

KERN WATER COLLABORATIVE MANAGEMENT ZONE EARLY ACTION PLAN

Attachment F

PREPARED FOR



PREPARED BY



TABLE OF CONTENTS

Executive Summary.....	ES-1
E.S. 1. Background.....	ES-1
E.S. 2. Identification of Nitrate-Impacted Areas.....	ES-3
E.S. 3. Identification of Potentially Affected Areas.....	ES-6
E.S. 4. Community Outreach Program	ES-7
E.S. 5. Interim Replacement Water.....	ES-7
E.S. 6. Early Action Plan Implementation	ES-8
1. Background	1
1.1. Early Action Plan Requirements.....	1
1.2. Early Action Plan Framework and Applicability	2
1.3. Kern Water Collaborative	3
1.3.1. About the Kern Water Collaborative	3
2. Community Outreach to Develop Early Action Plan	4
2.1. Community Engagement Strategy	4
2.2. Community Engagement Activities	5
2.2.1. Establishment of Management Zone Website.....	6
2.2.2. Outreach to Community Participants.....	6
2.2.3. Outreach to Other Stakeholders	7
2.2.4. Public Review Opportunities.....	9
3. Identification of Nitrate-impacted Areas	9
3.1. Groundwater Nitrate Assessment.....	9
3.2. Potentially Impacted Public Water Supply Wells.....	11
3.2.1. Public Water Supply Wells in the Management Zone	11
3.2.2. Delivered Water Treatment Status of Public Water System Wells.....	13
3.3. Potentially Impacted Public Water Systems.....	14
3.4. Potentially Impacted Domestic Wells and Local Small Water Systems	15
4. Identification of Potentially Affected Areas	18
4.1. Process to Identify Affected Residents.....	18
4.2. Process for Non-Compliant Public Water Systems	19

5. Community Outreach During EAP Implementation.....	20
5.1. Information Sharing.....	20
5.1.1. Maintain Management Zone Website.....	20
5.1.2. Informational Materials	21
5.2. General Management Zone Outreach.....	21
5.2.1. Community Outreach Meetings	22
5.2.2. Targeted Resident Outreach	23
5.3. Coordination with Non-Dischargers.....	24
6. Interim Replacement Water Program.....	25
6.1. Interim Replacement Water Program Options.....	25
6.1.1. Bottled Water Delivery Program	25
6.1.2. Point of Use Treatment System Program	26
6.1.3. Water Fill Station Program.....	27
6.1.3.1. Water Filling Station Locations.....	28
6.1.3.2. Requirements to Establish a Water Filling Station	28
6.1.3.3. Water Fill Station Development	29
6.2. Participation in Bottled Water or POU System Programs	29
6.3. Residential Well Testing Program	32
6.3.1. Initial Well Test	32
6.3.2. Follow-up Well Test	33
6.3.3. Well Testing for Other Contaminants.....	34
6.3.4. Coordination with Irrigated Lands Regulatory Program.....	34
6.3.5. Central Valley Dairy Representative Monitoring Program	35
7. Early Action Plan Implementation	35
7.1. Schedule/Milestones	35
7.2. Early Action Plan Funding Mechanism	40
7.3. EAP Program Evaluation	40
7.3.1. Monitoring Activities.....	40
7.3.2. Program Implementation Metrics and Adaptive Management.....	42
8. References	45

LIST OF TABLES

Table 2-1. Summary of Community Outreach Meetings During EAP Development.....	6
Table 2-2. Categories of Other Stakeholders in the Proposed KWC Management Zone	8
Table 3-1. Classification of Drinking Water Systems by Constituency, Connections, and Duration of Service per Year	11
Table 5-1. Process to Conduct Community Outreach Meeting.....	23
Table 6-1. Process to Request Participation in Replacement Water Programs	30
Table 7-1. Kern Water Collaborative EAP Implementation Schedule.....	37

LIST OF FIGURES

Figure ES-1. Kern Water Collaborative Management Zone	ES-2
Figure ES-2. Scale Showing Nitrate Safe and Unsafe Levels.....	ES-2
Figure ES-3a. Ambient Nitrate Conditions in the Upper Zone since 2010 (Kern County (Westside South) Area	ES-4
Figure ES-3b. Ambient Nitrate Conditions in the Upper Zone since 2010 (Kern County (Poso) Area	ES-5
Figure 1-1. Priority 2 and Not Prioritized Areas in the Kern Water Collaborative Management Zone.....	3
Figure 3-1. Ambient Nitrate Post-2010 Upper Zone Levels in the Priority 2 Areas in the Kern Water Collaborative Management Zone	11
Figure 7-1. General Implementation Schedule for Proposed KWC Management Zone.....	36

APPENDICES

Appendix A	Kern Water Collaborative Community Engagement Strategy
Appendix B	Kern County (Westside South) Area
B-1	Kern County (Westside South) Area Community Profile
B-2	Ambient Post-2010 Nitrate Concentrations in the Upper Zone of Groundwater Underlying the Kern County (Westside South) Area
B-3	Potentially Impacted Public Water Supply Wells and All Domestic Wells, Kern County (Westside South) Area

Kern Water Collaborative Management Zone
Early Action Plan

- B-4 Placeholder in case there are nitrate-impacted public supply wells between now and the Final Management Zone Plan (FMZP) in the Kern County (Westside South) Area
- B-5 Placeholder in case there are nitrate-impacted public supply wells between now and the FMZP in the Kern County (Westside South) Area
- B-6 Placeholder in case there are nitrate-impacted public supply wells between now and the FMZP in the Kern County (Westside South) Area
- B-7 Placeholder in case there are nitrate-impacted public supply wells between now and the FMZP in the Kern County (Westside South) Area
- B-8 Compliance Status for all Public Water Systems in the Kern County (Westside South) Area with Violation and Chemical Exceedance Information, by System Name (as of September 2024)
- B-9 Domestic Wells Located Outside Public Water System Areas in the Kern County (Westside South) Area and Adjacent Area
- B-10 Summary of Domestic Wells and Population with Estimated Upper Zone Nitrate Concentration Categories in the Kern County (Westside South) Area
- B-11 Nitrate Groundwater Dataset for Kern County (Westside South) Area

Appendix C Kern County (Poso) Area

- C-1 Kern County (Poso) Area Community Profile
- C-2 Ambient Post-2010 Nitrate Concentrations in the Upper Zone of Groundwater Underlying the Kern County (Poso) Area
- C-3 Potentially Impacted Public Water Supply Wells and All Domestic Wells, Kern County (Poso) Area
- C-4 Summary of Nitrate-Impacted Public Supply Wells (by Well Status) for the Kern County (Poso) Area
- C-5 Summary of Public Water Systems that have had Nitrate-Impacted Wells in the Kern County (Poso) Area
- C-6 Treatment of Water Systems with Nitrate-Impacted Wells in the Kern County (Poso) Area
- C-7 Treatment Status for Water Systems that have Wells with Nitrate-Impacted Samples, Kern County (Poso) Area

- C-8 Compliance Status for all Public Water Systems in the Kern County (Poso) Area with Violation and Chemical Exceedance Information, by System Name (as of September 2024)
- C-9 Domestic Wells Located Outside Public Water System Areas in the Kern County (Poso) Area and Adjacent Area
- C-10 Summary of Domestic Wells and Population with Estimated Upper Zone Nitrate Concentration Categories in the Kern County (Poso) Area
- C-11 Nitrate Groundwater Dataset for Kern County (Poso) Area
- Appendix D State Water Board Community Engagement Checklist
- Appendix E Community Outreach to Support EAP Development
- Appendix F Program Application Form
- Appendix G Preliminary List of Potential Vendors for Bottled-water Delivery and Point of Use Treatment Systems

LIST OF ACRONYMS

Acronym	Definition
AB	Public Water Supply Well Status, Abandoned
APN	Assessor Parcel Number
AR	Public Water Supply Well Status, Active Raw
AU	Public Water Supply Well Status Active Untreated
Basin Plans	Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin
BOD	Biochemical Oxygen Deman
BPA	Basin Plan Amendment
C	Public Water System Type, Community
CDP	Census Designated Place
Central Valley Water Board	Central Valley Regional Water Quality Control Board
CETHP	California Environmental Health Tracking Program
CIWQS	California Integrated Water Quality System
Coalition	Kings River Water Quality Coalition
CSD	Community Services District
CVDRMP	Central Valley Dairy Representative Monitoring Program
CVHM2	Central Valley Hydrologic Model 2.0
CV-SALTS	Central Valley Salinity Alternatives for Long-term Sustainability

Kern Water Collaborative Management Zone
Early Action Plan

Acronym	Definition
CVSC	Central Valley Salinity Coalition
CVWB	Central Valley Water Board
CWD	Community Water District
CWS	Community Water System
DAC	Disadvantaged Community
DDW	Division of Drinking Water
DS	Public Water Supply Well Status Destroyed
DUC	Disadvantaged Unincorporated Community
DWR	California Department of Water Resources
DWW	Drinking Water Watch
EAP	Early Action Plan
EC	Electrical Conductivity
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
FAQs	Frequently Asked Questions
FMZP	Final Management Zone Proposal
GAC	Granular Activated Carbon
GAMA	Groundwater Ambient Monitoring and Assessment
GAR	Groundwater Quality Assessment Report
GIS	Geographic Information Systems
gpd	gallons per day
GQMP	Groundwater Quality Management Plan
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HCM	Hydrologic Conceptual Model
ILRP	Irrigated Lands Regulatory Program
INMP	Irrigation and Nitrogen Management Plan
INMPSR	Irrigation and Nitrogen Management Plan Summary Report
IR	Public Supply Well Status Inactive Raw
IRWM	Integrated Regional Water Management
IU	Public Supply Well Status Inactive Untreated
IX	Ion Exchange
KWC	Kern Water Collaborative
LPA	Local Primacy Agency
LSWS	Local Small Water System
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
mg/L as N	milligrams per liter as nitrogen
MHI	Median Household Income
MPEP	Management Practice Evaluation Program

Acronym	Definition
MZ	Management Zone
MZIP	Management Zone Implementation Plan
N	Nitrogen
NC	Public Water System Type, Non-Community
NGO	Non-Governmental Organizations
NMP	Nutrient Management Plan
NO ₃ -N	Nitrate as Nitrogen
NOA	Notice of Applicability
NRCS	California Natural Resource Conservation Service
NTC	Notice to Comply
NTNC	Public Water System Type, Non-Transient Non-Community
NWIS	National Water Information System
O&M	Operation and Maintenance
OAL	Office of Administrative Law
OWTS	Onsite Waste Treatment System
PMZP	Preliminary Management Zone Proposal
PN	Public Supply Well Status Pending
POU	Point of Use
PWS	Public Water System
RO	Reverse Osmosis
SAFER	Safe and Affordable Funding for Equity and Resilience
SDAC	Severely Disadvantaged Communities
SDWIS	Safe Drinking Water Information System
SGMA	Sustainable Groundwater Management Act
SNMP	Salt and Nitrate Management Plan
sq. mi	square mile
SSWS	State Small Water System
State Water Board	State Water Resources Control Board
SWS	Small Water Systems
TCP	Trichloropropane
TDS	Total Dissolved Solids
USGS	United States Geological Survey
WDR	Waste Discharge Requirements
WIC	Women, Infants, and Children
WMP	Waste Management Plan
WWTF	Wastewater Treatment Facility
WWTP	Wastewater Treatment Plant

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 Kern Water Collaborative (KWC) was established to achieve these three goals for its Management Zone (**Figure ES-1**). As required by the Nitrate Control Program, the KWC prepared this Early Action Plan (EAP), which identifies the initial actions that will be carried out to address drinking water being used by residences in the Priority 2 areas of the Management Zone with unsafe nitrate levels (**Figure ES-2**).

Kern Water Collaborative Management Zone Early Action Plan

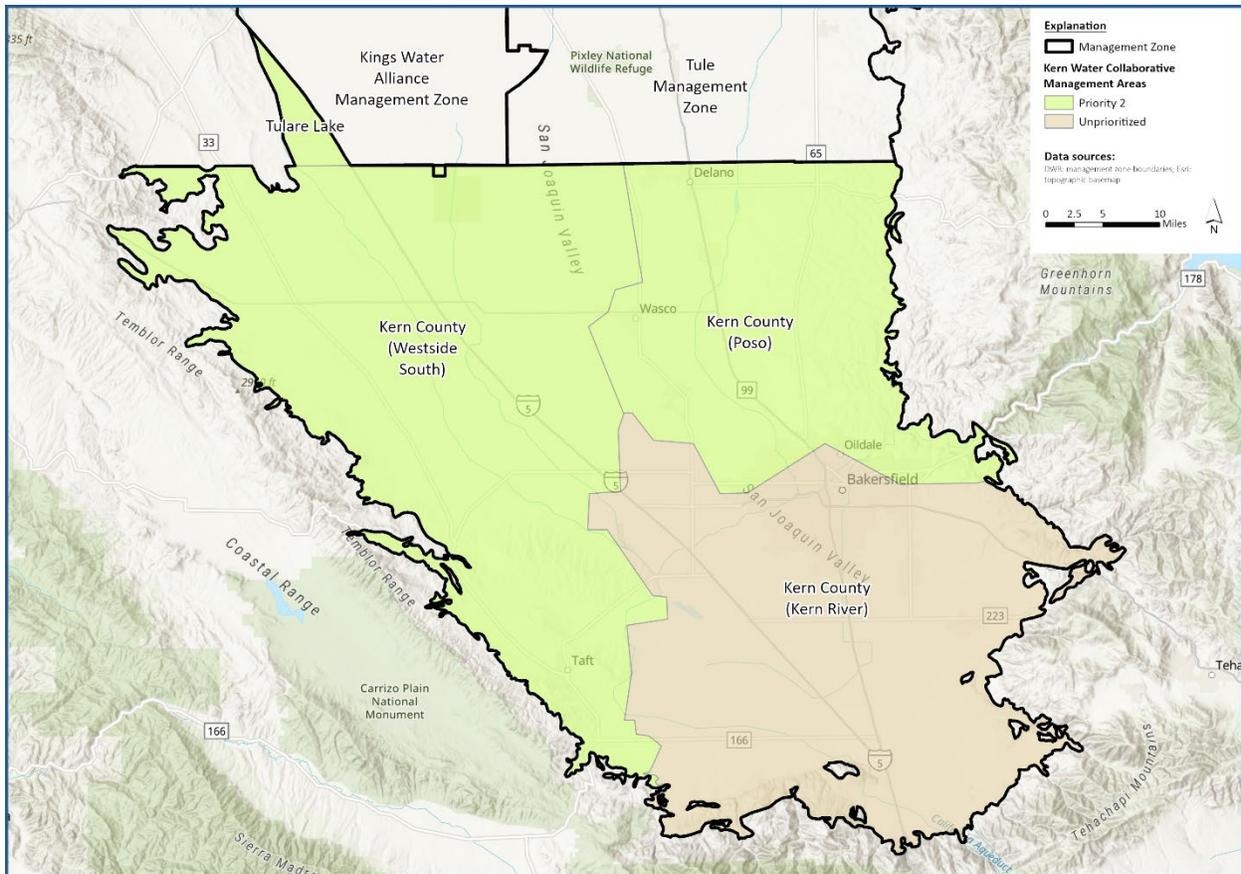


Figure ES-1. Kern Water Collaborative Management Zone

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)).

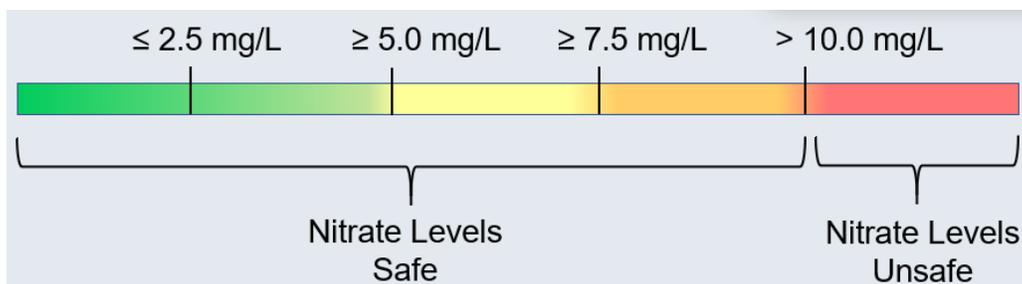
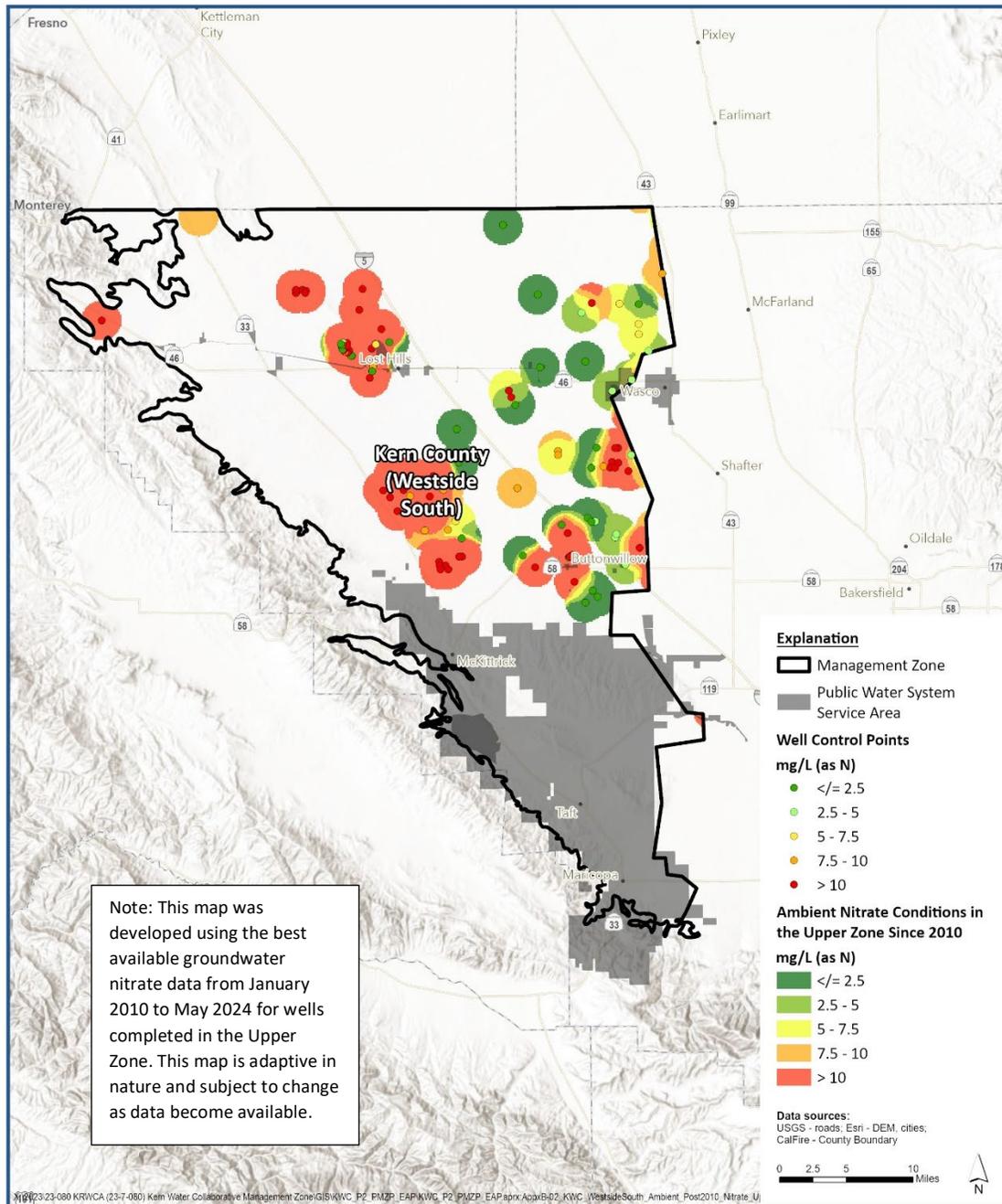


Figure ES-2. Scale Showing Nitrate Safe and Unsafe Levels

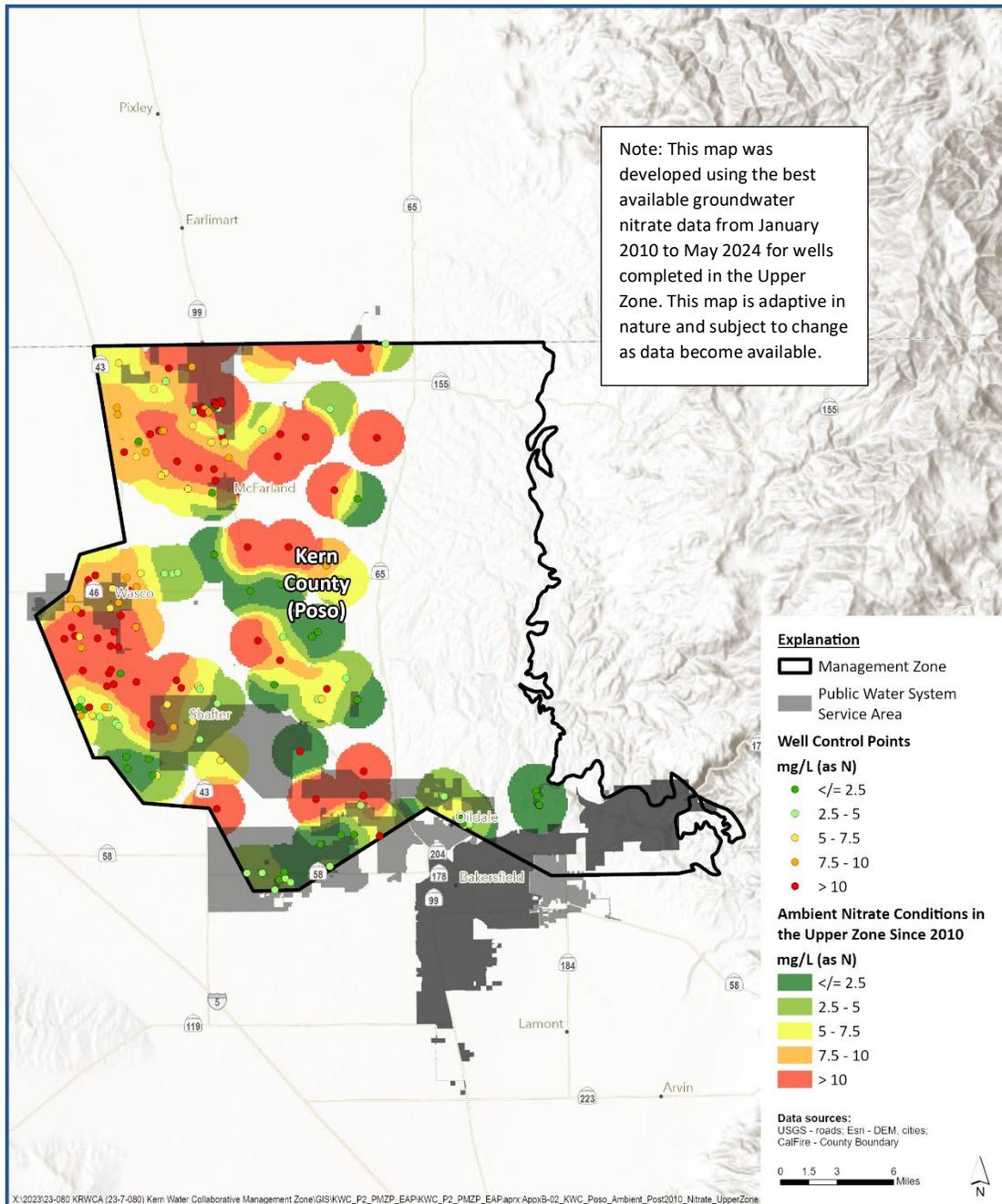
E.S. 2. Identification of Nitrate-Impacted Areas

As described in more detail within the Preliminary Management Zone Proposal, nitrate groundwater data were requested, downloaded, and compiled using various publicly available sources and complemented by data requested from Kern County and the Kern County Subbasin GSAs. The compiled nitrate groundwater data were categorized into depth zones, following previously developed Central Valley Salinity Alternatives for Long-term Sustainability (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 May 2024. These nitrate data were used in determining ambient nitrate conditions in the Upper Zone of the groundwater system for the Priority 2 KWC Management Zone areas (i.e., Tulare Lake Subbasin portion, Kern County Subbasin (Westside South) area, and Kern County Subbasin (Poso) area).

