



# **DRAFT**

# **MEMORANDUM**

**TO:** Ms. Kelly Gardner  
Main San Gabriel Basin Watermaster

**FROM:** Stetson Engineers Inc.

**SUBJECT:** 2025 SNMP Water Quality Update

**JOB NO.:** 1205-16

**DATE:** May 20, 2025

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The Main San Gabriel Basin Watermaster (Watermaster) prepared a Salt and Nutrient Management Plan (SNMP) for the Los Angeles Regional Water Quality Control Board (RWQCB) in compliance with the Recycled Water Policy. The SNMP was approved by the State Water Resources Control Board in 2017.

The purpose of this memorandum is to document recent water quality sampling results and water quality trends in the Main San Gabriel Basin (Main Basin) for select constituents beyond the timeframe presented in the SNMP.

## **Background**

The SNMP reviewed the geology, hydrology and hydrogeology of the Main Basin, along with the institutional and management structure for the San Gabriel Basin. Total Dissolved Solids (TDS), Nitrate, Sulfate, and Chloride were identified as the primary salts and nutrients of concern. Sources of loading and unloading were included in a spreadsheet model, along with average water quality data for TDS, Nitrate, Sulfate, and Chloride, on an annual basis. Watermaster developed this spreadsheet model as a tool to calculate the impacts of loading and unloading from numerous water supply components.

Generally, groundwater in the Main Basin continues to be of high quality, and water delivered to customers always meets state and federal drinking water standards. There are specific areas of particular water quality concern in the Main Basin which require additional monitoring and treatment prior to potable water use.

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Watermaster coordinates the water quality well water sampling program on behalf of all drinking water purveyors in the Main Basin. Watermaster has also developed a Basin-wide Water Quality Monitoring Program to supplement the State Water Resources Control Board Division of Drinking Water (DDW) sampling and reporting requirements.

## **Water Quality Sampling Results and Analysis**

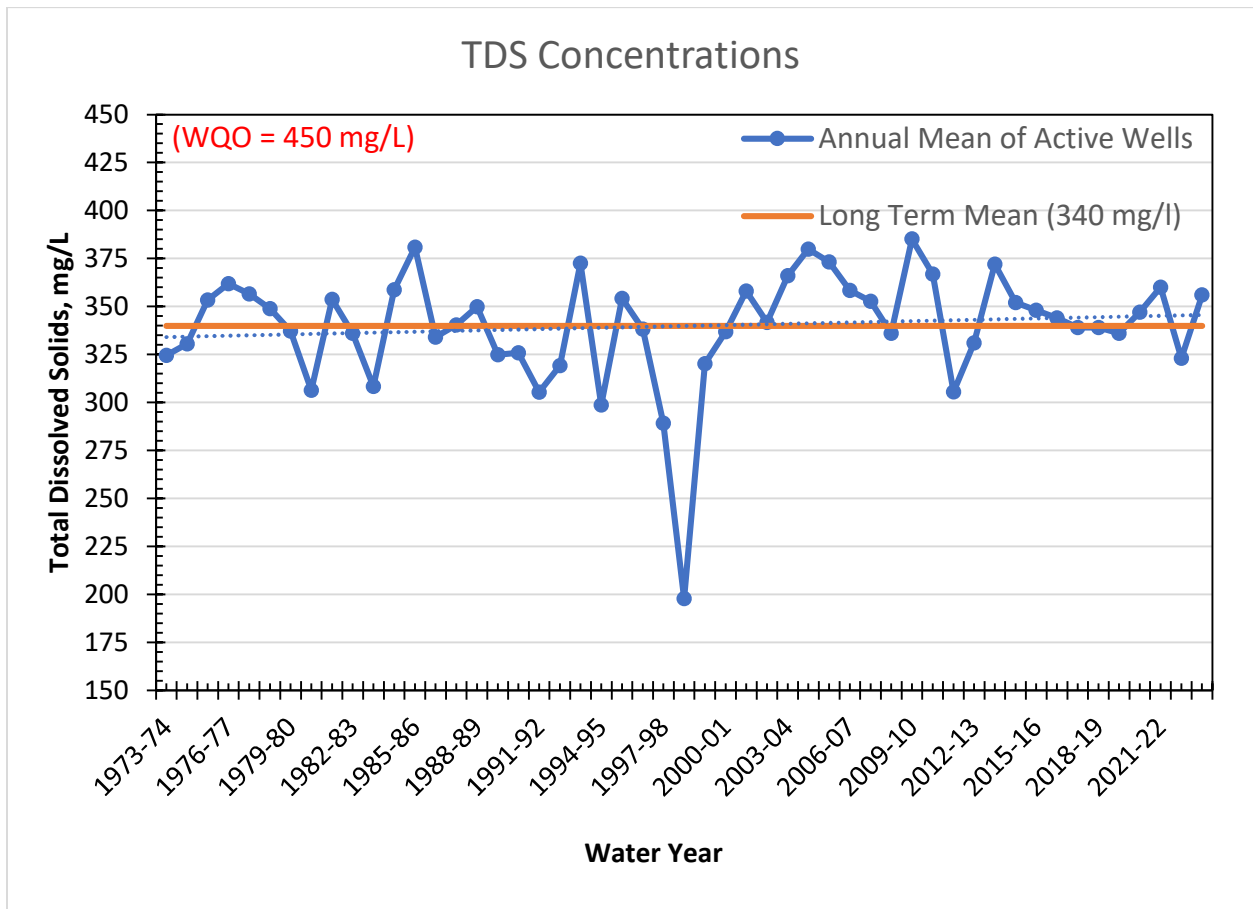
The following graphs provide partial recent water quality data through Water Year 2024 (ending in September 2024) collected in the Main San Gabriel Basin as part of the Basin-wide Water Quality Monitoring Program, in accordance with the SNMP. The constituents with water quality data presented below were also evaluated in the SNMP with the exception of Boron. Boron was added to this water quality update because it has an established Basin Water Quality Objective with the RWQCB, as does the other constituents presented in this memorandum.

