

Nitrate in private drinking water wells is a known concern in many parts of the Central Valley. There are many ways that nitrate can enter groundwater and since wastewater treatment facilities can be a source, the City of Fresno is doing its part to assess potential impacts of its wastewater treatment facility and to take action if needed. A first step is to work with property owners in the vicinity of the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) to discuss the program and get input from property owners and groundwater users.

ABOUT THE REGIONAL WASTEWATER RECLAMATION FACILITY

The RWRF is located at Jensen and Cornelia in southwest Fresno and has been in operation as a secondary treatment facility since the 1970s. The City of Fresno provides high-quality collection, treatment, and reclamation services to preserve the environment and ensure the health, safety, and economic vitality of the community. Highly trained, experienced, State-certified treatment plant operators are on duty 24 hours a day, 7 days a week, to oversee treatment plant processes.

The RWRF treats approximately 59 million gallons per day (mgd) of wastewater. Approximately 10 percent of the wastewater that is treated goes for direct reuse to farmers leasing land within the RWRF boundaries or to neighboring farmers. The rest is sent to 1,700 acres of ponds to percolate into the ground. A network of reclamation wells extracts water from the “mound” underneath the percolation pond area and discharges that water into Fresno Irrigation District canals that will be used for irrigation of farmland downstream from the treatment plant.



Fresno-Clovis Regional Wastewater Reclamation Facility

NITRATES IN DRINKING WATER

The California Code of Regulations (CCR) Title 22 established a Drinking Water Maximum Contaminant Level (MCL) of 10 mg/L of nitrate in water. Drinking water supplies that have levels of nitrate above this limit are unsafe to drink, especially for infants and pregnant women. Drinking water with an unsafe level of nitrate may cause methemoglobinemia, which decreases blood cells' ability to carry oxygen through the body.

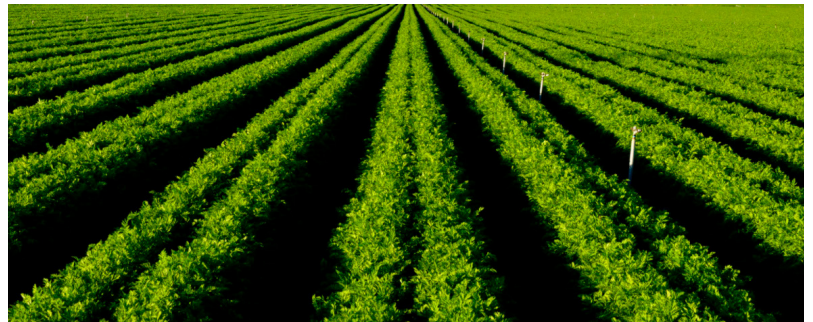
WHERE DOES NITRATE COME FROM?

Nitrate exists naturally in soils, but increased levels of nitrate can enter groundwater supplies through a variety of sources, including:

- *Run-off carrying chemicals found in most fertilizers*
- *Water discharged from industrial facilities*
- *Run-off from agricultural and farming operations*
- *Discharge from wastewater treatment facilities*

How Do I Know if Nitrate Levels in My Drinking Water are Above the MCL?

The only way to determine if there are unsafe levels is to test your well water. Public water system operators regularly monitor for nitrates and other contaminants and treat the water if needed. Property owners with their own domestic wells often do not know if their domestic well has high nitrate levels.



NITRATE CONTROL PROGRAM

The Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS), together with the Central Valley Regional Water Resources Control Board, is implementing an extensive program to control nitrate levels in Central Valley drinking water supplies. CV-SALTS is a collaborative program made up of growers, dairies, local industries, communities, environmental organizations, and the State of California working together to develop sustainable salinity and nitrate management planning for the Central Valley and provide safe drinking water supplies.