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 2024. As illustrated in **Figure ES-3a** and **Figure ES-3b**, several nitrate-impacted areas occur within the Priority 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 milligrams per liter nitrate as nitrogen. Inherent uncertainty exists for the preliminary estimate of ambient nitrate conditions. As more Upper Zone nitrate data become available (through EAP implementation of well testing or other monitoring programs associated with the Irrigated Lands Regulatory Program, Groundwater Sustainability Agencies, or other entities), the ambient nitrate analysis will be repeated, and the ambient map will be updated (and potentially changed) prior to the Final Management Zone Proposal submittal date. The ambient nitrate Upper Zone map is not intended to be a substitute for well testing or interim water replacement requirements.



**Figure ES-3a. Ambient Nitrate Conditions in the Upper Zone since 2010
(Kern County (Westside South) Area)**



**Figure ES-3b. Ambient Nitrate Conditions in the Upper Zone since 2010
(Kern County (Poso) Area)**

In addition to the maps that show 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 Division of Drinking Water¹; it appears that 67 public supply wells located within the Priority 2 Areas of the KWC Management Zone have exceeded the nitrate MCL at some time. Twenty-nine (29) of those wells were considered to have an “active” status, as listed by the Drinking Water Watch.² Five public water systems in the Priority 2 areas of the KWC Management Zone are currently (as of August 2024) out of compliance due to elevated nitrate plus one or more co-contaminants (typically arsenic and/or 1,2,3-Trichloropropane (1,2,3-TCP)).

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. An estimated 337 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 milligrams per liter nitrate as nitrogen) (123 in the Westside South Area and 214 in the Poso Area of Kern County Subbasin; zero (0) in the Tulare Lake Subbasin portion). Using census block data from the 2023 U.S. Census, 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 2,438 (527 in the Westside South Area, 527 in the Poso Area, and 0 in the Tulare Lake Subbasin portion).

E.S. 3. Identification of Potentially Affected Areas

A key component of the EAP is the 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 KWC 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 KWC 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 implementation using the steps described. This effort will include collaborating with public water systems (PWSs) in areas that are not in compliance with nitrate drinking water standards.

¹ Public Supply Well nitrate data was acquired from the Division of Drinking Water (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/EDTlibrary.html) accessed August 2024.

² 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 August 2024.

E.S. 4. Community Outreach Program

The KWC 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) educate the public about the development and implementation of the EAP and opportunities for participation, 2) engage a diverse group of community members and non-dischargers representing differing social, cultural, and economic elements of the population, and 3) provide easy-to-understand, timely information on the development and implementation of short- and long-term drinking water solutions.

The community outreach program goals guided outreach during EAP development. The KWC conducted a series of community outreach events beginning in June 2024 to obtain input on EAP development. Webinars included opportunities to ask questions and provide comments to KWC staff and its consultants. Webinar polling was conducted to solicit input on demographics, communications preferences, and drinking water solutions.

This EAP reflects the input received from the public. General community outreach will continue during EAP implementation through a variety of communication mediums, including virtual and in-person community meetings, sharing information through the KWC'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 KWC's efforts to provide safe drinking water. In addition to ongoing broad community outreach, this EAP includes a program to reach out directly to residences in areas most likely to have domestic wells contaminated by nitrate.

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 a resident 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 in the KWC Management Zone;
2. I am willing to sign an agreement with the Management Zone'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 KWC (<https://kwcmz.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 KWC 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 KWC will offer the opportunity to have your well tested again at no cost to you in the future.

Finally, based on the needs of the community, the KWC may also install water fill stations in the Management Zone. This decision will be community-based and may be developed through the implementation of this EAP. Through this program, the community will be made aware of the availability of water fill station(s) if developed.

E.S. 6. Early Action Plan Implementation

The KWC will begin implementing this EAP within 60 days of PMZP submittal or by February 26, 2025, unless the Central Valley Water Board notifies the KWC that this EAP is incomplete. A community outreach meeting will be held in March 2025 to kick off the program and inform residents regarding how to participate in the Interim Replacement Water Program.

1. BACKGROUND

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) established a Nitrate Control Program for the Central Valley Region of California that became effective January 17, 2020. One of the key goals of this Program is to ensure that a safe drinking water supply is available to residents affected by high levels of nitrate in the groundwater, which is the source of their drinking water.

Implementation of the Nitrate Control Program is prioritized by groundwater subbasin. The Central Valley Water Board sent out Notices to Comply with the Nitrate Control Program to permitted dischargers (e.g., growers, dairies, poultry farms, wastewater treatment, and food processing facilities) in Priority 1 subbasins (Modesto, Turlock, Chowchilla, Kings, Kaweah, and Tule Subbasins) on May 29, 2020, and in the Priority 2 subbasins (Yolo, Eastern San Joaquin, Merced, Delta-Mendota, Madera, Tulare Lake, Kern County (Westside South), and Kern County (Poso) on December 29, 2023.

1.1. Early Action Plan Requirements

The Management Zone entities are required to develop an Early Action Plan (EAP), which is defined in the Nitrate Control Program as: “a plan that identifies specific activities, and a schedule for implementing those activities, that will be undertaken to ensure immediate access to safe drinking water for those who are dependent on groundwater from wells that exceed the primary maximum contaminant level (MCL) for nitrate” (Central Valley Water Board, 2020). The MCL is 10 milligrams/liter nitrate as nitrogen (mg/L-N). The provisions to provide access to safe drinking under this EAP are considered temporary and will be replaced by permanent solutions through an approved Management Zone Implementation Plan (MZIP).

The Nitrate Control Program requires that the EAP include the following elements (Central Valley Water Board, 2020):

- A process to identify affected residents and the outreach utilized to ensure that impacted groundwater users are informed of and given the opportunity to participate in the development of proposed solutions;
- A process for coordinating with others that are not dischargers to address drinking water issues, which must include consideration of coordinating with impacted communities, domestic well users and their representatives, the State Water Resources Control Board’s (State Water Board) Division of Drinking Water (DDW), Local Planning Departments, Local County Health Officials, Sustainable Groundwater Management Agencies (SGMA) and others as appropriate;
- Specific actions and a schedule of implementation that is as short as practicable to address the immediate drinking water needs of those initially identified within the Management Zone, or area of contribution for a Path A discharger, that are drinking

groundwater that exceeds nitrate standards and that do not otherwise have interim replacement water that meets drinking water standards; and

- A funding mechanism for implementing the EAP, which may include seeking funding from Management Zone participants and/or local, state, and federal funds that are available for such purposes.

1.2. Early Action Plan Framework and Applicability

This EAP was submitted to the Central Valley Water Board as an attachment to the Kern Water Collaborative's (KWC) Preliminary Management Zone Proposal (PMZP) on December 28, 2024. The PMZP submittal supports the establishment of the proposed KWC Management Zone, which includes three Priority 2 areas: Tulare Lake Area, Kern County (Westside South) Area, and Kern County (Poso) Area; and one non-prioritized area: Kern County (Kern River) Area (**Figure 11**). This EAP currently applies only to the Priority 2 areas within the proposed KWC Management Zone; however, it may be expanded to cover residents within the non-prioritized Kern County (Kern River) Area of the KWC Management Zone in the future. This would occur upon issuance of a Notice to Comply (NTC) by the Central Valley Water Board to permit dischargers within this portion of the Kern County Subbasin.

The EAP targets areas where nitrate in the Upper Zone of the underlying groundwater most likely exceeds the nitrate drinking water standard. Section 3 and its associated appendices identify these target areas. There is not a separate appendix for the Tulare Lake Area since there are no available nitrate data, and it does not appear that there are domestic wells in this small area of the Tulare Lake Subbasin. Implementation of this EAP will begin within 60 days of PMZP submittal (i.e., by February 26, 2025) unless the Central Valley Water Board objects and notifies the KWC that this EAP is incomplete. If any objections are identified, the KWC will work with the Central Valley Water Board to address their concerns in a timely manner.

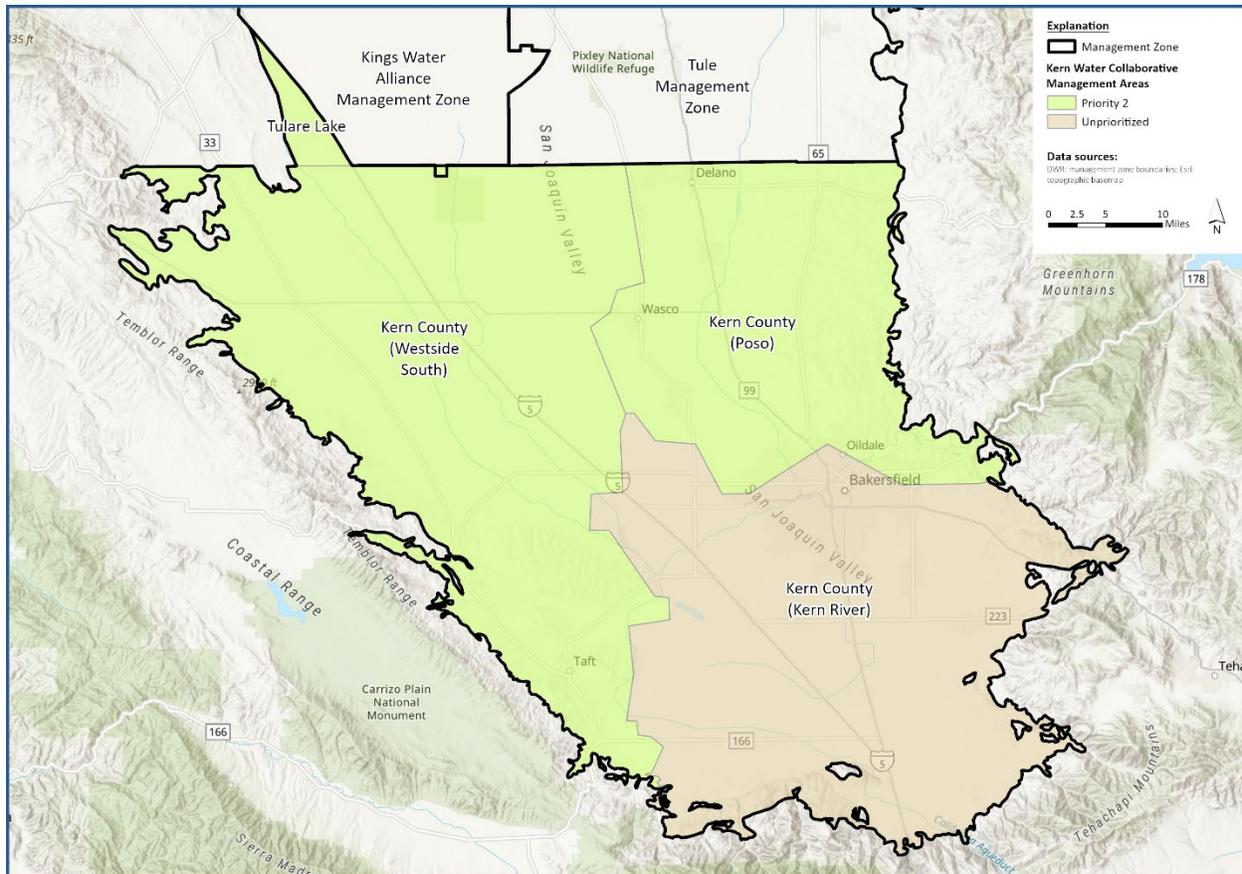


Figure 1-1. Priority 2 and Not Prioritized Areas in the Kern Water Collaborative Management Zone

1.3. Kern Water Collaborative

1.3.1. About the Kern Water Collaborative

The KWC is a non-profit organization established to organize and conduct activities in the proposed KWC Management Zone (Tulare Lake Area, Kern County (Westside South) Area, Kern County (Poso) Area, and Kern County (Kern River) (not prioritized). The KWC combines the resources and expertise of its member organizations to ensure that all residents with wells impacted by elevated nitrate levels have access to safe drinking water. KWC’s mission is “to maintain and improve the quality of life within Kern County’s three groundwater basins/subbasins (Westside South, Poso, and Kern River) and within a small portion of Kings County’s Tulare Lake groundwater basin/subbasin that is located within the Dudley Ridge Water District Boundaries and that also exists within the boundaries of the Westside Water Quality Coalition’s boundaries by implementing programs that will help provide access to safe drinking water for residents, and by engaging in activities with the goal of investigating, protecting or enhancing the quality of groundwater drinking water supplies for residents in the region.” The

KWC is responsible for the implementation of this EAP for the Priority 2 areas within the proposed KWC Management Zone, and it may be expanded to cover residents within the non-prioritized Kern County (Kern River) Area of the KWC Management Zone in the future.

KWC may be contacted for any questions or concerns regarding this EAP during normal business hours by the following methods:

- By phone at (661) 888-4108
- By email at nicole@kwcmz.org
- Through KWC’s website at <https://kwcmz.org/>
- Direct Mail: P.O. Box 1428, Bakersfield, CA 93302

KWC staff will respond to any questions or concerns during normal business hours in a timely manner. For any residents needing translation services, access to bilingual staff will be available, and additional language resources will be provided as needed.

2. COMMUNITY OUTREACH TO DEVELOP EARLY ACTION PLAN

This section describes the community outreach activities implemented during the development of this EAP. These activities were guided by the KWC Community Engagement Strategy (“Strategy”) (see **Appendix A**), which is supported by the community profiles developed for each of the proposed KWC Management Zone areas (**Appendix B-1**: Kern County (Westside South) Area, **Appendix C-1**: Kern County (Poso) Area). There is no community profile for the Tulare Lake Area as there were no communities identified during EAP development. If, during EAP implementation, communities are identified, then a community profile will be developed for the Tulare Lake Area. The community outreach activities described below were conducted jointly for the three Priority 2 areas: Tulare Lake Area, Kern County (Westside South) Area, and Kern County (Poso) Area.

2.1. Community Engagement Strategy

The KWC implemented a comprehensive effort to reach out to the community within the Management Zone, as described in the KWC’s Community Engagement Strategy (**Appendix A**). This Strategy guided KWC outreach activities and targeted potential nitrate-impacted residents to provide them with opportunities to participate in the development of this EAP. Community engagement activities were conducted in a manner consistent with the guidance prepared by the State Water Resources Control Board (State Water Board, 2020). **Appendix D** summarizes how the State Water Board’s community engagement recommendations were addressed during EAP development.

The Strategy established the following objectives for KWC’s outreach process:

- Objective 1 – Educate the public about the development and implementation of the EAP and opportunities for participation.

- Objective 2 – Engage a diverse group of community members and non-dischargers representing different social, cultural, and economic elements of the population.
- Objective 3 – Provide accurate, easy-to-understand, timely information on the development and implementation of short- and long-term drinking water solutions.

As the Strategy was implemented, it was adapted when needed to optimize engagement strategies. This Strategy will continue to be used during EAP implementation; it is considered a “living” document that will be updated as needed.

Outreach is conducted to two groups: permitted dischargers and non-dischargers. The former must comply with the Nitrate Control Program due to requirements in the Basin Plan and their discharge permits. Non-dischargers include both community participants (local residents and community advocates) and other interested stakeholders. Community participants include the residents of counties within the Management Zone who rely on domestic wells or small water systems as their source of drinking water and whose wells have been tested and found to have nitrate levels that exceed drinking water standards. Other stakeholders are those entities with roles or responsibilities in the Management Zone associated with local governance, land use planning, and management of drinking water.

While both groups have a vested interest in the communities they live and work in, they may have very different interests or expectations of how the Nitrate Control Program requirements are implemented within the planned Management Zone. Implementation of the Strategy focused on engaging non-dischargers, including both community participants and other stakeholders. Community participants are the primary focus of the EAP, and its purpose is to ensure residents have access to drinking water that meets the nitrate drinking water standard. The following sections describe the community engagement activities implemented to obtain input from non-dischargers during EAP development.

2.2. Community Engagement Activities

KWC conducted a variety of community engagement activities to encourage the active involvement of diverse social, cultural, and economic elements of the community. (see **Appendix E** for supporting documentation). The following sections summarize key elements of the program to engage the community. As part of this effort, the KWC will prepare informational materials in English and Spanish, and access to bilingual staff will be available. Based on community input from residents and key community leaders/organizations, which may be language-based, KWC will evaluate the need for additional language translation support. KWC intends to rely on local language-based community groups to provide direction regarding how to best reach out to their own community.

2.2.1. Establishment of Management Zone Website

In early June 2024, KWC established a website (<https://kwcmz.org/>) to optimize outreach and engagement, which includes information on the Nitrate Control Program and EAP, educational information on the KWC Management Zone, and links to past outreach event materials and videos.

The KWC website, which is regularly updated, provides an opportunity for interested parties to sign up for notification alerts so they may receive information related to Management Zone development and EAP implementation. Interested parties may provide their email address as a “Discharger/Contributor,” “Stakeholder,” “Community Member,” or “Other.” Individuals providing their email will receive information about upcoming meetings, new postings to the KWC website, or other Management Zone activities. Encouragement to sign up for information at KWC’s website has been and will continue to be advertised in meeting flyers and outreach activities. In addition, to further assist with efforts to inform the public on KWC’s presence in the area, KWC has set up a Facebook page (https://www.facebook.com/people/Kern-Water-Collaborative/61559784702746/?_rdr), Instagram (<https://www.instagram.com/kwc.mz/>), and YouTube (<https://www.youtube.com/@kernwatercollaborative>). KWC will continue exploring other social media avenues prior to and during EAP implementation.

2.2.2. Outreach to Community Participants

Public outreach meetings and events provide an important venue to educate, inform, and solicit feedback from impacted residents and other interested stakeholders. The KWC conducted regular meetings to provide opportunities for public participation in the development of the EAP’s interim replacement water program (**Table 2-1**). Meeting dates, times, and means to access the virtual and hybrid events are posted at <https://kwcmz.org/>.

Prior to each meeting, KWC also sent notices (English and Spanish) via email to all non-dischargers in its contact list to help facilitate outreach. For most community meetings, two different dates and times were provided to allow more opportunities for community participation. The Spanish translation was provided during every outreach meeting.

KWC is committed to reaching as many residents as possible and will continue to hold community outreach meetings during EAP implementation. Community residents are also encouraged to participate in community outreach meetings to provide local input to the KWC. Requests for community feedback have been made during outreach meetings and posted on KWC’s website, Facebook page, and Instagram. Feedback and input solicited from the public during public outreach meetings will be considered by the KWC staff, technical consultants, and the KWC Board.