It should be noted, the SNMP provides annual average water quality data for TDS, nitrate, sulfate, and chloride from 1973 to 2012 on a Fiscal Year basis (July through June). Water quality data subsequent to the SNMP are reported on a Water Year basis (October through September).

While individual exceedances occasionally occur, no recent sampling indicates concern that any water quality objective will be exceeded, on average.

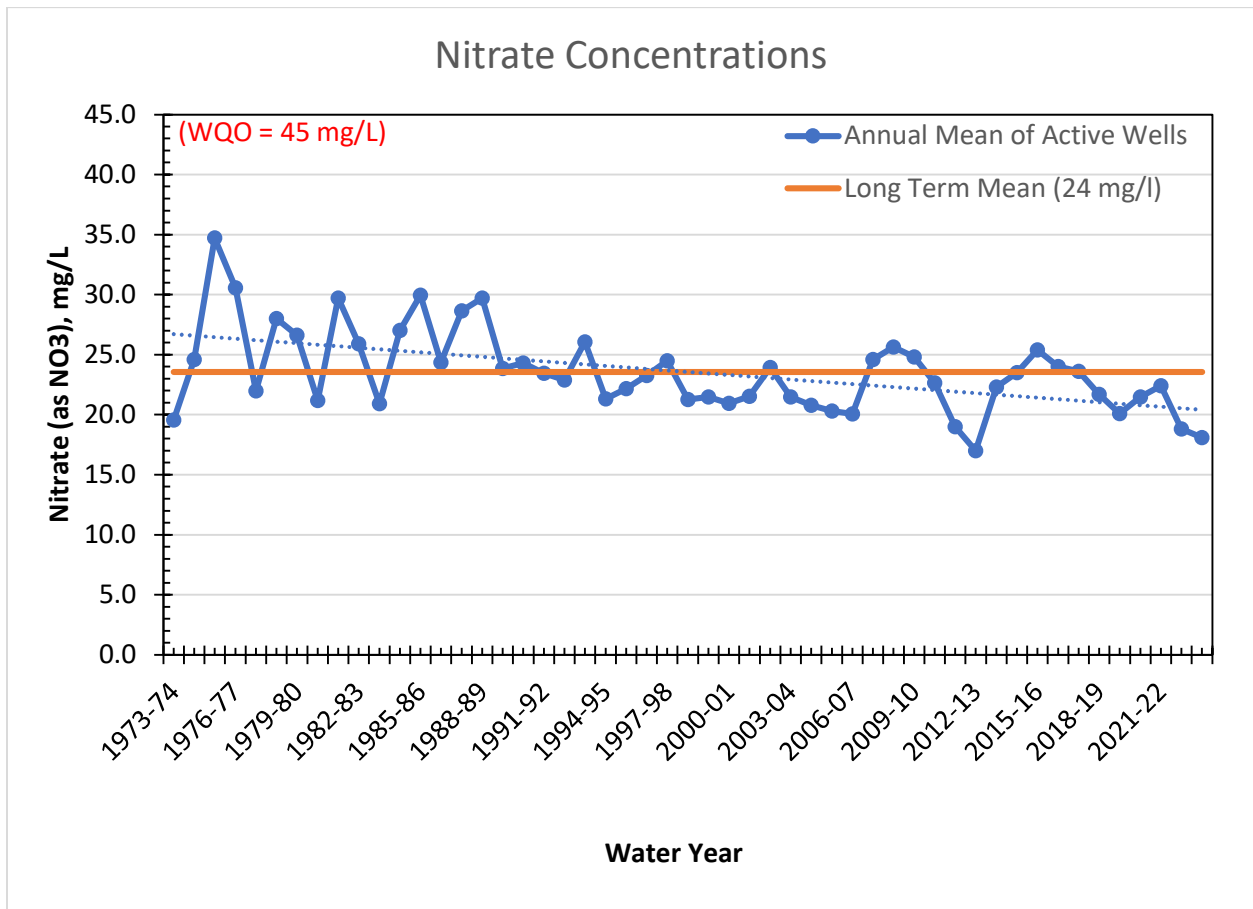
### **Total Dissolved Solids (TDS)**

The graph below shows annual average TDS water quality data from 1973-74 to 2023-24. The long-term mean is 340 milligrams