Figure 6-9
TDS Contour Interval Map
Lower Santa Ana Basin

TDS
1954-73

TDS
1978-97

Source Date: TIN/TDS Phase 2A – Task 4

WE WILDERMUTH ENVIRONMENTAL, INC.
Date: July, 2000
Figure 6-11
TDS of Water Recharged at OCWD-SAR Recharge Facilities

Flow-Weighted Annual Average TDS of Water Recharged at OCWD Recharge Facilities

Annual Average TDS of Colorado River Water

Flow-Weighted Annual Average TDS of SAR water at Below Prado
Figure 6-12
Wells Receiving Groundwater within 25 Years after Recharge at OCWD-SAR Recharge Facilities

Legend
- Well with Time History
- OCWD Recharge Facilities
- Groundwater Recharged Less Than 25 Years Ago at OCWD Recharge Facilities (Clemens-Knott & others, 1998)
- Santa Ana River
- Fall 1997 Groundwater Elevation (ft-msl)
- Other Waterways & Reservoirs
- Unconsolidated Sediments
- Semi-consolidated Sediments
- Consolidated Bedrock

Map Area

Date: July, 2000
Figure 6-13a
Comparison of TDS in Groundwater Down-Gradient of OCWD-SAR Recharge Facilities and TDS of SAR at Below Prado

[Diagram of water flow with TDS values and flow rates]
Figure 6-13b
Comparison of TDS in Groundwater Near OCWD-SAR Recharge Facilities and TDS of SAR at Below Prado

[Graph showing comparison of TDS levels with different flow metrics and time periods]
Figure 6-14a
Comparison of Nitrate-N in Groundwater Down-Gradient of OCWD-SAR Recharge Facilities and TIN of SAR at Below Prado

Flow (acre-feet/year)
Nitrogen Concentration (mg/L)

Jan-50 Jan-54 Jan-58 Jan-62 Jan-66 Jan-70 Jan-74 Jan-78 Jan-82 Jan-86 Jan-90 Jan-94 Jan-98

0 2 4 6 8 10 12 14 16 18 20

0 100,000 200,000 300,000 400,000 500,000 600,000

Arlington Desalter
Pedley (CRA)
Riverside Narrows (SWP)
San Antonio Creek (SWP)
Elsinore/San Jacinto
Exchange Water
ADFM
NO3-N @ 04S/10W-14D02 (A-22)
NO3-N @ 04S/10W-04R03 (F-4)

1-year Moving Average (TIN @ Below Prado)
2-year Moving Average (TIN @ Below Prado)
3-year Moving Average (TIN @ Below Prado)
4-year Moving Average (TIN @ Below Prado)
5-year Moving Average (TIN @ Below Prado)
Figure 6-14b
Comparison of Nitrate-N in Groundwater Near OCWD-SAR Recharge Facilities and TIN of SAR at Below Prado

Nitrogen Concentration (mg/L) vs. Flow (acre-feet/year)

- ADPM
- NO3-N @ 03S09W33K03 (YLWD-9)
- NO3-N @ 04S/09W-04G01 (YLWD-11)
- Base Flow
- Storm Flow
- Pedley (CRA)
- Riverside Narrows (SWP)
- San Antonio Creek (SWP)
- Elsinore/San Jacinto
- Exchange Water
- Arlington Desalter
- 2-year Moving Average (TIN @ Below Prado)
- 3-year Moving Average (TIN @ Below Prado)
- 4-year Moving Average (TIN @ Below Prado)
- 5-year Moving Average (TIN @ Below Prado)
- 1-year Moving Average (TIN @ Below Prado)
Figure 6-15
Comparison of Current Reach 2 and Reach 3 TDS Metrics for the Santa Ana River

TDS (mg/L)

Reach 2 5-Yr Average
Reach 3 August Only
Proposed Orange County MZ Objective