City of FRESNO WATER DIVISION

FAQs

What is nitrate and why is it unsafe?

Nitrate naturally exists in soils and is commonly found in materials such as fertilizers. Nitrate can enter groundwater drinking supplies through a variety 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

However, nitrate in drinking water above the Drinking Water Maximum Contaminant Level (MCL) is a known health risk, especially to infants and pregnant women. The California Code of Regulations (CCR) Title 22 established 10 milligrams per liter (mg/L) of nitrate in water as the MCL. Drinking water with levels of nitrate above 10 mg/L may cause methemoglobinemia, which decreases blood cells' ability to carry oxygen through the body.

Why does the City need to test my domestic well?

The City is studying the potential influence of the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) on nitrate levels in local domestic wells to develop an action plan should nitrate above the MCL be detected.

The RWRF treats approximately 59 million gallons per day (mgd) of wastewater from the cities of Fresno and Clovis, the Pinedale County Water District, the Pinedale Public Utilities District, and some unincorporated areas of Fresno County. Approximately 10 percent of the wastewater that is treated at the reclamation facility 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.

Whether or not the RWRF is negatively impacting wells within an area known as the Area of Nitrate Contribution is not clear, so a next step is to work closely with private property owners to conduct nitrate testing.

What is the Area of Nitrate Contribution?

The Area of Nitrate Contribution is the portion of the aquifer surrounding the RWRF where treated effluent from the RWRF mixes with local groundwater. The Area of Nitrate Contribution has been determined using groundwater quality data collected from City monitoring wells and domestic and agricultural wells that the City has sampled. Although wells may be within the "Area of Nitrate Contribution" that does not indicate drinking water exceeds the CCR Title 22 limit for nitrate in water. The City will work with property owners to monitor well water levels and take action if needed.

How did the City determine my domestic well is within the Area of Nitrate Contribution?

Based on analysis of water quality data collected from City groundwater monitoring wells along with domestic and agricultural wells near the RWRF, the City has identified the Area of Nitrate Contribution from the RWRF's percolation ponds, with approximately 34 private domestic wells identified in that area. If your domestic well is one of the 34 domestic wells identified, it is within the Area of Nitrate Contribution based on initial analysis and you should have been contacted by the City of Fresno. Although wells may be within the "Area of Nitrate Contribution" that does not indicate drinking water exceeds the CCR Title 22 limit for nitrate in water. The City will work with property owners to monitor well water levels and take action if needed.

What if I'm near the RWRF but have not been contacted by the City?

If your residence is located within the Area of Nitrate Contribution, you should have been contacted by the City of Fresno. If outside the Area of Nitrate Contribution, then you should contact the Kings Water Alliance to sample your well. The Kings Water Alliance is the governing body that addresses nitrates for the Kings Management Zone, which encompasses the Kings and Tulare Lake groundwater subbasins. You can reach the Kings Water Alliance at (559) 549-6747 or info@kingswateralliance.org.

What is the testing process and how long will it take?

Once the City receives your consent to test your domestic well, the City will coordinate with you to set up testing to measure if the nitrate concentration is greater than 10 mg/L. Testing results will take a few business days to be complete.

What are the next steps if nitrate levels above the MCL are detected in my domestic well?

If nitrate levels are above the MCL and the well is within the RWRF "Area of Nitrate Contribution, the City will coordinate bottled water deliveries as quickly as possible and then possibly another alternative water supply based on property owner input. The City will follow up with you within one month of initiation of service, for whichever water supply alternative you chose, then approximately six months after service initiation and then annually. You will also have the option to have your domestic well re-tested annually.

How can I access an alternative water supply if nitrate levels above the MCL are measured in my groundwater?

The City will be responsible for providing safe drinking water alternatives to residents within the Area of Nitrate Contribution should nitrate levels above the MCL be detected in their domestic well.