



**Nitrogen / Total Dissolved Solids (N/TDS) Task Force,
Santa Ana Watershed Project Authority**

Background

The Santa Ana Watershed Project Authority (SAWPA) is a Joint Powers Authority located in Riverside, California. SAWPA is classified as a Special District (government agency) which carries out functions useful to its member agencies, which include Orange County Water District, Inland Empire Utilities Agency, San Bernardino Valley Municipal Water District, Eastern Municipal Water District, and Western Municipal Water District.

The Santa Ana Water Quality Control Plan (Basin Plan) that was in force when the project was being considered was last modified in 1995. The Basin Plan is adopted and administered by the Regional Water Quality Control Board, Santa Ana Region (Regional Board). The Basin Plan is the basis for the Regional Board's regulatory programs and establishes water quality standards for all groundwater and surface waters of the region.

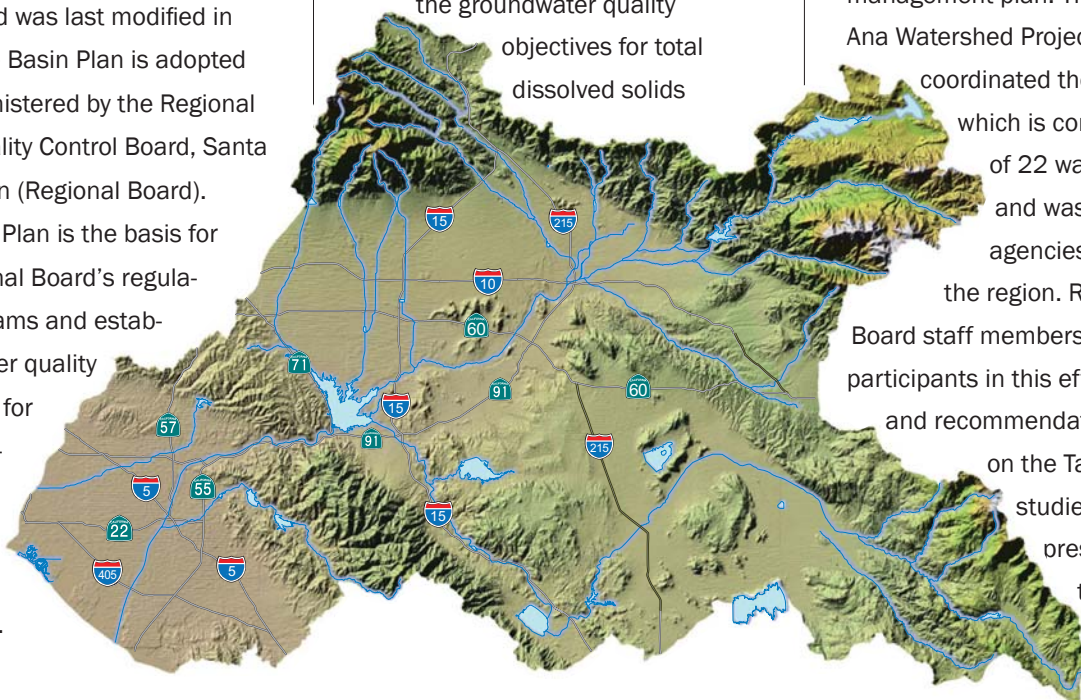
The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code), and the Federal Clean Water Act both mandate periodic review of these basin plans. Section 13240 of the Water Code requires, "Each regional board shall formulate and adopt water quality control plans for all areas within the region... Such plans shall be periodically reviewed and may be revised."

N/TDS Task Force

During consideration of adoption of the updated Basin Plan, watershed stakeholders questioned the validity of the groundwater quality objectives for total dissolved solids

(TDS) and nitrate nitrogen and the Regional Board's Nitrogen/TDS management plan that implemented those objectives. A principal underlying concern was that the updated basin plan constrained inappropriately wastewater recycling opportunities. Since the reuse of recycled water is a critical component of many agencies' plans to meeting rapidly increasing water demands in the region, the Regional Board agreed to make the review of the objectives a high triennial review priority.

The Nitrogen/TDS Task Force (Task Force) was formed in 1995-96 to conduct studies regarding the TDS and nitrate-nitrogen objectives and other components of the N/TDS management plan. The Santa Ana Watershed Project Authority coordinated the task force, which is comprised of 22 water supply and wastewater agencies throughout the region. Regional Board staff members were active participants in this effort. Findings and recommendations based on the Task Force studies were presented to the Regional Board at





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numerous public workshops during the course of the studies. Current law and regulations guided the Task Force studies. The Task Force recommendations for changes to the TDS and nitrate-nitrogen water quality objectives for groundwater within the region are based on consideration of factors specified in Water Code Section 13241 and the state's antidegradation policy (SWRCB Resolution No. 68-16). The economic implications of all recommended changes to the N/TDS management plan were also considered.

Ambient Water Quality Computation and Groundwater Quality Objectives

WEI developed and implemented methodologies to re-define groundwater quality objectives based on the best data and technology available. WEI updated the groundwater sub-basin boundaries – now termed management zones – based on the most current hydrogeologic understanding. WEI developed a comprehensive relational database for groundwater and surface water for the entire Santa Ana River Watershed

and developed conceptual models for all of the groundwater basins in the watershed. In addition, WEI developed a new methodology to estimate ambient water quality in groundwater basins based on sound scientific and statistical methods. Computed historical ambient groundwater quality was then used to establish groundwater quality objectives in the entire watershed.

The Basin Plan Amendments are the culmination of the multi-year, multi-million dollar study conducted by the Task Force to review groundwater TDS and nitrate objectives, groundwater subbasin

boundaries, TIN and TDS wasteload allocations, and other components of the N/TDS plan. These amendments will ensure the reasonable protection of the beneficial uses of surface and groundwaters within the region and are consistent with the state's antidegradation policy (SWRCB Resolution No. 68-16).

The revised Basin Plan objectives for TDS and nitrogen were adopted by the Regional Board in January 2004 with the support of all stakeholders—there were no dissenting comments or opinions. On 8 September 2004, the State Water Resources Control Board approved the basin plan amendment, which was subsequently approved by the Office of Administrative Law and US Environmental Protection Agency.



2004 Basin Plan Anti-Degradation Management Zones