San Pasqual Valley Groundwater Sustainability Plan (GSP) Stakeholder Workshop

2023 Annual Report







The Preliminary Feasibility Study was finalized March 2024

Available:

https://www.sandiegocounty.gov/content/dam/sdc/pds/SGMA/PFS Final 28Mar24 wApps.pdf

March 28, 2024





Surface Water Recharge Evaluation Preliminary Feasibility Study Final

> Prepared for: City of San Diego & County of San Diego

> > Prepared by:



Jacobs

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Meeting Agenda

- 1. Welcome and introductions
- 2. 2023 Annual Report Outcomes
- 3. Next Steps

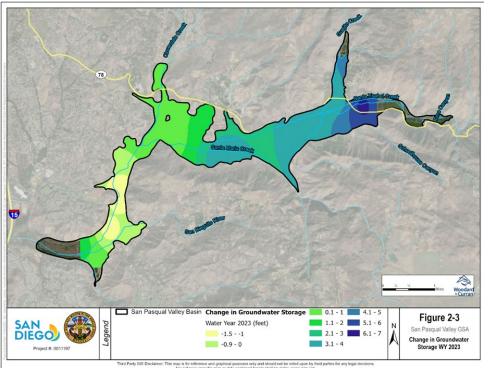
San Pasqual Valley GSP Stakeholder Workshop

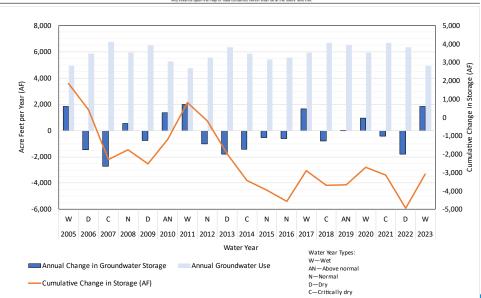
2023 Annual Report





- Submitted to DWR in April of 2024
- Includes
 - Review of data collected over the last year (groundwater levels and groundwater quality)
 - Analysis to incorporate data into Basin conditions assessment
 - Updated hydrographs, chemographs, and groundwater conditions maps
 - Update on status of GSP implementation including Projects and Management Actions
- On Friday, May 24th, DWR informed the Basin that it completed its review of the Annual Report and "determined that no further information or action is required at this time."





Evaluation Parameters

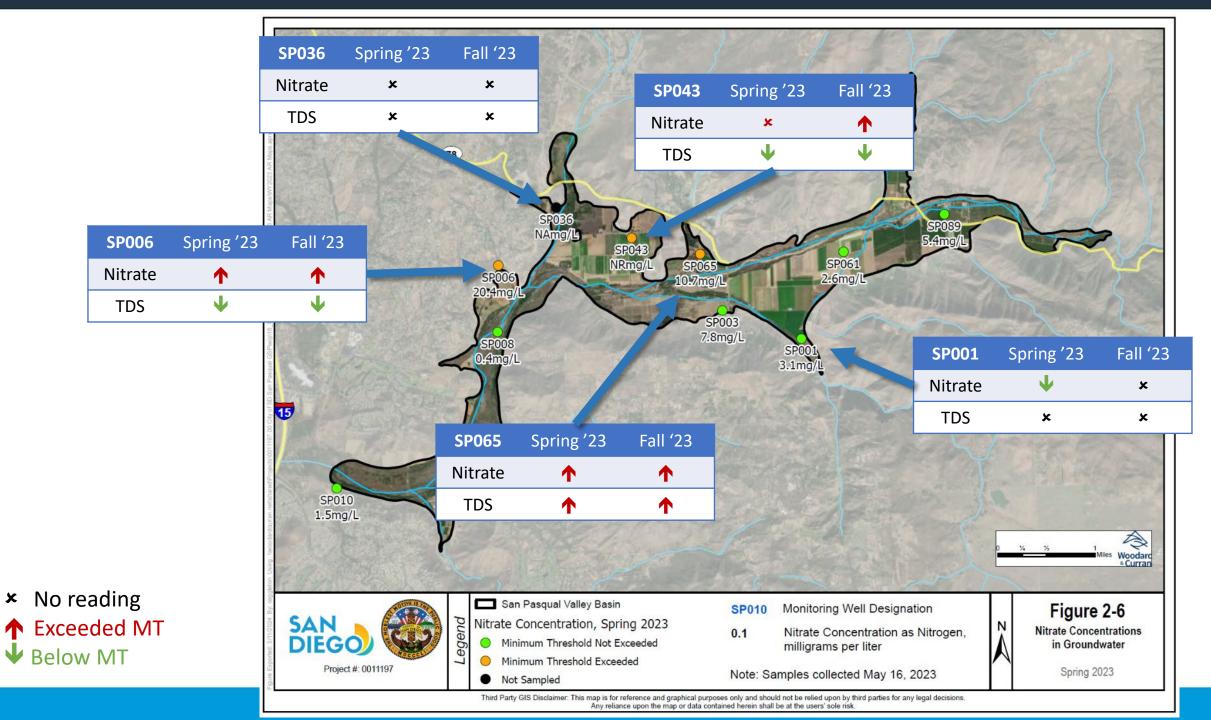
- Annual Report evaluates groundwater data in relation to Thresholds in GSP:
 - Planning Threshold (PT) –"early warning" to consider implementing management actions to avoid MT exceedances
 - Minimum Threshold (MT) could indicate undesirable results if sustained exceedances occur in multiple wells for specific duration
 - Measurable Objectives (MO) goals for the maintenance or improvement of groundwater conditions in Basin
- Groundwater level PTs, MTs, and MOs vary by well
- Groundwater quality MTs, and MOs are set at 10 mg/L and 5 mg/L, respectively for all wells



