



FREQUENTLY ASKED QUESTIONS: REUSING PRODUCED WATER FOR AGRICULTURAL USE

Q: What is North Kern Water Storage District?

A: North Kern Water Storage District (North Kern) is a public water agency that provides irrigation water to approximately 60,000 acres of orchards and vineyards – primarily almonds, pistachios and grapes.

Q: Where does North Kern get water?

A: Historically, the Kern River supplies 90 percent of North Kern’s water needs either directly or through river supplies recharged to the groundwater basin. As a result of the historic drought, North Kern currently sources a nominal supply directly from the Kern River resulting in an increased reliance on groundwater reserves to meet the needs of its customers. Produced water from oil operations supplements the rest of its supplies.

Q: What is produced water?

A: California ranks third in oil production in the nation, and Kern County produces approximately 70 percent of the oil in California. Along with oil, wells in Kern County produce significant quantities of water – called produced water. Every gallon of oil produced generates approximately 15 gallons of water. Produced water is extensively treated and tested diligently to use for the irrigation of crops. North Kern currently receives approximately 12,000 acre-feet of produced water per year from local oil producers and has the ability to receive up to 21,000 acre-feet.

Q: What is groundwater?

A: Groundwater is found underground in reserves. When surface water supplies are low, water agencies throughout the state turn to groundwater wells to meet water supply needs. The current drought has led to a reduction in groundwater levels across the state. Through the use of produced water, North Kern is able to provide a much-needed additional source of fresh water for our farmers, reducing the region’s reliance on groundwater reserves during drought.

Q: How long has North Kern been relying on produced water?

A: The district has been safely providing produced water to its customers for agricultural use for decades.

Q: How is produced water helping farmers and consumers during this historic drought?

A: North Kern's produced water program builds on decades of safe and successful use of produced water. By extending limited water supplies, North Kern's program is helping the farmers, who rely on our water, continue to thrive during the drought. Without this water, thousands of acres of high-value crops could be fallowed, resulting in reduced domestic food production and higher costs to consumers.

Q: Beyond this drought, how will produced water benefit our region?

A: Agriculture and energy drive Kern County's economy. Our farmers already employ the most innovative water-efficient farming practices – of all the Mediterranean climates in the world, California's farmers grow more crops per drop. However, due to forthcoming restrictions on groundwater pumping, in the absence of new water supply sources, our farmers may be forced to take high-value crops out of production. Produced water is presently the only new supply we have to offer our farmers. North Kern's produced water project allows the district to provide our region's farmers with up to 21,000 acre-feet of additional supplies each year, preventing job loss during dry years and supporting an additional 250 jobs. At capacity, this project will provide irrigation water for 6,400 acres of nut crops or 9,000 acres of grapes, keeping more acres of farmland in production.

Q: Does using blended produced water to irrigate farmland benefit California consumers?

A: Yes. Our country has the most regulated farming practices and food safety standards in the world. In California, our standards for water quality and pesticide use are even higher. Produced water is helping to keep our farms in production, keeping high-quality, low-priced food on our tables. Without adequate water, we would see a decline in domestic food production that could result in an increase in imported food supplies, leaving California consumers to pay more for lower quality food.

Q: Do others support North Kern's produced water project?

A: Yes. Countless state assembly members, state senators, local elected officials, chambers of commerce, neighboring water districts and associations of farmers, workers and residents have expressed support for North Kern's produced water project as it helps sustain our region's farms, economy and jobs.

Q: Is hydraulic fracturing involved?

A: North Kern does not accept, use, or deliver water generated from hydraulic fracturing.

Q: Is there a difference between produced water for agricultural purposes and drinking water?

A: State regulators have different standards for water based on the water's use. Produced water for agricultural purposes must meet strict regulatory standards, which differ from those used to evaluate drinking water.

Q: How is produced water regulated?

A: North Kern's use of produced water is subject to a permit issued by the Central Valley Regional Water Quality Control Board (Regional Board). The permit requires extensive monitoring and testing to ensure the water is safe for agricultural use and will not degrade groundwater reserves.

Q: How is produced water tested?

A: All produced water is tested monthly by an independent, third-party laboratory specializing in water quality testing. Testing occurs at three different locations to closely track water quality in North Kern's system. The test results are provided to the Regional Board for careful review and oversight. The system is equipped with monitors that continuously monitor water quality. Should elements in the water approach the regulatory limit, the monitors will shut down water deliveries.

Q: What is the water tested for?

A: North Kern's produced water is subjected to intensive water quality testing that regularly tests for more than 130 constituents in the following categories: minerals, metals, hydrocarbons, radionuclides, trace elements, semi-volatile organic carbons and volatile organic carbons. These tests have confirmed that North Kern's produced water meets irrigation water standards.

Q: Is North Kern's produced water in compliance with the state's stringent standards?

A: North Kern is in compliance with the standards set by state and regional regulators, consistently meeting existing standards for irrigation water.

Q: Why did the Regional Board convene an expert panel on produced water?

A: As demand for produced water increases, the Regional Board established an expert panel to evaluate the use of produced water and requested more detailed water quality reporting from water districts relying on produced water.

Q: What is North Kern doing to ensure that the water is safe for agricultural purposes?

A: The District will continue to work closely and transparently with the Regional Board to ensure its customers have access to high-quality water for agricultural use. The reputation of our customers and their products is tied to the water used for irrigating their crops. North Kern shares this commitment to quality and will continue to ensure that irrigation water supplies meet or exceed California's stringent water quality standards.

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