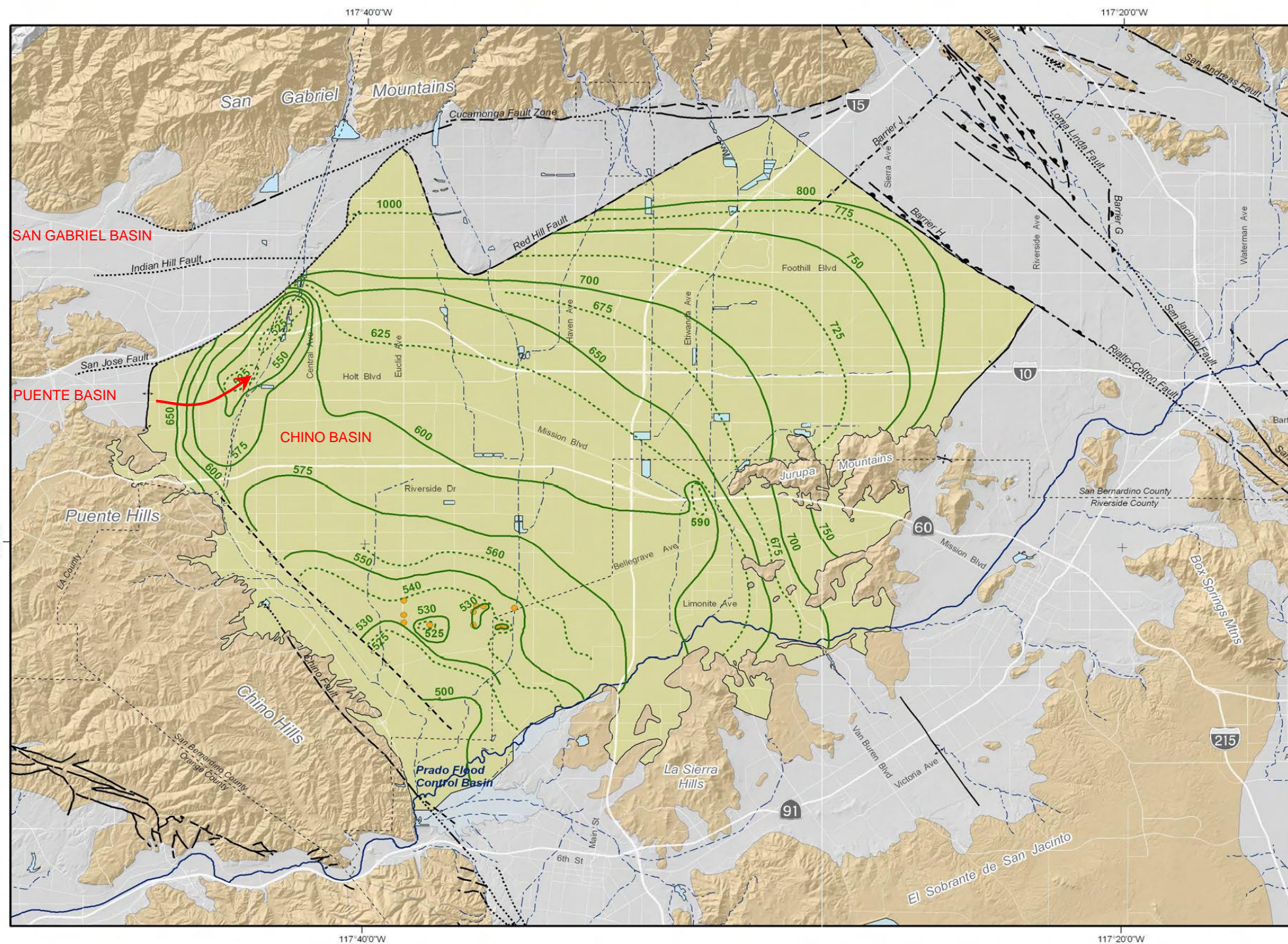


MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER CONTOURS FOR APRIL 1962 PREPARED BY LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS



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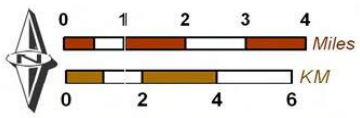


- Main Features**
- 800 Groundwater Elevation Contours (feet above mean sea-level)
 - 775 Groundwater Elevation Contours (feet above mean sea-level)
 - Chino-I Desalter Well
 - Chino Basin Hydrologic Boundary
- Geology**
- Water-Bearing Sediments**
- Quaternary Alluvium
- Consolidated Bedrock**
- Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks
- Faults & Groundwater Divides**
- Location Certain
 - Location Approximate
 - Location Concealed
 - Location Uncertain
 - Groundwater Divide



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Author: KD
 Date: 20050627
 File: Figure_3-6.mxd



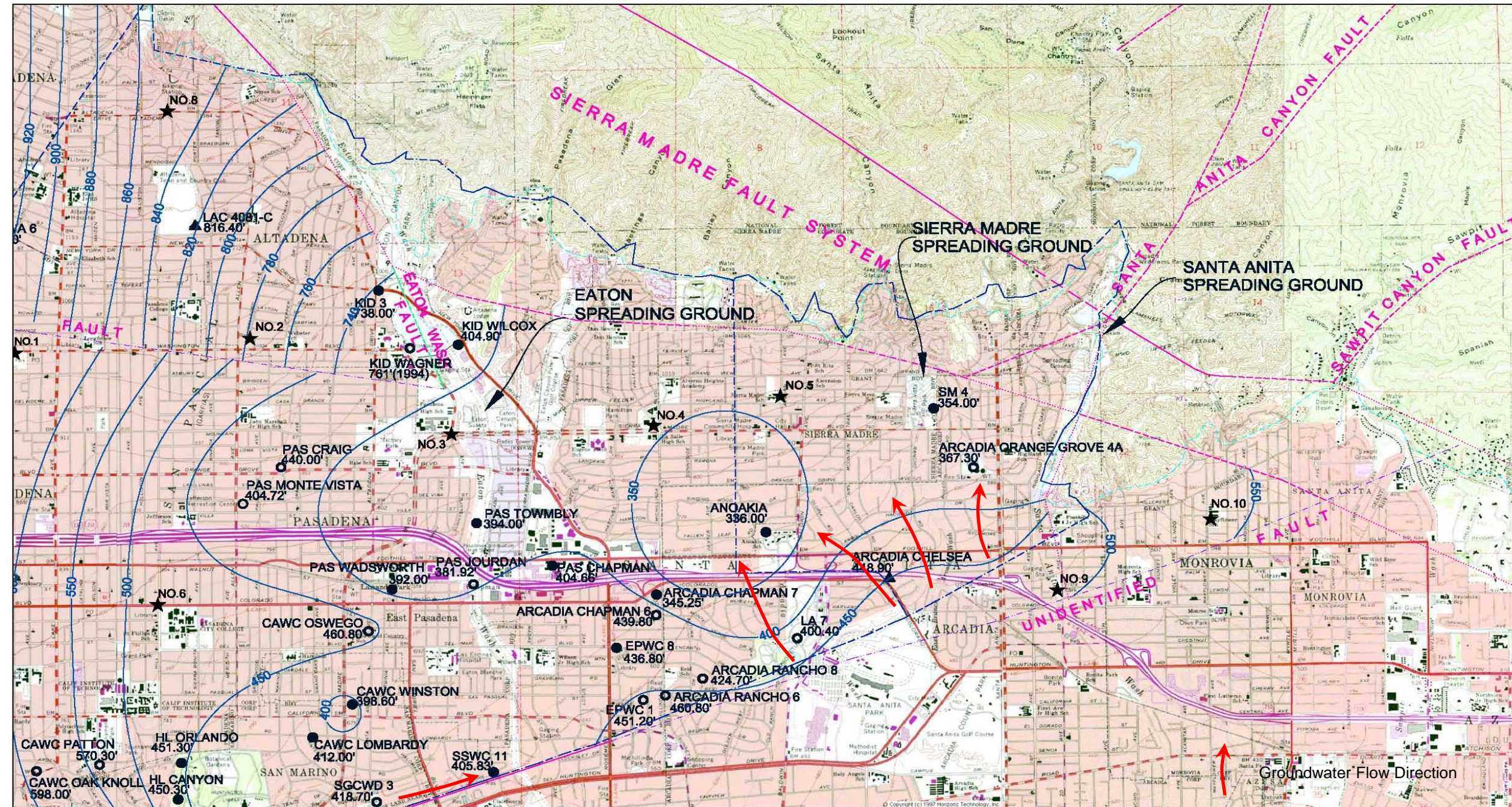
State of the Basin Report -- 2004
 Groundwater Basin Operation and Response

Groundwater Elevation Contours
 Fall 2003 -- Chino Basin
Figure 3-6

MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER CONTOURS FOR CHINO BASIN - FALL 2003

STETSON ENGINEERS INC.
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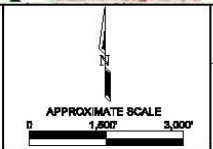


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 FAX: (626) 331-7086

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2801 W Guadalupe Rd., Suite A202
 Mesa, Arizona 85202

STETSON ENGINEERS INC.



RAYMOND BASIN MANAGEMENT BOARD

GROUNDWATER MONITORING AND MANAGEMENT PLAN - PHASE I
OCTOBER 2007 GROUNDWATER CONTOUR SNAP-SHOT
PRELIMINARY GROUNDWATER ELEVATION MONITORING NETWORK

JOB:162706/monitornet/monitornet/Network/PLATE_III.18d.DWG
 JOB:1627-06/23/07

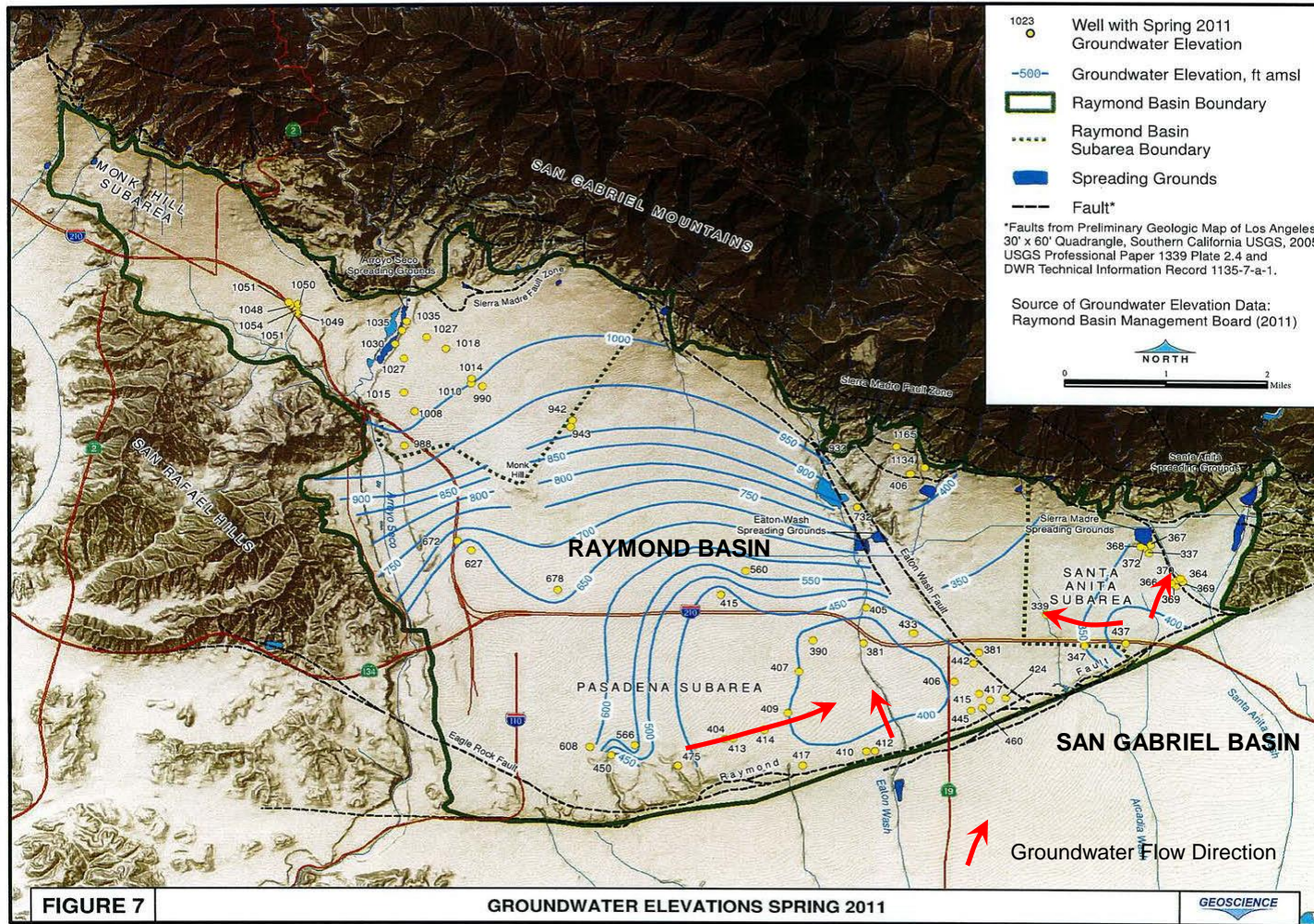
PLATE 2

MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER CONTOURS FOR RAYMOND BASIN - OCTOBER 2007



STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS



Source: Annual Report July 1, 2010 - June 30, 2011. Raymond Basin Management Board. September 2011.



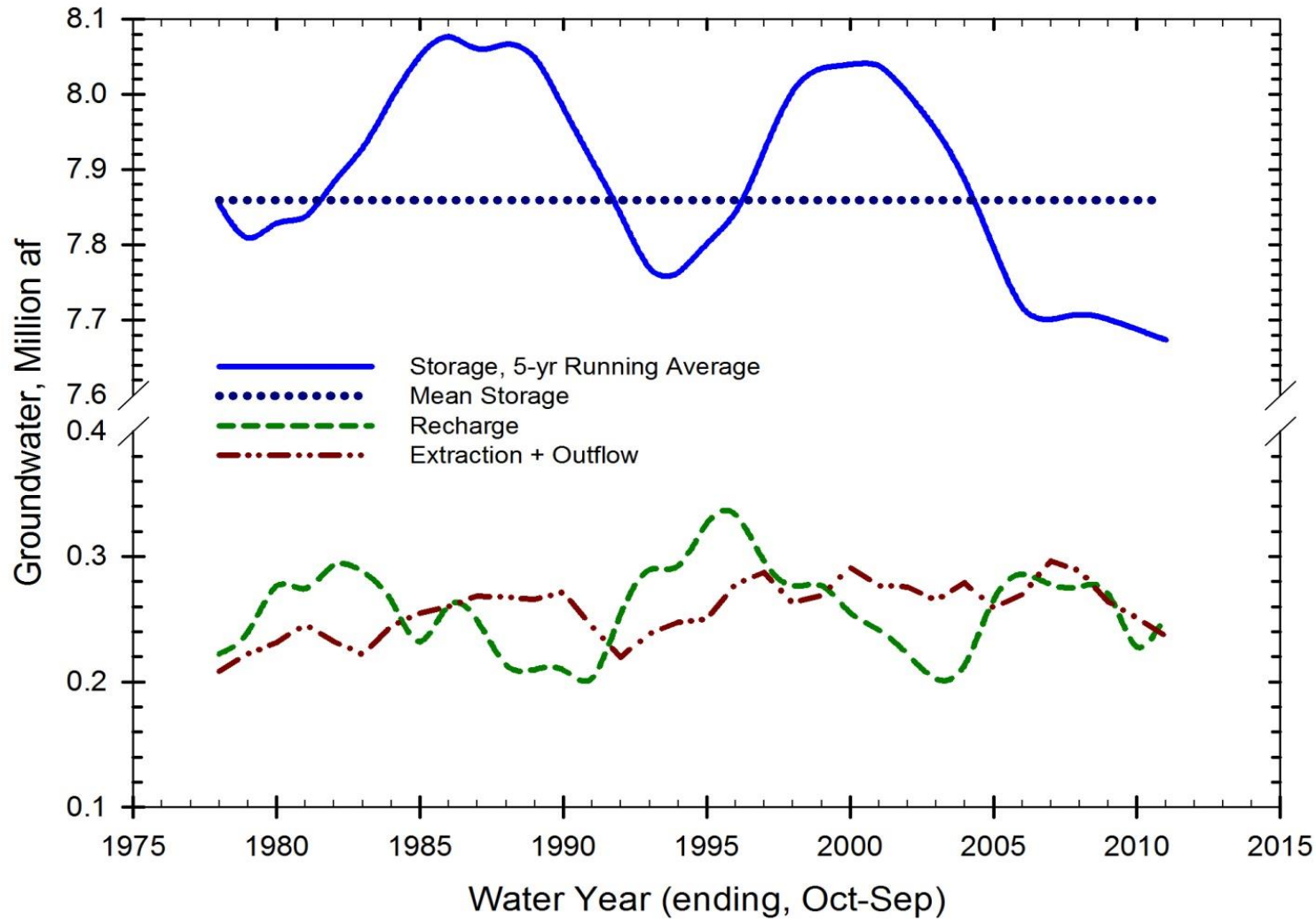
STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER CONTOURS FOR RAYMOND BASIN - SPRING 2011