Table 2-1. Summary of Community Outreach Meetings During EAP Development		
Activity	Purpose	Date/Time

Proposed KWC Management Zone Community Outreach Meeting #1	Introduction of the KWC and Nitrate Control Program. Overview of potentially nitrate-impacted areas, possible interim solutions, and how residents participate.	June 26, 2024 6 – 7 pm
Proposed KWC Management Zone Community Outreach Meeting #2	Overview of nitrate conditions and potential interim drinking water solutions under the EAP, as well as the opportunity to provide feedback on potential interim replacement water program elements. Inform about public draft EAP and the opportunity to review and comment.	August 27, 2024 3 – 4 pm
		August 28, 2024 6 – 7 pm
Proposed KWC Management Zone Community Outreach Meeting #3	Present draft EAP contents and reminder for community participants to review and comment on the public draft EAP.	October 23, 2024 3 – 4 pm
		October 23, 2024 6 – 7 pm
Proposed KWC Management Zone Community Outreach Meeting #4	Present draft PMZP contents and reminder for community participants to review and comment on the public draft PMZP.	November 20, 2024 Time TBD

2.2.3. Outreach to Other Stakeholders

KWC developed an initial list of other stakeholders by identifying organizations within the three Priority 2 areas: Tulare Lake Area, Kern County (Westside South) Area, and Kern County (Poso) Area within the proposed KWC Management Zone with knowledge of the local community and potential to assist in the development and implementation of the EAP. Direct contact by phone and email was made to entities such as school districts, local colleges and universities, County libraries, County health programs/services (e.g., Women, Infants, and Children (WIC), First 5), and local community-based organizations. Other entities and regulatory programs may include, but not be limited to, Groundwater Sustainability Agencies (GSAs)(SGMA), Coalitions Irrigated Lands Regulatory Program (ILRP), and dischargers enrolled under the Concentrated Animal Feeding Operation General Orders. **Table 2-2** categorizes these stakeholders and identifies their potential roles to support EAP development (PMZP includes the current list of entities on this list). This contact list continues to be expanded as additional stakeholders are identified. Outreach was conducted with many of these entities to obtain their assistance with outreach to the community. For example, many of these stakeholders assisted with the distribution of community meeting notices and materials.

In anticipation of dischargers receiving their NTC, industry leader stakeholders had multiple meetings in early 2022 to prepare for the Nitrate Control Program. Once dischargers received their NTC from the Regional Board, the KWC held a stakeholder meeting on June 11, 2024. Topics discussed in the stakeholder meetings included an introduction of the KWC and Nitrate Control Program, an overview of nitrate conditions, discharger commitment process, discharger

outreach, contents of the EAP, potential interim drinking water solutions under the EAP, presentation of the draft EAP to provide the opportunity for community participants to review and comment on the public draft EAP.

Table 2-2. Categories of Other Stakeholders in the Proposed KWC Management Zone	
Category	Key Role(s)
Counties	Board of Supervisors – Dissemination of information to County residents; support approval of EAP-related projects
	Planning and Community Development – Support approval of EAP-related projects
	Health Services Agency – Support implementation of EAP-related activities
Incorporated Communities ³	Given the presence of shopping centers ⁴ in these locations, some of these communities may be targeted for the establishment of water fill stations. Coordination with these communities can facilitate the establishment of these facilities.
Unincorporated Communities/ Census-Designated Places	
Central Valley Water Board	Ensure that EAP development and implementation are consistent with Nitrate Control Program requirements.
State Water Board DDW	Ensure that water fill stations or other replacement water alternatives meet state and federal regulations for drinking water.
Non-Governmental Organizations (NGOs)	Organizations represent various community interests within the proposed KWC Management Zone and can assist with the implementation of EAP elements, especially activities related to community outreach.
Groundwater Sustainability Agencies (GSAs)	The GSAs located within the proposed KWC Management Zone are included in the PMZP as Attachments B-1.3, C-1.3, and D-1.3. EAP implementation activities involving the use of water will be coordinated with these agencies, which can also assist with the dissemination of information within their jurisdictions.
Representative Organizations	Trade organizations may represent various facilities that are dischargers within the proposed KWC Management Zone. Key participants to date have been the California League of Food Producers, Central Valley Dairy Representative Monitoring Program (CVDRMP), Dairy Cares, Irrigated Lands Coalitions, Western United Dairymen, and local Farm Bureaus. These non-dischargers can assist EAP implementation through the dissemination of information through their members (which may be dischargers) and community outreach activities.

³ Some incorporated communities may be participating in the EAP as permitted dischargers subject to the requirements of the Nitrate Control Program.

⁴ Shopping centers includes public access areas such as: strip malls, grocery stores, gas stations, etc.

2.2.4. Public Review Opportunities

The KWC provided stakeholders, including local community residents, the opportunity to review the EAP. Public notification began on October 23, 2024, to inform the public that the draft EAP was available for review and comment; comments to the KWC were due by November 6, 2024, in order to be included in the submittal due to the Central Valley Water Board (CVWB) by December 28, 2024. Comments and KWC responses to comments are provided in Attachment E-3 of the PMZP document. Comments received after November 6, 2024, were still accepted but not incorporated in the final submittal.

To notify residents of the opportunity to review this document, the following notification activities were conducted:

- The document content was presented during the Third Public Webinar on October 23, 2024, with information on how to view and comment on the public draft document.
- Direct email of the document link to the list of interested parties;
- Posting of document links on the KWC website and other locations.

3. IDENTIFICATION OF NITRATE-IMPACTED AREAS

3.1. Groundwater Nitrate Assessment

To support the development of the proposed KWC Management Zone PMZP, nitrate groundwater data were requested, downloaded, and compiled using various publicly available sources, including the State Water Board’s Division of Drinking Water (DDW), GeoTracker Groundwater Ambient Monitoring and Assessment (GAMA) data, and the Irrigated Lands Regulatory Program monitoring data. These data were complemented by data requested from the Kern County Department of Public Health and Kern County Subbasin GSAs. Groundwater data were vetted and categorized into depth zones, following previously developed CV-SALTS best management practices, and wells completed in the Upper Zone⁵ of the groundwater aquifer were used to determine recent average ambient nitrate concentrations for data since the year 2010. The best available groundwater nitrate dataset for Upper Zone wells consisted of publicly available and non-public data between January 2010 and May 2024 for wells in the Management Zone and a three-mile buffer around the Management Zone⁶.

⁵ Upper Zone as defined by the Central Valley Water Board is, “the portion of the groundwater basins, subbasin or Management Zone from which most domestic wells draw water.”

⁶ “Public and non-public” data refer to data from public and non-public entities that was either requested and/or downloaded for this data-gathering effort.

The Upper Zone average nitrate concentrations for wells in the Management Zone were used to produce a geospatial analysis of ambient conditions across the Management Zone. This methodology involves a technique called “kriging,” which utilizes known control point data and interpolates (or estimates) ambient nitrate conditions in between control points, using a search radius of 1.5 miles. **Figure 3-1** shows the small portion of the Tulare Lake Management Zone with the estimated ambient nitrate conditions in the Upper Zone, representing average groundwater quality conditions since 2010. The ambient nitrate map of the Upper Zone has inherent uncertainty. As more Upper Zone nitrate data become available (through EAP implementation of well testing or other monitoring programs associated with the Irrigated Lands Regulatory Program, GSAs, or other entities), the ambient nitrate analysis will be repeated, and the ambient map will be updated (and potentially changed) prior to the Final Management Zone Proposal submittal date. The ambient nitrate Upper Zone map is not intended to be a substitute for well testing or interim water replacement requirements.

Using the available nitrate dataset, there are small nitrate-impacted areas that occur within the Westside South and Poso areas of the Kern County Subbasin portion of the KWC Management Zone; these are defined by average recent nitrate concentrations in the Upper Zone exceeding the drinking water Maximum Contaminant Level (MCL) of 10 mg/L nitrate as N. **Figure 3-1** depicts these nitrate-impacted areas (see Section 3 of Chapters 2 and 3 of the Preliminary Management Zone Proposal for information regarding the development of Figure 3-1). The largest nitrate-impacted areas exist in the vicinity of Lost Hills, Missouri Triangle, Buttonwillow, Palmo, Delano, Zentner, and Calico.

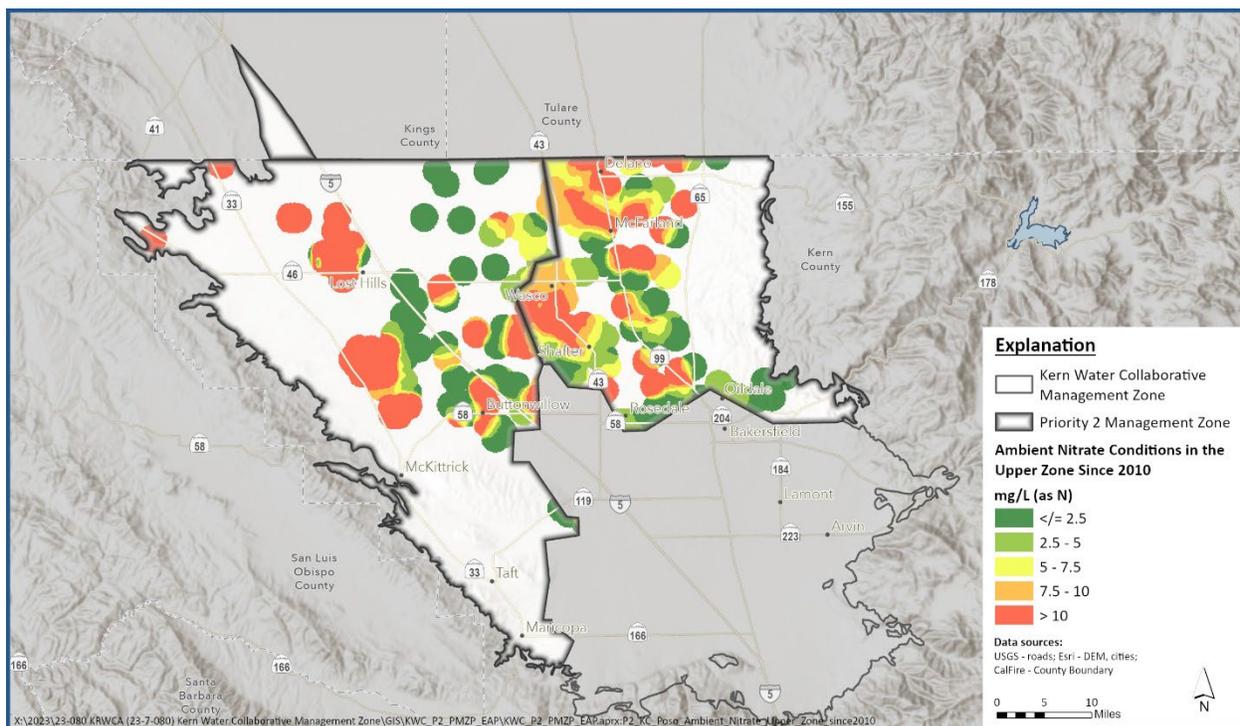


Figure 3-1. Ambient Nitrate Post-2010 Upper Zone Levels in the Priority 2 Areas in the Kern Water Collaborative Management Zone

3.2. Potentially Impacted Public Water Supply Wells

3.2.1. Public Water Supply Wells in the Management Zone

Public Water Systems (PWS) are defined as systems that provide drinking water to (1) 15 or more service connections or (2) regularly serve at least 25 individuals daily for at least 60 days per year (**Table 2-1**). Non-community systems include any facility that provides drinking water, such as churches, rest stops, stores, schools, businesses, etc.

Table 3-1. Classification of Drinking Water Systems by Constituency, Connections, and Duration of Service per Year									
Duration of Service	Connections:		< 5	5 +	< 15	15 +	< 200	200 +	
	Persons Served:		< 25			25 +			
N/A	Small Water System (SWS) ¹	Classification Defined By	Connections						
< 60 days/year	Local Small Water System		Connections & (persons, duration)						
< 60 days/year	State Small Water System			Connections & (persons, duration)					
>= 60 days/year	Community Public Water System (PWS) ²					Connections or (persons, duration)			

Source: Adapted from Boyle et al. 2012.

1. Classification as a SWS does not preclude classification as any of the other types. SWS may be regulated by DDW or by the Local Primary Agency (county) but must have less than 200 connections.
2. A PWS is a system for the provision of water for human consumption that has 15 or more service connections OR regularly serves at least 25 individuals at least 60 days per year.

Community PWS, which the State Water Board’s DDW regulates, are required to submit water samples of their raw and delivered water for a broad suite of regulated constituents on various schedules that depend on the constituent and the source water context. All PWS data on water quality, source locations, service areas, and historical data are publicly available on the State Water Board website.⁷

⁷ <https://data.ca.gov/dataset/drinking-water-public-water-system-information>, accessed October 2021.

State Small Water Systems (SSWS) are defined as systems serving at least five but not more than 14 residential households. Mutual Water Companies are frequently classified as SSWS. Typically, SSWS are regulated by county environmental health departments; regulatory oversight of these systems varies by county. Typically, counties require the submission of water quality samples annually (at most) for a smaller set of constituents than monitored by a PWS.

SSWS data are public; however, most counties in the state do not have these data compiled in an easily accessible format. Many counties require a fee for data retrieval for these systems. Typically, the data available include sporadic water quality data for a few constituents, as well as the original permit for the system. The permit typically includes information on the construction of the water source (well) and the street where service is provided.

Local Small Water Systems (LSWS) include residential systems serving two to four households. Most counties regulate LSWS as if they were simply private wells – that is, they are unregulated except for the requirements associated with the drilling permit. Typically, no information is available to identify the difference between a single-household well and one used for an LSWS.

Elevated nitrate concentrations have been found in many PWS wells in the Kern County (Westside South) and Kern County (Poso) Areas of the KWC Management Zone (there are no public water systems in the portion of the Tulare Lake Subbasin that is within the KWC Management Zone). The State Water Board’s Drinking Water Source and Water Systems identification documentation was accessed via the internet⁸ to provide water system information that complements water quality data from the DDW. Together, these two sources provide information on how many systems have active versus inactive wells that have nitrate (as N) exceeding the MCL. This documentation provides a status code for each well, as well as the population served and the number of connections for each water system.

Wells with any measurement of raw untreated water having nitrate exceeding the MCL were extracted from the database to determine if the wells are considered to be actively providing water to the water system or have been abandoned, destroyed, or inactive. Based on DDW data (State Board, 2024; accessed August 2024), 67 public supply wells in the Priority 2 areas of the KWC Management Zone have exceeded the MCL for nitrate. Twenty-nine of these wells are considered “Active” (Active Raw, meaning the groundwater is sampled directly from the well; or Active Untreated, meaning the groundwater is sampled at a point between the well and a treatment system); the remainder are either abandoned, destroyed, inactive, standby, agricultural, or pending status wells. Active public supply wells that have experienced nitrate concentrations exceeding the MCL are typically located near the cities of Bakersfield, Delano, East Niles, McFarland, Shafter, and Wasco, among other smaller communities, as seen in the maps provided in **Appendix B-3** and **C-3**. The table in **Appendix C-4** provides details about the

⁸ <https://sdwis.waterboards.ca.gov/PDWW/> accessed August 2024.

67 nitrate-impacted public supply wells in the Kern County (Poso) area (there were zero public supply wells in the Kern County (Westside South) area that experienced a nitrate exceedance and where no public water systems or public supply wells in the KWC portion of the Tulare Lake Subbasin). The table provides a summary of the public supply wells from the DDW database that have exceeded the nitrate MCL at some time within their entire period of record. This table provides:

- A) Summary of the nitrate data available for the individual well, including:
 - a. Date range of groundwater nitrate measurements;
 - b. Number of nitrate concentration measurements;
 - c. Range of measured nitrate concentrations; and
 - d. Date of the most recent nitrate exceedance.
- B) Well system characteristics, including:
 - a. Well status (active, inactive, etc.);
 - b. Water system the well provides water to;
 - c. Water system type (community, non-community non-transient, etc.);
 - d. Number of connections; and
 - e. Population served by that water system.

The table in **Appendix C-5** provides the list of the 18 unique PWSs that have had at least one nitrate-impacted well where nitrate concentrations have exceeded the MCL in the Kern County (Poso) area (there were zero public water systems that have had at least one nitrate impacted well in the Kern County (Westside South) area and no public water systems currently exist in the KWC portion of Tulare Lake Subbasin). This table provides:

- A) Water system number (as identified by DDW);
- B) Water system name;
- C) Water system type;
- D) Number of connections (which ranges from 1 to over 64,000)

3.2.2. Delivered Water Treatment Status of Public Water System Wells

Although some active wells have been tested for nitrate with results indicating nitrate concentrations have exceeded the MCL of 10 mg/L nitrate as N, many PWSs have treatment facilities to remove nitrate or other contaminants prior to the water being delivered to consumers. Using the best information readily available, it is possible to find DDW sources of water for PWS that are categorized as “treated.” This includes the following potential DDW-defined well status categories:

- AT – Active Treated: An active source that is sampled after any treatment.
- CT – Combined Treated: Combined sources that are treated.
- DT – Distribution System Sample Point, Treated: Sample point within the distribution system after treatment.
- IT – Inactive Treated: A source that is not in service for periods of one year or greater and which provides treated water to a system.
- ST – Standby Treated: A source that is used less than 15 calendar days per year, with periods not to exceed five consecutive days, and which provides raw water that is sampled after treatment.

Even when a water system has a documented treated source according to DDW, this does not ensure that the water system treats its water for nitrate (a treated source may mean chlorination prior to being distributed or possible treatment for other contaminants such as arsenic, manganese, or organic chemicals). PWS typically treats elevated nitrate by using blending, reverse osmosis (RO; membrane technology), ion exchange (IX), granular activated carbon (GAC), or biological or chemical nitrate removal via denitrification (less common).

The table in **Appendix C-6** summarizes the water system treatment information that is available from DDW for water systems that have had a supply well exceeding the nitrate MCL at some point in history in the Kern County (Poso) area (the Kern County (Westside South) area has not had any public supply wells that have exceeded the nitrate MCL, and the Tulare Lake Subbasin portion of the KWC Management Zone does not have any public water systems). The map in **Appendix C-7** shows the public supply wells that have exceeded the nitrate MCL; the circled water systems have treated water sources (according to well status data from DDW) that might need to be treated for nitrate. The color of the circle indicates whether the water system has had a nitrate sample from a treated source that exceeds the MCL (greater than 10 mg/L as N). Note that the City of Wasco’s public water system boundary is within both the Kern County (Westside South) area and the Kern County (Poso) area, but it is listed under the Kern County (Poso) area’s tables and shown in maps in **Appendix C**.

3.3. Potentially Impacted Public Water Systems

Public supply wells impacted by nitrate have been identified, and information about treatment status has been summarized. Based on further investigation of PWSs with potential nitrate issues, it is possible to determine the current compliance status. If a PWS is fully in-compliance with all Title 22 drinking water standards, these systems will not have any open violations filed with the State Water Board (accessible via Drinking Water Watch).

The Human Right to Water Data Portal (also through the State Water Board, https://www.waterboards.ca.gov/water_issues/programs/hr2w/, accessed August 2024) provides a Geographic Information System (GIS) point shapefile of public water systems and

their compliance status (as of November 2020). The Human Right to Water Portal map file represents information available on community and non-transient non-community public drinking water systems that are regulated by the State Water Board or Local Primacy Agency (LPA). Public drinking water systems included in this dataset have had or are in exceedance of a federal/state primary or secondary drinking water standard between January 2012 to November 2020. The State Water Board’s regulatory authority does not include water systems that are defined as “state small water systems,” “local state small water systems,” or private domestic wells.

The Human Right to Water Data Portal was last updated in November 2020. Information about why PWSs may be out of compliance is available through individual investigation of each PWS through the Drinking Water Watch website. Using a combination of information gleaned from data summarized in Section 2.2 (public supply wells with nitrate data from the Division of Drinking Water), the Human Right to Water Data Portal, and the Drinking Water Watch website, the compilation of the compliance status of all public water systems in the Kern County (Westside South) and Kern County (Poso) areas can be seen in the tables in **Appendix B-8** and **C-8**. This table illustrates that there are no PWS currently out of compliance (as of August 2024) due to nitrate or nitrate plus a co-contaminant in the Kern County (Westside South) area and five PWS currently out of compliance due to nitrate plus one or more co-contaminants (1,2,3-TCP and/or arsenic). Three PWS are currently out of compliance as of August 2024 in the Kern County (Westside South) area, two due to 1,2,3-TCP MCL-related violations and the other due to non-MCL violations (ex: monitoring). In the Kern County (Poso) area, fifteen (15) PWS are out of compliance (as of August 2024). Five of them are due to MCL exceedances in nitrate plus one or more co-contaminants (arsenic and/or 1,2,3-TCP), six other PWS are out of compliance due to other MCL violations (for contaminants including 1,2,3-TCP, iron, manganese, and coliform), and the remaining four PWS are out of compliance due to non-MCL issues.

There are zero public water systems in the Priority 2 Tulare Lake Subbasin portion of the KWC Management Zone.