- Groundwater Levels, Interconnected Surface Waters, and Storage
 - Experienced higher-than-average precipitation "Wet" hydrologic year
 - Groundwater storage increased by ~1,855 AF
 - Two wells were unable to record measurements in Spring 2023, and one well was unable to record a measurement in Fall 2023
 - Groundwater levels increased in 2023 compared to 2022, and no wells exceeded their MT
 - No undesirable results triggered



Groundwater Quality





Consideration of Undesirable Results

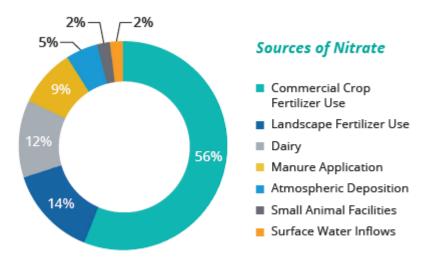
- 2022 GSP definition of undesirable results for groundwater quality:
 - When 30% of the representative monitoring wells (3 of 10) for water quality exceed the minimum threshold for two consecutive years
 - Undesirable results for water quality must be associated with groundwater pumping and other groundwater-related activities
 - Existing water quality impacts prior to 2015, and future water quality impacts caused by land use practices, surface water quality issues, or other issues not associated with groundwater management may be undesirable results for degraded water quality that are not the responsibility of the GSA because they are outside of GSA authorities



Consideration of Undesirable Results

- 2022 GSP defines undesirable results for groundwater quality as:
 - When 30% of the representative monitoring wells (3 of 10) for water quality exceed the minimum threshold for two consecutive years – Yes, 3 wells have exceeded nitrate MT for two consecutive years
 - Undesirable results for water quality must be associated with groundwater pumping and other groundwater-related activities

 – Per 2014 Salt and Nutrient Management Plan (SNMP), referenced in 2022 GSP, an estimated 70% of nitrogen contribution in the Basin is derived from commercial and landscape fertilizer use, which lies outside of the legal regulatory authority of the GSA
 - Existing water quality impacts prior to 2015, and future water quality impacts caused by land use practices, surface water quality issues, or other issues not associated with groundwater management may be undesirable results for degraded water quality that are not the responsibility of the GSA because they are outside of GSA authorities - Historical data for two of those three wells indicate levels above the MT prior to 2015

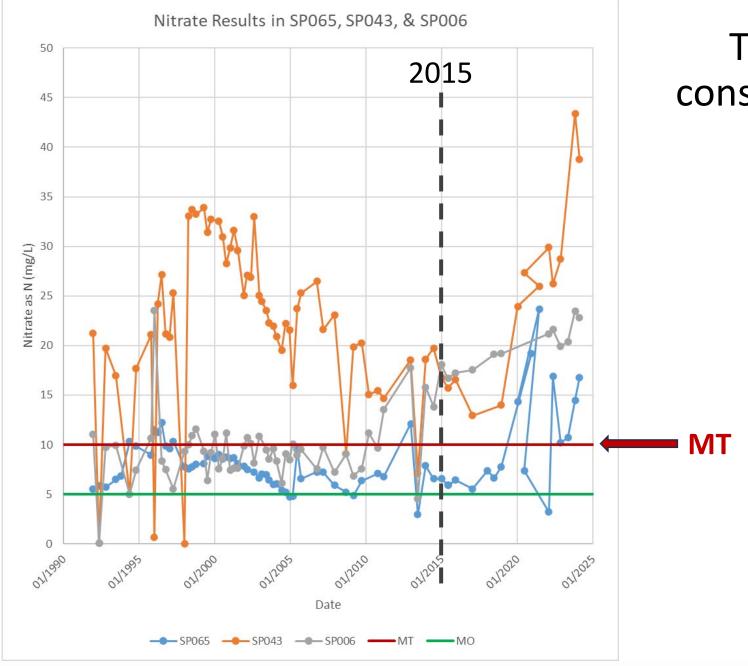


Source: San Pasqual Valley Salt and Nutrient Management Plan, 2014





Is this an Undesirable Result?