per liter (mg/l) and the most recent WY 2023-24 annual average is about 356 mg/l. The Water Quality Objective is 450 mg/l for the westerly portion of the Main Basin and 600 mg/l for the easterly portion. Water quality trends indicate stable TDS conditions.



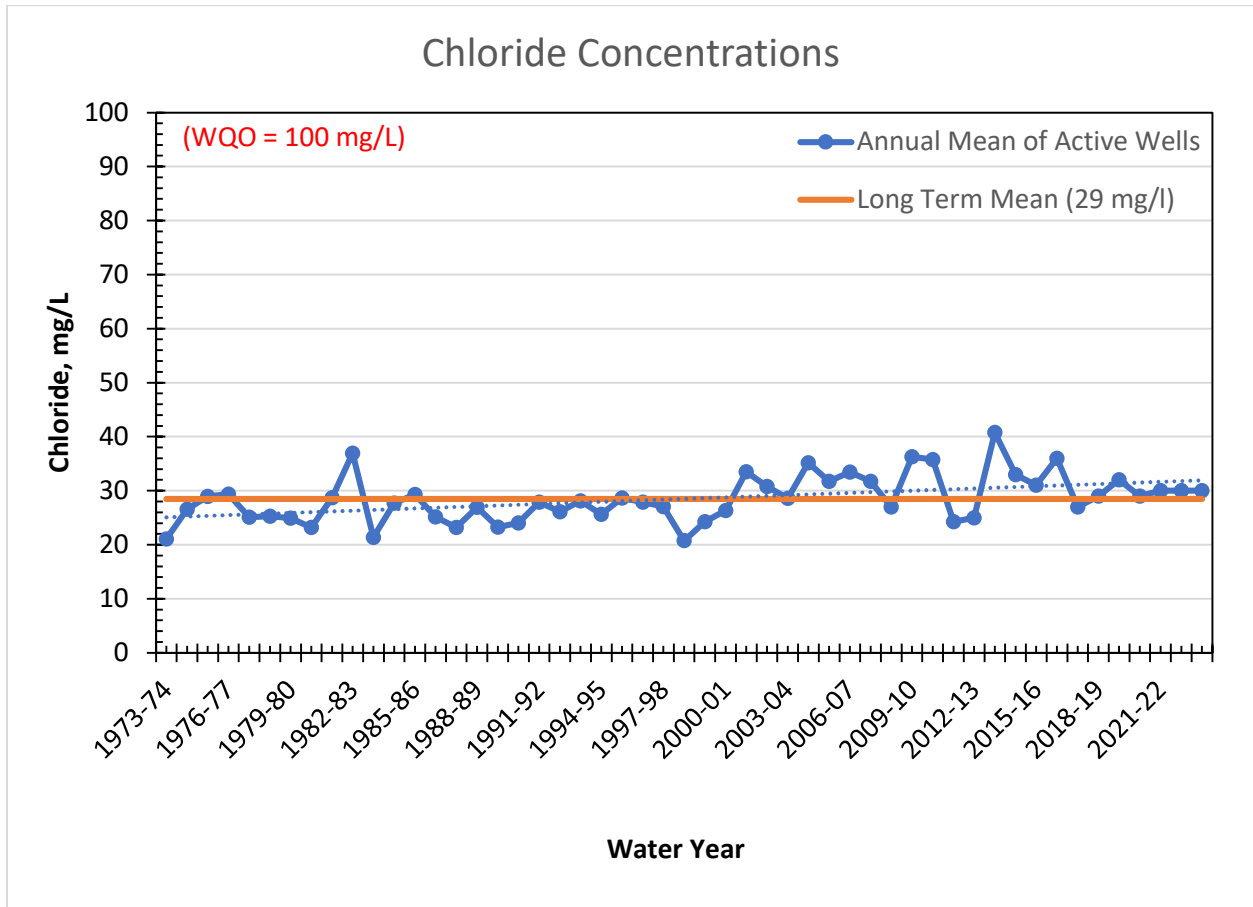
**Nitrate**

The graph below shows annual average nitrate as NO<sub>3</sub> water quality data from 1973-74 to 2023-24. The long-term mean is about 24 mg/l and the most recent WY 2023-24 annual average is 18.1 mg/l. The Water Quality Objective is 45 mg/l. Water quality trends indicate decreasing nitrate concentrations.



