

**KINGS WATER ALLIANCE PRIORITY 2  
MANAGEMENT ZONE EARLY ACTION PLAN  
ADDENDUM  
EXECUTIVE SUMMARY**

**Attachment D**

PREPARED FOR



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## EXECUTIVE SUMMARY

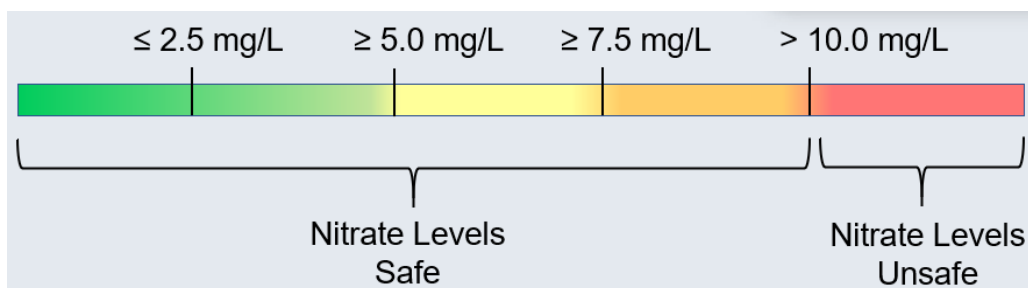
### E.S. 1. Background

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) has begun implementing a new Nitrate Control Program in the Central Valley that is designed to achieve three nitrate management goals:

- *Goal 1* – Ensure a safe drinking water supply;
- *Goal 2* – Reduce nitrate loading so that ongoing discharges neither threaten to degrade high quality waters absent appropriate findings by the Central Valley Water Board nor cause or contribute to exceedances of nitrate water quality objectives; and
- *Goal 3* – Implement long-term, managed restoration of impaired water bodies.

The Kings Water Alliance (KWA) was established to achieve these three goals for its Management Zone. As required by the Nitrate Control Program, the KWA prepared this Early Action Plan (EAP), which identifies the initial actions that will be carried out to address drinking water with unsafe nitrate levels being used by residences in the Priority 1 (Kings groundwater subbasin) and Priority 2 (portions of the Tulare Lake groundwater subbasin) areas of the Management Zone (**Figure ES-1**). EAP implementation is occurring in phases. Phase 1 began implementation in the Priority 1 area in May 2021. This EAP Addendum has been prepared to facilitate implementation of Phase 2 which began in the Priority 2 area in February 2025.

The key element of this EAP, which was developed in collaboration with the community, is the Interim Replacement Water Program. This Program provides immediate alternative sources of drinking water for residences that depend on groundwater from domestic wells for drinking and cooking purposes where that groundwater contains unsafe levels of nitrate (water with more than 10 milligrams per liter nitrate as nitrogen (mg/L-N)).