PLATE III.18e

Groundwater Trends, Main San Gabriel Basin

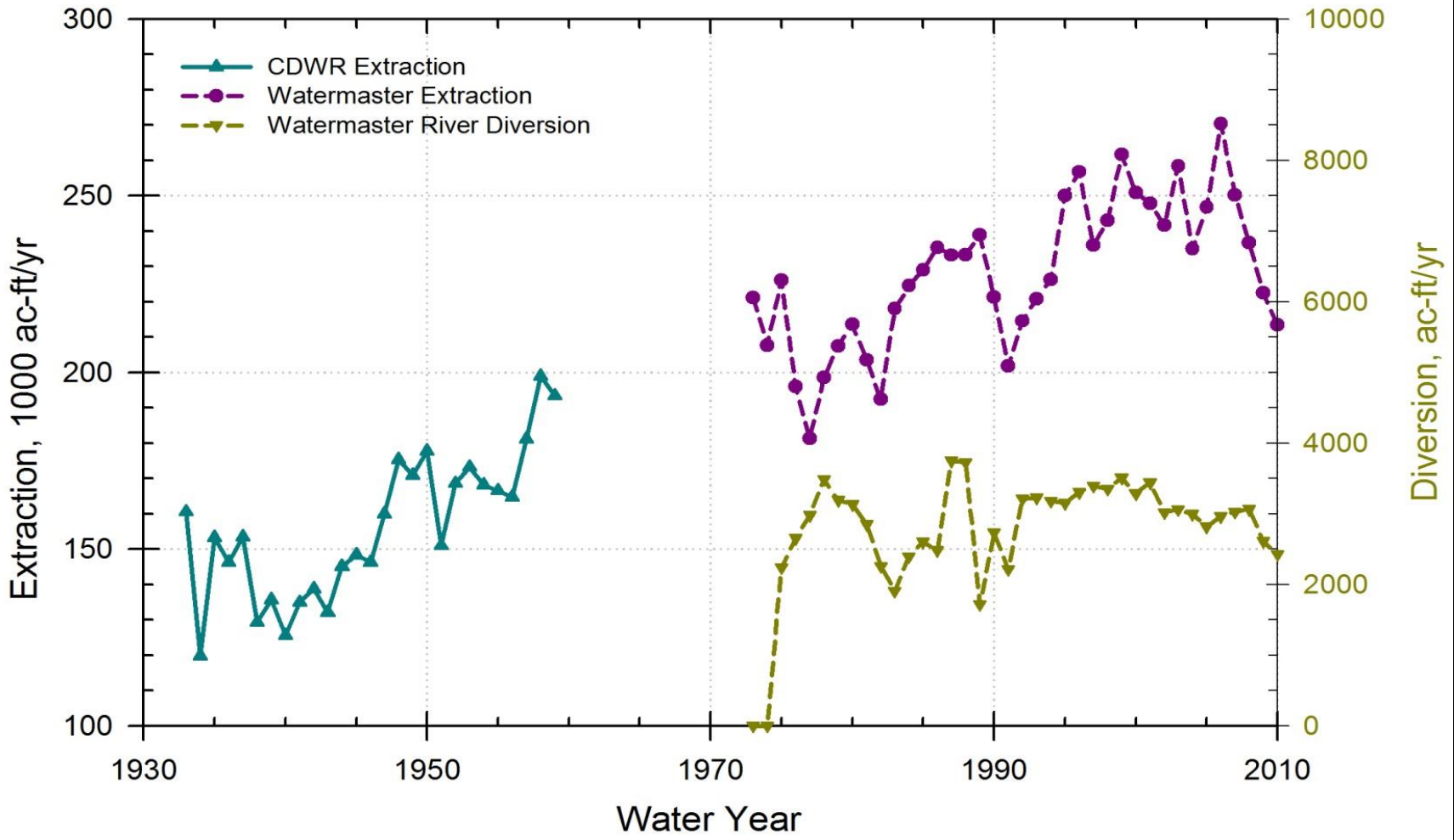


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

HISTORIC GROUNDWATER IN STORAGE IN THE SAN GABRIEL VALLEY
 ESTIMATED BY WATERMASTER

PLATE III.19

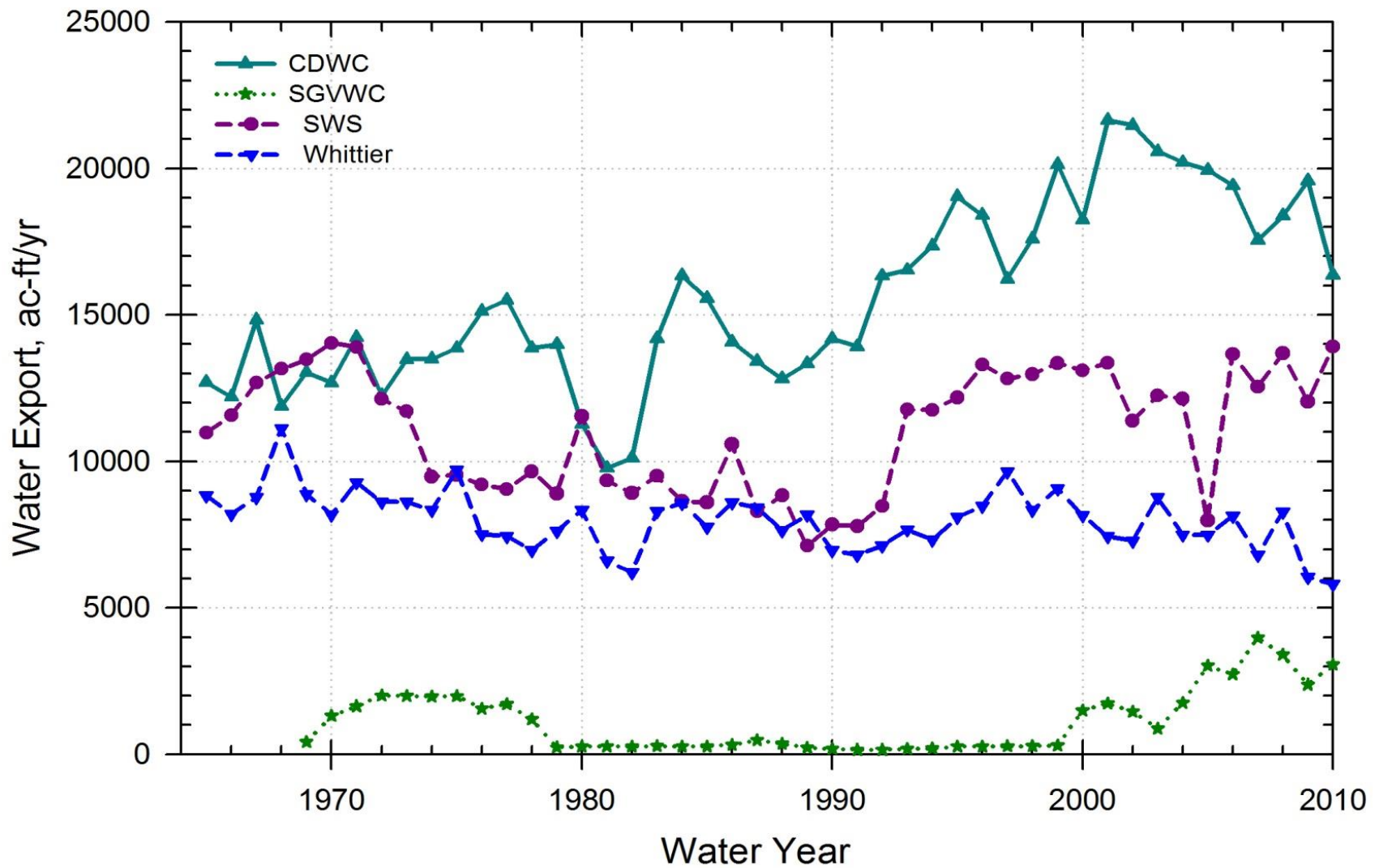


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER EXTRACTION AND SURFACE WATER DIVERSION
 IN THE SAN GABRIEL BASIN

PLATE III.20

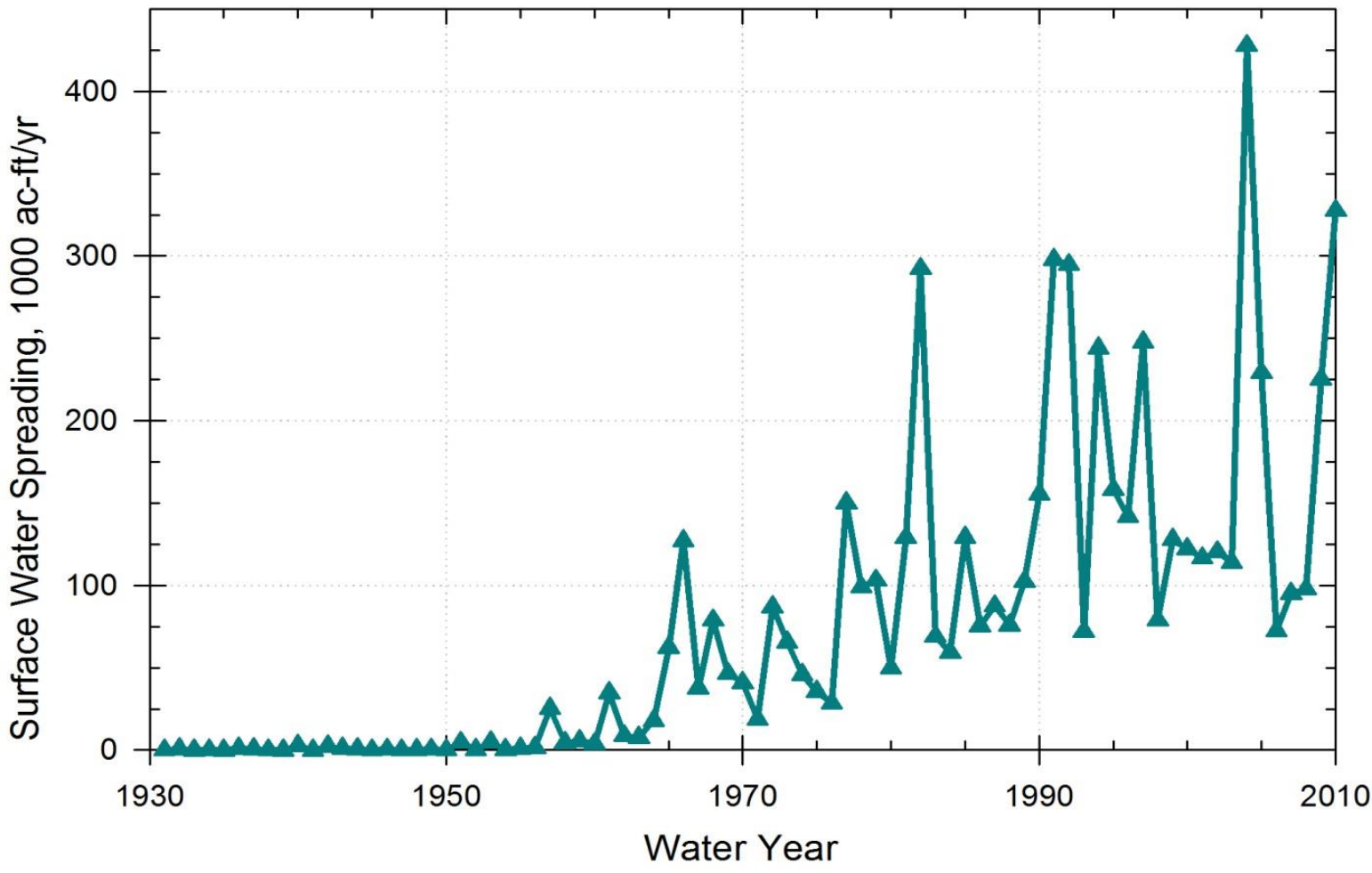


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

EXPORTED GROUNDWATER FROM THE SAN GABRIEL BASIN

PLATE III.21

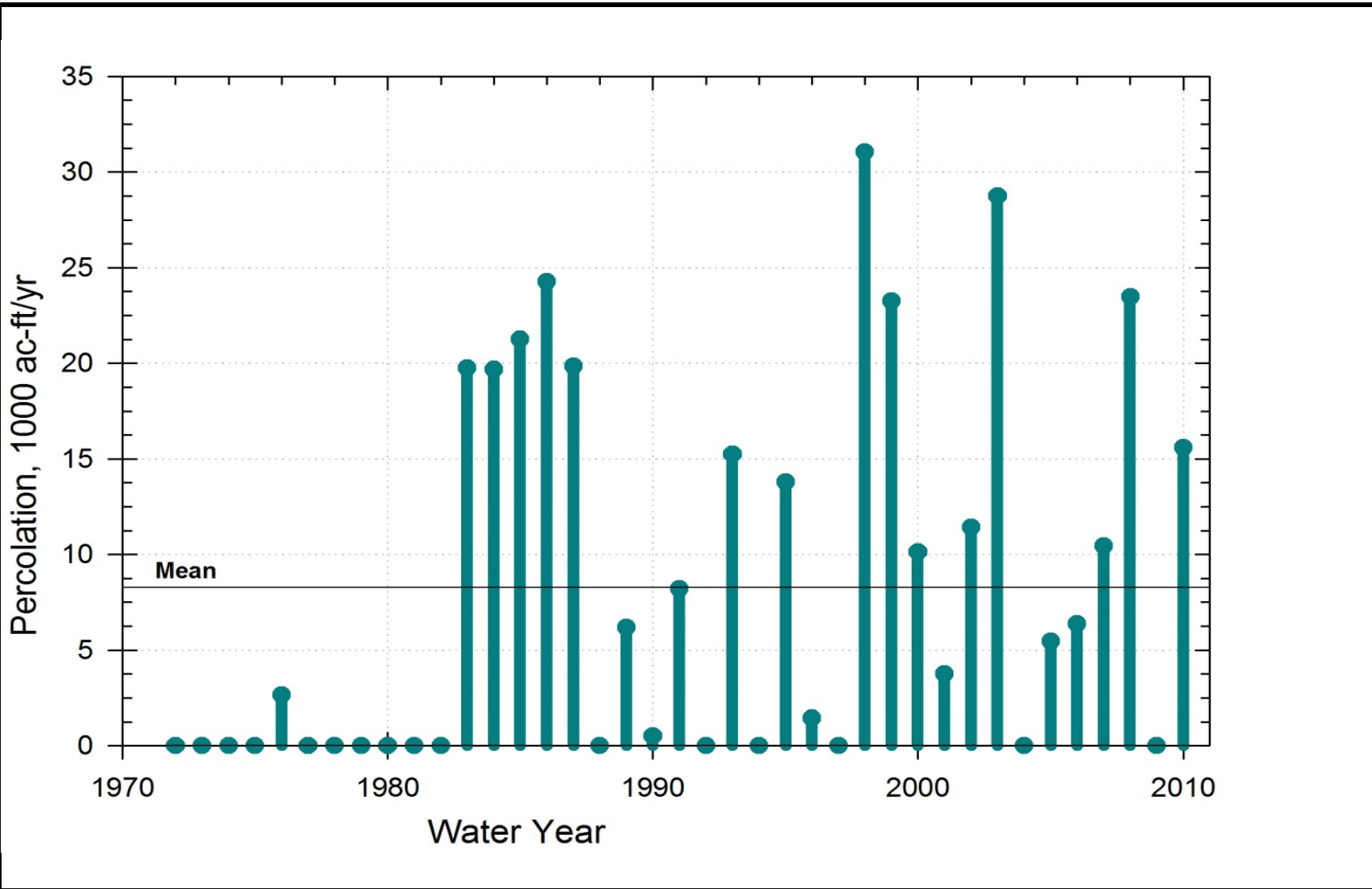


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MAIN SAN GABRIEL BASIN WATERMASTER

SURFACE WATER SPREADING IN THE SAN GABRIEL BASIN

PLATE III.22



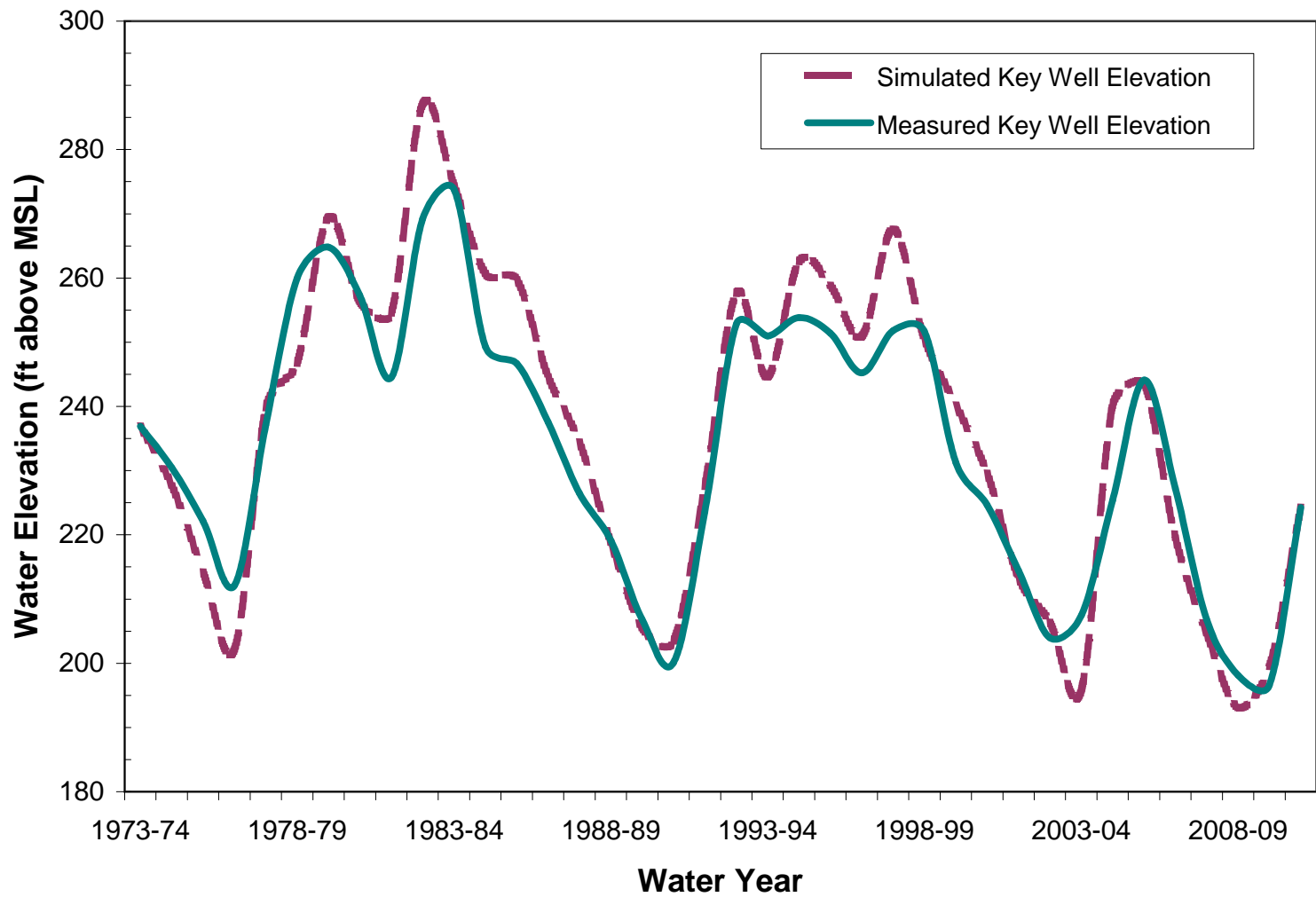
STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

INCIDENTAL PERCOLATION IN SAN GABRIEL RIVER
 SAN JOSE CREEK

AND

PLATE III.23

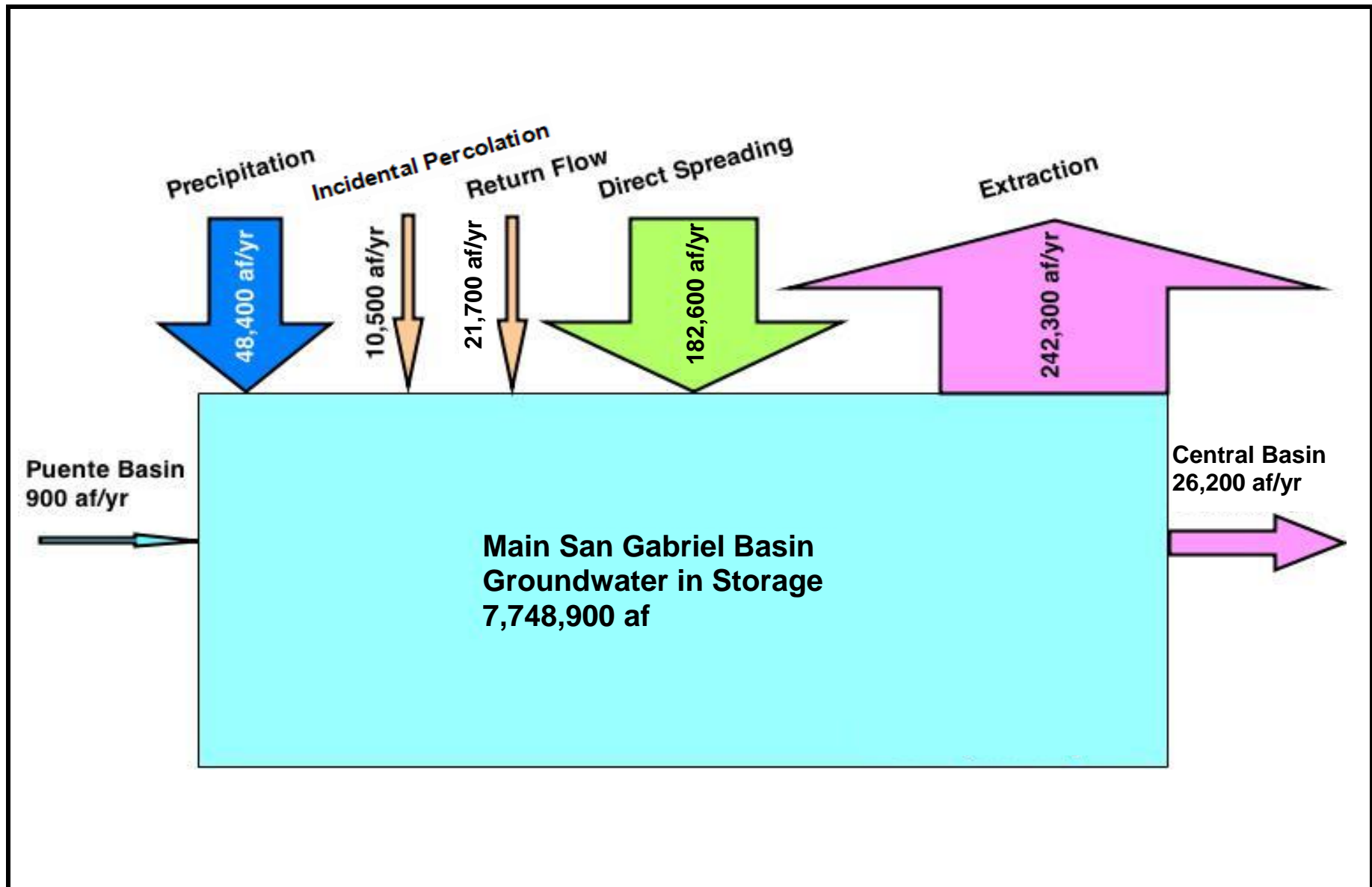


STETSON ENGINEERS INC.
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 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

OBSERVED AND SIMULATED
 GROUNDWATER ELEVATIONS AT KEY WELL

PLATE III.24


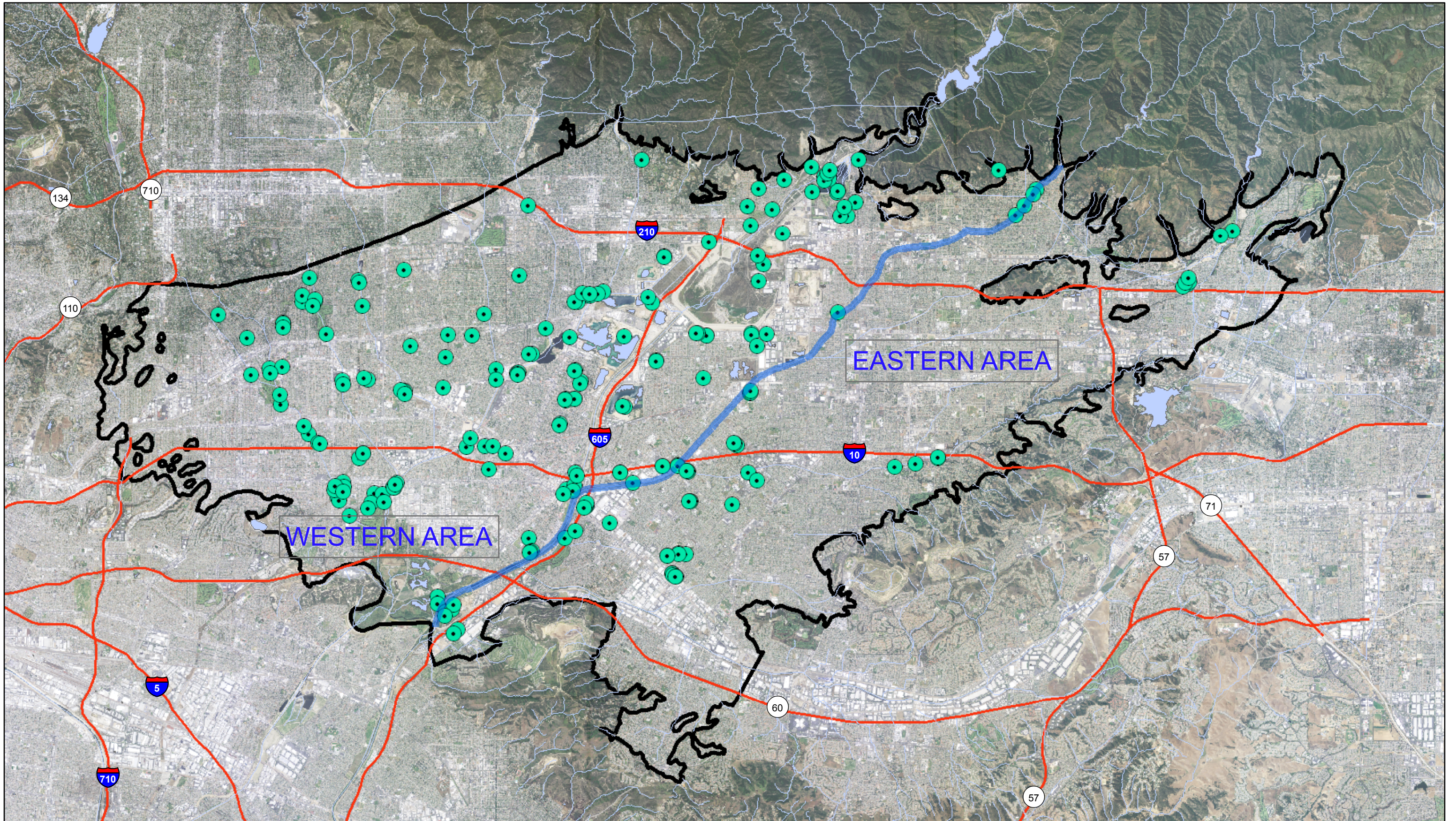


STETSON ENGINEERS INC.
West Covina San Rafael Mesa, Arizona
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MAIN SAN GABRIEL BASIN WATERMASTER

COMPONENTS OF THE BASIN SPREADSHEET GROUNDWATER BALANCE
MODEL, 2001-02 to 2010-11

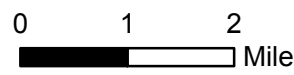
PLATE III.25



STETSON
ENGINEERS INC.