3.4. Potentially Impacted Domestic Wells and Local Small Water Systems

The maps in **Appendices B-9** and **C-9** illustrate the locations of potentially impacted domestic wells and areas of elevated nitrate (7.5 mg/L to 10 mg/L as N and > 10 mg/L as N). These areas were used along with the California Department of Water Resources (DWR) domestic well locations based on Well Completion Reports⁹. The approach to identifying potentially impacted domestic wells and local small water systems utilizes Public Water System service area GIS map

⁹ Many domestic well locations provided by DWR’s Well Completion Report database may not be exact locations, but rather many wells are plotted in the center of a 1-square mile township/range-section area. Therefore, several domestic wells may plot at the same location, and their locations are accurate up to one mile.

coverages, which are only available for larger systems. Public Water System boundaries are not the same as city limits, although most large cities do have their own Public Water System with mapped service areas. Domestic wells located within the boundaries of a PWS were identified even though they may not be used for drinking water (**Appendices B-9** and **C-9**). The map of recent ambient Upper Zone nitrate was used to estimate the number of potentially impacted domestic wells in the Management Zone.

There are approximately 114 domestic wells located within the PWS residential service areas in the Priority 2 Tulare Lake Subbasin portion of the KWAMZ. It is unknown whether any of these wells are still being used even though they are potentially in a PWS area¹⁰. The number of domestic wells outside of PWS service areas far outweighs those of unknown use status within PWS service areas. Smaller Public Water Systems do not have a mappable service area associated with them; they simply have a physical address and a number of connections. The domestic wells that may be located within these smaller PWS that do not have a documented service area mapped boundary readily available to the public are conservatively counted in the domestic well count in the category of domestic wells outside known PWS boundaries.

To estimate the number of wells potentially impacted by elevated nitrate, domestic wells were placed into six groups:

- Group 1 - Groundwater in the Upper Zone with nitrate as N at or below 2.5 mg/L;
- Group 2 - Groundwater in the Upper Zone with nitrate as N above 2.5 mg/L as N and at or below 5.0 mg/L;
- Group 3 - Groundwater in the Upper Zone with nitrate as N above 5.0 mg/L and at or below 7.5 mg/L;
- Group 4 - Groundwater in the Upper Zone with nitrate as N above 7.5 mg/L and at or below the MCL of 10 mg/L;
- Group 5 - Nitrate as N exceeding the MCL of 10 mg/L in the Upper Zone; and
- Group 6 - Unknown category because the domestic well(s) are located where insufficient nitrate data exist in the Upper Zone to perform the spatial interpolation of ambient nitrate conditions.

The total number of wells inside and outside PWS boundaries was compared to the number of wells in each elevated nitrate category to provide an estimate of the percentage of domestic wells potentially impacted by elevated nitrate in the groundwater. The tables in **Appendices B-10** and **C-10** summarize the results of this analysis. This analysis has some inherent uncertainty associated with domestic well locations and the ambient nitrate map (which is adaptable and

¹⁰ Outreach to individual PWS to request accounting data may help identify residents within a PWS boundary that rely on private domestic wells rather than compliant metered water.

subject to change as additional Upper Zone groundwater nitrate data become available over time).

To estimate the population potentially impacted by residents relying on groundwater that may have elevated nitrate, 2010 census block data were mapped and joined with the ambient Upper Zone nitrate concentrations occurring outside of PWS boundaries. The population was summed for census blocks outside PWS boundaries and within the Management Zone for those areas with nitrate concentrations in the Upper Zone (using the six categories of nitrate concentrations described above). The tables in **Appendices B-10** and **C-10** summarize the results of this analysis.

The total estimated number of domestic wells located outside of PWS boundaries and the potential population associated with residents relying on groundwater that may have elevated nitrate concentrations are derived from two very different methodologies. Based on the estimated population in the potentially affected areas, it is likely that the estimated number of domestic wells located in those areas may be underestimated based on information from DWR's Well Completion Reports (WCR) database.

4. IDENTIFICATION OF POTENTIALLY AFFECTED AREAS

A key component of the EAP is the identification of residents or other entities in the Management Zone that may be obtaining their drinking water from a well impacted by nitrate levels > 10 mg/L-N. **Appendix B-2 and Appendix C-2** identify the portions of the proposed KWC Management Zone where nitrate conditions in the Upper Zone of the groundwater system are likely > 7.5 mg/L-N (see orange and red-colored areas). Except for those areas that are served by a compliant PWS, the residences in these orange and red-colored areas are most likely to be served by a domestic well that has potentially > 7.5 mg/L-N.

While the KWC conducts outreach to the entire Management Zone, the KWC will target some of its outreach efforts specifically to those identified as being most likely impacted by elevated nitrate, i.e., in areas where nitrate is most likely > 7.5 mg/L-N. This targeted outreach will occur at the same time the KWC is implementing general community outreach activities to the entire Management Zone, allowing those most likely impacted by nitrate contamination to learn about their replacement water options as quickly as possible. The process to identify residents or other entities in potentially affected areas will begin immediately upon EAP implementation using the steps described in the following subsections.

4.1. Process to Identify Affected Residents

The KWC will implement the following stepwise process to identify residences that may have a domestic well or may be connected to a PWS that is not compliant with the nitrate drinking water standard. The information developed to identify domestic wells and small water systems (see Section 3.4) in nitrate-impacted areas provides a starting point for the work described below. The outcome of this process will be information needed to target EAP outreach to those residents most likely served by a drinking water source that has high nitrate levels. As nitrate data are received from this EAP's well testing program, these data will be incorporated into the KWC's database and used to support periodic re-evaluations regarding whether targeted outreach should include additional areas.

Step 1: Data Development – Identify PWS Boundaries and Obtain County Parcel Data

Public databases that provide PWS boundary information are often not accurate. Therefore, in Step 1, the Management Zone will utilize publicly available PWS boundaries for mailing to Assessor Parcel Numbers (APN) and addresses. After the initial mailing using APN data, KWC will switch to rural residential mailing routes provided by the U.S. Postal Service for additional mailing.

To identify the parcels within the Management Zone, the county assessor parcel GIS data will be requested. The GIS-based parcel data will be overlaid with the PWS data obtained above and

groundwater nitrate water quality characterization data. The outcome will be a base map that identifies areas where nitrate is most likely > 7.5 mg/L-N and not served by a PWS.

Step 2: Remove Parcels Served by Nitrate Compliant PWS

Each PWS will be evaluated to determine if it is compliant with the nitrate water quality standard (Note: An initial evaluation was completed during the development of the PMZP; the findings from this effort will be updated as needed). Parcels located within nitrate-compliant PWS boundaries will be removed from further evaluation. If it is unclear whether the PWS is in compliance with the nitrate requirements, the associated parcels will be retained. After Step 2, all remaining parcels should meet the following criteria:

- Located within the Management Zone;
- Not served by a nitrate-compliant PWS or status of compliance of the associated PWS is unknown; and
- Located in an area where the Upper Zone of the relevant groundwater subbasin potentially has elevated nitrate levels > 7.5 mg/L-N.

Step 3: Establish List of Potentially Affected Residences

GIS-based parcel information (APN or address) will be exported into an Excel spreadsheet. The resulting spreadsheet will be provided to a third-party vendor to generate a mailing list. The outcome will be a preliminary mailing list to be used for targeted resident outreach activities, as described below.

Step 4: Identify Targeted Residences Subject to Existing Well Testing Program

The ILRP required that growers in the Tulare Lake Basin begin monitoring domestic (drinking water) wells on their enrolled parcels for nitrogen in 2020. The purpose of this monitoring is to identify drinking water wells that have nitrate concentrations > 10 mg/L-N and notify well users of the potential for human health risks if the water is used for drinking or cooking.

Under Step 4, the preliminary mailing list created under Step 3 will be evaluated to determine if any residences included on the target list have already had their well tested under the existing well sampling program. For residences identified under this step: (a) if the well test result is > 10 mg/L-N, the Management Zone will include them on the targeted outreach mailing list to inform them of the EAP and interim replacement water options available to them (if replacement water is still needed); or (b) if the test result is \leq 7.5 mg/L, then they will not be targeted for direct outreach under the EAP. However, their well will continue to be re-tested as required under the ILRP (see also Section 6.3.2).

4.2. Process for Non-Compliant Public Water Systems

The EAP is also intended to address situations where a PWS is non-compliant with the nitrate drinking water standard. The KWC will collaborate with representatives of these PWSs to work

with them on the development of potential solutions (temporary or permanent) to bring the PWS back into compliance with nitrate drinking water standards. If any other PWS is found to be non-compliant with nitrate standards during EAP implementation, the KWC will coordinate with them as needed.

5. COMMUNITY OUTREACH DURING EAP IMPLEMENTATION

Section 2 summarized the community outreach activities completed to support the development of this EAP. Community outreach will continue during EAP implementation to obtain additional community input. The outcome of these efforts may result in modifications to this EAP in the future (See Section 7.3.2 and process to amend the EAP).

5.1. Information Sharing

Several community outreach activities are designed to support the establishment of interim replacement water until long-term solutions are implemented. The KWC will prepare informational materials in English and Spanish. However, based on community input from residents and key community leaders/organizations, which may be language-based, KWC will evaluate the need for additional language translation support. KWC intends to rely on local language-based community groups to provide direction regarding how to best reach out to their own community. Access to bilingual staff will be available, as mentioned in Section 1.3.1.

5.1.1. Maintain Management Zone Website

The KWC established a website in early June 2024 (<https://kwcmz.org/>) that serves two key purposes, including providing a mechanism for residents to notify the KWC that they would like to receive notifications of upcoming outreach events and mailouts of program information and a place to post the following information:

- Planned community outreach-related activities and how to participate.
- Information regarding how to have your well tested for nitrate at no cost to the resident.
- Interim Replacement Water Program information, including, e.g., (1) how to receive bottled water deliveries at your home; (2) how to have a POU System installed in your home; and (3) information on the development status of any new water fill stations in the area.
- Informational materials such as fact sheets, community flyers, or other materials that can be used individually or shared with others.
- Frequently Asked Questions (FAQs) regarding relevant Nitrate Control Program activities.

In addition, to further assist with efforts to inform the public on KWC's presence in the area, KWC has set up a Facebook page (<https://www.facebook.com/people/Kern-Water-Collaborative/61559784702746/>), Instagram (<https://www.instagram.com/kwc.mz/>), and YouTube (<https://www.youtube.com/@kernwatercollaborative>). KWC will continue exploring other social media avenues during EAP implementation.

5.1.2. Informational Materials

Informational materials, provided in both hard copy and electronic formats, will be developed for use in various forums, such as, but not limited to, flyers, public meeting handouts, information packets mailed out to residents, brochures made available to the public, or use of social media platforms (these materials may be tailored to specific audiences). Decisions on which format and mechanism to present materials will be decided based on community feedback and input from key community leaders/organizations. As stated in Section 5.1, KWC intends to rely on local language-based community groups to provide direction regarding how to best reach out to their own community. Material distribution will be done in the most cost-effective manner at that time to inform residents. Examples of informational materials that have been and will continue to be provided include, but are not limited to:

- Educational material regarding nitrate in drinking water as a potential health concern.
- Purpose for the establishment of the KWC and the EAP, including (a) the programs that have been established to ensure residents in the area have access to drinking water not impacted by nitrate and (b) identification of program representatives to contact or website address for more information.
- Notices such as "Save the Date," flyers, and emails to alert stakeholders and community participants of upcoming community meetings and EAP implementation updates.
- Locations of water fill stations, if established by the KWC, including information regarding how to properly clean and store water containers and how to use the facilities.
- Information regarding how to request participation in the Interim Replacement Water Program.

5.2. General Management Zone Outreach

The KWC will conduct periodic community outreach meetings to support EAP implementation (see Section 7.1 for implementation schedule). Upcoming meeting schedules will be shared with the community during outreach activities and through postings on KWC's website, Facebook page, Instagram, and other social media platforms.

5.2.1. Community Outreach Meetings

General community outreach meetings were held during the development of this EAP. Opportunities to participate in these meetings will continue during EAP implementation (information will be provided in both English and Spanish to the maximum extent practicable; other language support will be provided if determined necessary). KWC will hold a combination of hybrid and virtual community outreach meetings depending on the need/purpose of the meeting and the residents' input. **Table 5-1** summarizes the activities that have been and will continue to be implemented by the KWC. The content of each meeting may vary, but the primary purpose of these meetings is to inform the community of the following:

- Overall status of implementation of EAP activities;
- Opportunity for residents with nitrate at a concentration greater than 10 mg/L-N in their domestic well to request participation in the bottled water delivery or Point-of-Use (POU) Treatment System programs;
- Need for installation of water fill stations to support the Interim Replacement Water Program; if community-supported, discuss potential locations for a fill station;
- Obtain input from the community on how implementation of the EAP can be improved;
- Have discussions regarding potential long-term drinking water solutions as those planning efforts increase;
- Status of next steps in the Nitrate Control Program, e.g., development of Final Management Zone Proposal and Management Zone Implementation Plan; and
- Schedule for subsequent meetings and upcoming milestones.

The KWC will notify the public of EAP-related community outreach events (at a minimum in both English and Spanish) through the use of one or more of the following methods:

- Email to residents that have registered with the KWC to receive information.
- Postings on the KWC website and the websites of organizations that have partnered with the KWC to share information.
- Social media networks, e.g., Facebook, Instagram, or Nextdoor.
- Direct mail to Management Zone residents using cost-effective methods.
- Public announcements, e.g., through newspaper notices in local and regional media or radio advertisements on English and Spanish stations in the local area.
- Requests to other entities to facilitate outreach efforts, e.g., civic organizations, school and community service districts, or houses of worship.
- Others, as determined by the KWC.

Table 5-1. Process to Conduct Community Outreach Meeting

Task	Primary Activities
1. Address meeting logistics (if meeting is virtual, 1a will not be necessary)	<ul style="list-style-type: none"> a. Secure public venue for in-person meeting b. Prepare and send out “save the date” meeting notice at least 10 days in advance of the meeting date (English and Spanish); post the same information on the KWC website, Facebook page, Instagram, and other social media platforms c. Send out follow-up meeting notice in English and Spanish within 3-4 days of the meeting date d. Send out meeting notice flyers to other supporting stakeholders to email their internal email list, post on bulletin boards, or post on their websites e. Secure necessary translation services for meeting
2. Prepare meeting materials	<ul style="list-style-type: none"> a. Prepare, as needed, meeting agenda, handouts, and PowerPoint presentation materials specific to the purpose of the meeting b. Bring copies of any Management Zone informational materials for distribution at the meeting (if in-person and as needed)
3. Post follow-up information as needed after outreach meeting	<ul style="list-style-type: none"> a. Post meeting presentation materials and handouts to the KWC website (Note: If meeting was virtual, also post a recording of the meeting on the KWC website)
4. Follow up directly with meeting participants after meeting, as needed	<ul style="list-style-type: none"> a. Follow-up on action items from the meeting b. Respond to post-meeting emails/inquiries

5.2.2. Targeted Resident Outreach

Section 3 identifies areas within the proposed KWC Management Zone where nitrate concentrations in the Upper Zone of the underlying groundwater are most likely > 10 mg/L-N. The KWC has been and will continue to conduct additional outreach (in addition to regular, ongoing outreach to the entire Management Zone) to target residents in these areas that are not served by a PWS that is compliant with state and federal nitrate drinking water regulations. As mentioned in Section 5.1, informational materials will be provided in English and Spanish at a minimum. Based on input from residents and key community leaders/organizations, which may be language-based, KWC will evaluate the need for additional language translation support.

The KWC will send the following information to each household on the targeted residential outreach mailing list (at a minimum, information will be provided in both English and Spanish):

- Cover letter that explains the EAP and how its implementation may apply to their residence.
- Educational materials regarding nitrate in drinking water as a potential health concern.
- Provide information about options available to obtain interim replacement water and, if needed, have their domestic well tested for nitrate (these materials will make clear that where well testing is needed, it will be done at no cost to the resident).
- Information about opportunities to participate in EAP implementation and development of long-term drinking water solutions.
- Contact information for a KWC representative and website address where the resident can obtain more information (KWC will have a Spanish-speaking representative available, as needed). A KWC representative will be available to address questions during the day and evening hours.

The KWC will conduct additional outreach to targeted residents who have not responded in some manner to the initial mailout of information. Additional outreach to non-respondents may include a second mailout of information (unless previously mailed information was returned as undeliverable). The KWC will also look for additional opportunities to share information at locations where people gather in the local area, e.g., local community centers, schools, houses of worship, or farm labor centers.

5.3. Coordination with Non-Dischargers

The KWC will coordinate with entities that are not dischargers subject to the requirements of the Nitrate Control Program but have a potential role in ensuring residents have access to safe drinking water. Other entities and regulatory programs may include, but not be limited to, Path A dischargers with potential areas of contribution adjacent to the Management Zone (Nitrate Control Program), GSAs (SGMA), Coalitions (ILRP), and dischargers enrolled under the Concentrated Animal Feeding Operation General Orders. This collaboration can help the KWC:

- Identify potentially affected residents to target for outreach;
- Implement the Interim Replacement Water Program;
- Support outreach activities to all residents within the Management Zone;
- Prepare outreach materials tailored to the constituencies associated with non-dischargers;
- Inform stakeholders of EAP-related activities ongoing in the area, e.g., County Board of Supervisors, County Public Health Department, other interested County departments, trade groups, local community organizations, Junior Colleges, Universities, etc.

- Keep the Central Valley Water Board and DDW informed (outside of regular EAP status reports) of any issues or concerns that may be developing through program implementation;
- Apply for grants that support not just the implementation of the Nitrate Control Program but other area programs to ensure the community has safe drinking water;
- Work collaboratively with NGOs as needed to assist with outreach gaps; and
- Develop long-term solutions for providing safe drinking water to residents in the Management Zone.

6. INTERIM REPLACEMENT WATER PROGRAM

This EAP provides interim drinking water solutions while the KWC develops permanent, long-term solutions for the proposed Management Zone to ensure residents are not drinking water impacted by nitrate. The Interim Replacement Water Program described below, at no cost to residents, will begin at the start of EAP implementation and continue until permanent solutions are in place. The Interim Replacement Water Program includes the following options to meet the needs of individual households: (1) bottled water delivery; (2) installation of a POU Treatment System; and (3) consideration of water fill stations that make water available to any proposed KWC Management Zone resident through the establishment of water fill stations.

6.1. Interim Replacement Water Program Options

The Interim Replacement Water Program has two key components that will be implemented in parallel to meet the needs of as many residents as possible and as quickly as possible:

- Replacement water options designed to meet individual household needs, including (a) bottled water delivery and (b) installation of a POU System in the home (where appropriate).
- Implementation of water fill stations to meet additional community needs.

The sections below describe each of these program components and how they are being implemented through the EAP. Section 7 provides the schedules for implementation of this program within the Management Zone.

6.1.1. Bottled Water Delivery Program

The KWC will offer a bottled water delivery program to meet household-specific water needs. Section 6.2 describes how a residence can participate in this program. In general, residents participating in the program will:

- Receive regular deliveries of bottled water from the KWC's bottled water vendor at no cost to the residents.

- Establish any necessary agreements and schedules with the KWC's vendor(s) to implement service at their residence. It is anticipated that the vendor providing the bottled water service will (a) provide a hand pump to the resident at no cost during the initial delivery, (b) deliver 5-gallon water bottles on a regular schedule, and (c) pick up the empty bottles (Note: Smaller sized bottle options, e.g., 1 or 3-gallon, and deliveries twice per month may also be made available).
- Receive an initial volume of 60 gallons/month of water at their home. Through coordination with the KWC, this initial volume may be increased or decreased based on the needs of each household.

As noted above, each resident is responsible for establishing any necessary agreements with the vendor and complying with the terms and conditions of any signed agreements. However, the KWC will assist residents as needed with any questions or issues that arise during the establishment of the agreement with the KWC's vendor.

6.1.2. Point of Use Treatment System Program

The KWC may offer a program to install and operate a POU System in a residence at no cost to the resident to meet household-specific water needs. In general, a residence participating in this program would have a POU System installed at an appropriate location in the residence to provide the household with water for drinking and cooking (e.g., under the kitchen sink). Section 6.2 describes how a residence can participate in this program.

Every request for POU System installation will require careful evaluation to be sure the appropriate treatment system can be installed in the household. In addition, a POU System cannot be considered for installation without additional water quality analyses that test for the full range of water quality contaminants known to potentially occur in groundwater in the subbasin. In some cases, for example, due to a lack of necessary data or site-specific circumstances a POU System may not be a viable interim drinking water option for the residence. Reasons why installation of a POU System may not be a viable option include, but may not be limited to:

- Inadequate incoming pressure to the treatment system;
- High nitrate levels (typically > 20 mg/L-N) that limit the effectiveness of the POU System to treat the water to a safe level;
- Presence of other contaminants besides nitrate that limit the effectiveness of the POU System and/or are not treatable through a POU System;
- Presence of bacteria from the drinking water well;
- Inadequate location for the POU treatment system waste stream disposal; and
- Inability to ensure that a robust POU System service plan can be implemented at the residence.

To support the POU System Program, the KWC will coordinate with DDW and the vendor(s) as needed to assist with POU System technical issues. If the technical problems are unresolvable, the residence may alternatively participate in the bottled water delivery program.

Where a POU System is a feasible interim replacement water option, the KWC's POU System vendor(s) will work with the resident to install the treatment system. If the resident is not the owner of the residence, the process to install and maintain the POU System will require written approval of the property owner.

Once approved, the resident will establish any necessary agreements (and schedule) with the KWC's vendor(s) to install and maintain a POU System at the residence. It is anticipated that services will include: (a) installation of the treatment device; (b) initial water testing to ensure the device is removing nitrate down to safe levels as expected; and (c) periodic maintenance of the POU System (as required by the manufacturer). The cost of these services will be borne by the KWC as long as the EAP is effective or until an alternative option is provided to ensure the residence has drinking water safe from nitrates. If a resident chooses to continue the use of the POU treatment system, even where permanent drinking water solutions have been made available, the resident will be responsible for paying for maintenance services. If the resident does not allow the required maintenance and monitoring of the POU System to take place (as per the vendor agreement), then the KWC has the discretion to modify the approved interim replacement water option from a POU System to bottled water delivery.