## **Figure ES-1. Scale Showing Nitrate Safe and Unsafe Levels**

### **E.S. 2. Identification of Nitrate-Impacted Areas**

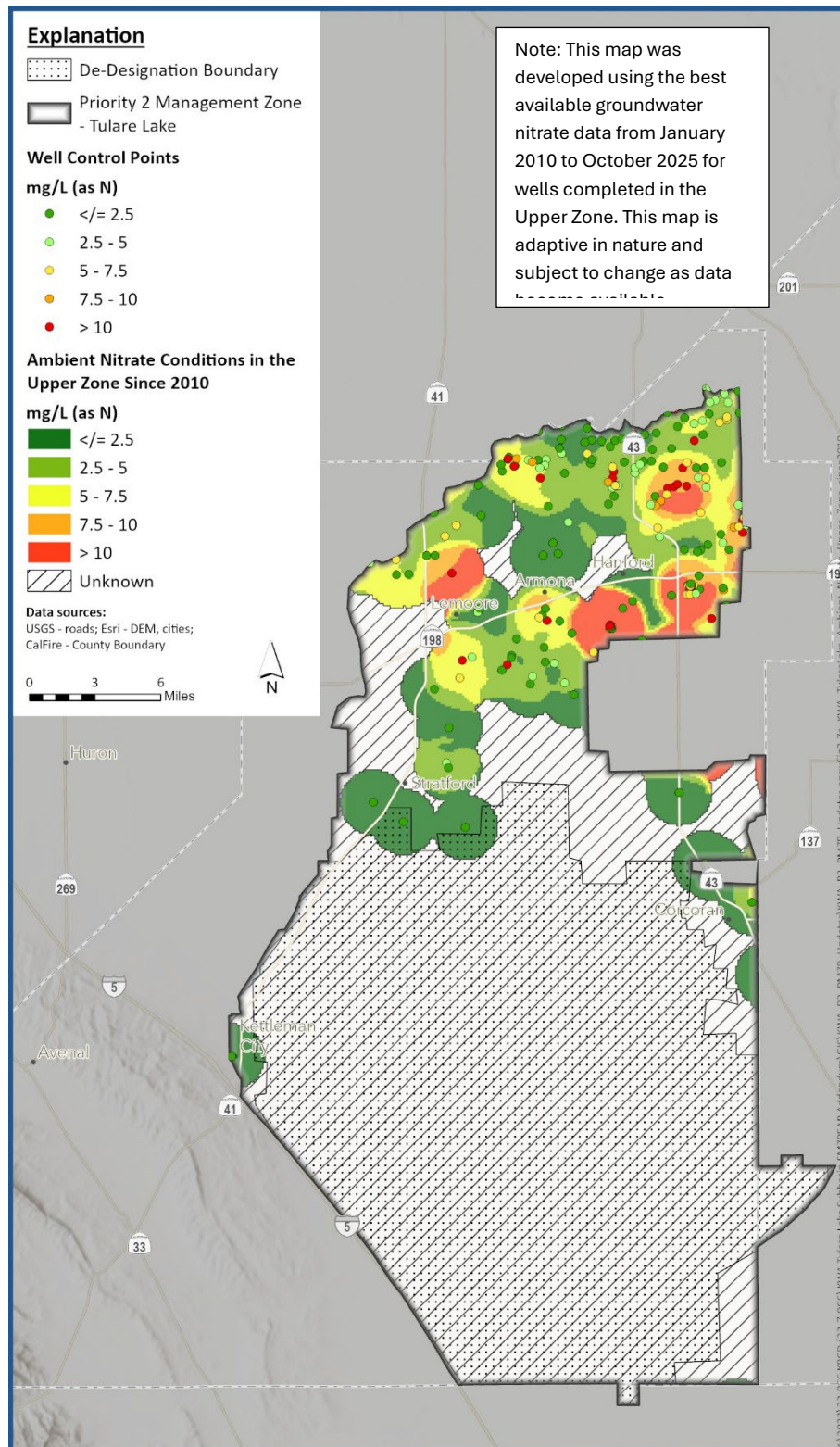
As described in more detail within the Final Management Zone Proposal (FMZP), nitrate groundwater data were requested, downloaded, and compiled using various publicly available sources and complemented by data requested from the Fresno and Tulare County Environmental Health departments<sup>1</sup>. The compiled nitrate groundwater data were categorized into depth zones, following previously developed CV-SALTS best management practices. Wells constructed in the Upper Zone of the groundwater system and with nitrate data since the year 2010 were used to determine recent average ambient nitrate concentrations. The best readily available groundwater nitrate dataset compiled and analyzed included sample results for wells in the Upper, Lower, and Below Lower Zones from January 2010 to October 2025. These nitrate data were used in determining ambient nitrate conditions in the Upper Zone of the groundwater system for the Priority 2 KWA Management Zone area (i.e., Tulare Lake Subbasin).