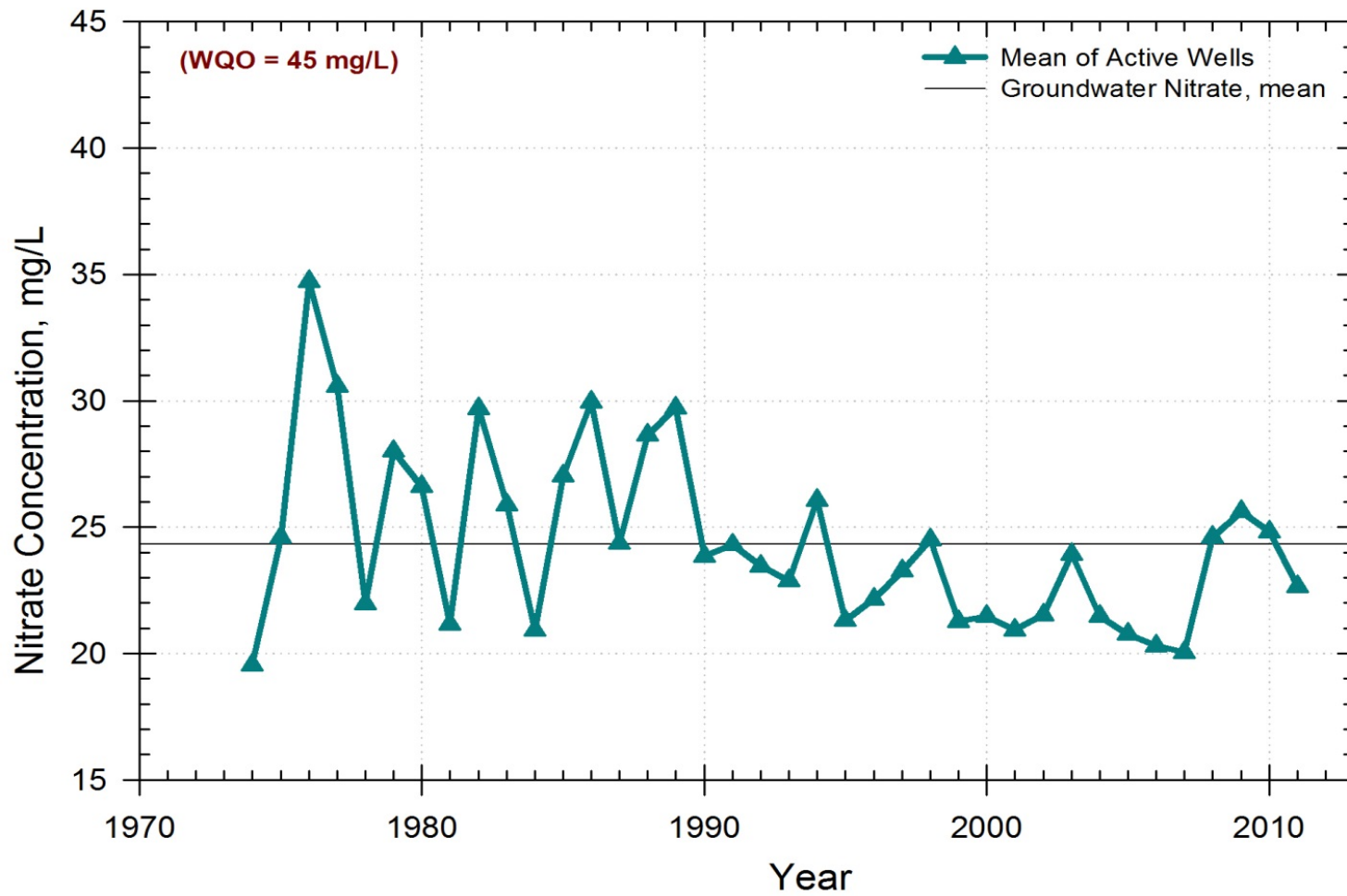
N
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Miles

MAIN SAN GABRIEL BASIN WATERMASTER

PRODUCTION WELLS IN THE MAIN SAN GABRIEL BASIN
(EASTERN AND WESTERN AREAS)

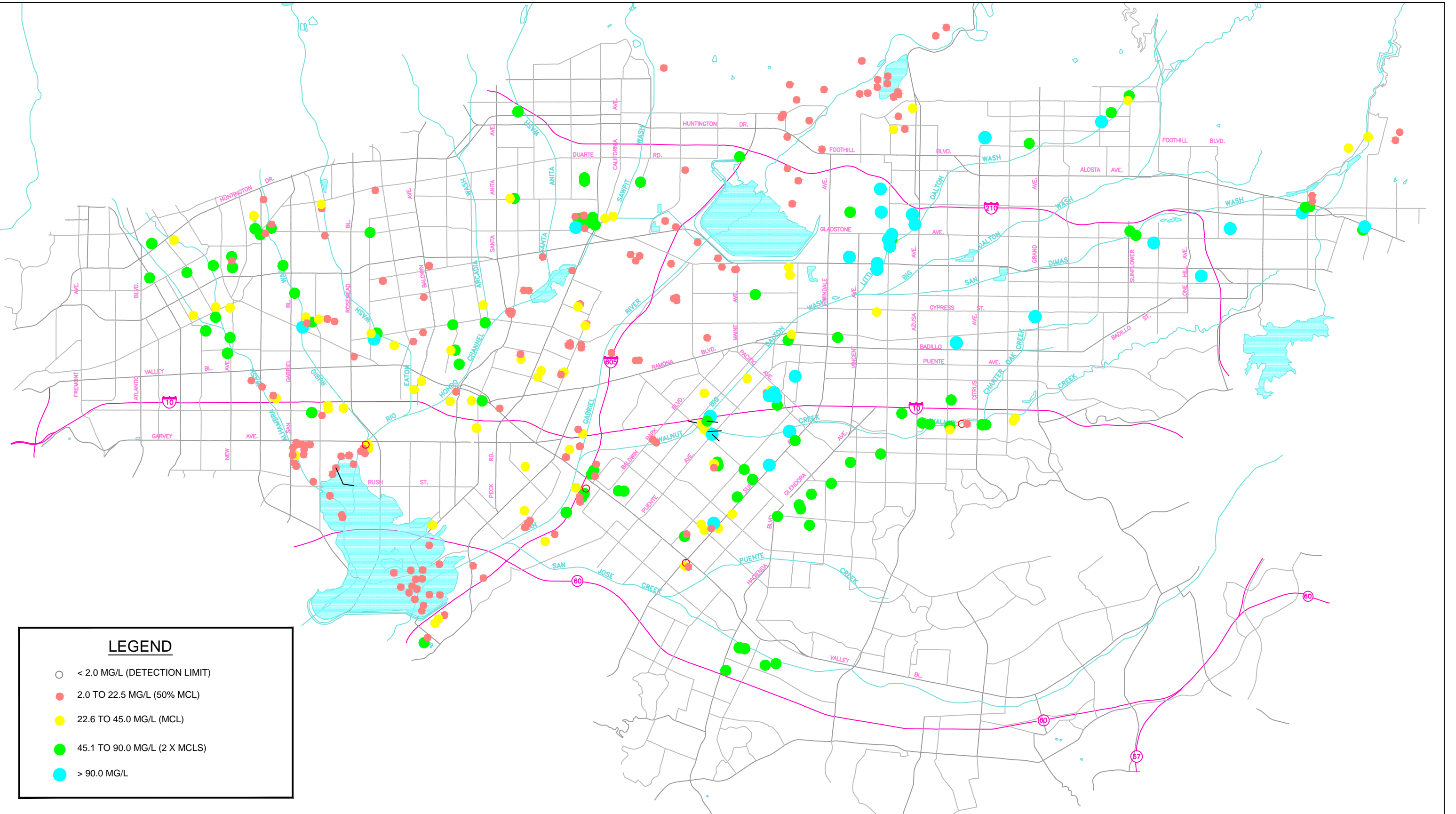


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

AVERAGE NITRATE CONCENTRATION OF SAN GABRIEL BASIN ACTIVE WELLS, (FROM APPENDIX K)

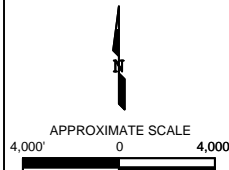
PLATE III.27a



LEGEND

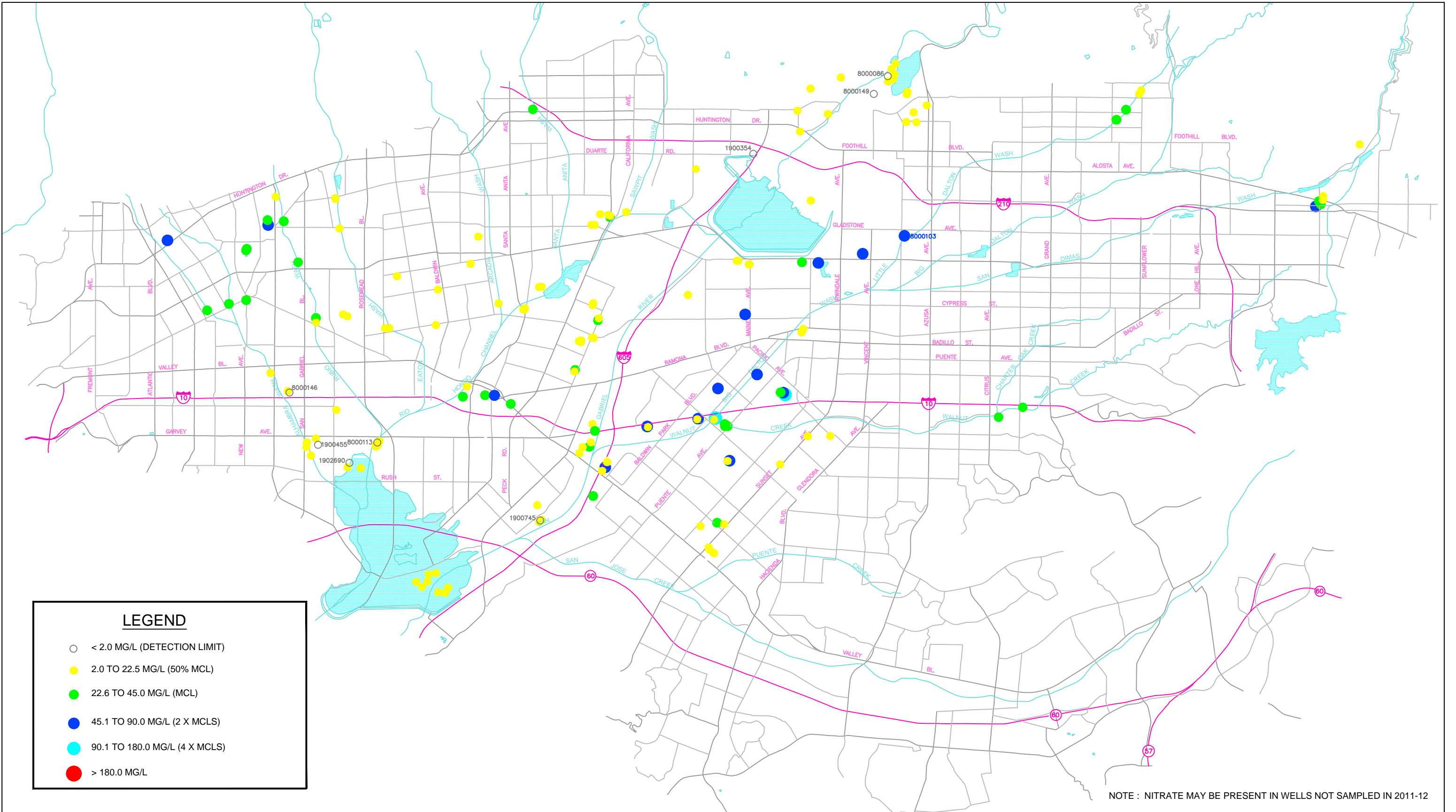
- < 2.0 MG/L (DETECTION LIMIT)
- 2.0 TO 22.5 MG/L (50% MCL)
- 22.6 TO 45.0 MG/L (MCL)
- 45.1 TO 90.0 MG/L (2 X MCLS)
- > 90.0 MG/L


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 2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



MAIN SAN GABRIEL BASIN WATERMASTER

NITRATE CONCENTRATION IN PRODUCTION WELLS - HISTORICAL HIGH



LEGEND

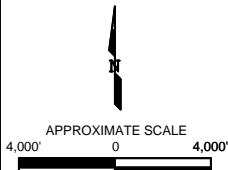
- < 2.0 MG/L (DETECTION LIMIT)
- 2.0 TO 22.5 MG/L (50% MCL)
- 22.6 TO 45.0 MG/L (MCL)
- 45.1 TO 90.0 MG/L (2 X MCLS)
- 90.1 TO 180.0 MG/L (4 X MCLS)
- > 180.0 MG/L

NOTE : NITRATE MAY BE PRESENT IN WELLS NOT SAMPLED IN 2011-12

861 VILLAGE OAKS DRIVE, SUITE 100
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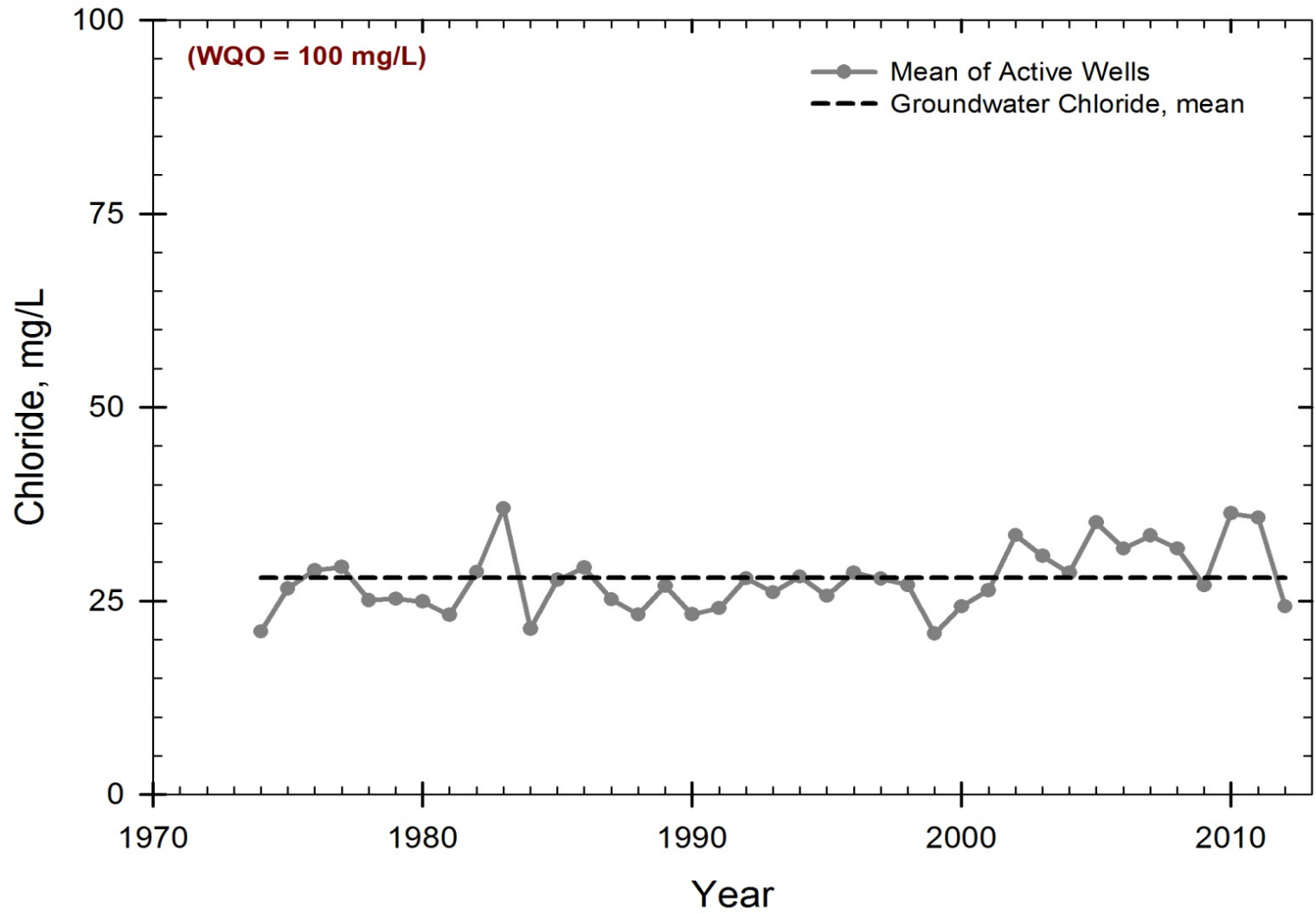
2171 E Francisco Blvd., Suite K
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2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