As noted above, each resident is responsible for establishing any necessary agreements with the vendor and complying with the terms and conditions of any signed agreements. However, the KWC will assist residents as needed with any questions or issues that arise during the establishment of an agreement with the KWC's vendor.

6.1.3. Water Fill Station Program

A water fill station is an independent water-dispensing facility connected directly to a PWS that meets drinking water standards and is constructed and operated consistent with any applicable local, county, state, and federal regulations, such as the California Safe Drinking Water Act as defined in the California Health & Safety Code and Titles 17 and 22 of the California Code of Regulations. The goal of the Water Fill Station Program is to provide an additional alternative source for safe drinking water to the local community that may be accessed by any resident. This option requires the installation of water fill stations to meet the drinking water needs of as many residents as possible. Any resident will be able to bring their water bottles to fill them as often as possible at no cost to them. The following sections describe the activities to be implemented when developing a water fill station location.

6.1.3.1. Water Filling Station Locations

Section 3 identified the areas within the proposed KWC Management Zone that are most likely impacted by elevated nitrate in the Upper Zone. Based on community feedback to date, the areas served by fill stations should not be too large to minimize the distance a resident needs to drive to obtain water. The number, locations, and scheduling of fill stations will be based on discussions with the community. If there is community interest, potential locations will be developed based on community consensus. It is possible that a selected location could also benefit residents in neighboring Management Zones.

6.1.3.2. Requirements to Establish a Water Filling Station

Filling stations can provide an all-encompassing option to obtain safe drinking water in the proposed KWC Management Zone. Development of this interim solution will require additional community input. The first step will be to closely work with community residents to identify potential locations for a fill station. Criteria that will be used to identify viable locations include, but may not be limited to:

- Community has indicated its support for the installation of the fill station.
- KWC can obtain permission to install and operate a station on land or property owned by a third party.
- Station receives its water from an existing PWS that (a) complies with state requirements to provide safe drinking water; and (b) has sufficient capacity to dispense water at a reasonable rate to fill up multiple containers (up to five gallons) within a short period of time (target of 1.5-2 gallons/minute, consistent with California regulations for faucets in new residential construction).
- To the extent practical, the station location is within an area where the public already goes to meet other family needs, e.g., at a governmental facility, shopping center, school, or house of worship.
- Establishment of a station is not expected to create any safety issues for users, e.g., the location is in a well-lit area, and typically, regular traffic occurs in the area.
- Vehicle access/parking is available and enough to not cause any unnecessary congestion.
- Operation of the fill station does not create noise impacts on neighboring properties, especially during nighttime hours.
- To the extent possible, the location meets the goal to have a water fill station open 24 hours/7 days per week.

6.1.3.3. Water Fill Station Development

Once water filling station locations have been identified, the process for design and installation will begin. The following activities will be completed to establish a water fill station:

- Obtain property use agreement, as needed.
- Compile documents for design, permitting, installation, and operation and maintenance (O&M) of the fill station. The content of these documents will be consistent with any local, county, state, and federal regulations (Note, if available, KWC may use the specifications from other approved filling stations in the Central Valley Region as a template for the design and implementation of its own fill station).
- Establish an agreement with the PWS supplying water to the fill station.
- Construct and complete tasks to make the water fill station operational.
- Notify interested parties that the water fill station is operational, including community participants, the Central Valley Water Board, PWS providing water, and other interested parties in the proposed KWC Management Zone.
- Inform the public regarding how to use the water fill station, e.g., where residents may obtain bottles and how to properly clean and store their bottles and water.

6.2. Participation in Bottled Water or POU System Programs

Table 6-1 summarizes the steps or activities to be carried out by the KWC to implement the bottled water and POU System programs. Residents may request participation during EAP implementation for either of these interim replacement water options by (a) contacting the KWC directly by phone at (661) 888-4108, (b) sending an email to nicole@kwcmz.org, or (c) submitting a Program Application Form available on the KWC website (<https://kwcmz.org/>) which can be submitted by mail or online to the KWC (**Appendix F**). The KWC will confirm that the resident submitting the request meets the following three eligibility criteria:

1. The residence requesting services is within the proposed KWC Management Zone, and it does not receive drinking water from a PWS where state- and/or county-mandated testing indicates the PWS complies with the nitrate water quality objectives.
 - If any PWS is found to be non-compliant, KWC will first confirm with drinking water regulators from either the County Department of Environmental Resources or DDW and, if confirmed, will collaborate with PWS representative(s) to identify potential solutions (temporary or permanent) for implementation.
2. If the KWC contracts with a vendor(s) to provide the requested bottled water or POU System services and the vendor(s) requires the resident to sign an agreement to receive these services, the resident must be willing to sign and meet the terms and conditions of the agreement.

3. Current drinking water source at the residence has a nitrate concentration that is above the safe drinking water level of 10 mg/L-N (see Section 6.3 below for information regarding how to have your well tested).

If a resident meets the eligibility criteria, KWC will work with the resident to identify the best approach to receiving interim replacement water from this program. Should a resident be ineligible to participate in this program (e.g., residence is not located within the proposed KWC Management Zone), the KWC will notify them of the decision and make sure they are aware of alternative options to obtain safe drinking water, e.g., through the use of a water fill station, if available in the area or other safe drinking water programs.

Residents participating in the bottled water or POU System programs will receive periodic check-ins (e.g., via email or telephone) from the KWC after services are initiated. These check-ins are provided to verify the KWC’s approved vendor(s) are providing services as contracted. In addition, check-ins provide the opportunity for the KWC to (a) answer questions from residents, (b) verify sufficient bottled water is being delivered to the residence, and (c) evaluate if the POU System is receiving proper maintenance.

Table 6-1. Process to Request Participation in Replacement Water Programs	
Task	Primary Activities
1. Establish agreements with vendor(s) to provide services to residents	<ol style="list-style-type: none"> a. Select vendor(s) to provide the following services: (a) bottled-water delivery, (b) POU System installation and maintenance, and (c) well testing. b. Establish procedures to (a) connect vendor(s) with residents (including understanding regarding agreements residents will need to establish with the vendor) and (b) process payments for services rendered.
2. Conduct targeted residential outreach in Management Zone (see Section 5.2.2)	<ol style="list-style-type: none"> a. Send direct mailouts to target areas (areas most likely to have nitrate concentrations in groundwater > 10 mg/L-N) informing them of the availability of all replacement water programs active in the Management Zone and how to participate in any program. b. Use other mechanisms described in Section 5 to notify the community at large of the availability of replacement water programs and how to participate in any program.
3. Verify residents requesting bottled-water delivery or POU System installation meet eligibility Criteria 1 and 2 (see Section 5.2)	<ol style="list-style-type: none"> a. Verify the resident is located within the Management Zone. b. Verify the resident is willing to establish any required agreements with the Management Zone’s vendor(s) providing the requested services.

Table 6-1. Process to Request Participation in Replacement Water Programs	
Task	Primary Activities
<p>4. Unless acceptable nitrate data are already available (see Section 6.3.1), conduct well testing to verify eligibility with Criterion 3</p>	<ul style="list-style-type: none"> a. Obtain a well water sample in coordination with the resident (and property owner, as needed) to test the drinking water source to the residence; notify the resident of well test results. b. If the well test result indicates the nitrate concentration is > 10 mg/L-N, the KWC will discuss options for replacement water with the resident, including the pros and cons of each approach. The KWC will connect the resident or property owner with the appropriate vendor (bottled water delivery or POU System) to initiate replacement water service if either of these replacement water options is selected. c. If the well test result indicates the nitrate concentration is ≤ 10 mg/L-N, the resident and property owner will be notified that (a) the bottled water delivery or POU System options are not available to them through the KWC at this time and (b) a follow-up well test may be offered, (i.e., if the test result was ≥ 7.5 and ≤ 10 mg/L-N (see Section 6.3.2).
<p>5. Conduct follow-up with residents receiving bottled water deliveries</p>	<ul style="list-style-type: none"> a. Check-in with residents receiving services to verify: (a) monthly delivery volume is sufficient for the household; modify as needed; and (b) service is being provided by the vendor(s) as contracted. Check-ins will occur as follows: <ul style="list-style-type: none"> i. Within one month of initiation of service, ii. Approximately six months after initiation of service, and iii. Annually
<p>6. Conduct follow-up with residents with the POU System</p>	<ul style="list-style-type: none"> a. Check in with residents receiving services to (a) verify that the POU System is operating; (b) answer any questions regarding POU System O&M; and (c) verify that the resident is having system maintained as required by the agreement established with the vendor(s). Check-ins will occur as follows: <ul style="list-style-type: none"> i. Within one month of initiation of service, ii. Approximately six months after initiation of service; and iii. Annually
<p>7. Conduct follow-up outreach to residents or property owners with a nitrate test result that was ≤ 10 mg/L but ≥ 7.5 mg/L-N</p>	<ul style="list-style-type: none"> a. Provide the opportunity for residents or property owners to have well re-tested per the procedures provided in Section 6.3.2.

6.3. Residential Well Testing Program

Any resident in the proposed KWC Management Zone may request to have their well sampled for nitrate during EAP implementation. Well testing will be provided to residents who live within the Management Zone boundary, are not currently receiving drinking water from a nitrate-compliant PWS, and receive their drinking water from a well. In addition, well testing will be provided to residents that live outside the Management Zone boundary *where* the resident is located immediately downgradient from Management Zone dischargers within their area of contribution. The KWC will only test the well that provides water to the residents. If the resident does not know the source of water to the household (e.g., whether the household receives nitrate-compliant water from a regulated PWS), KWC representatives will work with them to evaluate this question).

A well test is necessary to verify eligibility to receive bottled water delivery or installation of a POU System, as described in the previous section. Section 6.2 above describes the various ways a resident can contact the KWC regarding getting a well test conducted. The following sections describe the proposed KWC Management Zone well-testing program.

6.3.1. Initial Well Test

If the nitrate concentration of the well water is unknown, the KWC will coordinate with the residence to have the water tested as soon as possible at no cost to the resident. If the resident is not the owner of the property, permission from the property owner is necessary to have the well tested. The resident may also provide the results from a previous well test if the water sample was collected within the last five years using standard methods for well sampling and the nitrate concentration was analyzed using an approved Environmental Protection Agency (EPA) method by a laboratory-certified under the California Environmental Laboratory Accreditation Program (ELAP).

It is anticipated that the resident will initiate contact with the landowner to obtain permission to have a well tested. However, if requested by the resident, the KWC will follow up and obtain permission from the landowner on behalf of the resident. If the KWC learns that the resident is unable to obtain permission from the landowner or the landowner is not responsive to requests to obtain permission, the KWC will work with the Central Valley Water Board staff to address the issue.

Well sampling carried out by the KWC will be conducted using standard well sampling procedures consistent with sample methods used to implement other well testing programs in the area, e.g., as described in Central Valley Water Board's ILRP Drinking Water Well Program FAQ guidance (Central Valley Water Board 2020). All samples will be analyzed for nitrate using EPA-approved methods at an Environmental Laboratory Accreditation Program (ELAP) certified laboratory.

Residents and property owners will be notified of the results from the well test following receipt of the results from the laboratory:

- If the results indicate nitrate levels are > 10 mg/L-N, the resident and property owner will be contacted directly via telephone or email within 24 hours of the KWC receiving the test result. The KWC will discuss options for replacement water with the resident, including the pros and cons of each approach. If bottled water or POU System service is selected, the KWC will coordinate with the resident and property owner to initiate bottled-water or POU System service at the residence as quickly as possible. The telephone/email communication will be followed up with a mailed written summary of the well test findings to the resident and the property owner, as applicable, that includes a copy of the laboratory report; if applicable, documentation that the well water was only tested for nitrate, recommend that the resident consider having the well tested for other potential contaminants if seeking installation of a POU System (also see Section 6.3.3; if known, the KWC will provide information regarding other well testing programs that may be available in the area) and any recommended next steps. If any additional water testing is required by the vendor to support the installation of a POU System, the KWC will coordinate this testing with the vendor providing this service.
- If the results indicate nitrate levels are ≤ 10 mg/L-N, the resident and property owner will receive a written summary of the results, including a copy of the laboratory report. The written summary will indicate, as relevant, that: (a) the residence will not be able to participate in the KWC's bottled water or POU System replacement water programs; (b) the well water was only tested for a selected set of contaminants and that the resident may want to consider having their well tested for other potential contaminants (also see Section 6.3.3) (if known, the KWC will provide information regarding other well testing programs that may be available in the area); and (c) advise the resident of opportunity to have their well tested again, if applicable (see Section 6.3.2).

6.3.2. Follow-up Well Test

For any resident or property owner that has an initial nitrate well test result showing nitrate levels ≤ 10.0 mg/L but ≥ 7.5 mg/L-N, and the resident is not already having their well tested on a regular basis as required through the Central Valley Water Board's ILRP, the KWC will offer follow-up well testing. Within one year of the initial well test, the KWC will contact the resident or property owner to offer the opportunity to retest the well at no cost. If the resident or property owner does not want their well re-tested, no additional follow-up will occur. If the resident or property owner agrees to have the well re-tested and the result remains between 7.5 and 10 mg/L-N, then the KWC will continue to reach out on an annual basis to provide the opportunity to have the well tested at no cost until the nitrate concentration is < 7.5 mg/L-N, or > 10 mg/L and the resident is provided the option to receive bottled water or have a POU system installed.

6.3.3. Well Testing for Other Contaminants

Although nitrate is the focus of the Nitrate Control Program, KWC understands the possibility that other co-contaminants may be present in the groundwater aquifer. Other state and regulatory programs are also looking into well testing programs in the Central Valley targeting other groundwater constituents. For example, the State Water Board provides well testing through the Safe and Affordable Funding for Equity and Resilience (SAFER) program under the Safe and Affordable Drinking Water Fund. KWC will evaluate pursuing this grant to support efforts to have a well tested for multiple constituents all at one time. This would provide efficiency across regulatory programs and for the residents of the region who may have contaminated wells.

If at the time a resident or property owner requests that their well be tested, and SAFER funds or any other types of outside funding for the testing of other constituents are not available, a resident may request to have other constituents analyzed at their expense. KWC will still sample the well for nitrate but provide this additional opportunity to residents, where appropriate (participation by the resident is entirely voluntary). If the resident is interested in this option, KWC will coordinate with them directly regarding how to implement this option.

If the well is sampled for co-contaminants and the test results indicate constituents other than nitrate are detected in levels over drinking water standards, KWC will work with each resident and partnering entities to determine the best way for access to safe drinking water that may be available from other regional programs that are providing interim replacement water for constituents other than nitrate.

6.3.4. Coordination with Irrigated Lands Regulatory Program

Well testing regulatory requirements have been established for the ILRP. Given the overlap between these regulatory programs, the KWC recognizes the importance of simplifying efforts by residents with the Management Zone to have their drinking water well tested. Accordingly, the KWC will coordinate its Residential Well Testing Program with ILRP's Drinking Water Well Monitoring Program. If a resident applying for a well test under the Interim Replacement Water Program well testing program is located on an enrolled parcel under the ILRP, the KWC will work with the resident and the associated parcel owner within the ILRP Coalition to determine if the well has already been sampled to satisfy ILRP well testing requirements. If the well has been tested and the test result indicates that nitrate is > 10 mg/L-N threshold, the KWC will work with the resident and parcel owner to ensure the resident receives drinking water. Similarly, if the well has not been tested for nitrate, consistent with the Interim Replacement Water Program procedures, the KWC will work with all parties to get the well sampled and address any needs for drinking water. Regardless of the situation, the KWC will coordinate with all parties so that the resident can receive drinking water if warranted. Also, while the KWC is ready to assist residents with having their well tested, any action by the KWC under the Nitrate

Control Program is not a substitute for or satisfies domestic well testing requirements under the ILRP program.

6.3.5. Central Valley Dairy Representative Monitoring Program

The CVDRMP is working closely with selected dairy and confined bovine feeding operations within the Central Valley to implement a monitoring program to evaluate the potential impacts of industry practices on first-encountered groundwater. Domestic well testing is not part of the CVDRMP. However, the facilities permitted under the dairy/confined bovine feeding operation general orders and participants in the CVDRMP do test domestic wells and submit findings directly to the Central Valley Water Board. As a participant in the proposed KWC Management Zone, the CVDRMP will encourage dairies and confined bovine feeding operations to share domestic well test results with the KWC to facilitate EAP implementation in a more cost-effective and efficient manner.

7. EARLY ACTION PLAN IMPLEMENTATION

7.1. Schedule/Milestones

Figure 7-1 illustrates the general schedule and key milestones for EAP implementation. **Table 7-1** provides the detailed schedule of activities associated with each key component of this plan: General and Targeted Community Outreach, Interim Replacement Water Program, and Monitoring and Reporting.

If it is necessary to modify the EAP schedule, KWC will request a modification to this EAP as a recommended revision following the process described in Section 7.3.2. The schedule modification request will be made to the Executive Officer of the Central Valley Water Board and include a description of the proposed modification, the reason(s) for the requested change, and a proposed new schedule and/or milestone.

Kern Water Collaborative Management Zone
Early Action Plan

Task	Subtasks	2025				2026			
		QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4
General Community Outreach	Outreach to Management Zone	[Solid blue bar spanning all quarters from Q1 2025 to Q4 2026]							
	Conduct public community and stakeholder meetings	◆	◆	◆	◆	2026 schedule determined in 2025			
Targeted Resident Outreach	Develop mailing list of targeted residents		[Solid blue bar]						
	Mailout Interim Replacement Water Program Materials		◆						
	Coordinated outreach to non-compliant public water systems		[Solid blue bar]						
	Conduct follow up outreach (as necessary)			[Solid blue bar]				[Solid blue bar]	
Interim Replacement Water: Bottled Water & POU Treatment Systems	Secure third-party vendor services	[Solid blue bar]							
	Process requests for services (eligibility verification, well-testing, initiate services)		[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]
	Follow-up with residents to confirm provided services		[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]
Interim Replacement Water: Water Filling Stations	Work closely with residents to determine need for fill stations; if supported work with community on identifying locations and complete subsequent subtasks	Schedule dependent on residents' input							
Monitoring and Reporting	Gather monitoring data from all program activities		[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]	[Solid blue bar]
	Prepare EAP status reports	◆	◆	◆	◆	◆	◆	◆	◆

Figure 7-1. General Implementation Schedule for Proposed KWC Management Zone

Table 7-1. Kern Water Collaborative EAP Implementation Schedule		
Task	Subtasks	Schedule (Assumes EAP Start Date: February 26, 2025)
General Community Outreach	Maintain Management Zone website	Ongoing
	Maintain existing and develop additional mechanisms to provide notice to the public of EAP implementation activities	Ongoing
	As needed, prepare materials to support community outreach activities (e.g., flyers for upcoming meetings, FAQs, etc.)	Ongoing
	Send out public notice of upcoming community meetings	<ul style="list-style-type: none"> • “Save the Date” public meeting notice – send within 10 days prior to scheduled meeting. • Final meeting notice – send within 3-4 days of meeting date (include Zoom link if meeting will be virtual).
	<ul style="list-style-type: none"> • Conduct public community meetings to provide: <ul style="list-style-type: none"> – EAP status update; – Information on replacement water program options; – Implementation schedule; – Well-testing opportunity; and – Other topics as needed. 	<ul style="list-style-type: none"> • Initial EAP implementation kickoff meeting in the Phase 2 area – March 2025. • Additional meetings – periodic community outreach meetings will be held on a regular basis as needed to best accomplish the goals of EAP implementation. <p>Note: Meetings are currently a balance of in-person and virtual to meet multiple needs within the community.</p>

Table 7-1. Kern Water Collaborative EAP Implementation Schedule

Task	Subtasks		Schedule (Assumes EAP Start Date: February 26, 2025)
Targeted Resident Outreach	Establish mailing list for targeted residents (residents with domestic wells in areas most likely impacted by nitrate at concentrations > 7.5 mg/L-N)		Complete by April 30, 2025.
	Mailout Replacement Water Program information to residents on mailing list of targeted residents		Complete initial mailing by June 28, 2025. Conduct follow-up mailings, if needed.
	Conduct follow-up outreach to residents who did not respond to initial contact or had mailed information returned as undeliverable		As needed, but complete by July 15, 2025 for first mailing. Within 45 days after subsequent mailings when they occur.
Interim Replacement Water: Bottled Water or POU System Programs	Extend third-party agreements with vendors as needed to supply bottled water or install a POU treatment system		Prior to initial mailout of outreach packet to targeted residences (see above).
	Acknowledge receipt of service request from resident and initiate eligibility evaluation		The Program Application Form acknowledges receipt of the form upon completion. KWC will follow up within two weeks of receipt.
	If well test required to verify eligibility of residents requesting services, schedule and conduct well test		Schedule well testing as quickly as possible in coordination with resident (and property owner if the resident is not the owner).
	Advise residents (or property owner as needed) of initial nitrate well test results	Result is > 10 mg/L-N	Within 24 hours of receipt of test results, contact resident or property owner via telephone or email to discuss replacement water options and initiate bottled water or POU System services as requested by the resident; follow up with written information within 3 business days (see Section 6.3.1 regarding information to be communicated).
		Result is ≤ 10 mg/L-N	Within 3 business days of receipt of test results, send written notice to the resident or property owner of ineligibility to participate in bottled water or POU System programs (see Section 6.3.1 regarding information to be communicated)

Table 7-1. Kern Water Collaborative EAP Implementation Schedule			
Task	Subtasks		Schedule (Assumes EAP Start Date: February 26, 2025)
	Follow-up well testing if initial well test is ≥ 7.5 mg/L-N but ≤ 10 mg/L-N	Initial well test is ≥ 7.5 mg/L but ≤ 10 mg/L-N	<p>Within one year, offer resident or property owner the opportunity to retest the well at no cost. If the resident or property owner:</p> <ul style="list-style-type: none"> • Does not want their well re-tested; no additional follow-up is required • Agrees to have the well re-tested, and the result remains between 7.5 and 10 mg/L-N, then the KWC will continue to reach out to the resident or property owner on an annual basis to provide the opportunity to have the well tested at no cost until the nitrate concentration is < 7.5 mg/L-N.
	Follow-up with residents participating in bottled water/POU program to verify: (a) services are being received as contracted and (b) bottled water recipients have sufficient water being delivered		Conduct check-in with each resident within 90 days after confirming eligibility to receive bottled water/POU System services.
Interim Replacement Water: Fill Stations	Work closely with residents to identify planning locations of fill stations		To be discussed with residents during EAP implementation at community meetings. KWC will work with the residents on best opportunities and timing for fill stations.
Monitoring and Reporting	Collect monitoring data/maintain records as described in Section 7.3.1		Ongoing
	Provide data to support compilation of EAP program metrics in collaboration with other Management Zone entities for the Nitrate Control Program dashboard on CV-SALTS website; participate in EAP status reports to the Central Valley Water Board through CV-SALTS Executive Committee Meetings		Monthly in conjunction with CV-SALTS Executive Committee Meetings.