The Annual Report does not consider this an undesirable result



- GSA is considering approaches for addressing Nitrate levels.
 - Projects and management actions including additional public outreach and meetings, monitoring, model updates, farming best practices, or education and outreach to encourage demand softening.
 - Additional communication using the Nitrate and TDS Fact Sheet (2022)
 https://www.sandiegocounty.gov/content/dam/sdc/pds/SGMA/SPV-Nitrate-FactSheet-2022-08-24.pdf
- GSP Periodic Evaluation due 2027
- GSA wants your input!
 - Are there appropriate management actions within the jurisdiction of the GSA?
 - Would additional information or outreach help address Nitrate concerns?



- GSA created Nitrate and Total Dissolved Solids in Groundwater Fact Sheet in 2022 (see handout!)
- Fact Sheet recommendations for domestic well owners:
 - Complete annual water quality testing
 - Maintain wellheads
 - Evaluate well setbacks from potential Nitrate sources
 - Avoid or reduce fertilizer use
 - Consider well treatment devices
 - Use bottled water until quality improves
- State Water Resources Control Board has useful information for domestic well owners at www.waterboards.ca.gov/drinking water/program s/
- State Water Resources Control Board's Nitrate Project webpage <u>www.waterboards.ca.gov/water issues/programs/nitrate project/</u>



The San Pasqual Valley Groundwater Basin Groundwater Sustainability Plan (GSP) is committed to ensuring the Basin remains sustainable through projects and management actions such as education and outreach, regular monitoring, reporting, coordination and collaboration with other entities to perform monitoring and implementation of regional projects.

Groundwater Quality Regulations

The Environmental Protection Agency established Primary and Secondary Drinking Water Regulations which set maximum contaminant levels (MCLs) to protect public health and/or welfare. Primary MCLs are legally enforceable standards established to protect human health, and Secondary MCLs are voluntary standards focused on human welfare considerations, such as odor and taste. Nitrate has been established as a Primary MCL contaminant, and TDS as a Secondary MCL contaminant.

The California Department of Public Health (CDPH) regulates public water systems and requires water quality monitoring and reporting. Action is required to ensure water delivered to consumers meets drinking water standards for all regulated contaminants, including TDS and Nitrate. Private wells are not subject to drinking water regulations by CDPH.

How does TDS and Nitrate Get into my Well Water?

TDS and Nitrate travel through the soil and are carried by rain or irrigation water into groundwater supplies and get into wells that tap groundwater. TDS and Nitrate contamination occurs most often in shallow wells, wells near a TDS/Nitrate source, wells in sandy soil, or wells that are improperly constructed or maintained.

The San Pasqual Valley GSP and related material, as well as announcements and meeting information, are available on our website. For more information about the GSP and the most recent basin conditions, please visit: www.sandlegocounty.gov/content/sdc/pds/SGMA/san-pasqual-valley.html



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Annual Report Take-Aways

- What we're watching for in the future:
 - Refinements to the representative monitoring network for both groundwater levels and quality
 - Trends that indicate whether potential MT exceedances may occur
 - Close monitoring of water quality in wells with historical MT exceedances and consideration of appropriateness of MTs for the 2027 GSP Update
- DWR posting response letters to Annual Reports (new process!)
- CASGEM groundwater monitoring may increase in frequency
- Annual Report is available on GSA Website: www.sandiegocounty.gov/content/sdc/pds/SGMA/san-pasqualvalley.html

- San Pasqual Valley GSP Website
 - https://www.sandiegocounty.gov/content/sdc/pds/SGMA/san-pasqualvalley.html
- San Pasqual Valley GSP
 - https://sgma.water.ca.gov/portal/gsp/preview/75
- Annual Report for Water Years 2020, 2021, 2022, and 2023
 - https://sgma.water.ca.gov/portal/gspar/preview/140
- San Pasqual Valley GSP Data Management System (Opti)
 - https://opti.woodardcurran.com/sanpasqual/login.php



Reach out directly to City or County at any time for questions/comments about the San Pasqual Groundwater Basin or GSP efforts

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THANKYOU!