MAIN SAN GABRIEL BASIN WATERMASTER

NITRATE DETECTED IN PRODUCTION WELLS - FISCAL YEAR 2011-12

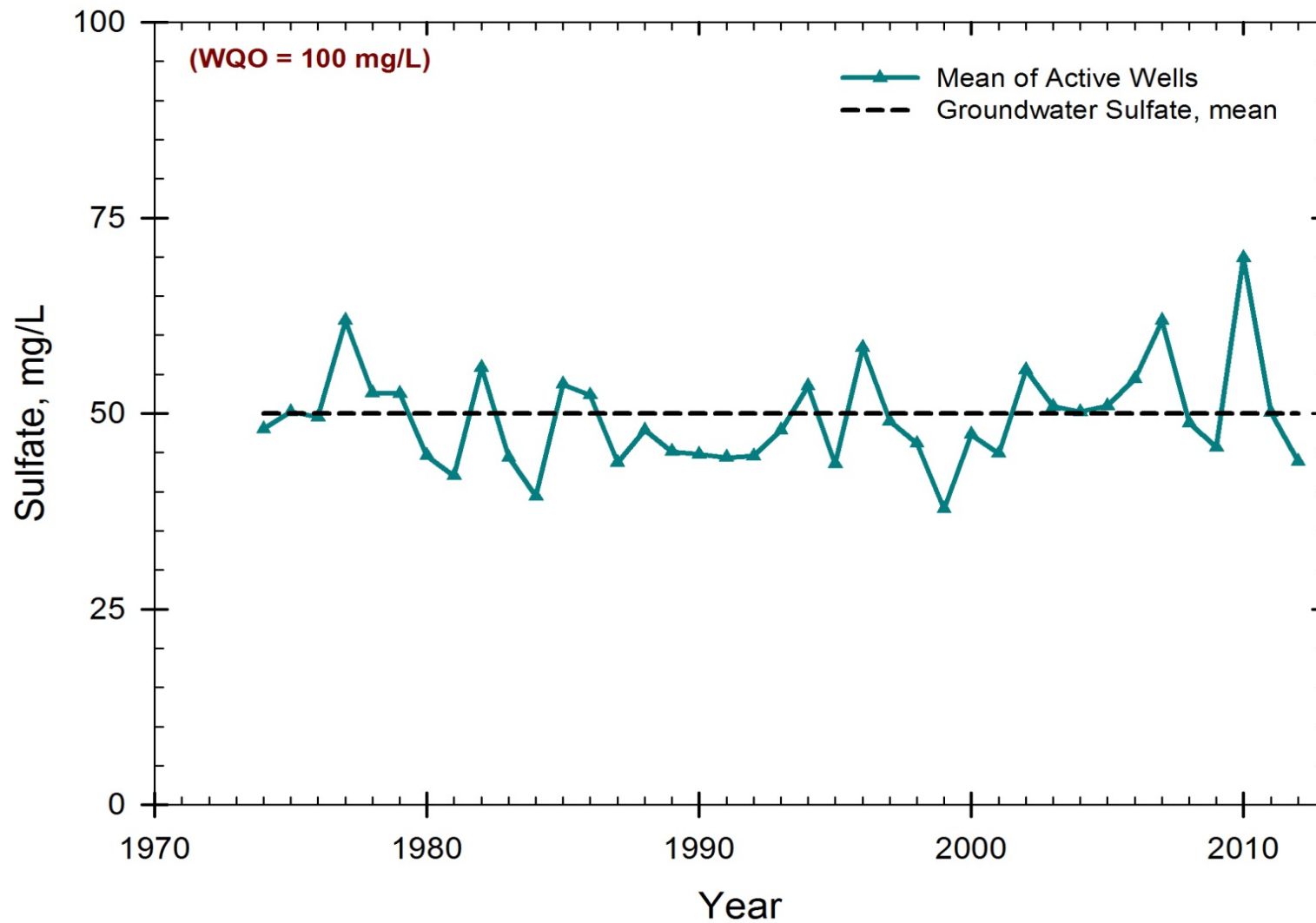


STETSON ENGINEERS INC.
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MAIN SAN GABRIEL BASIN WATERMASTER

AVERAGE CHLORIDE CONCENTRATION OF SAN GABRIEL BASIN ACTIVE WELLS

PLATE III.28

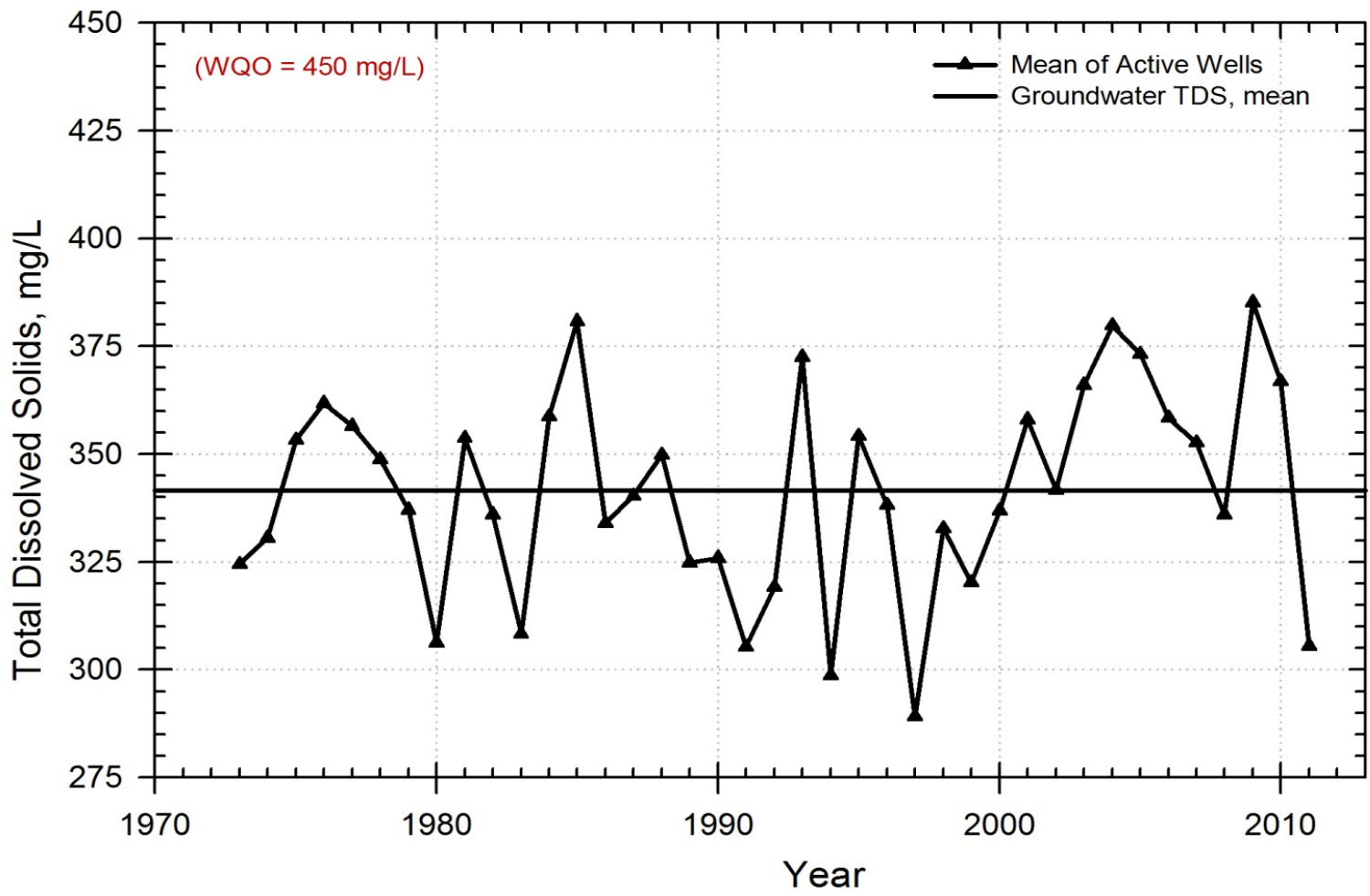


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

AVERAGE SULFATE CONCENTRATION OF SAN GABRIEL BASIN ACTIVE WELLS

PLATE III.29

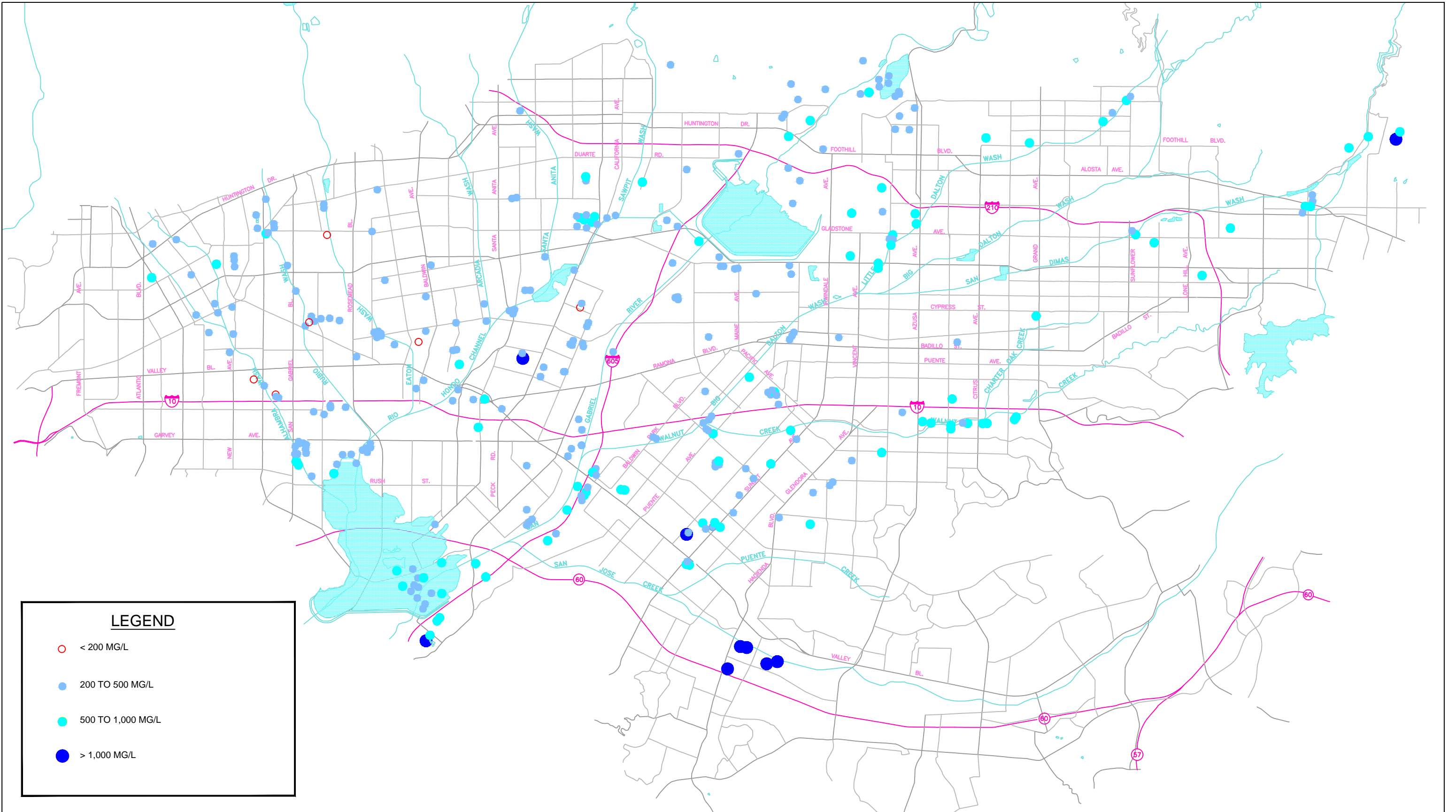


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

**AVERAGE TOTAL DISSOLVED SOLIDS CONCENTRATION OF SAN GABRIEL
 BASIN ACTIVE WELLS**

PLATE III.30a



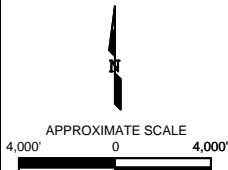
LEGEND

- < 200 MG/L
- 200 TO 500 MG/L
- 500 TO 1,000 MG/L
- > 1,000 MG/L

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 861 VILLAGE OAKS DRIVE, SUITE 100
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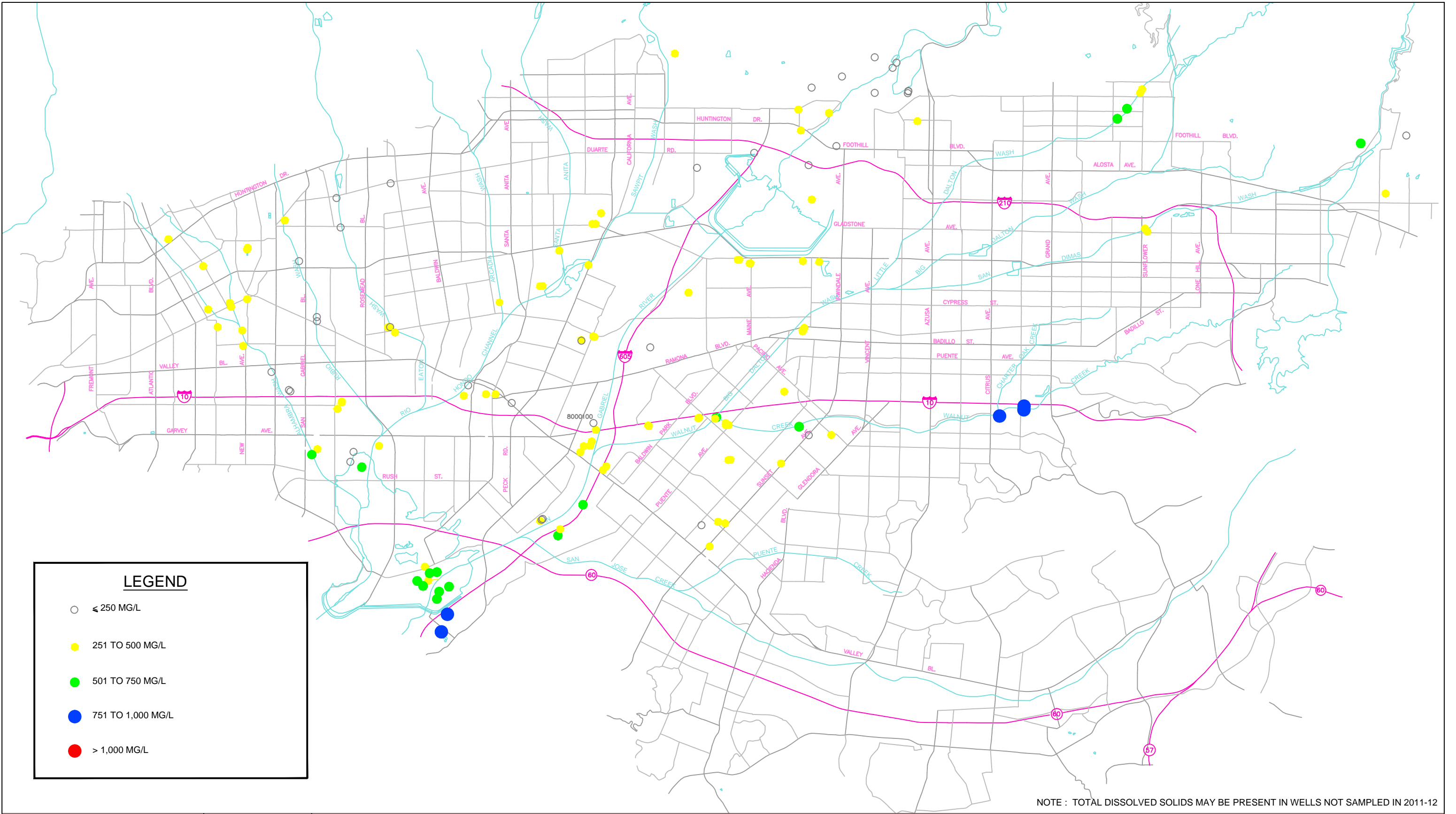
2171 E Francisco Blvd., Suite K
 San Rafael California 94901

2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



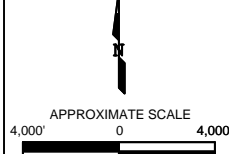
MAIN SAN GABRIEL BASIN WATERMASTER

TOTAL DISSOLVED SOLIDS CONCENTRATION IN PRODUCTION WELLS - HISTORICAL HIGH



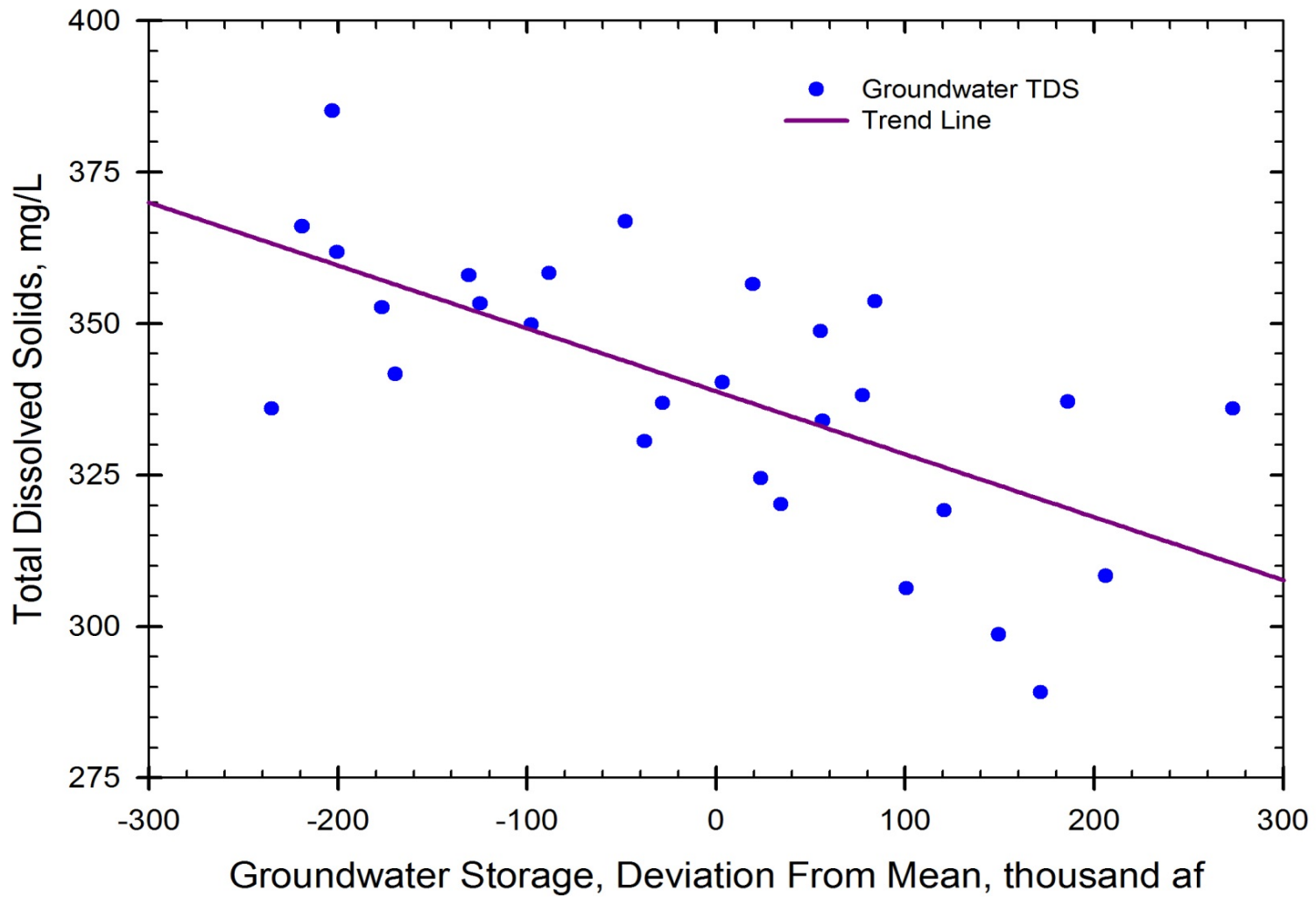
NOTE : TOTAL DISSOLVED SOLIDS MAY BE PRESENT IN WELLS NOT SAMPLED IN 2011-12


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MAIN SAN GABRIEL BASIN WATERMASTER

TOTAL DISSOLVED SOLIDS CONCENTRATION IN PRODUCTION WELLS - FISCAL YEAR 2011-12

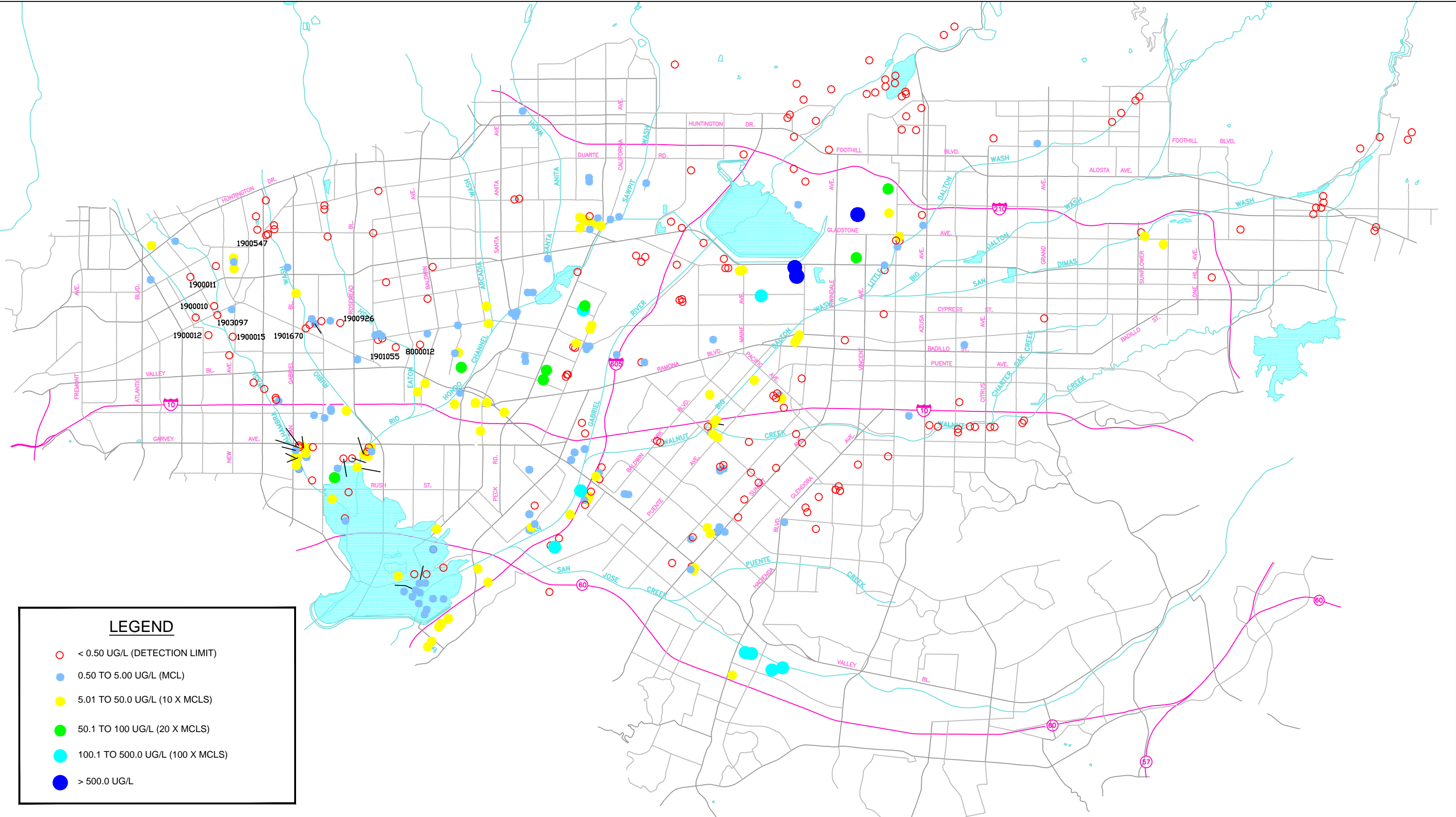


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
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MAIN SAN GABRIEL BASIN WATERMASTER

TOTAL DISSOLVED SOLIDS CONCENTRATION IN GROUNDWATER AND
 GROUNDWATER STORAGE DEVIATION IN SAN GABRIEL BASIN, 1973-74 to
 2010-2011

PLATE III.304



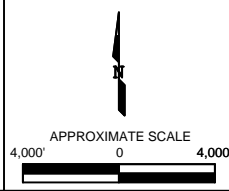
LEGEND

- < 0.50 UG/L (DETECTION LIMIT)
- 0.50 TO 5.00 UG/L (MCL)
- 5.01 TO 50.0 UG/L (10 X MCLS)
- 50.1 TO 100 UG/L (20 X MCLS)
- 100.1 TO 500.0 UG/L (100 X MCLS)
- > 500.0 UG/L

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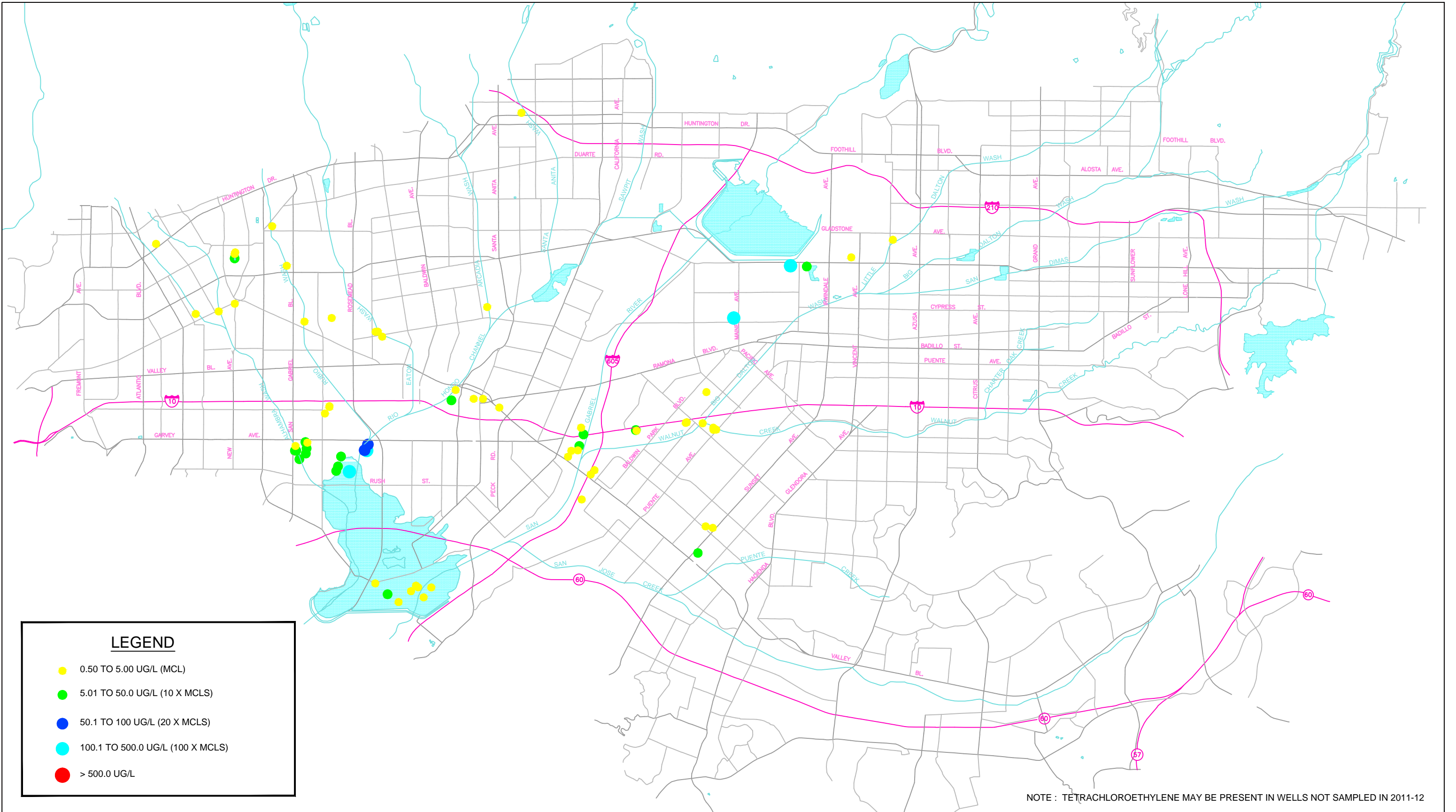
2171 E Francisco Blvd., Suite K
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 Mesa Arizona 85202



MAIN SAN GABRIEL BASIN WATERMASTER

TETRACHLOROETHYLENE CONCENTRATION IN PRODUCTION WELLS - HISTORICAL HIGH



NOTE : TETRACHLOROETHYLENE MAY BE PRESENT IN WELLS NOT SAMPLED IN 2011-12

LEGEND

- 0.50 TO 5.00 UG/L (MCL)
- 5.01 TO 50.0 UG/L (10 X MCLS)
- 50.1 TO 100 UG/L (20 X MCLS)
- 100.1 TO 500.0 UG/L (100 X MCLS)
- > 500.0 UG/L