Note: Also see Figure 7-1

7.2. Early Action Plan Funding Mechanism

The KWC, the governing body overseeing efforts to comply with the Nitrate Control Program, is a non-profit public benefit corporation that filed for non-profit status on June 29, 2022.

Attachment A-1 of the PMZP provides the governance and bylaws of the KWC. The Board of Directors currently has eleven seats; these Board members have worked collaboratively to develop an equitable cost allocation approach to fund the implementation of this EAP. The KWC is prepared and fully committed to funding the activities associated with the EAP, including implementation.

All efforts to provide safe drinking water are funded through the combined support of Management Zone participants. Each Management Zone participant voluntarily participates in the Management Zone and, as part of their voluntary participation, signs a Participation Agreement with the KWC whereby the participant commits to providing their share of costs for implementation of the Nitrate Control Program in the Management Zone. As part of the annual budgeting process, the Board of Directors re-evaluates and, if necessary, revises the existing cost allocation applied to each participant. A final budget is approved by the Board of Directors.

KWC will explore potential supplemental funding sources, including but not limited to grant and loan programs administered by the State Water Board and Department of Water Resources, which are intended for drinking water and agricultural water quality improvement.

7.3. EAP Program Evaluation

The KWC will conduct monitoring to evaluate the effectiveness of its EAP program. This information will be used to (a) prepare EAP status reports and (b) adaptively manage the EAP over time while long-term drinking water solutions are in development.

7.3.1. Monitoring Activities

KWC will implement the following record-keeping and data-collection efforts:

- *Bottled-water Delivery Program:*
 - Requests for participation in this program;
 - Wells tested as a result of requests for participation and the well test results;
 - Communications with each resident regarding well test results and eligibility to participate in bottled water program; and
 - Communications with residents and status of participation in the program (e.g., follow-up check-ins to verify water needs are being met and contracted services are being provided).

- *POU System Program:*
 - Requests for participation in this program;
 - Wells tested as a result of requests for participation and the well test results (including results for contaminants other than nitrate);
 - Communications with each resident and property owner (as needed) regarding well test results and eligibility to participate in the POU System program;
 - Status of participation of residents that had a POU System installed (e.g., verify vendor is able to provide maintenance and conduct monitoring as required for each system); and
 - Communications with residents and status of participation in the program (e.g., follow-up check-ins to verify contracted services are being provided).
- *Water Fill Station* – For any operational stations, the KWC will collect usage data, including the volume of water dispensed and days and times fill stations are most often used. These data will provide (a) insight into patterns of usage at each facility and, if needed, (b) a basis for compensating the owner of the facility for providing water to the fill station. Fill station usage data may also be used to evaluate whether additional fill station capacity is needed in the Management Zone. If periods of high usage are identified at any station, additional site monitoring may be temporarily conducted to determine the degree to which lines may be forming, causing significant delays in obtaining water or congestion at the site.

The KWC will also conduct the following additional record-keeping activities to support its effort to evaluate EAP implementation:

- Requests received from residents to have their water tested and the outcome of the request.
- Record of responses to residents and property owners informing them of their test results.
- Documentation of any residents who were approved for bottled-water delivery or POU System installation but did not activate the services with the KWC’s vendor(s).
- Documentation of how situations were resolved where the resident requested a POU System but, due to technical issues, had to rely on bottled water delivery instead.
- Contacts with residents to provide an opportunity for a re-test of their domestic well and the outcome of those efforts.
- Documentation of how a situation was resolved if the well was tested as part of the ILRP or dairy program and how the resident’s drinking water needs are resolved if the well test indicates that the well exceeds the nitrate standard of 10 mg/L-N.

7.3.2. Program Implementation Metrics and Adaptive Management

At the request of the Central Valley Water Board’s Executive Officer and in coordination with Priority 1 Management Zone entities, the following metrics were used to track progress in the implementation of the Priority 1 EAPs:

- Location, forum type, and general attendance figures for all outreach efforts
- Number of residences tested for nitrates
- Number of residences tested for other contaminants
- Number of households being provided bottled water
- Number of operable fill stations/kiosks and usage information for each.

These metrics will continue to be used for proposed Priority 2 Management Zones. In general, the KWC, along with other Management Zone entities, will provide the above information monthly to the Central Valley Salinity Coalition (CVSC). The CVSC then compiles the information into a report, which is submitted to the CV-SALTS Executive Committee, which includes the Central Valley Water Board. The Central Valley Water Board’s Executive Officer shares this information with the Central Valley Water Board in the Executive Officer reports, which are prepared and disseminated approximately six times per year. The information is summarized in a dashboard format and is also publicly available on the CVSC’s website at <https://cvsalts.mljenv.com/>.

The Management Zone entities report this information in numerical and graphic formats. Reported information includes an illustration of periodic reporting for the non-outreach metrics (e.g., number of residences wells tested, people being served bottled water, and kiosk usage information). In addition to providing periodic reporting of the metrics described above, the Management Zone entities also report summary statistics of combined outreach activities. Outreach activities generally fall within the following fourteen outreach types split into two categories: people engagements and meetings and events.

- People Engagements include the following eight outreach types:
 - Mailers – This engagement includes the number of mailings and physical mail pieces Management Zones sent to homes.
 - Hand-delivered materials – This engagement includes the number of Management Zone materials dropped off at homes, such as door hangers, in mailboxes, etc., and does not include in-person contact.
 - Emails – This engagement includes the number of emails sent to deliver information on a Management Zone.

- Flyers and packets – This engagement includes the number of printed Management Zone materials distributed through schools or other third-party distribution.
 - Newspaper articles – This engagement includes the estimated number of readers that would be exposed to Management Zone content through paid or earned media promotions.
 - Radio and TV – This engagement includes the estimated number of listeners that may be exposed to Management Zone messages via radio mentions, TV coverage, or through paid or earned media promotions.
 - Social media – This engagement includes the total number of people reached when exposed to Management Zone messages through social media.
 - Website visitors – Each Management Zone entity manages a website that provides information regarding the program and allows for well testing applications to be submitted online. The Management Zone entities utilize online browser tools to track the number of website visitors and receive and respond to applications submitted via the website.
- Meetings and events include the following six types:
 - Online meetings – This includes the number of attendees participating in Management Zone meetings via Zoom and other conferencing events.
 - In-person public meetings – This includes the number of attendees participating in Management Zone in-person meetings.
 - Briefings and reports – This includes the total audience that would attend Management Zone briefings/updates for officials, leaders, and organizations to describe and promote the Nitrate Control Program.
 - Door-to-door meetings – This includes the number of people Management Zone representatives have spoken with at households.
 - Open public events – This includes the number of contacts and conversations Management Zone representatives have with people at tabling public events at community-based events (e.g., County fairs, flea markets, farmers markets, food banks).
 - Phone conversations – This includes the number of individuals Management Zone representatives have conversations with.

Any substantive changes to the EAP being considered will be discussed with the community through regular community meetings prior to submittal as a recommended change to the Regional Board. Recommended revisions to the KWC EAP will be submitted to the Executive

Officer of the Central Valley Water Board (recommendations may be submitted by letter or as part of an EAP status report).

Unless the Central Valley Water Board objects to the recommended revisions to this EAP, KWC will begin implementation of the revised EAP within 60 days of submittal unless the Central Valley Water Board objects and notifies the KWC that this EAP is incomplete. If the Central Valley Water Board objects to the proposed revisions, the KWC will work with the Central Valley Water Board to address their concerns to the extent possible. If the proposed revisions are not approved, then the EAP will continue to be implemented as written.

8. REFERENCES

- Boyle, D., A. King, G. Kourakos, K. Lockhart, M. Mayzelle, G.E. Fogg and T. Harter. 2012. Groundwater Nitrate Occurrence. Technical Report 4 in Addressing Nitrate in California's Drinking Water with a Focus on Tulare Lake Basin and Salinas Valley Groundwater. Report prepared for the State Water Resources Control Board Report to the Legislature. Center for Watershed Sciences, University of California, Davis. <http://groundwaternitrate.ucdavis.edu/>.
- Central Valley Water Board. 2018. *Amendments to the Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and Tulare Lake Basin to Incorporate a Central Valley-wide Salt and Nitrate Control Program*. Draft Staff Report. May 2018.
- Central Valley Water Board. 2020. *Drinking Water Well Monitoring, Frequently Asked Questions. Irrigated Lands Regulatory Program*. March 2020.
- Department of Water Resources. Groundwater Elevation Contour GIS coverage, SGMA Data Viewer. Available at: <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels>. Accessed August 2024.
- Department of Water Resources. 2023. Well Completion Reports. Available at: <https://data.ca.gov/dataset/well-completion-reports>. Accessed August 2024.
- Division of Drinking Water. (Public Supply Well nitrate data). Available at: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/EDTlibrary.html. Accessed August 2024.
- State of California. 2024. California State Geoportal. California Drinking Water System Area Boundaries. Available at: https://gis.data.ca.gov/datasets/fbba842bf134497c9d611ad506ec48cc_0. Accessed August 2024
- State Water Resources Control Board. 2020. *Guidance for Engaging Communities During Development of Early Action Plans, Central Valley Nitrate Control Program. Prepared by the State Water Board's Office of Public Participation*. June 2020.
- State Water Resources Control Board. 2024. Safe Drinking Water Information System (SDWIS) Drinking Water Watch online database. Available at: <https://sdwis.waterboards.ca.gov/PDWW/>. Also available in spreadsheet and PDF format at: <https://data.ca.gov/dataset/drinking-water-public-water-system-information>. Accessed August 2024.

**APPENDIX A KERN WATER COLLABORATIVE COMMUNITY
ENGAGEMENT STRATEGY**

ADMIN DRAFT | Oct. 14, 2024

KERN WATER COLLABORATIVE COMMUNITY ENGAGEMENT STRATEGY

PREPARED FOR

KERN WATER COLLABORATIVE



PREPARED BY

LUHDORFF & SCALMANINI, CONSULTING ENGINEERS

GEI CONSULTANTS, INC.



**Luhdorff &
Scalmanini**
Consulting Engineers



TABLE OF CONTENTS

1. Community Engagement Strategy Purpose.....	3
2. Goals and Desired Outcomes.....	4
2.1. Community Engagement Activities	5
3. Communities and Non-Dischargers	5
3.1. Potentially Impacted Communities and Unincorporated Areas.....	6
3.2. Non-Dischargers	6
4. Communication Protocols, Venues, and Methods	6
4.1. Targeted Engagement	6
4.1.1. Impacted Communities.....	6
4.1.2. Non-Dischargers	7
4.2. Meeting Opportunities	7
4.3. Mechanisms to Share Information.....	8
4.3.1. Kern Water Collaborative Webpage.....	9
4.3.2. Explanatory Materials.....	9
4.3.3. General Communications.....	9
5. Planned Outreach Efforts and Ongoing Implementation Challenges.....	10
5.1. Initial and Planned Outreach Activities	10
5.2. Planned Management Zone Outreach	12
5.3. Challenges Encountered	12
6. References	13

1. COMMUNITY ENGAGEMENT STRATEGY PURPOSE

The purpose of this Community Engagement Strategy (“Strategy”) is to develop and implement an active outreach program for the Kern Water Collaborative (KWC) to utilize throughout the development and implementation of the Early Action Plan (EAP) as required by the Nitrate Control Program. Deliverables for Path B, the Management Zone Approach, includes the Preliminary Management Zone Proposal (PMZP), Early Action Plan (EAP), Final Management Zone Proposal (FMZP), and the Management Zone Implementation Plan (MZIP). Solutions for drinking water needs of those affected by nitrate contamination include both immediate, short-term, and future, long-term solutions.

The goal of the Strategy is to ensure that nitrate-impacted residents can participate in the development of the EAP which, when implemented, will provide local interim solutions for obtaining safe drinking in the KWC Management Zone which includes three Priority 2 areas: Tulare Lake Area, Kern County (Westside South) Area, and Kern County (Poso) Area; and one non-prioritized area: Kern County (Kern River) Area. This Strategy currently applies only to the Priority 2 areas within the proposed KWC Management Zone; however, it may be expanded to cover residents within the non-prioritized Kern County (Kern River) Area of the KWC Management Zone in the future. This would occur upon issuance of a Notice to Comply (NTC) by the Central Valley Water Board to permitted dischargers within this portion of the Kern County subbasin. This document establishes mechanisms to share informational materials to the public as well as coordinating with non-dischargers. These non-dischargers include local government entities and organizations, which have been identified as potential partners to assist with EAP development and implementation in the local communities.

The outreach mechanisms described in this document is incorporated into the EAP community outreach program and supplemented where needed. This evolution of the community outreach program from a strategy to an active EAP program will ensure the local community is given the opportunity to participate in the development of long-term, permanent safe drinking water solutions for the KWC Management Zone.

The following sections provide a comprehensive overview of engagement strategies for the KWC to employ throughout the community engagement efforts. This Strategy has been developed in accordance with the *Guidance for Engaging Communities During Development of Early Action Plans* prepared by the State Water Resources Control Board (State Water Board) in 2020. This Strategy has and may be updated, as needed, to streamline community engagement activities, where reasonable and feasible, to promote those activities that are most effective in reaching the local community. In addition to identifying outreach mechanisms, this document also captures outreach activities ongoing or planned at this time.

Residents with any questions or concerns about the EAP may contact the KWC by the following methods:

- By phone at (661) 888-4108
- By email at nicole@kwcmz.org
- Through KWC website at <https://kwcmz.org/>
- Direct Mail: P.O. Box 1428, Bakersfield, CA 93302

KWC staff will respond to any questions or concerns during normal business hours in a timely manner. For any residents needing translation services, access to bilingual staff will be available and additional language resources will be provided as needed.

2. GOALS AND DESIRED OUTCOMES

The goal of this Strategy is to describe the planned outreach activities for engaging potentially impacted community members and interested non-dischargers in the development and implementation of the EAP required by the Nitrate Control Program. The strategies included within are to be used by the KWC to provide opportunities for communities and non-dischargers to participate in the development of safe drinking water alternatives.

The Strategy's objective is to create a level of engagement and awareness with community residents that establishes trust and provides robust participation in the development and implementation of short- and long-term drinking water solutions. Below are identified objectives. This plan will serve as a roadmap to support achieving the desired outcomes identified below.

1. Educate the public about the development and implementation of the EAP and their opportunities for participation.
 - a. Community and non-discharger input is critical to the successful development and implementation of the EAP. Since community feedback is vital for developing a successful EAP, recommendations on interim and long-term drinking water solutions will be taken into consideration and included in the EAP where reasonable and feasible. This valuable input will guide decision-making and the development of interim and long-term drinking water solutions.
2. Engage a diverse group of community members and non-dischargers representing different social, cultural, and economic elements of the population.
 - a. The Strategy was developed with thoughtful consideration about how to engage the diverse array of communities and non-dischargers by providing multiple and varied opportunities for public participation. The Strategy outlines multiple methods for communication with varied audiences.
3. Provide accurate, easy-to-understand, timely information on the development and implementation of short- and long-term drinking water solutions.

- a. One way to increase engagement is to make participation easier for communities and non-dischargers by providing a variety of methods or venues for the public to access information as well as to provide input and feedback. This Strategy includes opportunities for online and in-person communication at public meetings to make engagement as easy as possible for communities and non-dischargers.

The objectives and desired outcomes listed above are the drivers for this Strategy. These objectives inform and shape the remainder of this document, which will be updated continuously throughout the community engagement process to optimize engagement strategies. While substantial efforts have already been taken to initiate community engagement, this document may evolve as more community and non-discharger information is acquired. Thus, this Strategy is considered a “living” document to be updated, if needed, to conduct community outreach in a reasonable and feasible manner.

2.1. Community Engagement Activities

KWC conducted a variety of community engagement activities to encourage active involvement of diverse social, cultural, and economic elements of the community. (see **Appendix E** for supporting documentation). The following sections summarize key elements of the program to engage the community. As part of this effort, the KWC will prepare informational materials in English and Spanish and access to bilingual staff will be available. Based on community input from residents and key community leaders/organizations, which may be language based, KWC will evaluate the need for additional language translation support. KWC intends to rely on local language-based community groups to provide direction regarding how to best reach out to their own community.

3. COMMUNITIES AND NON-DISCHARGERS

The KWC is committed to an open and active process to discuss interim and long-term safe drinking water solutions with all interested community members and non-dischargers within the KWC Management Zone. A preliminary list of communities and non-dischargers targeted for outreach has been developed. Since outreach efforts are ongoing, the list will be periodically updated to add new contacts. Initial outreach efforts will focus on connecting with all communities and their residents as well as establishing points of contact for non-discharger organizations. Once drinking water needs are characterized, community outreach efforts will focus on those communities and areas that are impacted by nitrate. A summary of these initial outreach efforts is included in Section 5.1.

3.1. Potentially Impacted Communities and Unincorporated Areas

The EAP identifies areas within the KWC Management Zone most likely impacted by elevated nitrate levels in groundwater. Initial outreach efforts are focused on reaching all potentially impacted communities and unincorporated areas in the Management Zone without regard to areas where nitrate contamination is likely most prevalent. As community engagement efforts evolve and the extent of drinking water concerns are further identified and characterized, specific areas will be identified for direct targeted outreach. While this targeted outreach may begin during EAP development, it will certainly be a key component of outreach during EAP implementation.

3.2. Non-Dischargers

The Nitrate Control Program requires that a Management Zone establish a process for coordinating with others that are not dischargers to support efforts to address drinking water issues. Per the regulations, this effort should consider coordinating with affected communities, domestic well users and their representatives, the State Water Board's Division of Drinking Water, local planning departments, local County health officials, Sustainable Groundwater Management Agencies, and other entities as appropriate. The purpose of engaging with non-dischargers is to inform and, where appropriate, solicit help from representatives of non-discharger organizations throughout the development and implementation of the EAP. A list of non-dischargers included in outreach efforts for the KWC Management Zone is included in the Preliminary Management Zone Proposal (PMZP). Outreach to non-dischargers began during EAP development and will continue during EAP implementation.

4. COMMUNICATION PROTOCOLS, VENUES, AND METHODS

The KWC encourages the active involvement of diverse social, cultural, and economic elements of the population in planning for the development and implementation of the EAP. To achieve this goal, multiple community engagement methods will be employed as described below.

4.1. Targeted Engagement

Engagement efforts of the KWC are focused on potentially nitrate-impacted communities and non-dischargers. However, all residents in the KWC Management Zone will remain informed on outreach activities.

4.1.1. Impacted Residents

Communicating directly with residents is of the highest priority and a variety of approaches will be used to communicate with local communities to inform and invite them to participate in KWC outreach activities. These efforts are described in the sections below and range from

conducting community outreach meetings and providing access to informational materials to providing opportunity to review and comment on outreach activities, EAP implementation, and long-term solutions.

Where needed, outreach efforts will use culturally appropriate language when framing aspects of the Nitrate Control Program and developing interim and long-term drinking water solutions. To support this strategy element, information has been gathered regarding languages spoken in the communities within the KWC Management Zone and translation services will be offered as needed. Preliminary research on community demographics has been conducted, which identified English as the primary language followed by Spanish. Given these findings, outreach activities will include Spanish translation as often as possible. Moreover, as the outreach process moves forward, the KWC will continue to evaluate the need to offer translation services other than Spanish. The outcome of the KWC's research on local community profiles is included in the EAP.

4.1.2. Non-Dischargers

The focus of outreach to non-dischargers will be to inform and, where needed, solicit help from representatives of non-discharger organizations, e.g., local government entities, schools, community leaders, and nonprofit organizations. Through direct outreach to non-dischargers (e.g., via email and telephone calls), the KWC has identified several organizations that are willing to assist in facilitating outreach efforts to the community. Specifically, the KWC is providing Management Zone information and meeting notices to representatives of these organizations for online posting or emailing through their contact list. The EAP will document non-discharger participation, including the organizations that assisted with community outreach.