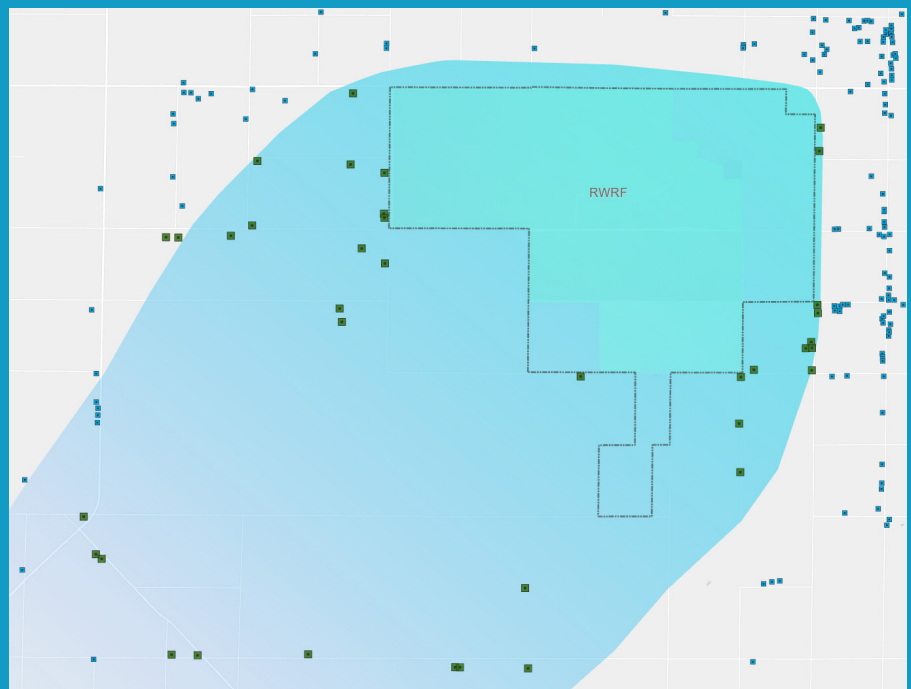
As part this program, the City of Fresno in conducting a “Nitrate Initial Assessment” (NIA) to determine potential influence of the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) on nitrate levels in local domestic wells and take action if needed.

The NIA will:

- Assess water quality conditions around the RWRF based on available information
- Determine if the wastewater facility is causing any domestic well to be contaminated by nitrate
- Help development of an “Early Action Plan” to address the immediate needs of those drinking groundwater that exceeds the nitrate drinking water standard if the City detects that the RWRF is contributing to elevated nitrate levels around the facility

POTENTIAL AREA OF NITRATE CONTRIBUTION

Based on analysis of water quality data collected from City of Fresno groundwater monitoring wells along with domestic and agricultural wells near the RWRF, the City has identified a potential “Area of Nitrate Contribution” from the RWRF percolation ponds at the facility, with approximately 37 private



domestic wells identified in that area. Whether or not the RWRF is negatively impacting wells within that area is still in question so a next step is to work closely with private property owners to conduct nitrate testing.

WORKING WITH PRIVATE WELL OWNERS TO ESTABLISH NEXT STEPS

An essential part of the Nitrate Control Program is to work with private well owners in the area of Fresno’s RWRF to discuss the program, options to test for nitrates in their private groundwater wells, and possible short-term solutions if nitrate levels are

detected above the MCL. Input received from these meetings will be key to developing an Early Action Plan describing proposed near-term steps to obtain additional nitrate testing results, provide safe drinking water if called for, and keep property owners informed and involved.

Property owner input on interim drinking water solutions will be an important element in the Early Action Plan if nitrates are detected above the MCL.

Possible solutions include:

- Installing point-of-use treatment systems at individual homes
- Coordinating bottle water delivery
- Establishing drinking water fill stations



The Early Action Plan will be submitted to the Central Valley Regional Water Quality Control Board for review and approval in May 2021. Property owner input before that date will be a key part of the proposals included in that plan. The City of Fresno will work closely with property owners before and after this date to determine if elevated nitrate levels are present and to take action if needed. The City is responsible for and committed to providing and implementing a reasonable solution to provide safe drinking water to areas impacted by the RWRF.

Early Action Plan

The NIA and community member participation will inform an Early Action Plan that describes near- and long-term solutions to provide residents with safe drinking water if nitrate levels are detected above the regulatory limit of 10 milligrams per liter and are shown to be influenced by the City wastewater treatment facility.

WHO TO CONTACT WITH QUESTIONS OR CONCERNS?

Please contact us at (559)-621-5130 or visit [fresno.gov/publicutilities/sewer-wastewater/salinity-and-nitrate-control-program](https://www.fresno.gov/publicutilities/sewer-wastewater/salinity-and-nitrate-control-program) for more information.