SACRAMENTO – An expert panel has concluded that the decades-old practice of irrigating agricultural food crops with “produced water” from oil fields shows no evidence of increased risk to human health.

The panel’s 35-page Food Safety Project White Paper is the result of five years of extensive crop sampling and a thorough evaluation of data, along with a review of existing literature. Central to the data analysis is an evaluation of toxicity related to the water and its potential impact on crops.

The Central Valley Regional Water Quality Control Board is inviting members of the public to comment on the white paper at its next meeting on Feb. 18-19, along with an option to submit written comments until March 5.

Produced water is a byproduct of oil production. Production fluid extracted from the ground by oil wells generally consists of oil and water. The water portion is known as “produced water.” The concern that severe drought may become more common in the future due to climate change has increased interest in using unconventional water sources, including produced water, for irrigation.

The studies outlined in the white paper did not find evidence of elevated risks to human health expected from consuming the crops grown with produced water compared to traditional water sources in areas examined by the expert panel. The panel has formulated recommendations regarding the use of produced water for the irrigation of crops for human consumption, including measures to address certain gaps in data found in the studies.

“For more than 30 years, high-quality produced water from oil fields north of Bakersfield has been treated and used to supplement agricultural water supplies,” said Patrick Pulupa, executive officer of the Central Valley Regional Water Quality Control Board. “In the interests of the health and safety of the general public, we convened this highly reputable panel to review publicly available data and data collected during this project.
With more than 7 million acres of irrigated farmland, California’s Central Valley is one of the leading agricultural areas in the world and produces a multitude of commodity food crops.

The work of the panel is contained in a draft version of the paper produced by board staff with the assistance of an expert science advisor under contract from Berkeley National Laboratory. The panel included experts in toxicology, regional wildlife, food safety, agriculture, risk assessment, and public health who were recruited from the California Department of Public Health, California Department of Fish and Wildlife, California Department of Food and Agriculture, Office of Environmental Health Hazard Assessment, United States Army Corps of Engineers, United States Environmental Protection Agency, private consulting firms, and an environmental advocacy organization.

After considering public comments and feedback, board staff will finalize the white paper in the next few months. Additional information can be found on the board’s website for the Food Safety Expert Panel.

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