The Upper Zone average nitrate concentrations were used to produce a map showing the spatial interpolation (kriging using a search radius of 1.5 miles) of ambient nitrate conditions within the Management Zone for conditions between 2010 and 2025. As illustrated in Figure E.S. 1, several nitrate-impacted areas occur within Priority 1 and 2 areas of the Management Zone. These areas are defined by average recent nitrate concentrations in the Upper Zone that exceed the drinking water Maximum Contaminant Level (MCL) of 10 mg/L-N. Inherent uncertainty exists for the preliminary estimate of ambient nitrate conditions. The Final Management Zone Proposal Addendum provides an update of the ambient nitrate analysis, incorporating more Upper Zone nitrate data available (through EAP implementation of well testing, or other monitoring programs associated with the Irrigated Lands Regulatory Program, Groundwater Sustainability Agencies, or other entities). This FMZP Addendum includes an updated ambient map of nitrate levels. The ambient nitrate Upper Zone map is not intended to be a substitute for well testing or interim water replacement requirements.

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<sup>1</sup> Kings County was also contacted but did not have readily-available groundwater nitrate data not already contained in the public databases utilized.

Kings Water Alliance Management Zone  
Early Action Plan Addendum  
Priority 2 Tulare Lake Subbasin Area – Executive Summary



### **Figure ES 2. Ambient Nitrate Conditions in the Upper Zone since 2010**

In addition to the map that shows areas potentially impacted by nitrate in groundwater in the Upper Zone, the groundwater nitrate data compilation also contains all available public water system supply well nitrate sample results. From the available records downloaded from the State Water Resources Control Board Division of Drinking Water<sup>2</sup>, it appears that four public supply wells located within the Priority 2 Tulare Lake Subbasin KWA Management Zone have exceeded the nitrate MCL at some time. All four of those wells were considered to have an “active” status, as listed by the Drinking Water Watch<sup>3</sup>. None of the public water systems in the Priority 2 Tulare Lake Subbasin KWA Management Zone are currently (as of December 2025) out of compliance due to elevated nitrate conditions or elevated nitrate plus one or more other contaminants.

The ambient nitrate conditions map for the Upper Zone was overlain with known public water system boundaries and approximate domestic well locations to identify potentially impacted residents. Approximately 269 domestic wells are plotted within known public water system boundaries. An estimate of 233 domestic wells located outside of known public water system boundaries are located within mapped areas with estimated Upper Zone ambient nitrate above the safe drinking water standard (of 10 mg/L-N). Using 2020 US census block data adjusted for county-specific annual growth rates to calculate 2024 census block populations, the estimated population of residents living outside known public water system boundaries and within mapped areas with potentially unsafe drinking water (estimated Upper Zone ambient nitrate above the MCL) is approximately 1,442.

### **E.S. 3. Identification of Potentially Affected Areas**

A key component of the EAP is identification of residents or other entities in the Management Zone that may be obtaining their drinking water from a well impacted by nitrate levels that exceed 10 mg/L-N. Some KWA outreach efforts will target those identified as being most likely impacted by elevated nitrate (nitrate levels > 7.5 mg/L as N). This targeted outreach will occur at the same time the KWA is implementing general community outreach activities for the entire Management Zone. The process to identify residents or other entities in potentially affected areas will begin immediately upon EAP

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<sup>2</sup> Public Supply Well nitrate data was acquired from the Division of Drinking Water ([https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/EDTlibrary.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/EDTlibrary.html)) accessed October 2025.

<sup>3</sup> Public Water System information was acquired from the State’s Safe Drinking Water Information System (SDWIS) Drinking Water Watch online database (<https://sdwis.waterboards.ca.gov/PDWW/>) accessed December 2024.

implementation using the steps described. Where appropriate, the KWA will prioritize and target those that rely on domestic wells, and for the Public Water Systems (PWSs), will evaluate on a case-by-case basis the role of the Management Zone.

#### **E.S. 4. Community Outreach Program**

The KWA has and will continue to engage the community on the EAP including the Interim Replacement Water Program with the overall objective to create a level of engagement and awareness with community residents and stakeholders that establish trust and robust participation. The stated goals of the community outreach program are to: 1) identify and cultivate relationships with key influential individuals and organizations in the communities to amplify information from the Management Zone, 2) provide channels for input and participation that connect with residents in a way that is effective and accessible, and 3) provide easy-to-understand, timely information on the EAP development and implementation.

