

## **Chapter IV – Groundwater Basin Reports San Diego County Basins - San Diego County Overview**

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The groundwater basins of San Diego County have been grouped in three geographic sections that follow: North San Diego County Basins, Central San Diego County Basins, and South San Diego County Basins. The basins discussed are generally recognized by the San Diego County Water Authority (SDCWA.). These basins either fall within the SDCWA service area, or lie outside their service while providing water to their service area.

### **NORTH SAN DIEGO BASINS**

The North San Diego County Basins include: San Mateo, San Onofre, and Las Flores Basins.

### **CENTRAL SAN DIEGO BASINS**

The Central San Diego County Basins include: the Lower Santa Margarita River Basin (Upper Ysidora, Chappo, and Lower Ysidora Basins), the San Luis River Basins (Mission, Bonsall, Pala, Pauma, Moosa Canyon, and Warner Basins), and the San Dieguito River Basins (San Dieguito Valley, San Pasqual Valley, and Santa Maria Basins).

### **SOUTH SAN DIEGO BASINS**

The South San Diego County Basins include: San Diego Formation and the Lower Sweetwater, Middle Sweetwater, Santee-El Monte, Mission Valley, Otay Valley, and Lower Tijuana River Valley Basins.

### **SUMMARY**

Based upon available data, the natural safe yield of the San Diego Basins ranges from 72,200 to 93,300 AFY. The production of the San Diego Basins was estimated at 51,600 AFY, again based on available data. An overview of the San Diego County Basins is presented in **Table 20-1**. Detailed descriptions of each basin by geographic region follow.

**Table 20-1  
San Diego County Basins Overview**

Basin	Natural Safe Yield	Basin Management	Facilities and Operations	Water Quality Concerns
<b>North San Diego County Basins</b>	<b>5,200 AFY (using available data)</b>		<b>Production for Camp Pendleton: 10 potable wells w/production of 2,900 AF</b>	
San Mateo Basin	3,180 AFY	<b>Unadjudicated</b> No formal management structure for these basins	<ul style="list-style-type: none"> <li>• Production: :2,000 AFY</li> </ul>	TDS: 400 – 700 mg/L
San Onofre Basin	1,420 AFY		<ul style="list-style-type: none"> <li>• Potable production: 500 AFY</li> </ul>	TDS: 300 – 800 mg/L
Las Flores Basin/Las Pulgas Basin	600 AFY		<ul style="list-style-type: none"> <li>• Potable production: 400 AFY</li> </ul>	TDS 600 – 900 mg/L
<b>Central San Diego County Basins</b>	<b>48,600 to 62,900 AFY</b>		<b>Total Central San Diego Production: 33,950 AFY (using available data)</b>	
Lower Santa Margarita River Basins	5,400 to 16,700 AFY	<b>Adjudicated</b> Adjudicated by the Court with decree entered on April 6, 1966 and administered by the Santa Margarita River Watermaster and the Watershed Steering Committee	<ul style="list-style-type: none"> <li>• Potable- (80%) and agricultural (20%) supply for Camp Pendleton with total average production of 5,800 AFY</li> <li>• Recharge Basins: 65 acres managed by Camp Pendleton for spreading diverted river water</li> </ul>	TDS: 325 – 1,260 mg/L Magnesium, sulfate, chloride and nitrate high for potable purposes.
San Luis Rey River Valley Basins	32,400 to 35,400 AFY	<b>Unadjudicated</b> Informal management via San Luis Rey Watershed Council	<ul style="list-style-type: none"> <li>• Municipal production: 11,900 AFY</li> <li>• Other production: 9,500 AFY</li> </ul>	TDS: 168- 3,400mg/L Warner, Pala and Pauma basins range from 168-900mg/L TDS. Other basins higher. Nitrates: Pala/Pauma basins high Manganese: Mission Basin high
San Dieguito River Basins	10,800 AFY	<b>Unadjudicated</b> San Dieguito Basin Task Force evaluating feasibility of groundwater management	<ul style="list-style-type: none"> <li>• Total production: 6,750 AFY</li> <li>• No municipal production</li> </ul>	TDS: Downstream reaches 1,000 – 27,000 mg/L Upstream areas: 320-1,680 mg/L Selenium: Santa Maria basin wells shutdown

**Table 20-1 (continued)**  
**San Diego County Basins Overview**

Basin	Natural Safe Yield	Basin Governance	Facilities and Operations	Water Quality Concerns
<b>South San Diego County Basins</b>	<b>18,400 to 25,200 AFY (using available data)</b>		<b>Total South San Diego Production = 14,784 AFY (using available data)</b>	
Lower Sweetwater Basin	2,400 AFY	<b>Unadjudicated</b> Managed pursuant to Sweetwater Authority Interim Groundwater Management Plan	<ul style="list-style-type: none"> <li>• 13 municipal wells serving Chula Vista, National City and Bonita averaging 4,590 AFY               <ul style="list-style-type: none"> <li>○ Reynolds Groundwater Desalination Facility (RO) treats brackish groundwater averaging 2,850 AFY and blended with untreated groundwater</li> <li>○ National City wells averaged 1,740 AFY</li> </ul> </li> <li>• Other production: 2,900 AFY</li> </ul>	TDS of municipal wells ranging from 600 – 3,320 mg/L Chloride 359 – 1,590 mg/L
Middle Sweetwater Basin	3,000 AFY			
San Diego Formation	3,000 to 5,000 AFY			
Santee-El Monte Basin	3,000 to 4,000 AFY	<b>Unadjudicated</b> Primary producer is Helix WD	<ul style="list-style-type: none"> <li>• 9 active municipal wells with average production of 1,600 AFY</li> <li>• 19 other wells with average production of 4,000 AFY</li> </ul>	Iron and manganese: exceed MCLs in central portion of basin TDS: 260 – 3,000 mg/L Nitrate (as N): exceed MCL in central portion of basin
Mission Valley	2,000 to 4,000 AFY	<b>Unadjudicated</b> Conceptual groundwater management plan	<ul style="list-style-type: none"> <li>• Production: 807 AFY (average of 500 gpm)</li> </ul>	Generally poor: TDS: 520 – 4,089mg/L Chloride: 80 – 1640 mg/L Sulfate: 68 – 607 mg/L Nitrate: 0 – 105 mg/L
Lower Tijuana	5,000 to 6,800 AFY	<b>Managed</b> Adopted groundwater management plan in 1995	<ul style="list-style-type: none"> <li>• Production: 887 AFY (average of 550 gpm)</li> </ul>	Problems with seawater intrusion TDS: 379 – 1749 mg/L (1982-83) Chloride: 83-650 mg/L (1982-83)
Otay Valley	Data not available	Data not available	Data not available	Data not available
<b>TOTALS</b>	<b>72,200 to 93,300 AFY (using available data)</b>		<b>Total San Diego Production 51,634 AFY (using available data)</b>	