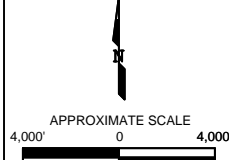
MAIN SAN GABRIEL BASIN WATERMASTER

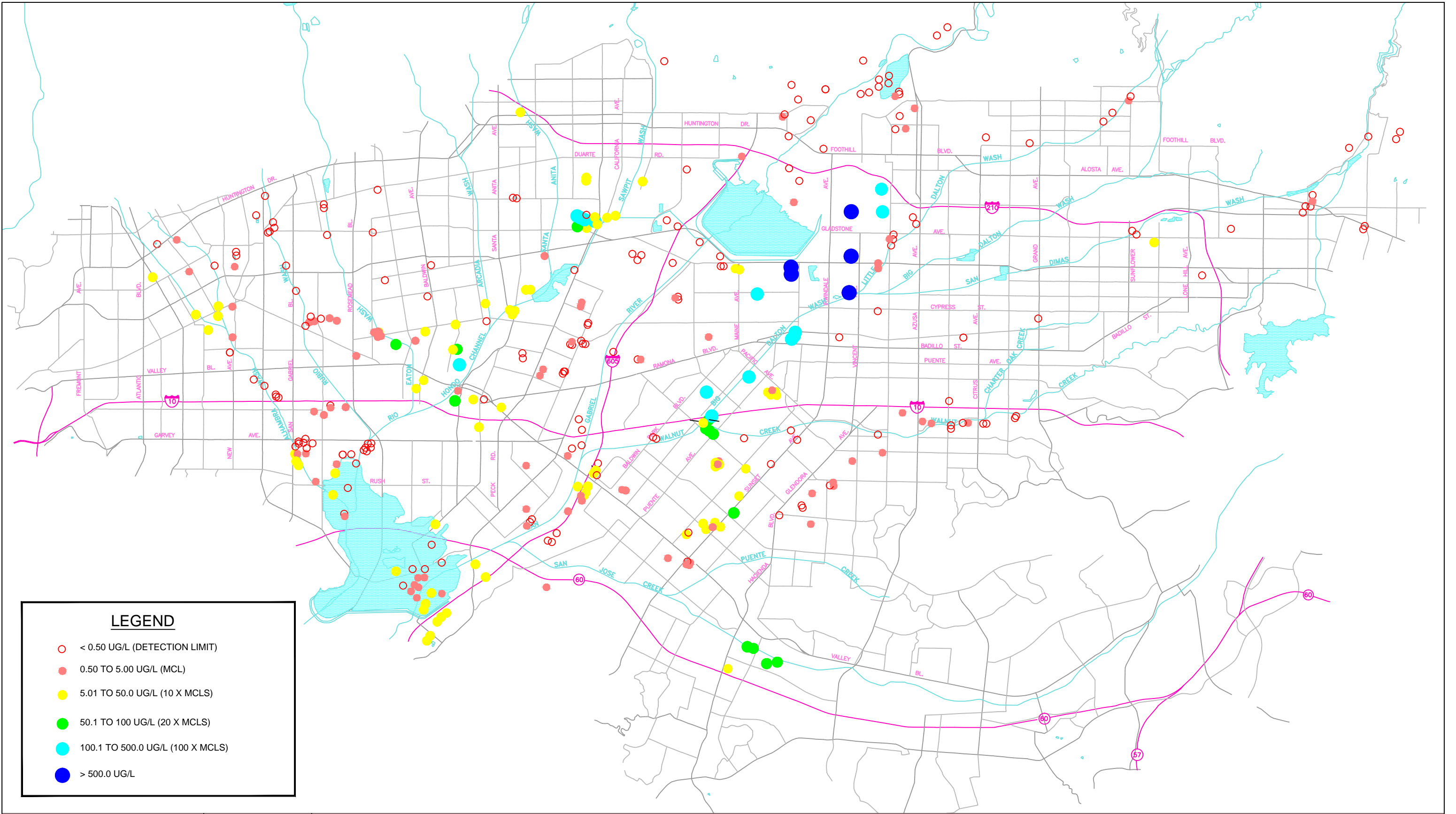
TETRACHLOROETHYLENE DETECTED IN PRODUCTION WELLS - FISCAL YEAR 2011-12

861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
 TEL: (626) 967-6202
 FAX: (626) 331-7065

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2651 W Guadalupe Rd., Suite A209
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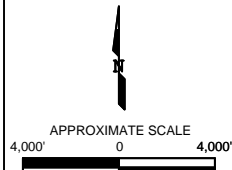
LEGEND

- < 0.50 UG/L (DETECTION LIMIT)
- 0.50 TO 5.00 UG/L (MCL)
- 5.01 TO 50.0 UG/L (10 X MCLS)
- 50.1 TO 100 UG/L (20 X MCLS)
- 100.1 TO 500.0 UG/L (100 X MCLS)
- > 500.0 UG/L

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 861 VILLAGE OAKS DRIVE, SUITE 100
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 FAX: (626) 331-7065

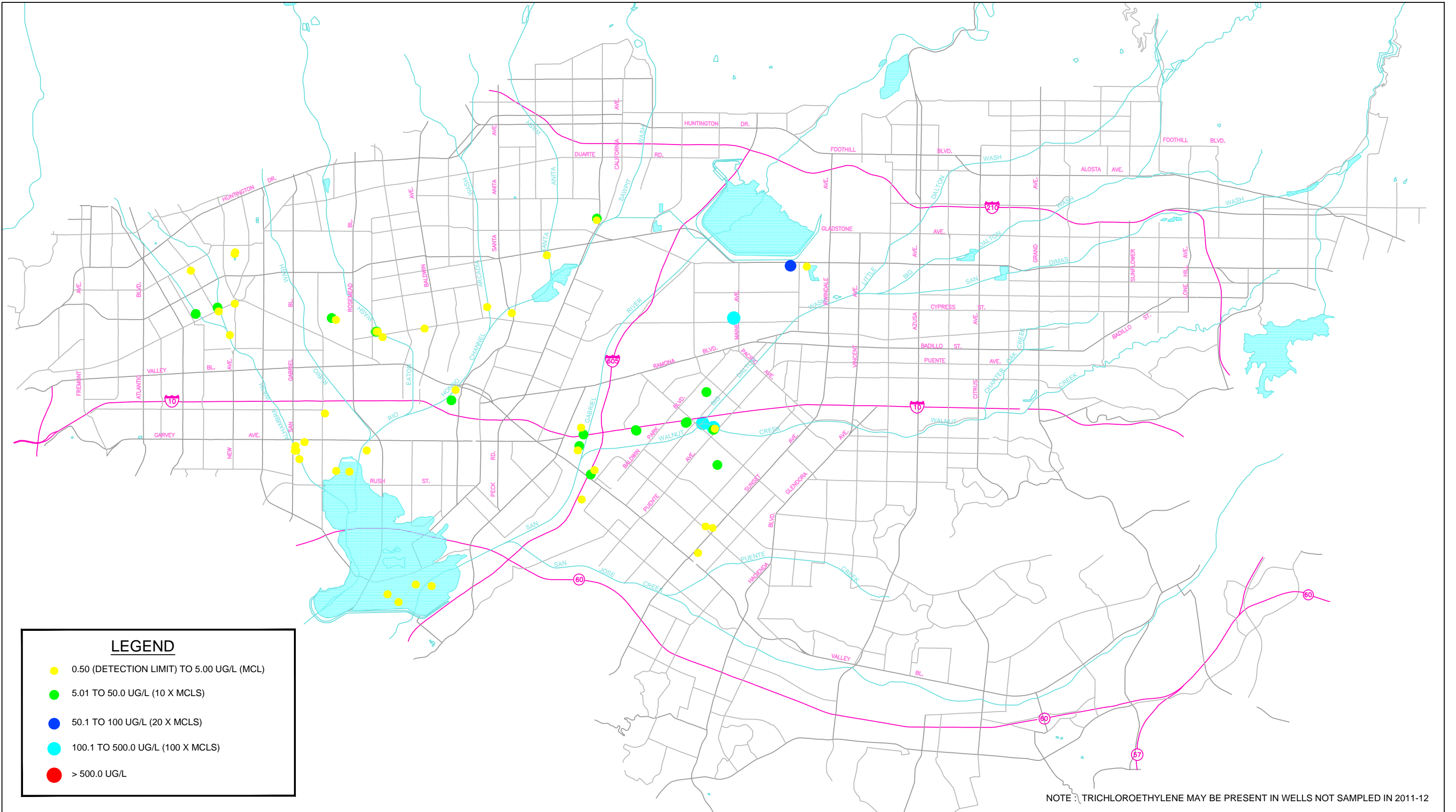
2171 E Francisco Blvd., Suite K
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 Mesa Arizona 85202



MAIN SAN GABRIEL BASIN WATERMASTER

TRICHLOROETHYLENE CONCENTRATION IN PRODUCTION WELLS - HISTORICAL HIGH



NOTE: TRICHLOROETHYLENE MAY BE PRESENT IN WELLS NOT SAMPLED IN 2011-12

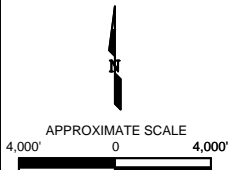
LEGEND

- 0.50 (DETECTION LIMIT) TO 5.00 UG/L (MCL)
- 5.01 TO 50.0 UG/L (10 X MCLS)
- 50.1 TO 100 UG/L (20 X MCLS)
- 100.1 TO 500.0 UG/L (100 X MCLS)
- > 500.0 UG/L

861 VILLAGE OAKS DRIVE, SUITE 100
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 FAX: (626) 331-7065

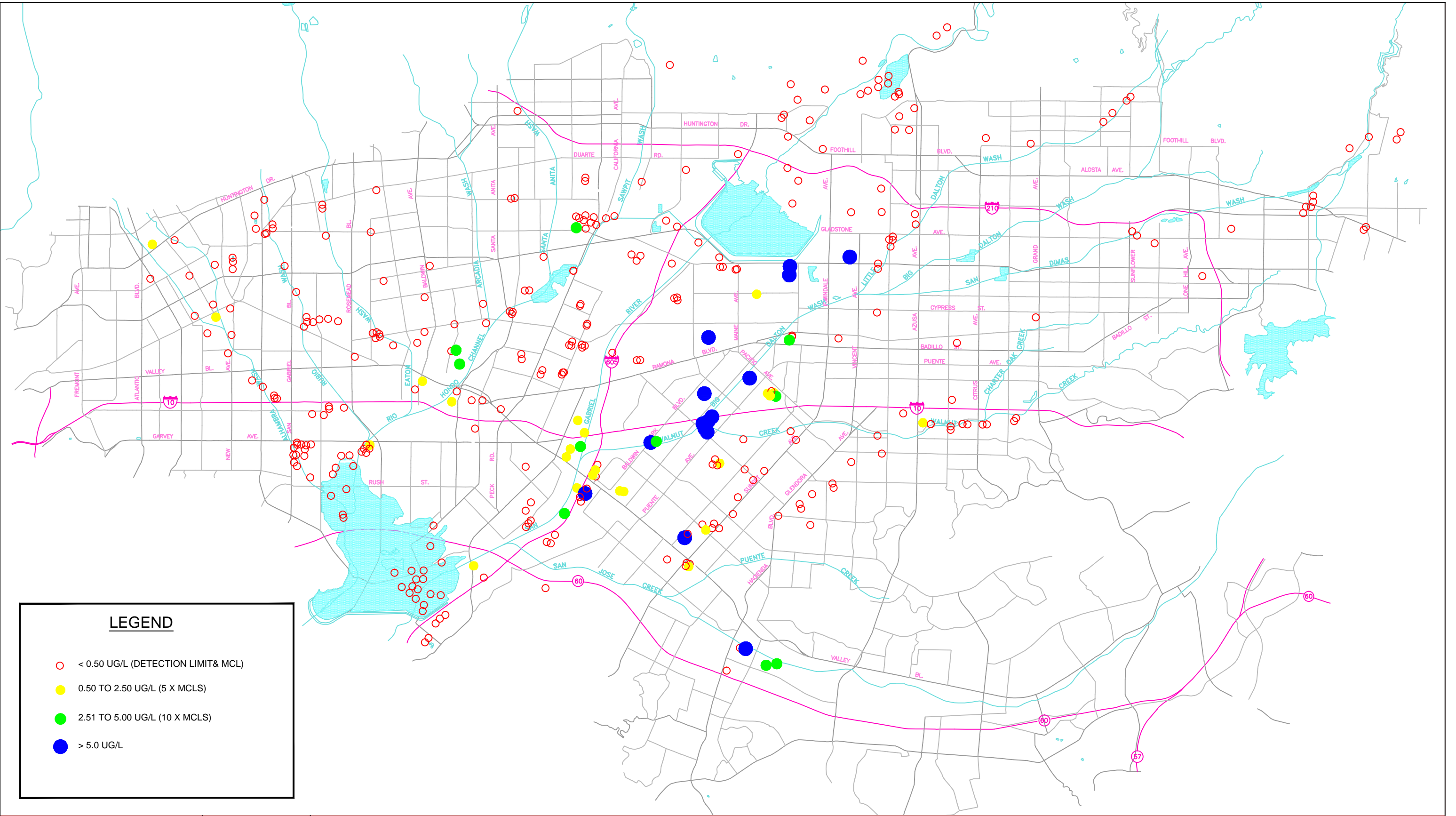
2171 E Francisco Blvd., Suite K
 San Rafael California 94901

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MAIN SAN GABRIEL BASIN WATERMASTER

TRICHLOROETHYLENE DETECTED IN PRODUCTION WELLS - FISCAL YEAR 2011-12



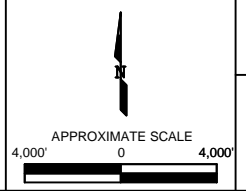
LEGEND

- < 0.50 UG/L (DETECTION LIMIT & MCL)
- 0.50 TO 2.50 UG/L (5 X MCLS)
- 2.51 TO 5.00 UG/L (10 X MCLS)
- > 5.0 UG/L

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 FAX: (626) 331-7065

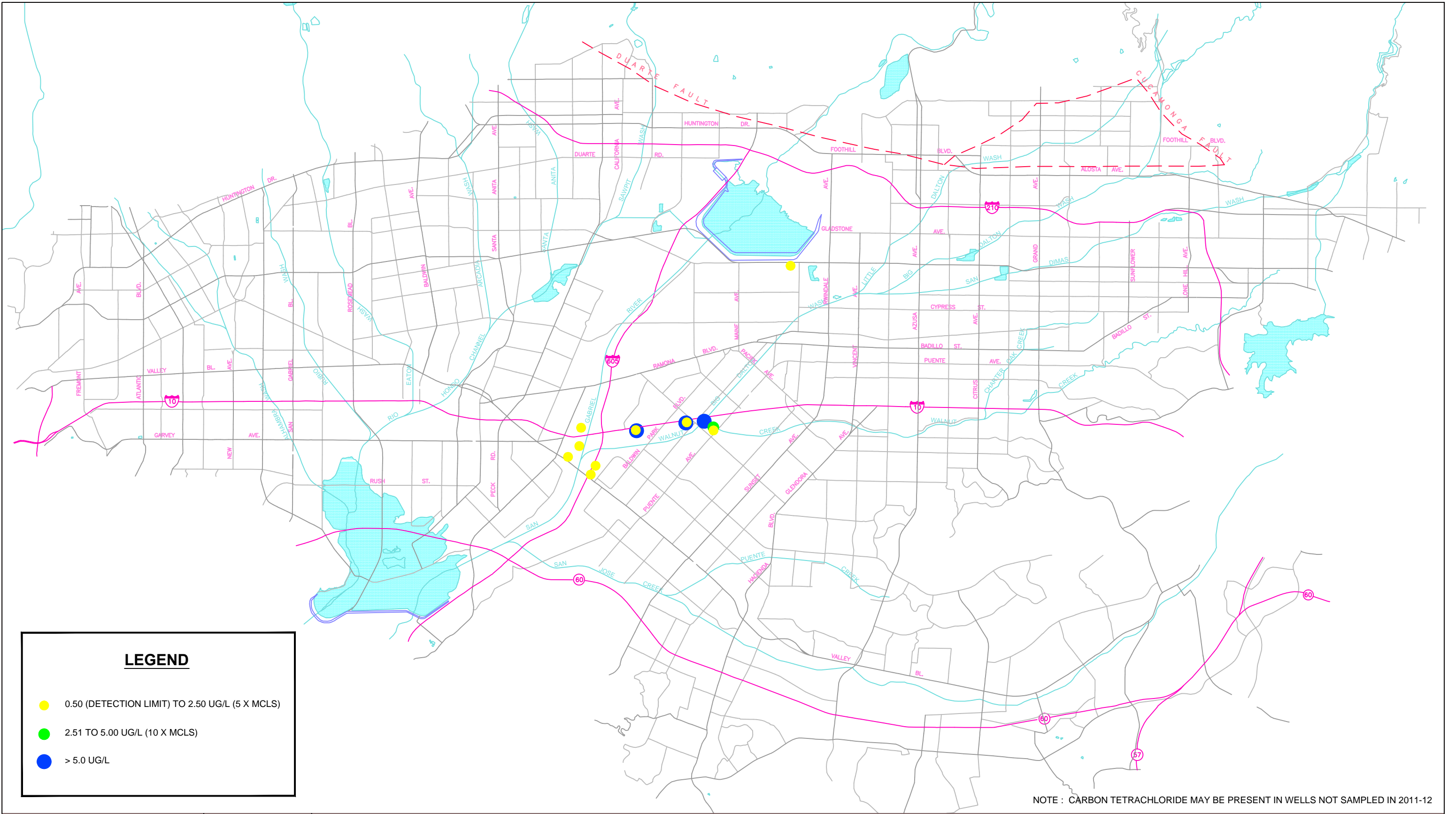
2171 E Francisco Blvd., Suite K
 San Rafael California 94901

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 Mesa Arizona 85202



MAIN SAN GABRIEL BASIN WATERMASTER

CARBON TETRACHLORIDE CONCENTRATION IN PRODUCTION WELLS - HISTORICAL HIGH



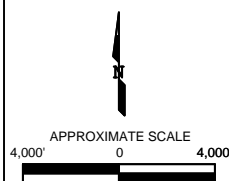
LEGEND

- 0.50 (DETECTION LIMIT) TO 2.50 UG/L (5 X MCLS)
- 2.51 TO 5.00 UG/L (10 X MCLS)
- > 5.0 UG/L

NOTE : CARBON TETRACHLORIDE MAY BE PRESENT IN WELLS NOT SAMPLED IN 2011-12

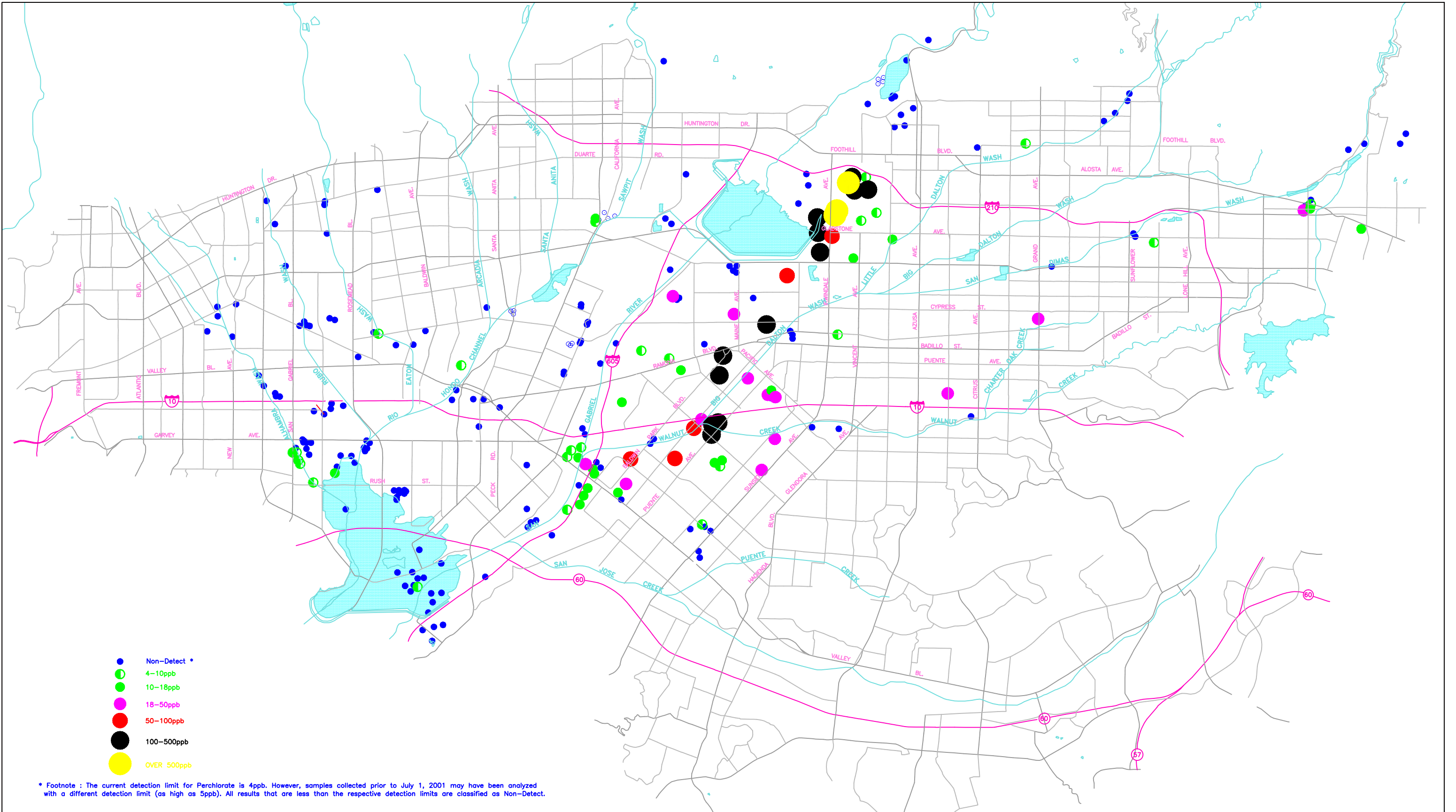
STETSON ENGINEERS INC.
 861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
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 FAX: (626) 331-7065

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 San Rafael California 94901
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 Mesa Arizona 85202



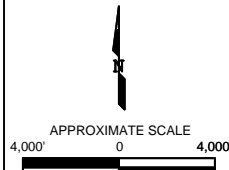
MAIN SAN GABRIEL BASIN WATERMASTER

CARBON TETRACHLORIDE DETECTED IN PRODUCTION WELLS - FISCAL YEAR 2011-12



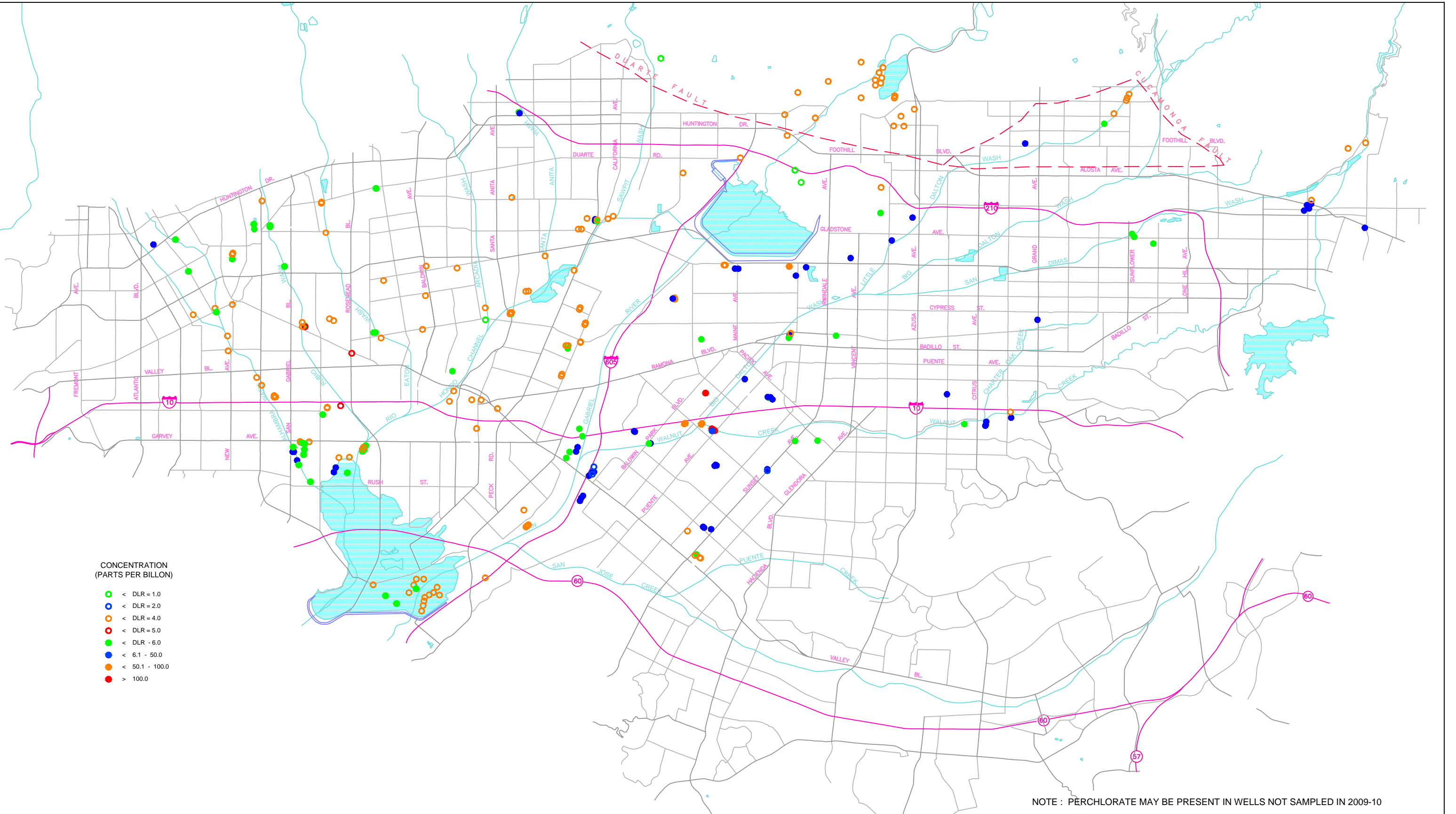
861 VILLAGE OAKS DRIVE, SUITE 100
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 FAX: (626) 331-7065