4.2. Meeting Opportunities

Public meetings will be held periodically in the KWC Management Zone for residents, non-dischargers, and other stakeholders, including permitted dischargers subject to the requirements of the Nitrate Control Program. The purpose of these meetings is to keep participants informed during development and implementation of the Nitrate Control Program, request input on key elements proposed for inclusion in the EAP and provide opportunity for the public to have their questions answered. Potential options for obtaining safe drinking water in the interim while long-term solutions are developed will be discussed at these meetings.

To accommodate various methods of meeting opportunities, meetings will be conducted using a combination of online platforms and/or venues, public meetings will be chosen to optimize public accessibility and attendance. A record of those invited and attending these meetings will be maintained throughout the implementation of the EAP. Opportunities for public comment and engagement will be provided at all public meetings. Community residents are encouraged

to join and participate in the KWC Management Zone community meetings. When limited to online platforms for conducting meetings, at appropriate times during the public outreach process, the KWC plans to use virtual polling techniques and online questionnaires as a means to obtain input from meeting participants.

The KWC will provide as much notice of upcoming meetings as is practical with a goal of notifying potential participants of an upcoming meeting at least 10 business days prior to the meeting. Agendas and any other relevant information, including how to attend the meeting (e.g., Zoom links), are posted at least 3-4 business days prior to each meeting. Residents may contact the KWC by phone or email to request hard copy of meeting materials to be directly mailed to them prior to meetings. The dates and times and means of access to meetings will also be posted on the KWC website (<https://kwcmz.org/>), Facebook page, Instagram, and other social media platforms. Three rounds (events) of meetings specifically targeting the local community were held during EAP development. During each of these events, meetings were held at two different times within the same week to give the local community more than one option to participate in the outreach activity.

Meeting summaries and/or presentation materials will be posted on the KWC website as soon as they are completed and available following the meeting. Meetings conducted virtually are recorded and the recording will be posted on the KWC website. Where appropriate, the KWC may also notify meeting participants via email (if available), Facebook page, Instagram, and other social media platforms of the availability of post-meeting information or opportunities to comment on meeting information. At a minimum, meeting notices will be produced in both English and Spanish. Spanish translation services will be offered for public meetings. However, based on community input from residents and key community leaders/organizations, which may be language based, KWC will evaluate the need for additional language translation support. KWC intends to rely on local language-based community groups to provide direction regarding how to best reach out to their own community. Access to bilingual staff will be available and additional language resources will be provided as needed.

4.3. Mechanisms to Share Information

The KWC will use a variety of methods to share information with the community and non-dischargers. These methods are described in the following sections. In addition to providing information and materials in physical locations, directions for requesting hard copy materials will be included on electronic flyers sent via email and posted on KWC's website, Facebook page, Instagram, and other social media platforms. All outreach materials will be reviewed with community-based organizations prior to distribution to the public to ensure materials are understandable for the community.

4.3.1. Kern Water Collaborative Webpage

The KWC maintains a webpage for listing upcoming public meetings, posting information from past meetings and providing information about the development of the Management Zone and implementation of the Nitrate Control Program (<https://kwcmz.org/>). This platform is used to communicate information during the development and implementation of the EAP as well as other supporting documents required by the Nitrate Control Program. The webpage provides the opportunity for members of the public to subscribe to receive KWC updates, news, and meeting/event announcements. It will also provide information on meeting dates, locations, times, agendas, meeting summaries, handouts, presentations, and reports. In addition to KWC's webpage, similar information will also be posted on KWC's Facebook page (<https://www.facebook.com/people/Kern-Water-Collaborative/61559784702746/>), Instagram (<https://www.instagram.com/kwc.mz/>) and other potential social media platforms.

4.3.2. Explanatory Materials

Explanatory materials such as fact sheets, presentations, and informational documents will be created as needed to communicate EAP and Nitrate Control Program related concepts and information to stakeholders and the public. As appropriate, a Spanish translation of these explanatory materials may also be made available. Materials will be created with the stakeholder and local community in mind, communicating concepts in layman's terms, and utilizing reader-friendly graphics to reinforce understanding. A frequently asked questions (FAQ) document has been created to explain the basics about the Nitrate Control Program, risks of nitrate contamination and general information about the development and implementation of the EAP. The use of FAQs may be expanded as the program further develops. As needed, flyers geared toward announcing community meetings or other outreach activities will be developed, posted on the KWC webpage, Facebook page, Instagram, other social media platforms, and sent out to representatives of non-discharger organizations for distribution to community members.

4.3.3. General Communications

The KWC is developing a comprehensive contact list for the Management Zone. The initial effort has been focused on acquiring email contacts from any potential participants, but efforts to acquire physical mailing addresses of potentially impacted residents will be implemented over time. Interested parties can request to be added to the KWC contact list at any time. No interested party will be removed from the contact list unless the party requests removal. Only contact information including resident name, address, phone number, and email will be collected. This information is used to follow up on outreach activities and questions. Personal information will not be shared with the public. The need for general communication in the Management Zone includes, but not limited to:

- **Meeting and Event Notifications** – Distribute invitations for all Management Zone related meetings and events as well as provide reminders regarding activities such document comment periods.
- **Requests for Public Comment** – During public comment periods on the PMZP, Final Management Zone Proposal (FMZP), Management Zone Implementation Plan (MZIP) or other documents, community members and stakeholders will be given opportunity to submit comments on the KWC webpage, phone, or by email.
- **Direct Mailing** – As areas with potentially elevated nitrate in groundwater are identified through EAP development and implementation, direct mailings to local residences within those areas will be implemented to the maximum extent practicable.
- **Social Media Platforms** – Utilize KWC’s Facebook page, Instagram, other social media platforms and outlets such as newspapers, and radio stations to distribute information for Management Zone related meetings and events. This method will help expand community outreach efforts to reach a greater number of potentially impacted residents.

5. PLANNED OUTREACH EFFORTS AND ONGOING IMPLEMENTATION CHALLENGES

This section lists the ongoing and planned future tasks intended to implement this Strategy and meet the goals identified in Section 2. The KWC Management Zone’s PMZP and EAP includes detailed summary of all outreach activities completed during EAP development as part of the implementation of this Strategy. Looking towards the future, the EAP also includes a detailed community outreach program that will be carried out during EAP implementation. That program will include elements of this Strategy supplemented as needed to fulfill the purposes of EAP implementation. The sections below summarize outreach activities during EAP development, planned for EAP implementation, and a summary of challenges encountered to date.

5.1. Initial and Planned Outreach Activities

Initial outreach efforts have been geared toward establishing communication with potentially impacted communities and non-dischargers. As EAP implementation progresses, the KWC will explore and employ additional mechanisms to obtain community contact information. Initial or planned outreach efforts include:

- Identification of potentially impacted communities and non-discharger organizations in the KWC Management Zone to support development of a community contact list. This

effort has included developing community profile information for the Management Zone.

- Conducting telephone calls and sending emails to identified non-dischargers including government agencies and non-governmental organizations (NGOs) to determine their interest and ability to help facilitate community outreach efforts including emailing meeting notices and posting information to their webpages. Currently the non-discharger contact list includes more than 100 individuals representing varied interests within the KWC Management Zone.
- Establishment of a subscription feature on the KWC webpage (<https://kwcmz.org/>) to enable interested parties to sign up for meeting and event notices.
- Preparation of flyers and educational materials to support community outreach meetings and provide the community with general information about the KWC Management Zone.
- Coordination activities with local NGOs.
- Development of meeting presentation materials and documentation of participation in stakeholder and community outreach meetings. Materials prepared to date are posted on:
 - KWC website (<https://kwcmz.org/>)
 - YouTube (<https://www.youtube.com/@kernwatercollaborative>)
- Development and release of public meetings notices for meetings targeted at stakeholders and the local community.

Table 1. Summary of Completed Management Zone Outreach Activities

Activity	Date/Time	Purpose
Community Outreach Meeting #1	June 26, 2024 6 – 7 pm	Introduction of the KWC and Nitrate Control Program. Overview of potentially nitrate-impacted areas, possible interim solutions, and how residents participate.
Community Outreach Meeting #2	August 27, 2024 3 – 4 pm	Overview of nitrate conditions and potential interim drinking water solutions under the EAP as well as the opportunity to provide feedback on potential interim replacement water program elements. Inform about public draft EAP and opportunity to review and comment.
	August 28, 2024 6 – 7 pm	
Community Outreach Meeting #3	October 23, 2024 3 – 4 pm	Present draft EAP contents and reminder for community participants to review and comment on public draft EAP.
	October 23, 2024	

Table 1. Summary of Completed Management Zone Outreach Activities		
Activity	Date/Time	Purpose
	6 – 7 pm	
Community Outreach Meeting #4	TBD	Present draft PMZP contents and reminder for community participants to review and comment on public draft PMZP.
Public Review of Draft EAP	TBD	Release of Public Draft for comments. Comment period closed TBD.
Public Review of Draft PMZP	TBD	Release of Public Draft for comments. Comment period closed TBD.

5.2. Planned Management Zone Outreach

The KWC has planned a series of stakeholder and community outreach activities to support development of the Management Zone and preparation of the EAP. Anyone may participate in the meeting activities, but the focus of meetings varies: (a) stakeholder meetings target those directly impacted by the Nitrate Control Program (e.g., permitted dischargers) and those with interests in ensuring that safe drinking water is available to all residents, i.e., non-dischargers within the Management Zone; and (b) community outreach meetings target to those directly affected by nitrate contamination in their drinking water. Table 1 below summarizes the activities during PMZP/EAP development. Following completion of Management Zone outreach activities, relevant information from the meeting is posted on the KWC website (<https://kwcmz.org/>), Facebook page, Instagram, and other social media platforms. Recordings of each meeting are also posted (applicable only for virtual meetings).

5.3. Challenges Encountered

The KWC encountered several challenges during initial outreach efforts. Examples include:

- Minimal responses from contacted non-discharger entities and organizations (e.g., full voicemail boxes, non-responsive to emails).
- Outdated contact information obtained in initial identification of communities and non-dischargers.
- Limited ability for NGOs involved in community drinking water issues to assist in outreach due to a lack of an active presence in the area.
- Some organizations have policies that do not allow “advertising”, which apparently includes the Nitrate Control Program.

Regardless of these challenges, the KWC continues to “work” the area to develop new contacts to reach out to the local community. This effort will be assisted by direct mailout of information to local residents once a more targeted area has been identified.

6. REFERENCES

State Water Board. 2020. *Guidance for Engaging Communities During Development of Early Action Plans, Central Valley Nitrate Control Program. Prepared by the State Water Board’s Office of Public Participation.* June 2020.

APPENDIX B KERN COUNTY (WESTSIDE SOUTH) AREA

APPENDIX B-1: KERN COUNTY (WESTSIDE SOUTH) AREA COMMUNITY PROFILE

Data has been gathered for the Disadvantaged Communities (DAC) in the Kern County (Westside South) Area for the purpose of EAP development. In accordance with the State Water Board’s Guidance for Engaging Communities During Development of Early Action Plans, a community profile table has been compiled to better understand communities within the Kern Water Collaborative (KWC) Management Zone. Appendix B-1 provides DAC demographic data to help understand how best to engage with these impacted communities and encourage participation during EAP development. It is important to understand and account for community diversity to ensure drinking water solutions are appropriately developed with residential input and affected communities are informed on how the Nitrate Control Program will impact them. Notably, this table identifies languages other than English in the region including Spanish to bridge potential translation gaps to help ensure success of the EAP.

Community Demographics for Disadvantaged Communities in the Kern County (Westside South) Area ¹												
DACs ²	Population	Median Household Income (MHI)	Language(s) ³	Race/Ethnicity								
				American Indian and Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian and Other Pacific Islander	Not Hispanic or Latino	Some Other Race	2 or More Races	White
Buttonwillow CDP	1,339	\$42,548	English, Spanish	1%	0.31%	1%	42%	0%	7%	31%	5%	13%
Derby Acres CDP	288	\$56,250	English, Spanish	1%	1%	1%	9%	0%	39%	5%	5%	40%
Dustin Acres CDP	568	\$46,667	English, Spanish	2%	0.31%	0.08%	12%	0.08%	35%	8%	6%	36%
Ford City CDP	4,909	\$43,538	English, Spanish	3%	0.15%	0.34%	32%	0.02%	17%	21%	7%	20%
Lost Hills CDP	1,742	\$36,458	English, Spanish	1%	0.08%	0.11%	49%	0%	1%	19%	26%	5%
Maricopa city	2,157	\$40,208	English, Spanish	1%	0.36%	1%	15%	0.15%	32%	9%	6%	35%

Community Demographics for Disadvantaged Communities in the Kern County (Westside South) Area¹

DACs ²	Population	Median Household Income (MHI)	Language(s) ³	Race/Ethnicity								
				American Indian and Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian and Other Pacific Islander	Not Hispanic or Latino	Some Other Race	2 or More Races	White
McKittrick CDP	130	\$38,333	English	1%	1%	1%	13%	0%	35%	8%	8%	35%
South Taft CDP	2,120	\$28,452	English, Spanish	2%	0.22%	0.20%	34%	0.07%	15%	23%	8%	19%
Taft city	9,189	\$46,980	English, Spanish	1%	1%	1%	23%	0.23%	25%	11%	5%	32%
Taft Heights CDP	1,509	\$45,046	English, Spanish	1%	0.26%	0.36%	19%	0.36%	29%	10%	8%	32%
Wasco city	27,553	\$39,291	English, Spanish	1%	0.29%	3%	44%	0.04%	4%	28%	9%	10%

¹Table developed using the US Census (https://data.census.gov/profile/United_States?g=010XX00US) 2020 Decennial Census and 2022-2023 American Community Survey (ACS) data.

²DACs were identified by using the Department of Water Resource’s DAC Mapping Tool Census Places (ASC: 2016 – 2020): (<https://gis.water.ca.gov/app/dacs/>), where DACs are determined by California’s MHI and utilizing the state DAC threshold of 80-percent.

³Languages spoken > 5-percent as listed in the 2022 ACS data. Use of this threshold is recommended in Guidance for Engaging Communities During Development of Early Action Plans (State Water Board, June 2020).

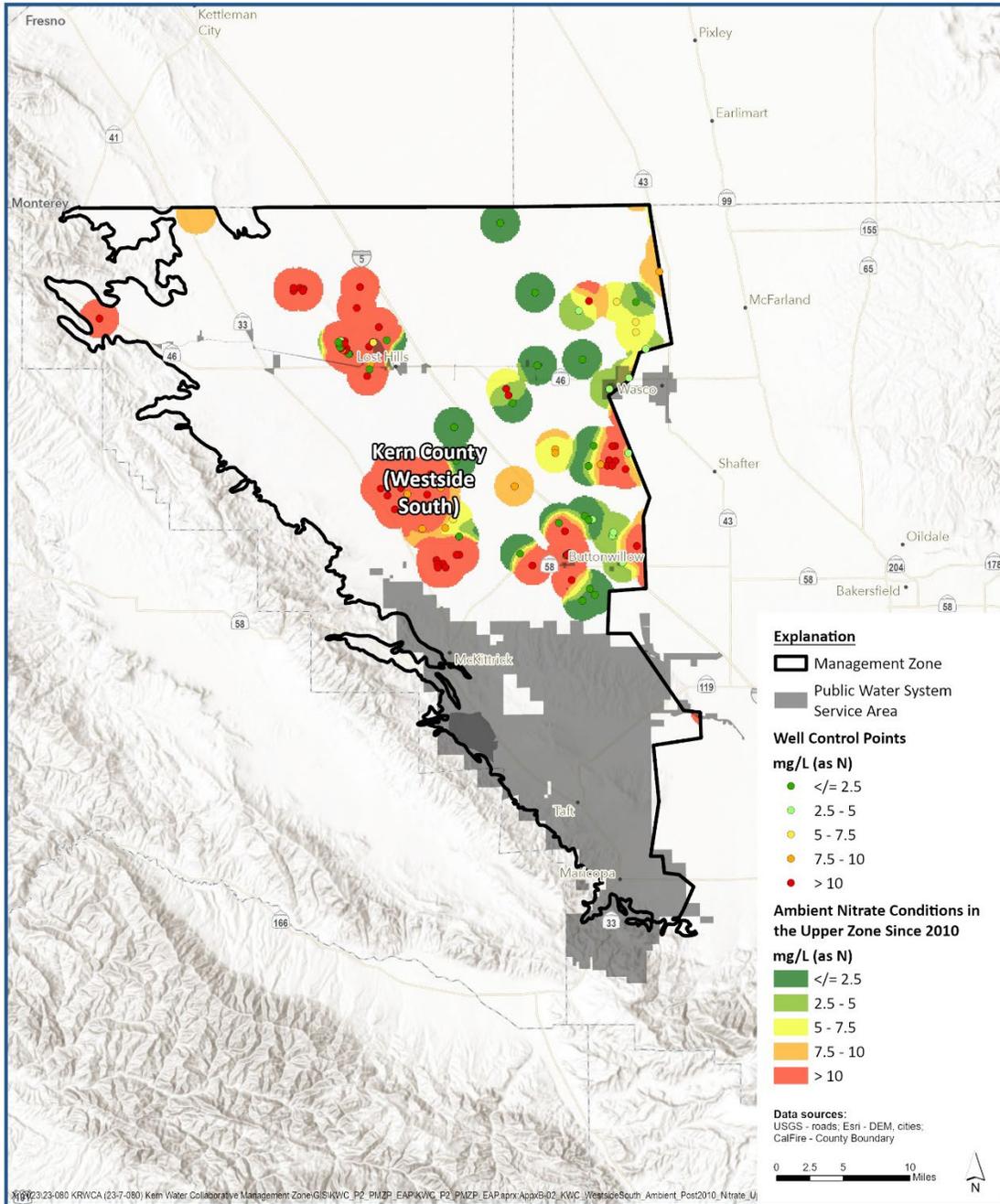
The table below identifies key community members from each identified DAC in the Kern County (Westside South) Area. It is important to identify these contacts to support community outreach efforts for increased participation and input on long-term drinking water solutions. This is a living document and will be updated during EAP implementation. Data gaps are identified, and efforts will be made to reach out to these communities to identify a point of contact.

Kern County (Westside South) Area DAC Point of Contacts for Nitrate Control Program			
DAC	Point of Contact	Phone Number	Email Address
Buttonwillow CDP	Megan Lucas	(661) 764-5205	mlucas@buttonwillowprd.com
Derby Acres CDP*	TBD	TBD	TBD
Dustin Acres CDP*	TBD	TBD	TBD
Ford City CDP*	TBD	TBD	TBD
Lost Hills CDP*	TBD	TBD	TBD
Maricopa city*	TBD	(661) 769-8279	TBD
McKittrick CDP*	TBD	TBD	TBD
South Taft CDP*	TBD	TBD	TBD
Taft city*	Yvette Mayfield	(661) 763-1222 Ext	yvettmayfield@cityoftaft.org
Taft Heights CDP*	TBD	TBD	TBD
Wasco city*	Maria O. Martinez	(661) 758-7214	cityclerk@cityofwasco.org

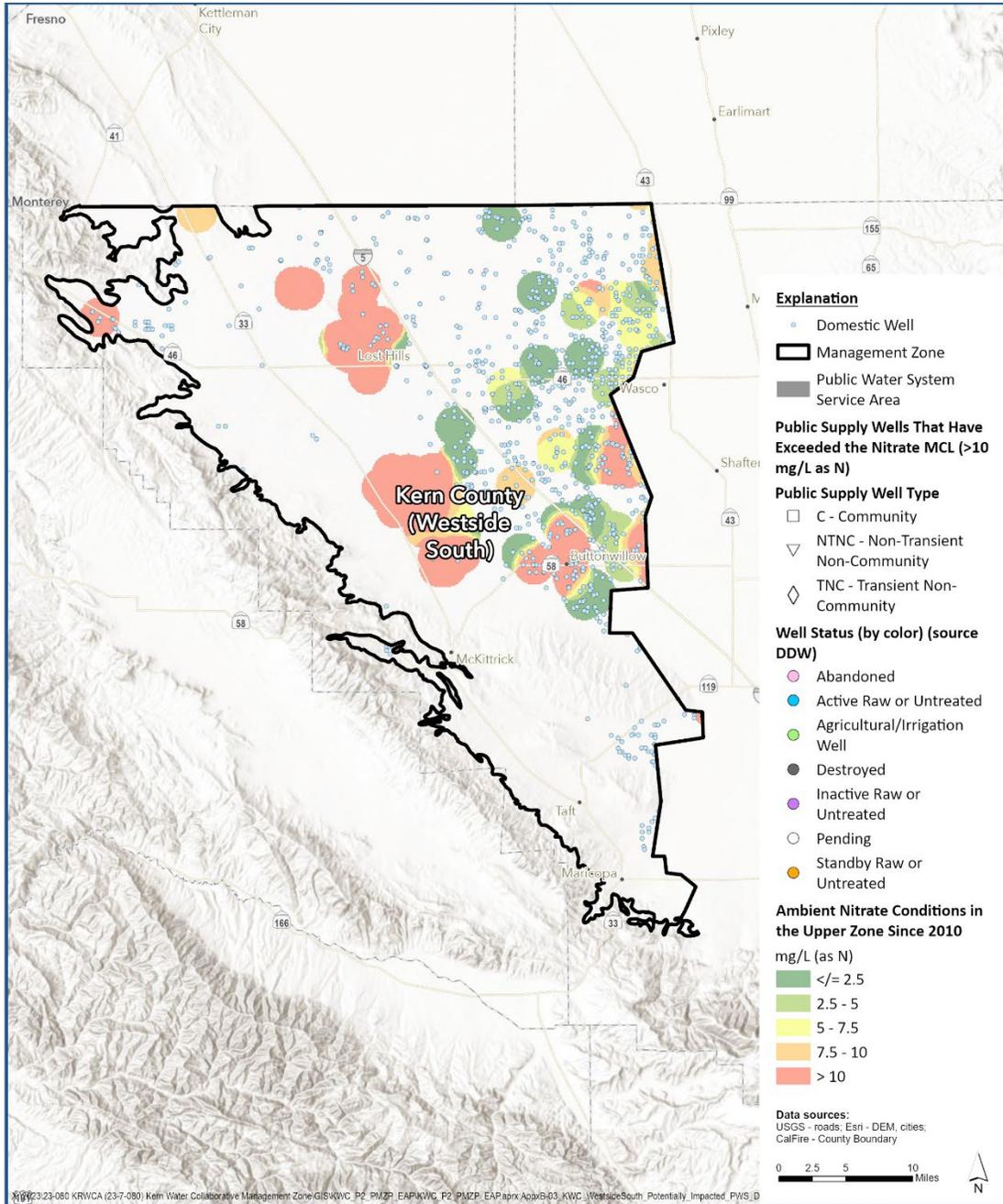
TBD = To Be Determined.