The community outreach program goals guided outreach during EAP development in the Priority 1 area of the Management Zone (i.e., the Kings Subbasin). KWA conducted a series of community outreach events beginning in November 2020 to obtain input on EAP development. Webinars included opportunities to ask questions and provide comments to KWA staff and its consultants. Webinar polling was conducted to solicit input on demographics, communications preferences, and drinking water solutions. Virtual office hours were open to the public to solicit input and answer questions on EAP development. Events were promoted using varying communications methods including community flyers at key locations, community organization distribution, email, and direct mail. A survey in both English and Spanish to solicit feedback on preferred drinking water solutions was conducted and distributed via email, website, and community organization outreach using digital platforms.

This EAP reflects the input received from the public. General community outreach will continue during EAP implementation through a variety of communications mediums including virtual and in-person community meetings, sharing information through the KWA's website, sharing regular updates via email to the interested persons email list, direct mail pieces, and/or information distribution through entities that are locally collaborating with the KWA's efforts to provide safe drinking water. In addition to ongoing broad community outreach, this EAP includes a program to outreach directly to residences in



areas most likely to have domestic wells contaminated by nitrate. A community survey to potentially impacted residents was conducted to obtain input.

### **E.S. 5. Interim Replacement Water**

The Interim Replacement Water Program provides an immediate solution for those currently experiencing unsafe levels of nitrate in their drinking water source. However, these solutions are only temporary and will eventually be replaced by long-term, permanent solutions.

There are three key options to obtain safe water now at no cost to residents located in the Management Zone: (a) delivered or non-delivered home bottled water; (b) installation of a Point-of-Use (POU) treatment system in your home; or (c) utilizing water fill stations strategically located within the Management Zone. Regarding the first two options, a residence may receive these alternative water options if the resident can answer yes to the following three statements:

1. My home is a residence relying on a domestic well for drinking water in the KWA;
  - a. For residents requesting service that receives drinking water from a PWS that is non-compliant with the nitrate drinking water standard, where appropriate, the KWA will prioritize and target those that rely on domestic wells; for the PWSs, KWA will evaluate on a case-by-case basis the role of the Management Zone.
2. I am willing to sign an agreement with the KWA's service provider; and
3. My well has unsafe nitrate levels ( $> 10$  mg/L-N) (see Figure ES-1) as determined by a water quality analysis conducted by a certified laboratory

If you do not know if your well water has unsafe nitrate levels, you may contact the KWA (<https://kingswateralliance.org>) to request that your well be sampled at no cost to you. Results from the nitrate test, which will be provided to you, will be used to determine the next steps. Most importantly, if your nitrate levels are unsafe the KWA will work with you immediately to obtain a safe source of drinking water. If nitrate levels are high ( $> 7.5$  mg/L-N) but safe, the KWA will offer the opportunity to have your well tested again at no cost to you in the future.

Finally, the KWA may also install additional water fill stations in the Management Zone. Three are currently operational in the Dinuba, Kerman, and Hanford areas; all fill stations use a certified source of safe drinking water and are available to the entire community at no cost. Based on the needs of the community, additional fill station locations may be



developed through the implementation of this EAP. Through this program, the community will be made aware of the existing fill stations and the availability of additional stations, if developed.

### **E.S. 6. Early Action Plan Implementation**

The KWA began implementing Phase 1 of this EAP in the Priority 1 area (Kings Subbasin) on May 8, 2021. Implementation of Phase 2 in the Priority 2 area (relevant portions of the Tulare Lake Subbasin) began on February 26, 2025. A community outreach meeting was held shortly after to kick-off Phase 2 of the program and inform residents regarding how to participate in the Interim Replacement Water Program. The Management Zone will also continue in its outreach to the community regarding the need and/or approach for developing additional water fill stations.