2171 E Francisco Blvd., Suite K
 San Rafael California 94901
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 Mesa Arizona 85202



MAIN SAN GABRIEL BASIN WATERMASTER

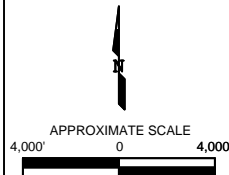
PERCHLORATE CONCENTRATION IN PRODUCTION WELLS - HISTORICAL HIGH



861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
 TEL: (626) 967-6202
 FAX: (626) 331-7065

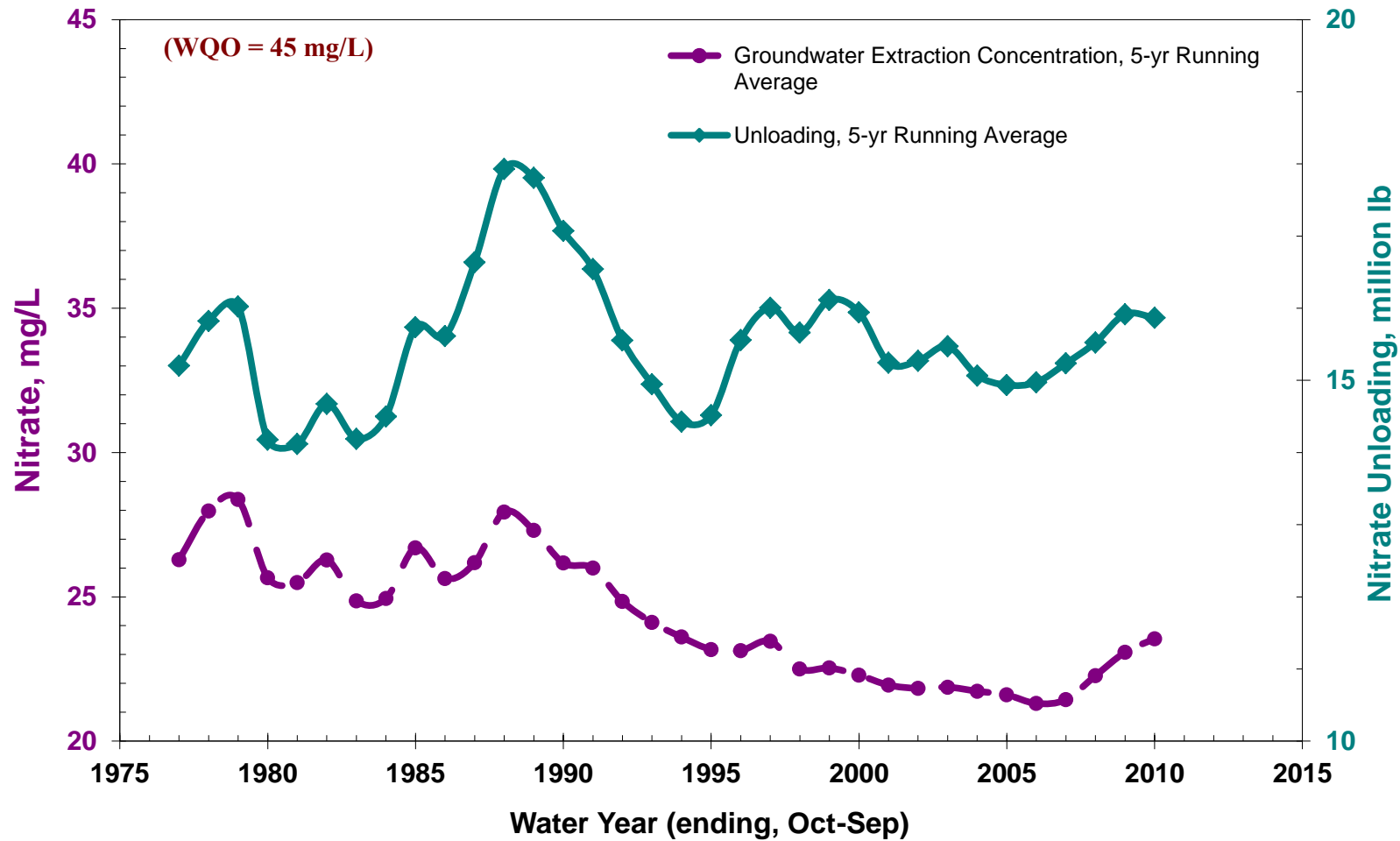
2171 E Francisco Blvd., Suite K
 San Rafael California 94901

2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



MAIN SAN GABRIEL BASIN WATERMASTER

PERCHLORATE DETECTED IN PRODUCTION WELLS - FISCAL YEAR 2009-10

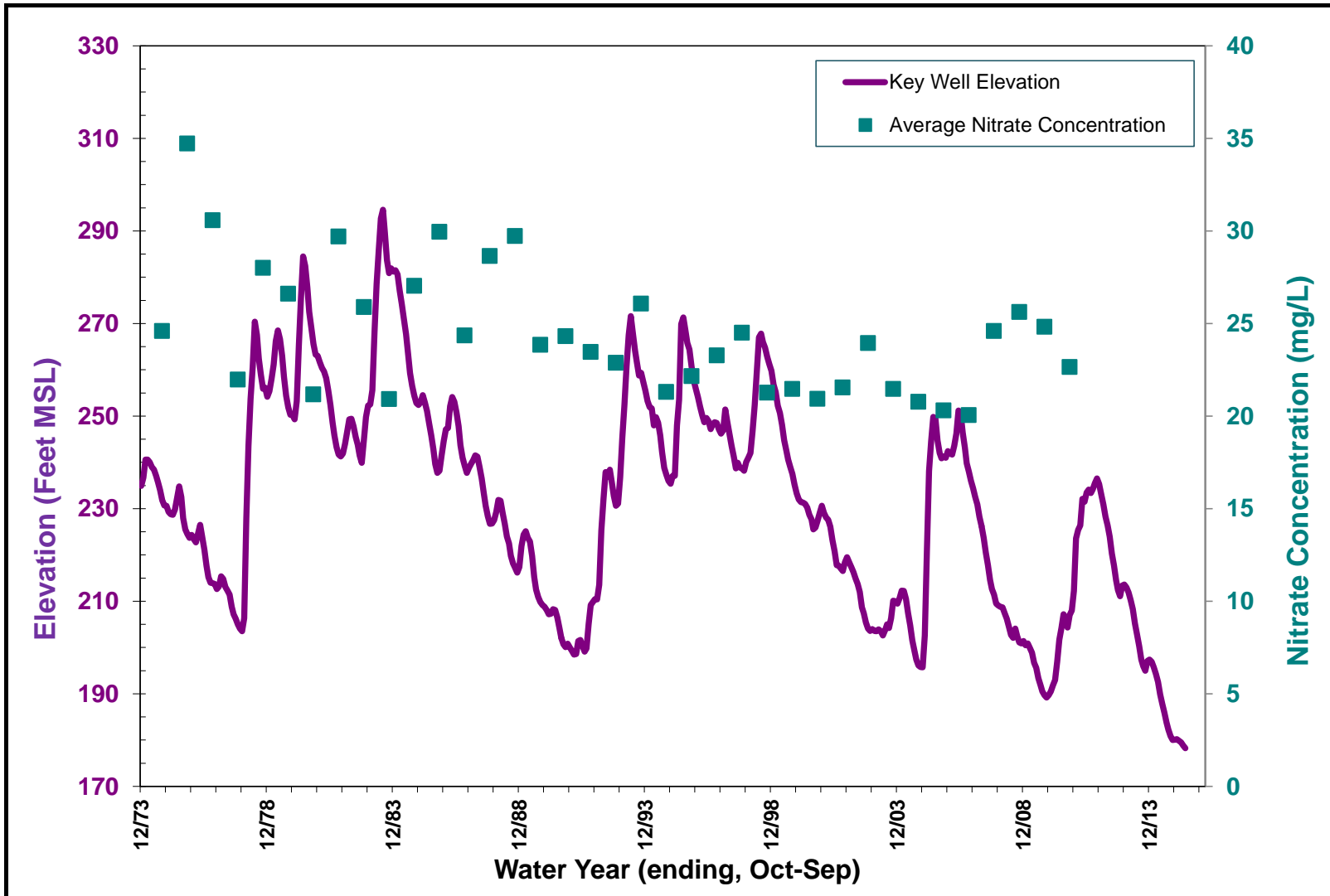


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

NITRATE CONCENTRATION AND UNLOADING TRENDS IN SAN GABRIEL
 BASIN, 1973-74 to 2010-2011

PLATE III.35a

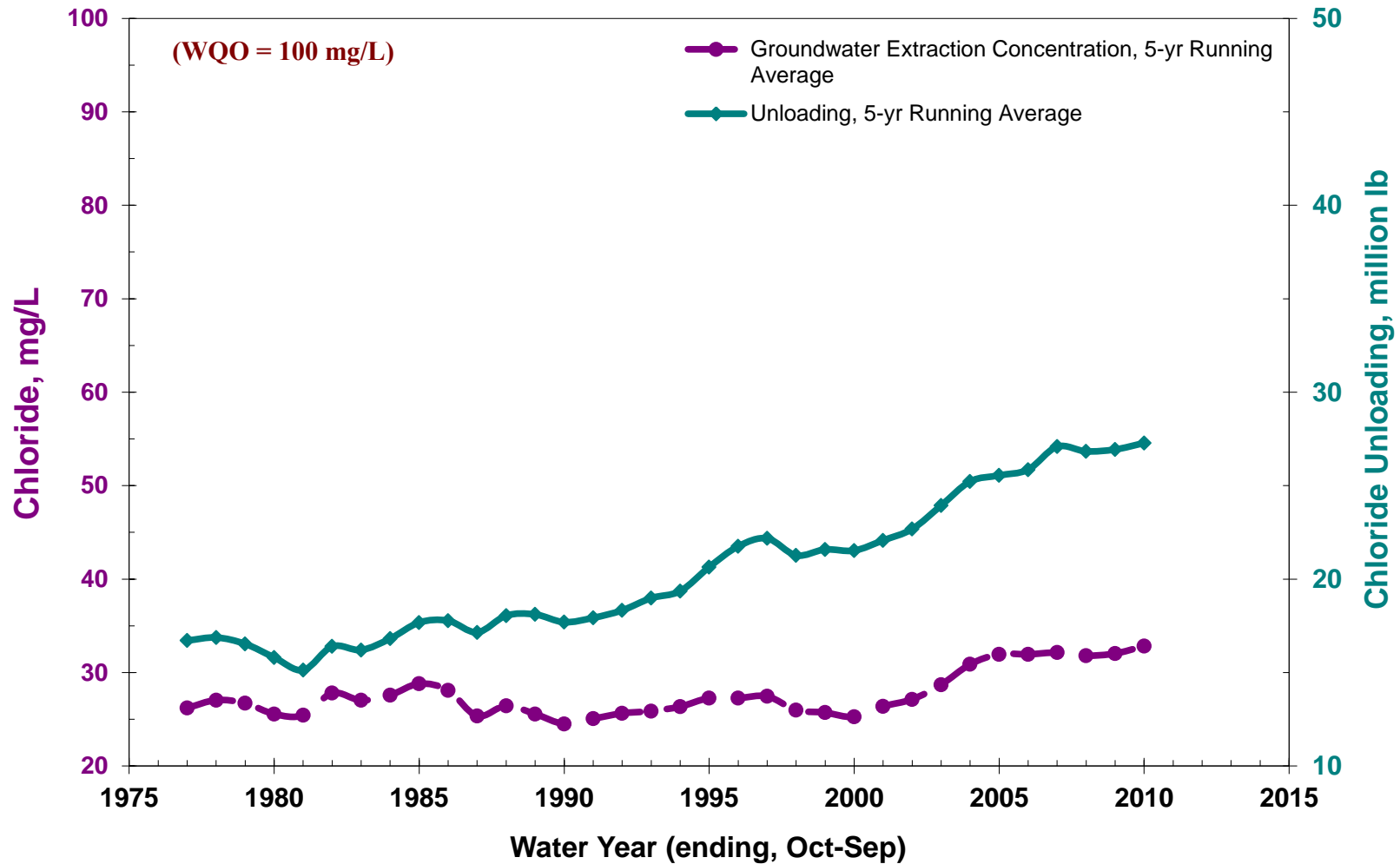


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

WATER LEVEL AT BALDWIN PARK KEY WELL COMPARED TO NITRATE CONCENTRATIONS

PLATE III.35f

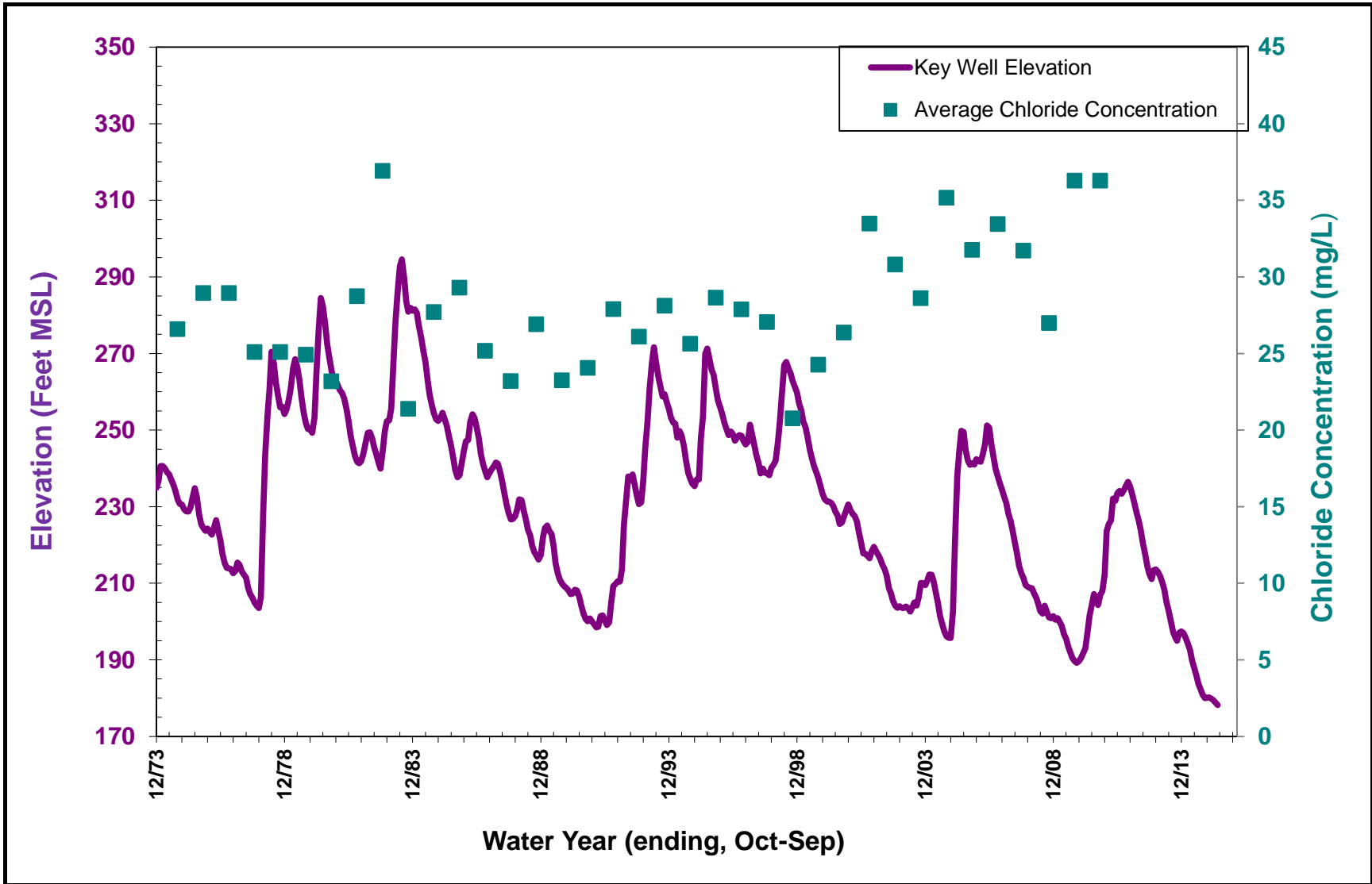


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

CHLORIDE CONCENTRATION AND UNLOADING TRENDS IN SAN GABRIEL BASIN, 1973-74 to 2010-2011

PLATE III.36a

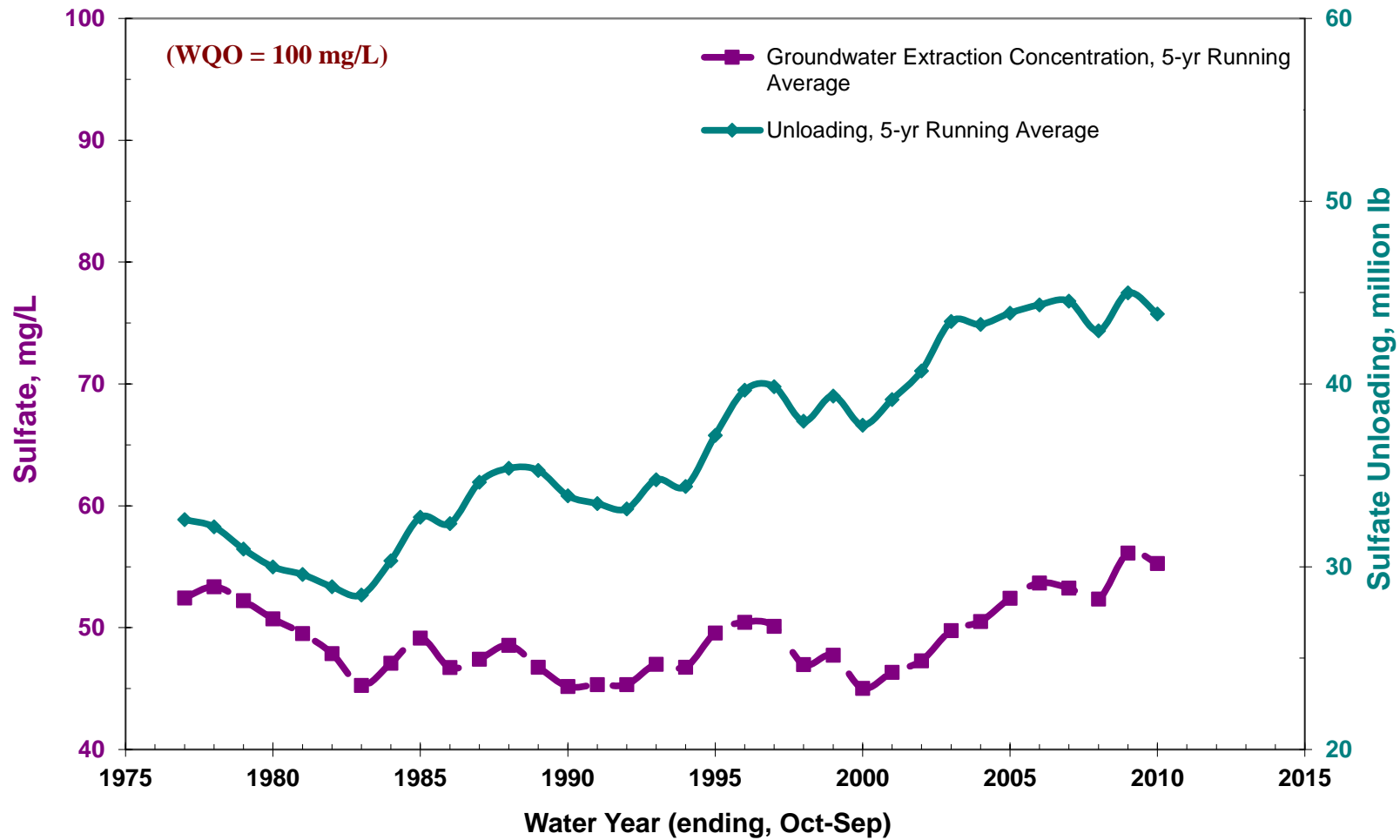


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

WATER LEVEL AT BALDWIN PARK KEY WELL COMPARED TO CHLORIDE CONCENTRATIONS

PLATE III.36b

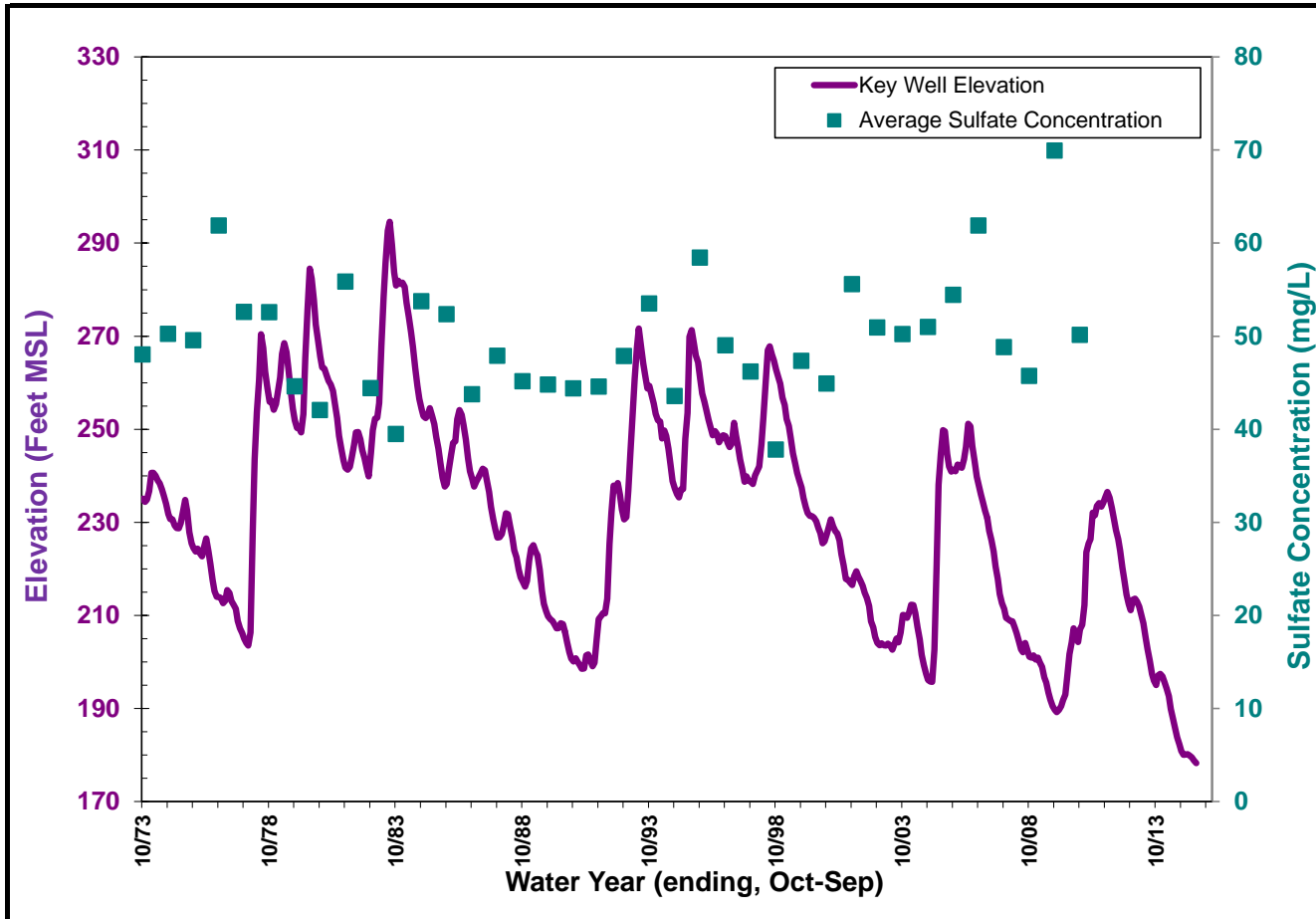


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
 WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