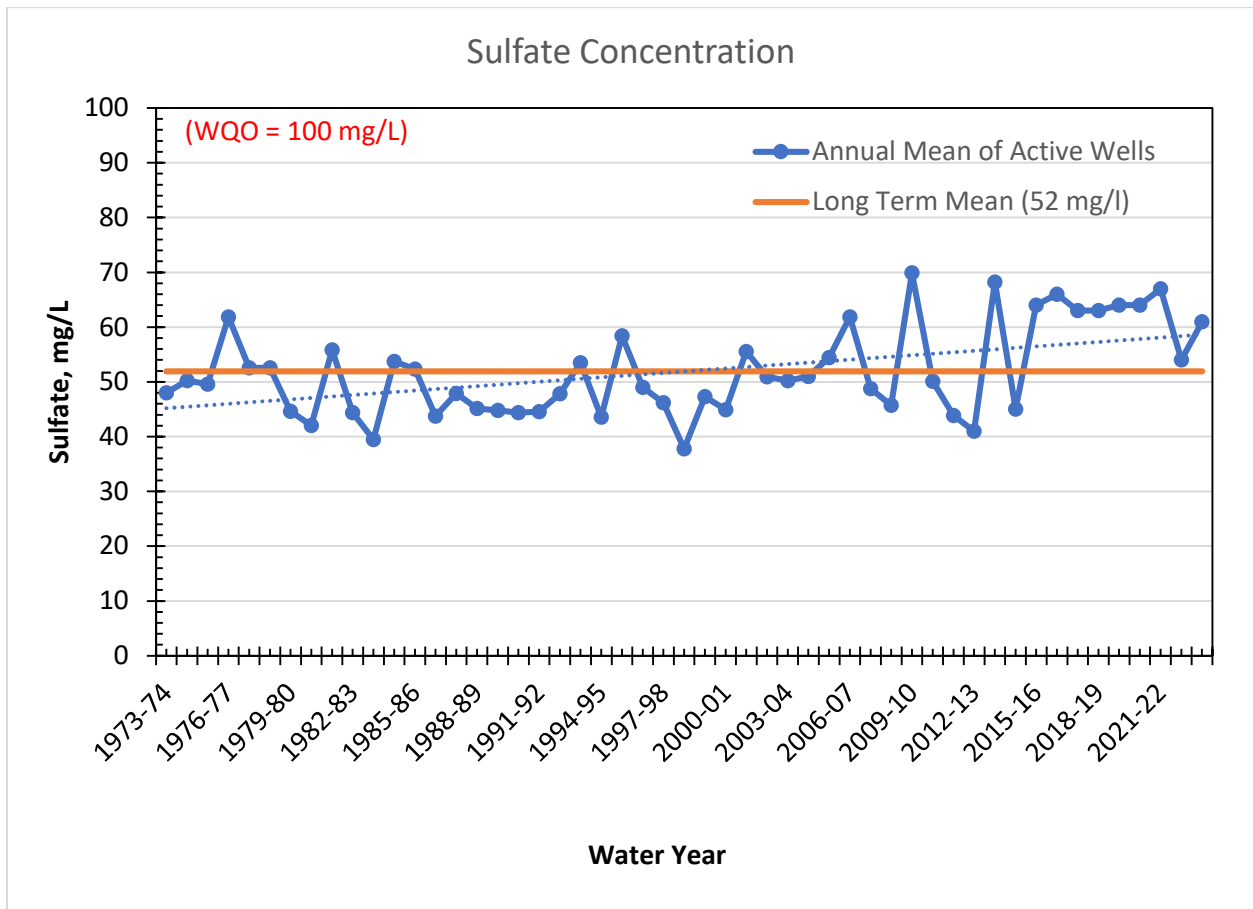
### Chloride

The graph below shows annual average chloride water quality data from 1973-74 to 2023-24. The long-term mean is about 29 mg/l and the most recent WY 2023-24 annual average is 30 mg/l. The Water Quality Objective is 100 mg/l. Water quality trends indicate slightly increasing chloride concentrations.



### Sulfate

The graph below shows annual average sulfate water quality data from 1973-74 to 2023-24. The long-term mean is about 52 mg/l and the most recent WY 2023-24 annual average is 61 mg/l. The Water Quality Objective is 100 mg/l. Water quality trends indicate slightly increasing sulfate concentrations.



### **Boron**

The graph below shows annual average boron water quality data from 2012-13 to 2023-24. The mean is 68 micrograms per liter (ug/l) and the most recent WY 2023-24 annual average is 21 ug/l. The Water Quality Objective is 500 ug/l. Water quality trends indicate stable boron conditions.