SULFATE CONCENTRATION AND UNLOADING TRENDS IN SAN GABRIEL
 BASIN, 1973-74 to 2010-2011

PLATE III.37a

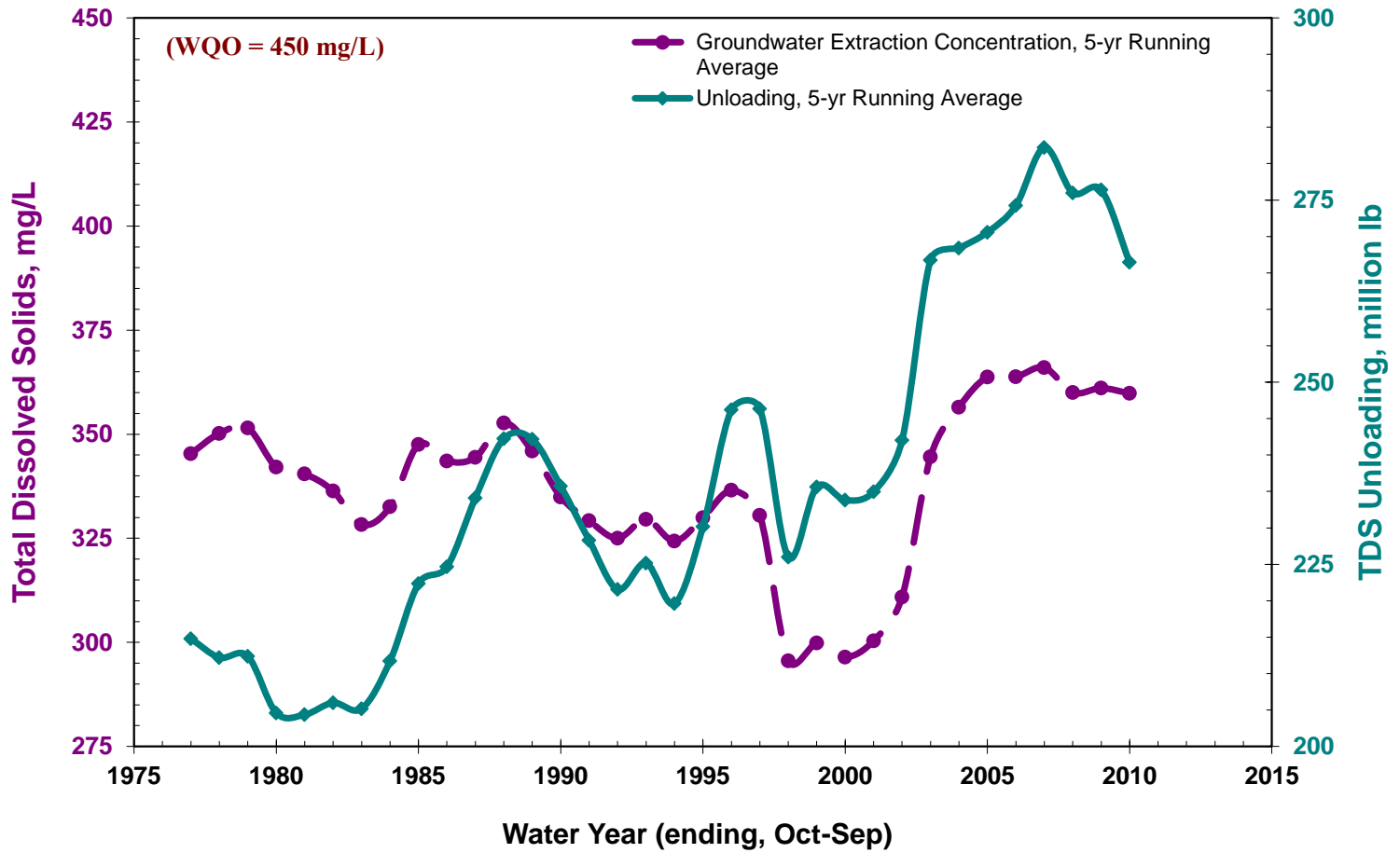


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MAIN SAN GABRIEL BASIN WATERMASTER

WATER LEVEL AT BALDWIN PARK KEY WELL COMPARED TO
 SULFATE CONCENTRATIONS

PLATE III.37b

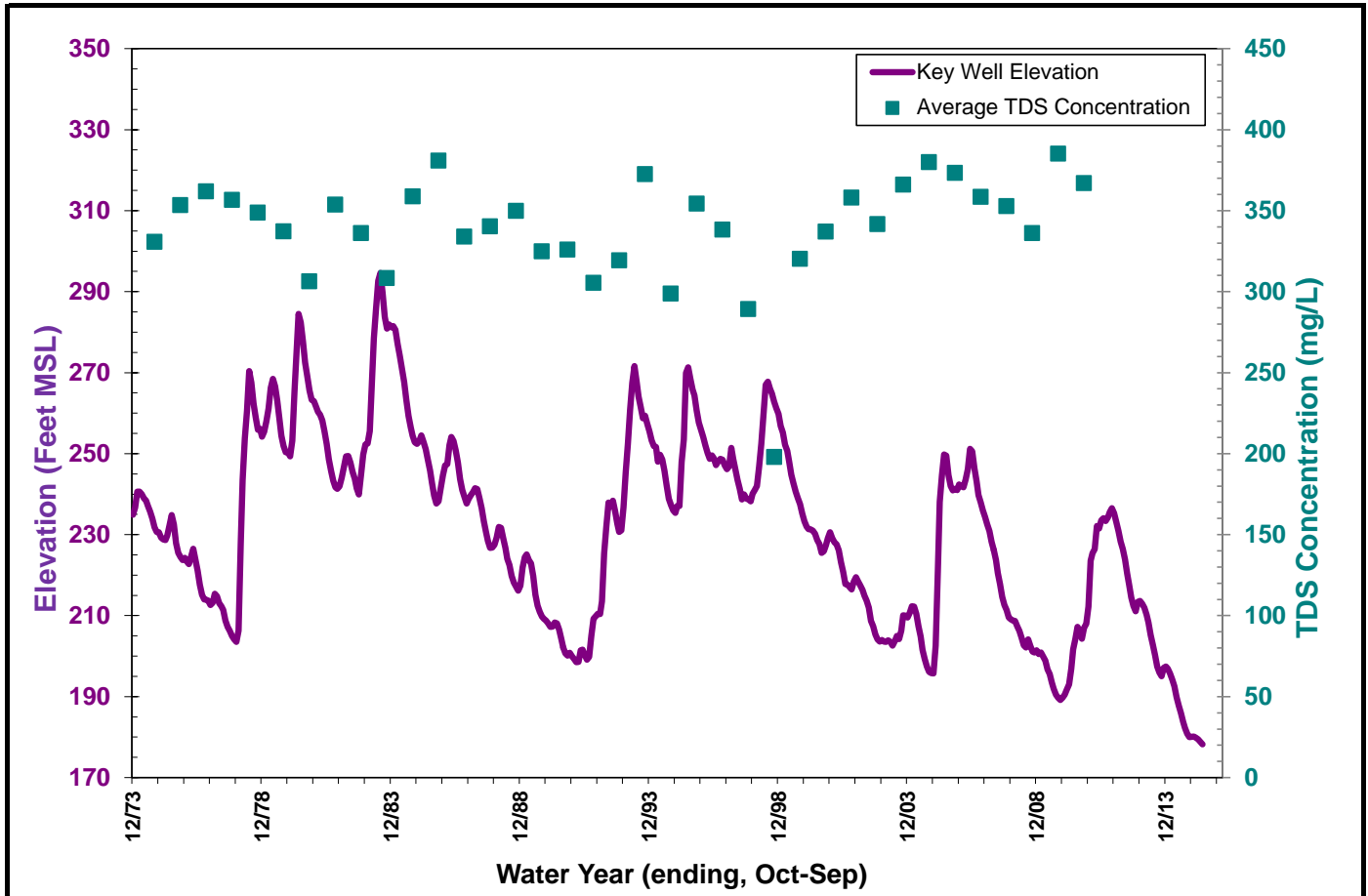


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MAIN SAN GABRIEL BASIN WATERMASTER

TOTAL DISSOLVED SOLIDS CONCENTRATION AND UNLOADING TRENDS
 IN SAN GABRIEL BASIN, 1973-74 to 2010-2011

PLATE III.38a

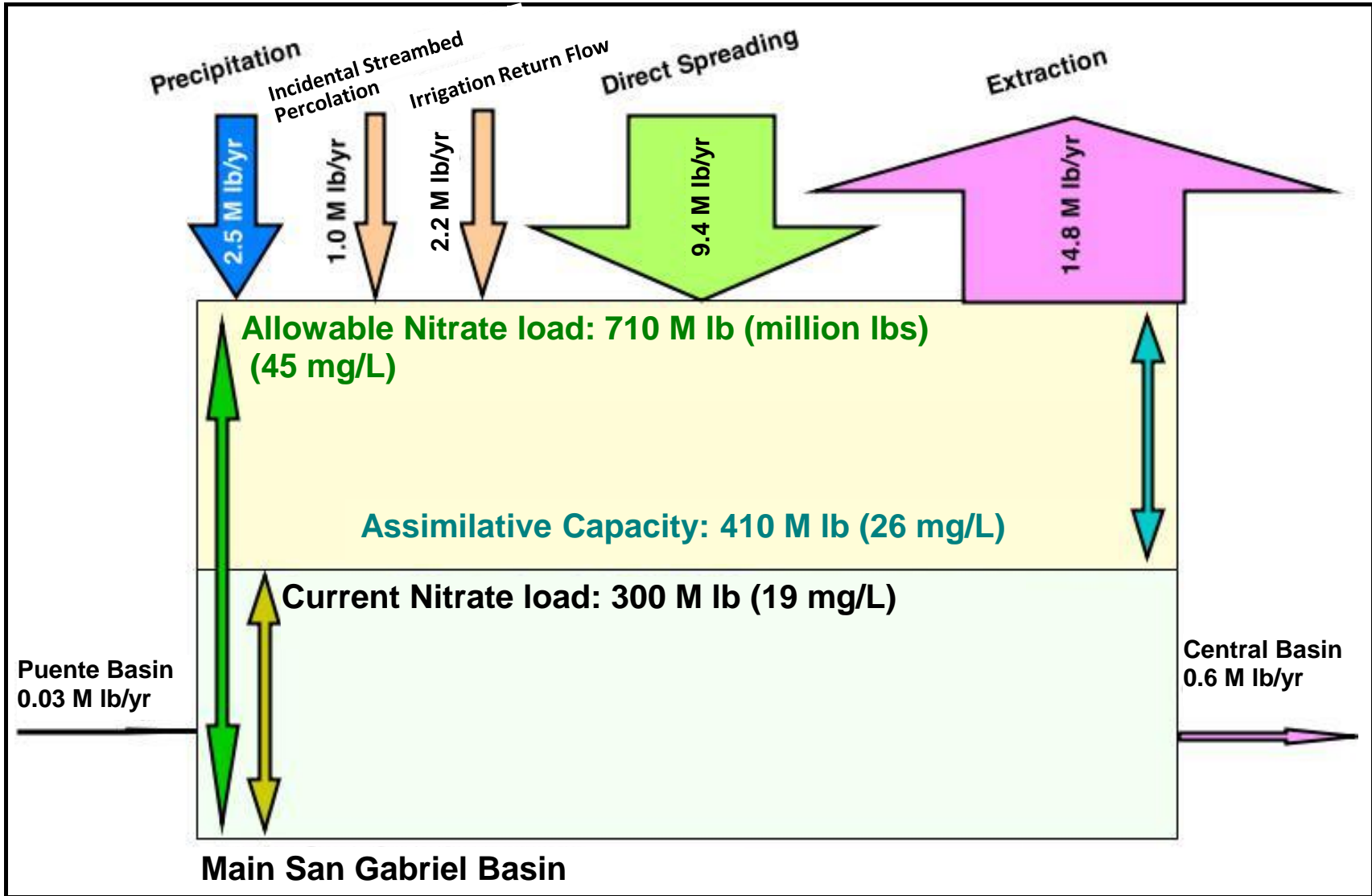


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MAIN SAN GABRIEL BASIN WATERMASTER

WATER LEVEL AT BALDWIN PARK KEY WELL COMPARED TO
 TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATIONS

PLATE III.38b

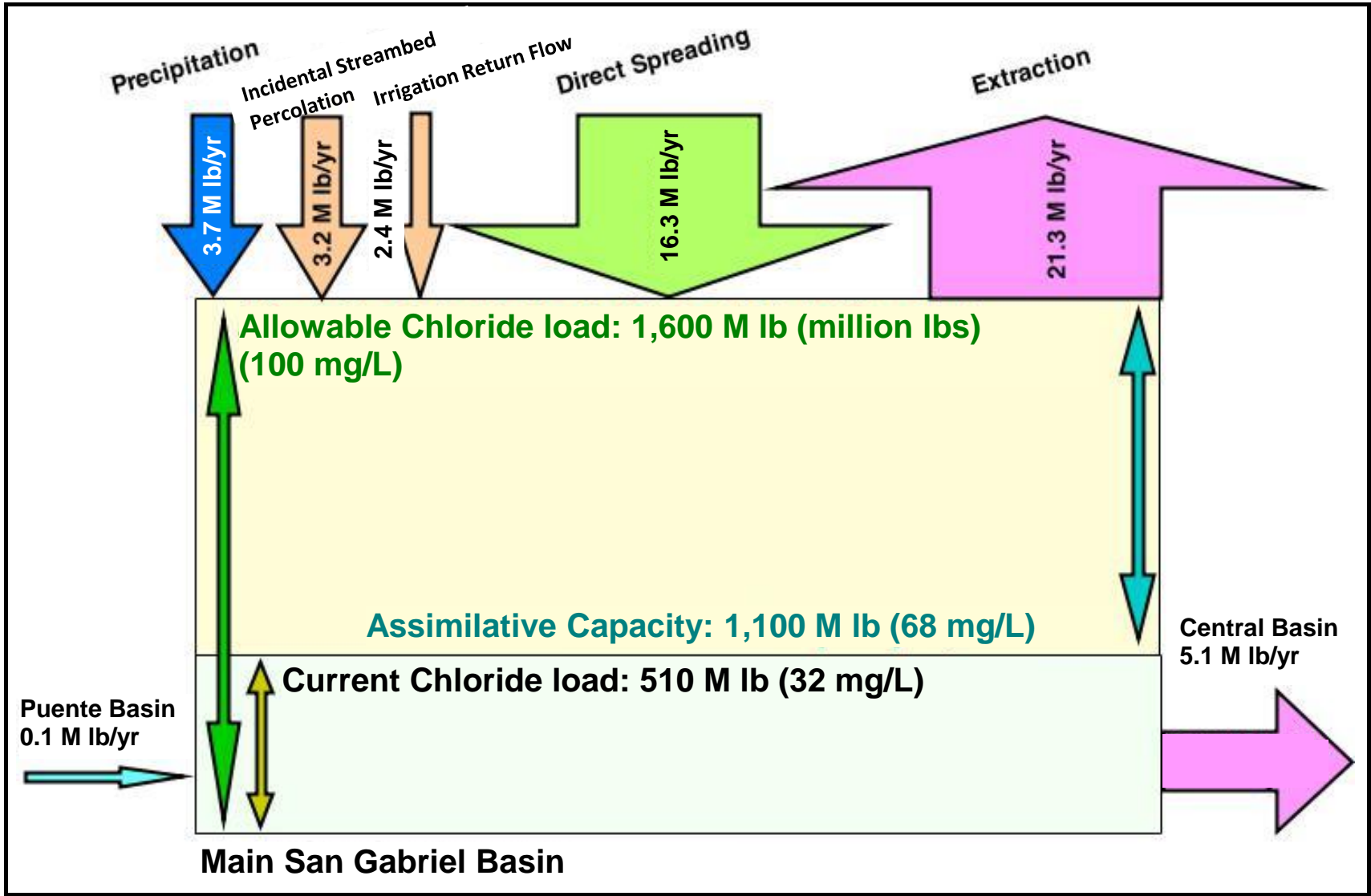


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MAIN SAN GABRIEL BASIN WATERMASTER

NITRATE BALANCE COMPONENTS IN SAN GABRIEL BASIN,
 2001-02 to 2010-11

PLATE III.39a

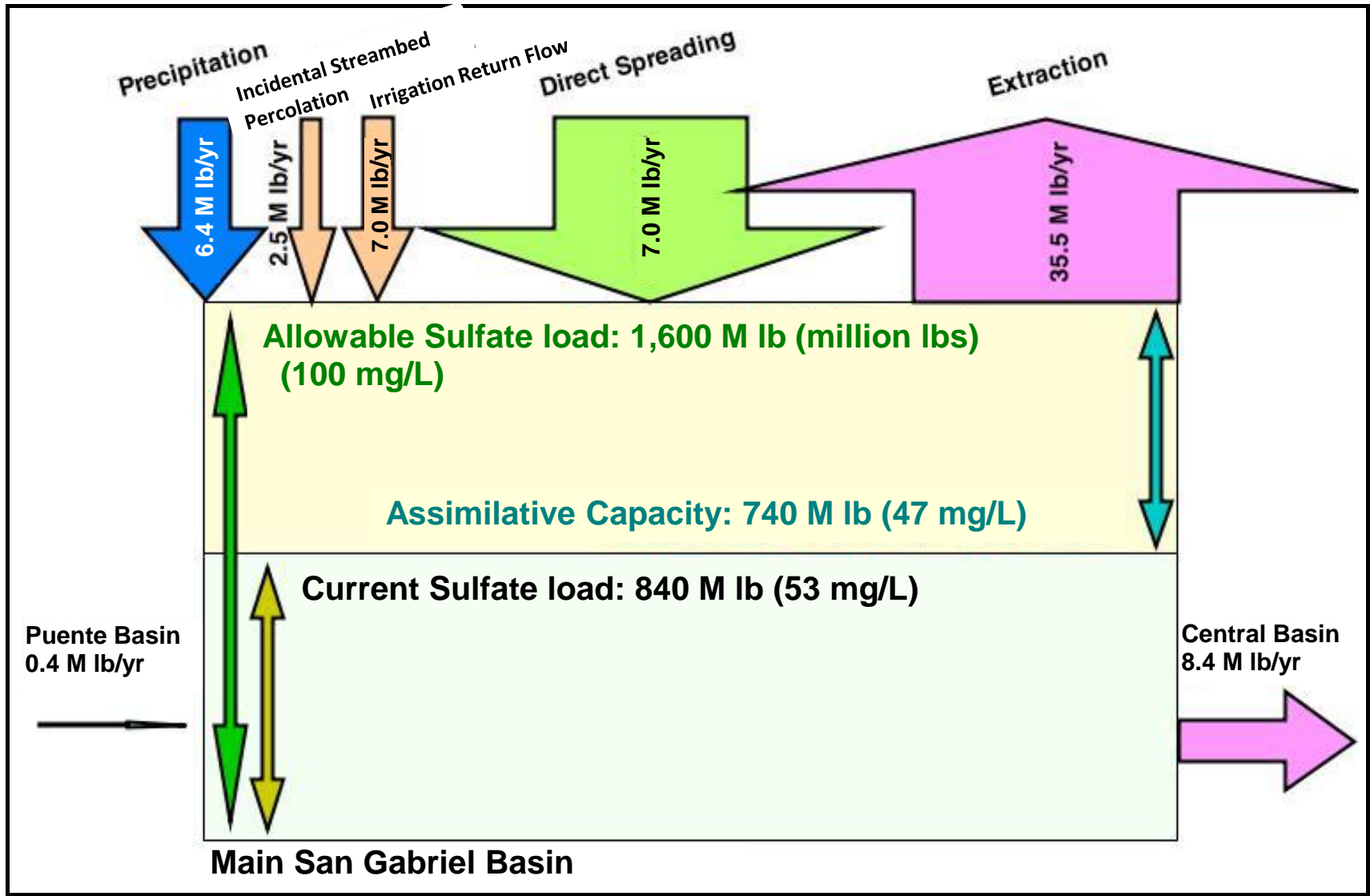


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MAIN SAN GABRIEL BASIN WATERMASTER

CHLORIDE BALANCE COMPONENTS IN SAN GABRIEL BASIN,
2001-02 to 2010-11

PLATE III.39b

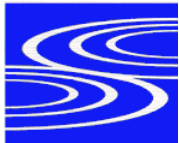
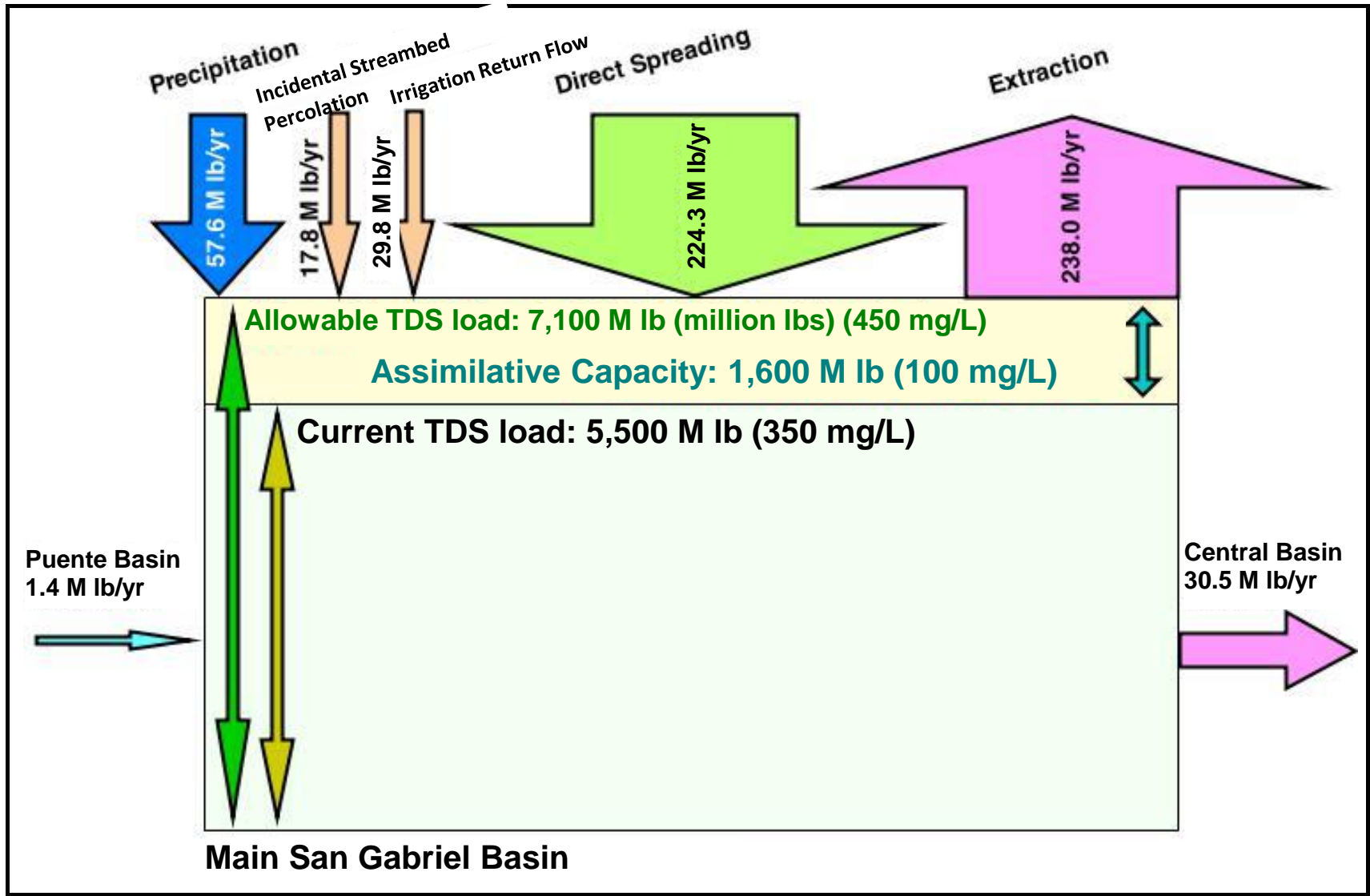


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MAIN SAN GABRIEL BASIN WATERMASTER

SULFATE BALANCE COMPONENTS IN SAN GABRIEL BASIN,
2001-02 to 2010-11

PLATE III.39c

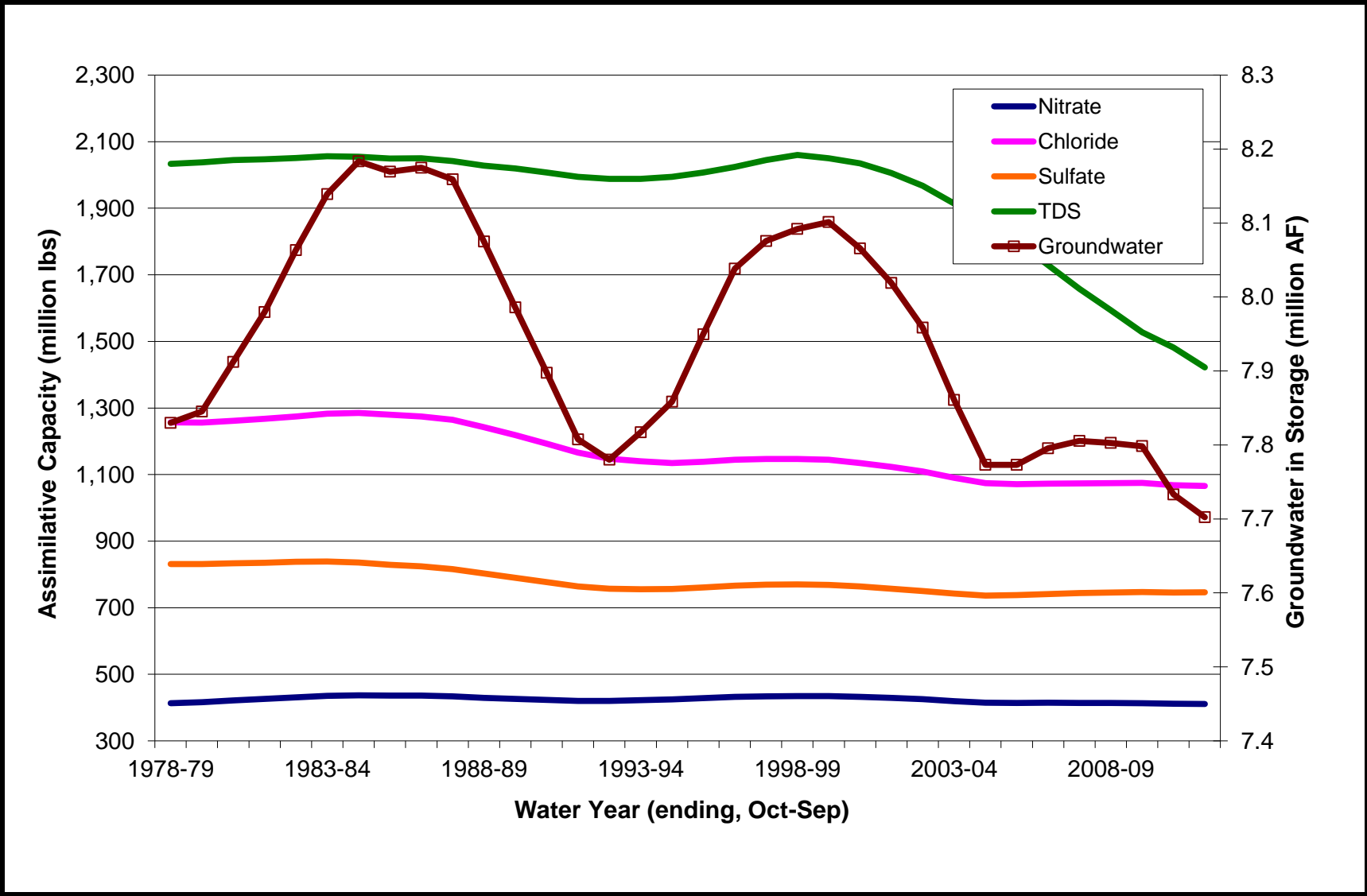


STETSON ENGINEERS INC.
 West Covina San Rafael Mesa, Arizona
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MAIN SAN GABRIEL BASIN WATERMASTER

TOTAL DISSOLVED SOLIDS BALANCE COMPONENTS IN SAN GABRIEL
 BASIN, 2001-02 to 2010-11

PLATE III.39d

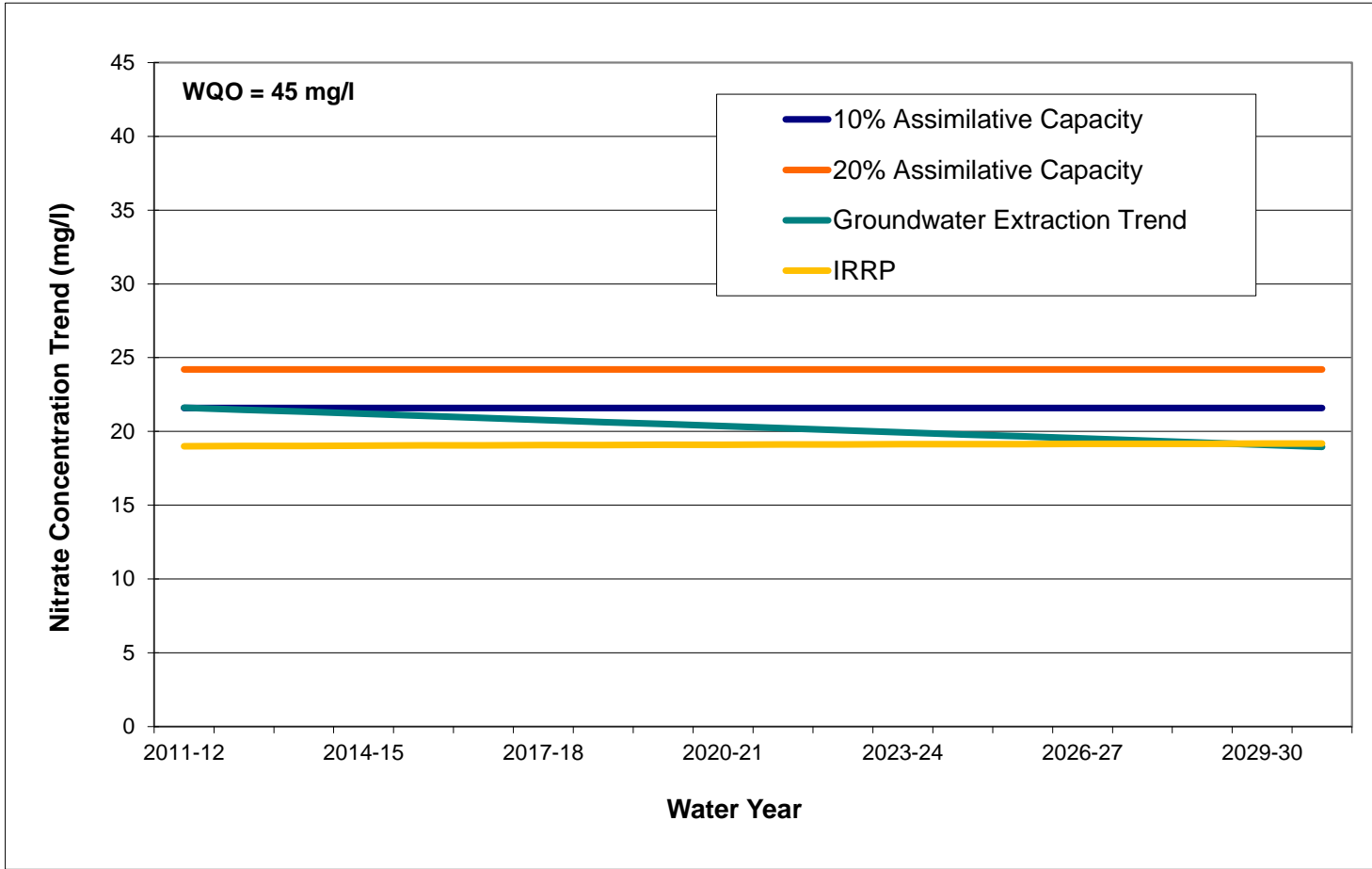


STETSON ENGINEERS INC.
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MAIN SAN GABRIEL BASIN WATERMASTER

CHANGES IN ASSIMILATIVE CAPACITY AFFECTED BY GROUNDWATER IN STORAGE (5-YR RUNNING AVERAGE) THROUGH TIME

PLATE III.40

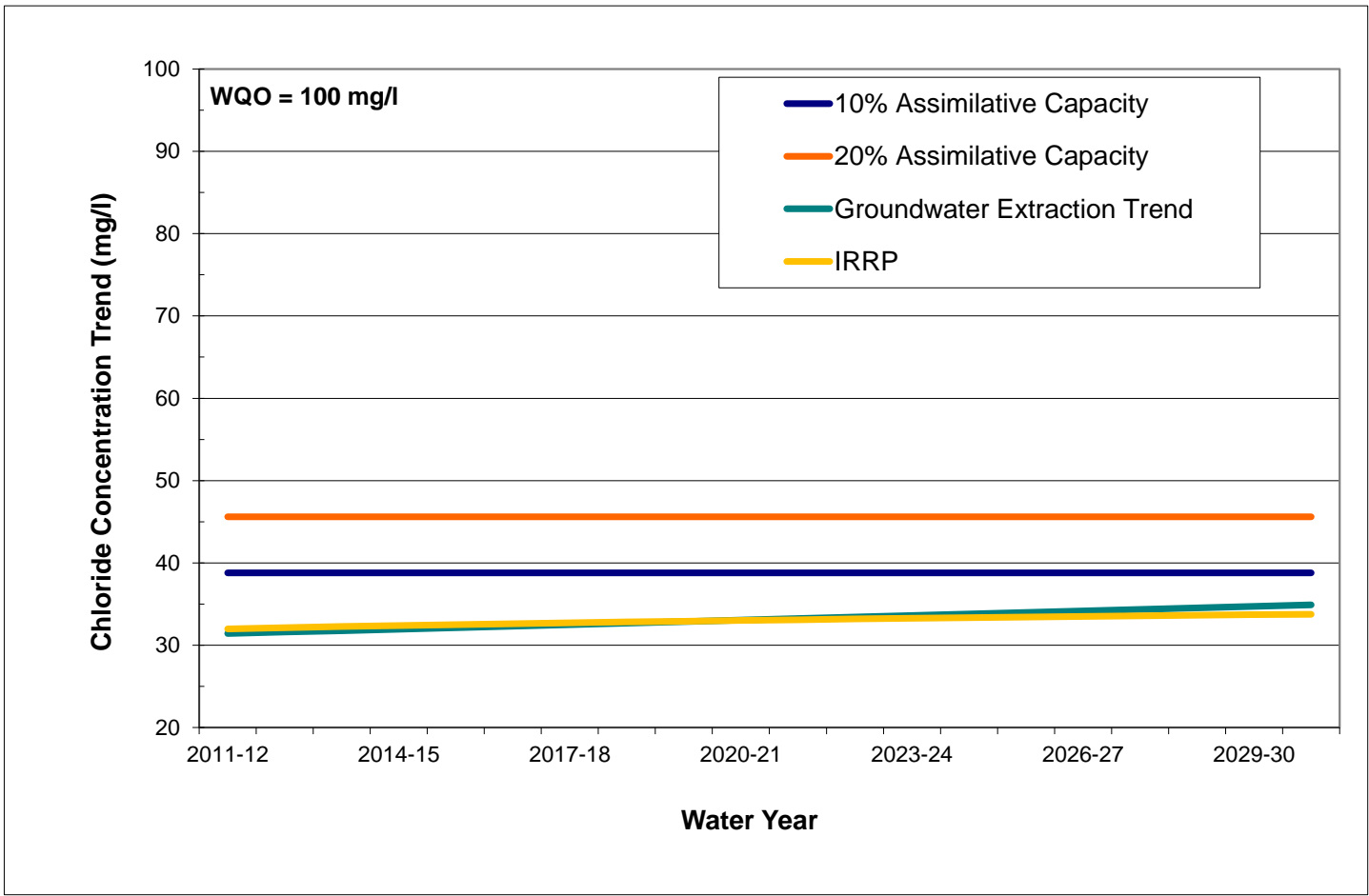


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MAIN SAN GABRIEL BASIN WATERMASTER

Nitrate Groundwater Concentration Trends

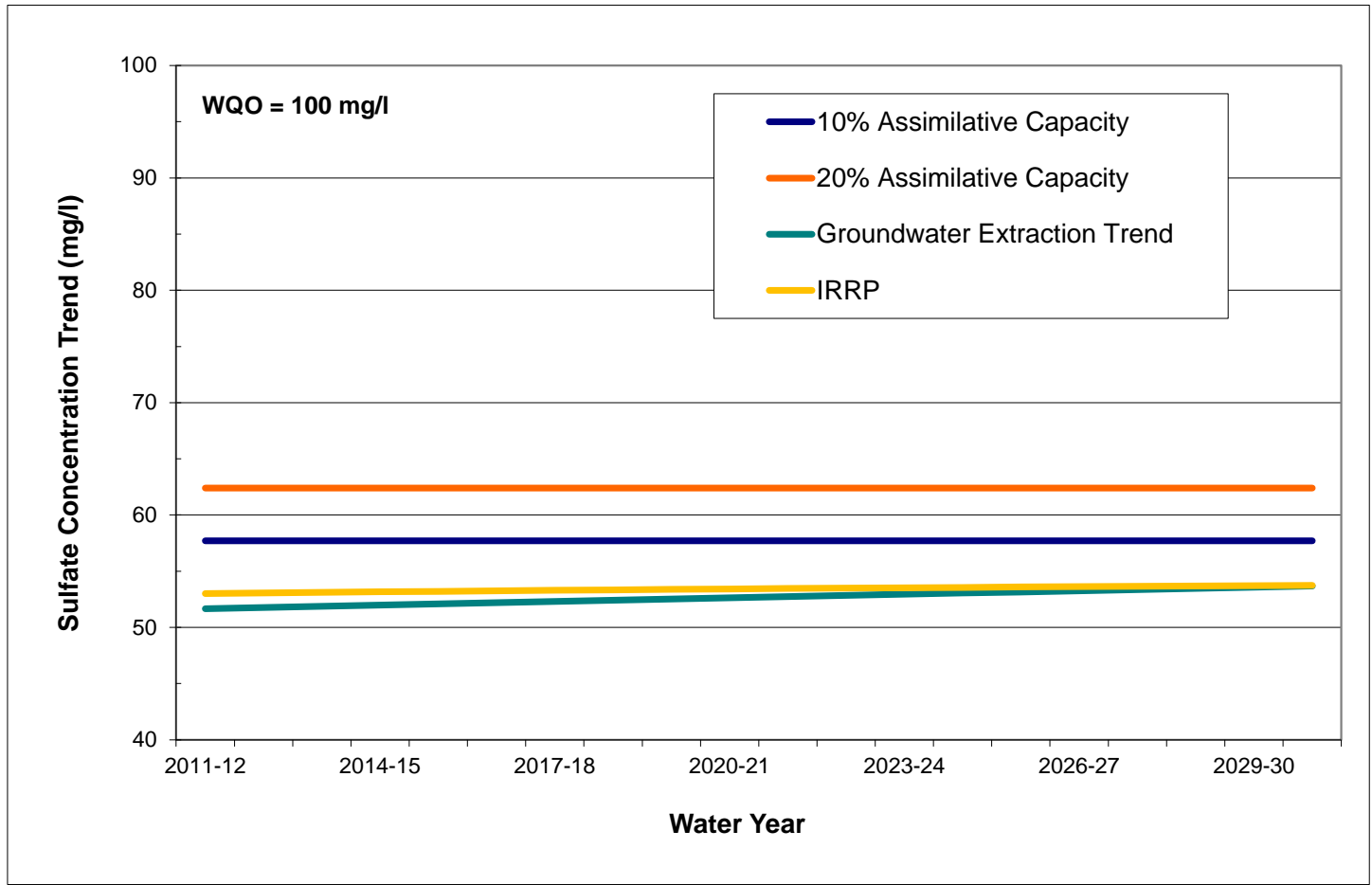
PLATE IV.1a



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MAIN SAN GABRIEL BASIN WATERMASTER

Chloride Groundwater Concentration Trends

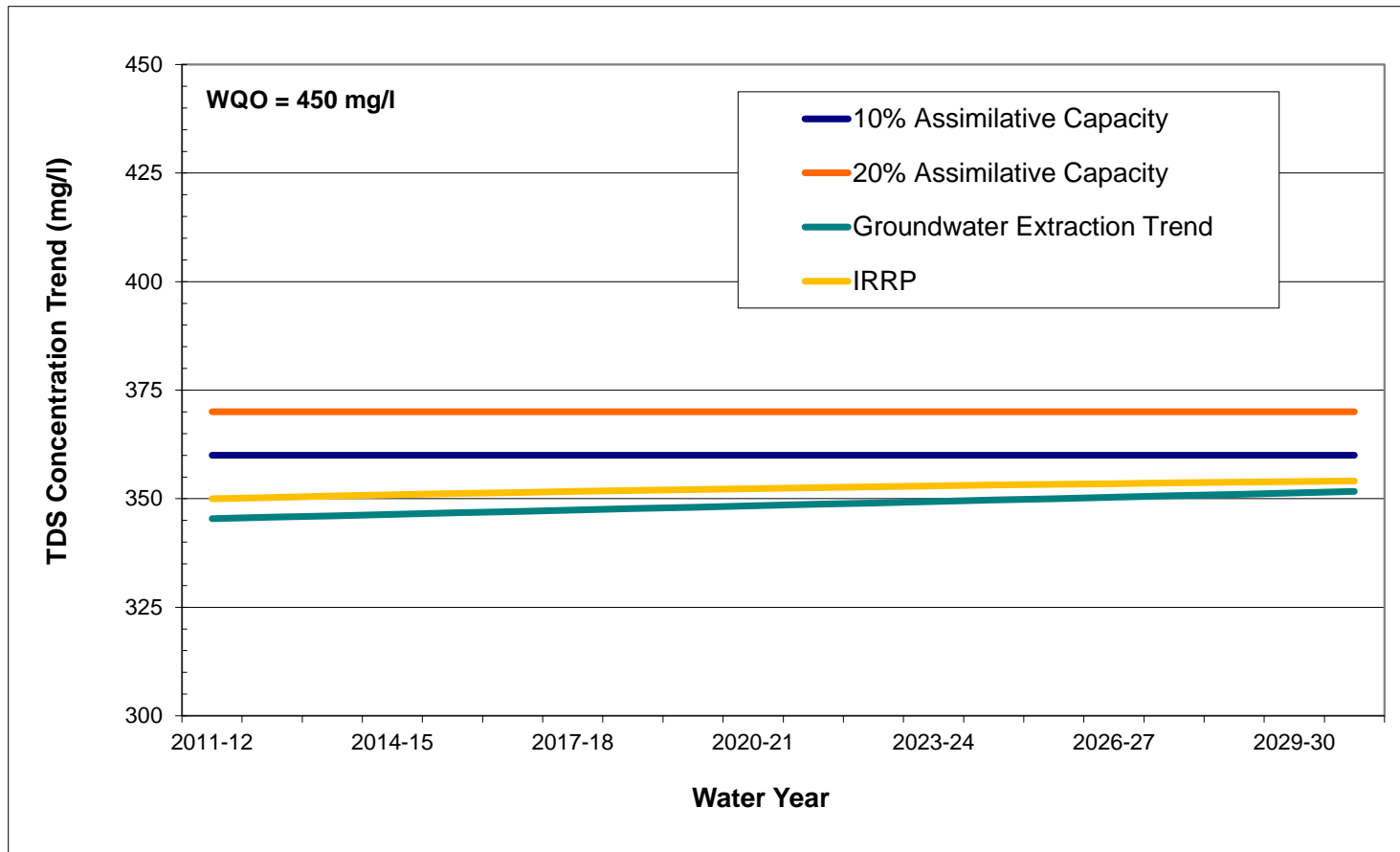


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MAIN SAN GABRIEL BASIN WATERMASTER

Sulfate Groundwater Concentration Trends

PLATE IV.1c



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MAIN SAN GABRIEL BASIN WATERMASTER

TDS Groundwater Concentration Trends

PLATE IV.14