*TBD or city council member information that needs to be updated once appropriate DAC point of contact is identified.

APPENDIX B-2 AMBIENT POST-2010 NITRATE CONCENTRATIONS IN THE UPPER ZONE OF GROUNDWATER UNDERLYING THE KERN COUNTY (WESTSIDE SOUTH) AREA



APPENDIX B-3 POTENTIALLY IMPACTED PUBLIC WATER SUPPLY WELLS AND ALL DOMESTIC WELLS, KERN COUNTY (WESTSIDE SOUTH) AREA



APPENDIX B-4 PLACEHOLDER: SUMMARY OF NITRATE-IMPACTED PUBLIC SUPPLY WELLS (BY WELL STATUS) FOR THE KERN COUNTY (WESTSIDE SOUTH) AREA

There are currently no nitrate-impacted public supply wells in the Kern County (Westside South) Area. If this changes, this Appendix will be updated prior to the submittal of the FMZP.

APPENDIX B-5 PLACEHOLDER: SUMMARY OF PUBLIC WATER SYSTEMS THAT HAVE HAD NITRATE-IMPACTED WELLS IN THE KERN COUNTY (WESTSIDE SOUTH) AREA

There are currently no nitrate-impacted public supply wells in the Kern County (Westside South) Area. If this changes, this Appendix will be updated prior to the submittal of the FMZP.

APPENDIX B-6 PLACEHOLDER: TREATMENT OF WATER SYSTEMS WITH NITRATE-IMPACTED WELLS IN THE KERN COUNTY (WESTSIDE SOUTH) AREA

There are currently no nitrate-impacted public supply wells in the Kern County (Westside South) Area. If this changes, this Appendix will be updated prior to the submittal of the FMZP.

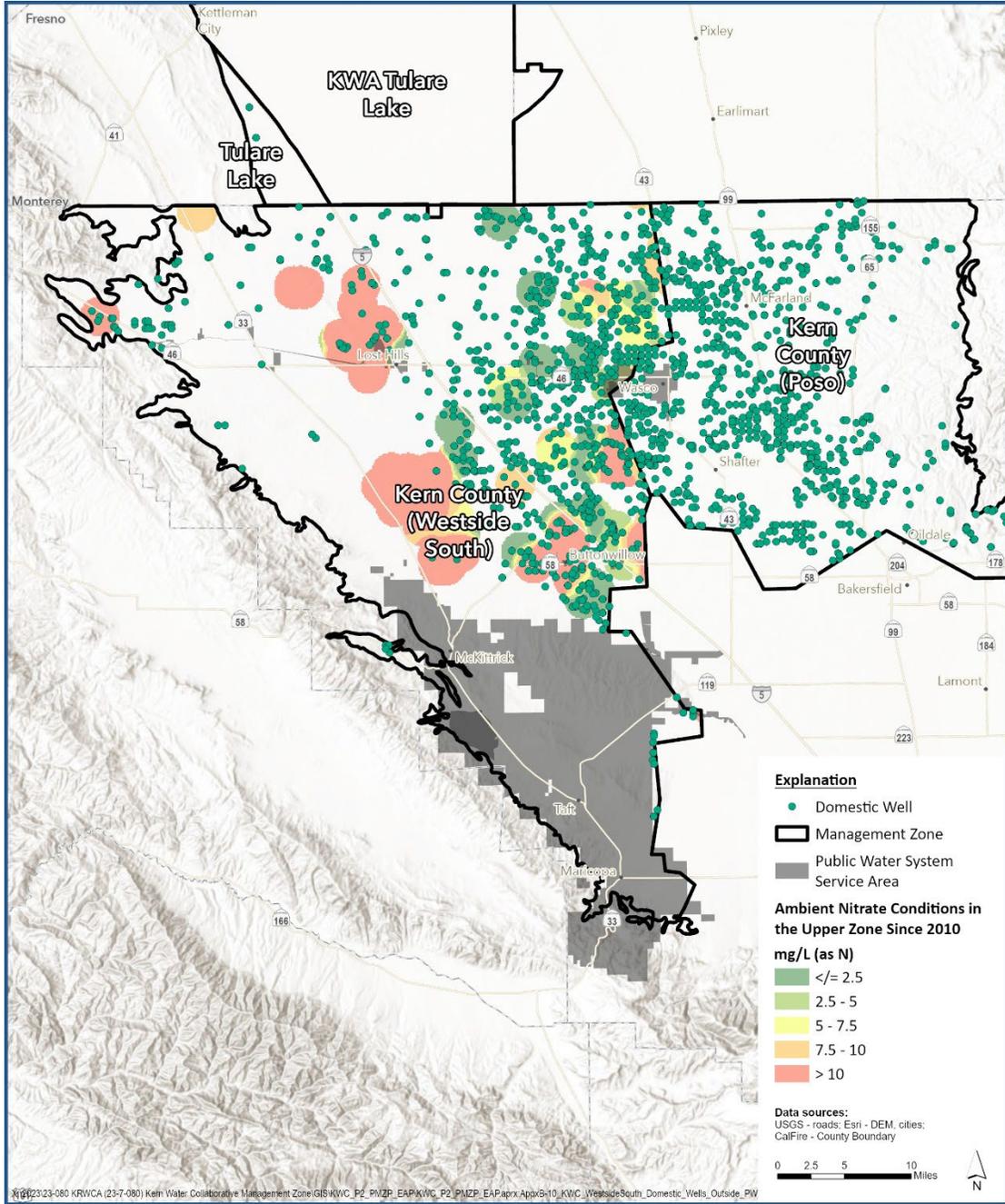
APPENDIX B-7 PLACEHOLDER: TREATMENT STATUS FOR WATER SYSTEMS THAT HAVE WELLS WITH NITRATE-IMPACTED SAMPLES, KERN COUNTY (WESTSIDE SOUTH) AREA

There are currently no nitrate-impacted public supply wells in the Kern County (Westside South) Area. If this changes, this Appendix will be updated prior to the submittal of the FMZP.

APPENDIX B-8 COMPLIANCE STATUS FOR ALL PUBLIC WATER SYSTEMS IN THE KERN COUNTY (WESTSIDE SOUTH) AREA WITH VIOLATION AND CHEMICAL EXCEEDANCE INFORMATION, BY SYSTEM NAME (AS OF SEPTEMBER 2024)

FWSID	FWS Name	Management Zone	County	Populating Agency	Federal Classification	State Classification	Service Area Classification	SAPF Status	ISS Status	Number of Connections (Source: RWDMS or 2024 S DWR)	Population Served (Source: RWDMS or 2024 S DWR)	Compliance Status (1)	Compliance Status Source	Violation Category (DWR/SDB/MS)	Violation Chemical(s) (DWR/SDB/MS)	Date of Violation (DWR/S DB/MS/Compliance Date)	MSL Exceedance			NonMSL Violation	Total Population Served by Currently Opened Compliance Status Data in any violation	Population Served by Currently Opened Compliance Status Data in MSW only	* Source not available Consider the results in the PLUS Co- Ordination
																	None	None PLUS Co- Ordination	Other Combinations				
CA1310201	WINDY CITY CD	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	CDM HASSETT	CDM HASSETT	A (No-Drinking)	Leaking	SDB	544	2760	Out of Compliance	SPWDR/1/2024	MCL	1,2,3-VCF	10/1/2019				0	0	0	
CA1310202	CDP - WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	1 KENNEDY HOLDING COMPANY	1 KENNEDY HOLDING COMPANY	I (Drinking)	None	ANR	2	105	In Compliance	SPWDR/1/2024							0	0	0	
CA1310203	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	CDM HASSETT	CDM HASSETT	A (No-Drinking) (Drinking)	NonMSL Non-Drinking	SDB	2212	10252	In Compliance	SPWDR/1/2024							0	0	0	
CA1310204	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 11 - WFCSD	NOVA KENNEDY HOLDING COMPANY	NOVA KENNEDY HOLDING COMPANY	A (No-Drinking)	None	ANR	10	200	In Compliance	SPWDR/1/2024							0	0	0	
CA1310205	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	CDM HASSETT	CDM HASSETT	A (No-Drinking)	Non-Drinking	SDB	12	29	In Compliance	SPWDR/1/2024							0	0	0	
CA1310206	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	CDM HASSETT	CDM HASSETT	A (No-Drinking)	None	ANR	21	1300	In Compliance	SPWDR/1/2024							0	0	0	
CA1310207	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	CDM HASSETT	CDM HASSETT	A (No-Drinking)	Leaking	MSW	1768	3042	Out of Compliance	SPWDR/1/2024	MCL	1,2,3-VCF	4/1/2019				0	0	0	
CA1310208	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	CDM HASSETT	CDM HASSETT	A (No-Drinking)	Non-Drinking	SDB	416	1300	In Compliance	SPWDR/1/2024							0	0	0	
CA1310209	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	NOVA KENNEDY HOLDING COMPANY	NOVA KENNEDY HOLDING COMPANY	I (Drinking)	None	ANR	21	2647	In Compliance	SPWDR/1/2024							0	0	0	
CA1310210	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	NOVA KENNEDY HOLDING COMPANY	NOVA KENNEDY HOLDING COMPANY	A (No-Drinking)	None	ANR	9	230	Out of Compliance	SPWDR/1/2024	MSL (1)	1,2,3-VCF	2/1/2024 12/1/2021				0	0	0	
CA1310211	WEST KERN WEST FULTON	Central Valley (Westside South)	CA	DB FWS 12 - VDAAR	CDM HASSETT	CDM HASSETT	A (No-Drinking)	Non-Drinking	SDB	481	2570	In Compliance	SPWDR/1/2024							0	0	0	

APPENDIX B-9: DOMESTIC WELLS LOCATED OUTSIDE PUBLIC WATER SYSTEM AREAS IN THE KERN COUNTY (WESTSIDE SOUTH) AREA AND ADJACENT AREA



APPENDIX B-10: SUMMARY OF DOMESTIC WELLS AND POPULATION WITH ESTIMATED UPPER ZONE NITRATE CONCENTRATION CATEGORIES IN THE KERN COUNTY (WESTSIDE SOUTH) AREA AND ADJACENT AREA

Kern County - Westside South					
Estimated Upper Zone Ambient Nitrate (2010-2024)**	DWR Domestic Wells Located Outside PWS Boundaries		DWR Domestic Wells Located Within PWS Boundaries	DWR Total Domestic Wells in Management Zone	2023 Census Block Analysis (Outside PWS service areas)
	Domestic Well Count Outside of PWS Boundaries	% of Total Domestic Wells Outside PWS Boundaries	Total Domestic Wells in MZ Within PWS Boundaries	All Domestic Wells in Management Zone	Population Outside PWS Boundaries
Group 1: ≤ 2.5 mg/L as N	172	97.2%	5	177	404
Group 2: > 2.5 - 5.0 mg/L as N	98	92.5%	8	106	114
Group 3: > 5.0 - 7.5 mg/L as N	74	89.2%	9	83	127
Group 4: >7.5 - 10.0 mg/L as N	55	100.0%	0	55	117
Group 5: > 10.0 mg/L as N	123	93.2%	9	132	527
Group 6: Unknown*	527	89.6%	61	588	1,071
Total	1,049	91.9%	92	1,141	2,360

*Domestic wells of Census Blocks are located in a "Gap Area" where insufficient Upper Zone nitrate data exist to do a spatial interpolation of ambient nitrate conditions

**Ambient nitrate levels are based on best available groundwater nitrate data meticulously vetted at the time of analysis and are based on Upper Zone nitrate data from January 2010 to May 2024. These mapped nitrate levels are subject to change and are therefore adaptable, as new data become available.

APPENDIX C KERN COUNTY (POSO) AREA

APPENDIX C-1: KERN COUNTY (POSO) AREA COMMUNITY PROFILE

Data has been gathered for the Disadvantaged Communities (DAC) in the Kern County (Poso) Area for the purpose of EAP development. In accordance with the State Water Board’s Guidance for Engaging Communities During Development of Early Action Plans, a community profile table has been compiled to better understand communities within the Kern Water Collaborative (KWC) Management Zone. Appendix C-1 provides DAC demographic data to help understand how best to engage with these impacted communities and encourage participation during EAP development. It is important to understand and account for community diversity to ensure drinking water solutions are appropriately developed with residential input and affected communities are informed on how the Nitrate Control Program will impact them. Notably, this table identifies languages other than English in the region including Spanish and Asian and Pacific Islander languages to bridge potential translation gaps to help ensure success of the EAP.

Community Demographics for Disadvantaged Communities in the Kern County (Poso) Area ¹												
DACs ²	Population	Median Household Income (MHI)	Language(s) ³	Race/Ethnicity								
				American Indian and Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian and Other Pacific Islander	Not Hispanic or Latino	Some Other Race	2 or More Races	White
Wasco city	27,553	\$39,291	English, Spanish	1%	0.29%	3%	44%	0.04%	4%	28%	9%	10%
Cherokee Strip CDP	289	\$32,500	English, Spanish	1%	1%	0.50%	41%	0%	8%	27%	7%	15%
Delano city	52,821	\$47,042	English, Spanish, Asian and Pacific Islander languages	1%	8%	3%	42%	0.06%	3%	28%	8%	8%

Community Demographics for Disadvantaged Communities in the Kern County (Poso) Area¹

DACs ²	Population	Median Household Income (MHI)	Language(s) ³	Race/Ethnicity								
				American Indian and Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian and Other Pacific Islander	Not Hispanic or Latino	Some Other Race	2 or More Races	White
East Niles CDP	29,885	\$41,162	English, Spanish	2%	0.39%	1%	42%	0.03%	7%	25%	9%	14%
Hillcrest CDP	11,801	\$50,279	English, Spanish	1%	0.26%	2%	41%	0.13%	7%	23%	10%	15%
La Cresta CDP	9,990	\$39,841	English, Spanish	2%	1%	3%	37%	0.06%	10%	22%	9%	17%
McFarland city	13,244	\$36,586	English, Spanish	2%	0.46%	0.34%	48%	0.02%	2%	26%	12%	9%
Mexican Colony CDP	337	\$35,167	English, Spanish	3%	0.36%	0.18%	46%	0%	3%	27%	9%	11%
Oildale CDP	35,520	\$40,773	English, Spanish	1%	1%	1%	16%	0.07%	31%	8%	7%	35%
Richgrove CDP	2,098	\$19,063	English, Spanish	1%	2%	0.11%	48%	0%	1%	33%	11%	4%
Shafter city	19,743	\$47,433	English, Spanish	1%	1%	1%	41%	0.03%	8%	25%	8%	15%

¹Table developed using the US Census (https://data.census.gov/profile/United_States?g=010XX00US) 2020 Decennial Census and 2022-2023 American Community Survey (ACS) data.

²DACs were identified by using the Department of Water Resource’s DAC Mapping Tool Census Places (ASC: 2016 – 2020): (<https://gis.water.ca.gov/app/dacs/>), where DACs are determined by California’s MHI and utilizing the state DAC threshold of 80-percent.

³Languages spoken > 5-percent as listed in the 2022 ACS data. Use of this threshold is recommended in Guidance for Engaging Communities During Development of Early Action Plans (State Water Board, June 2020).

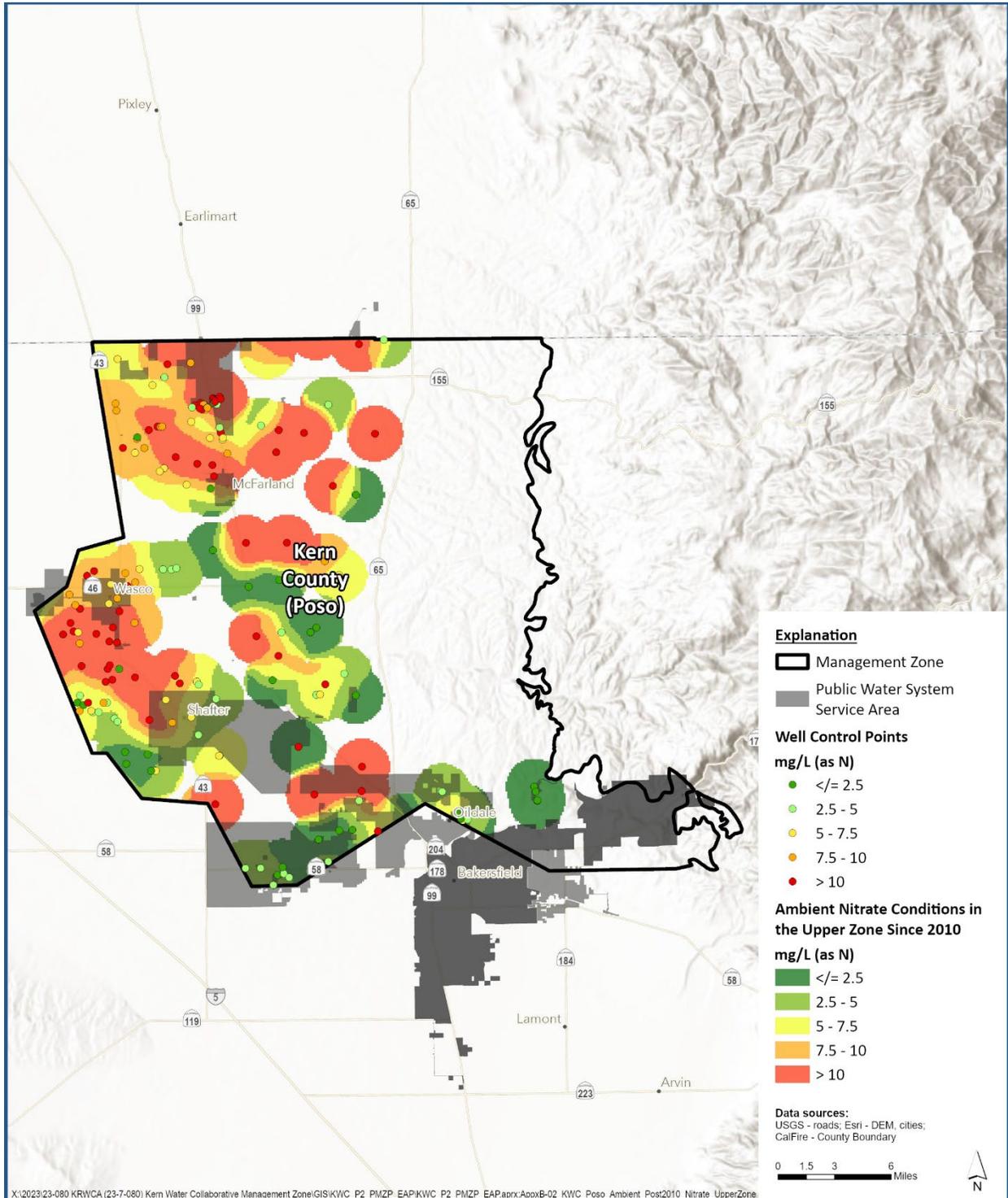
The table below identifies key community members from each identified DAC in the Kern County (Poso) Area. It is important to identify these contacts to support community outreach efforts for increased participation and input on long-term drinking water solutions. This is a living document and will be updated during EAP implementation. Data gaps are identified, and efforts will be made to reach out to these communities to identify a point of contact.

Kern County (Poso) Area DAC Point of Contacts for Nitrate Control Program			
DAC	Point of Contact	Phone Number	Email Address
Wasco city	Maria O. Martinez	(661) 758-7214	cityclerk@cityofwasco.org
Cherokee Strip CDP*	TBD	TBD	TBD
Delano city	Joe L. Alindajao	(661) 721-3303 ext 2444	jalindajao@cityofdelano.org
East Niles CDP*	TBD	TBD	TBD
Hillcrest CDP*	TBD	TBD	TBD
La Cresta CDP*	TBD	TBD	TBD
McFarland city	Saul Ayon	(661) 543-4397	sayon@mcfarlandcity.org
Mexican Colony CDP*	TBD	TBD	TBD
Oildale CDP*	TBD	TBD	TBD
Richgrove CDP*	TBD	TBD	TBD
Shafter city	Chad Givens		cgivens@shafter.com

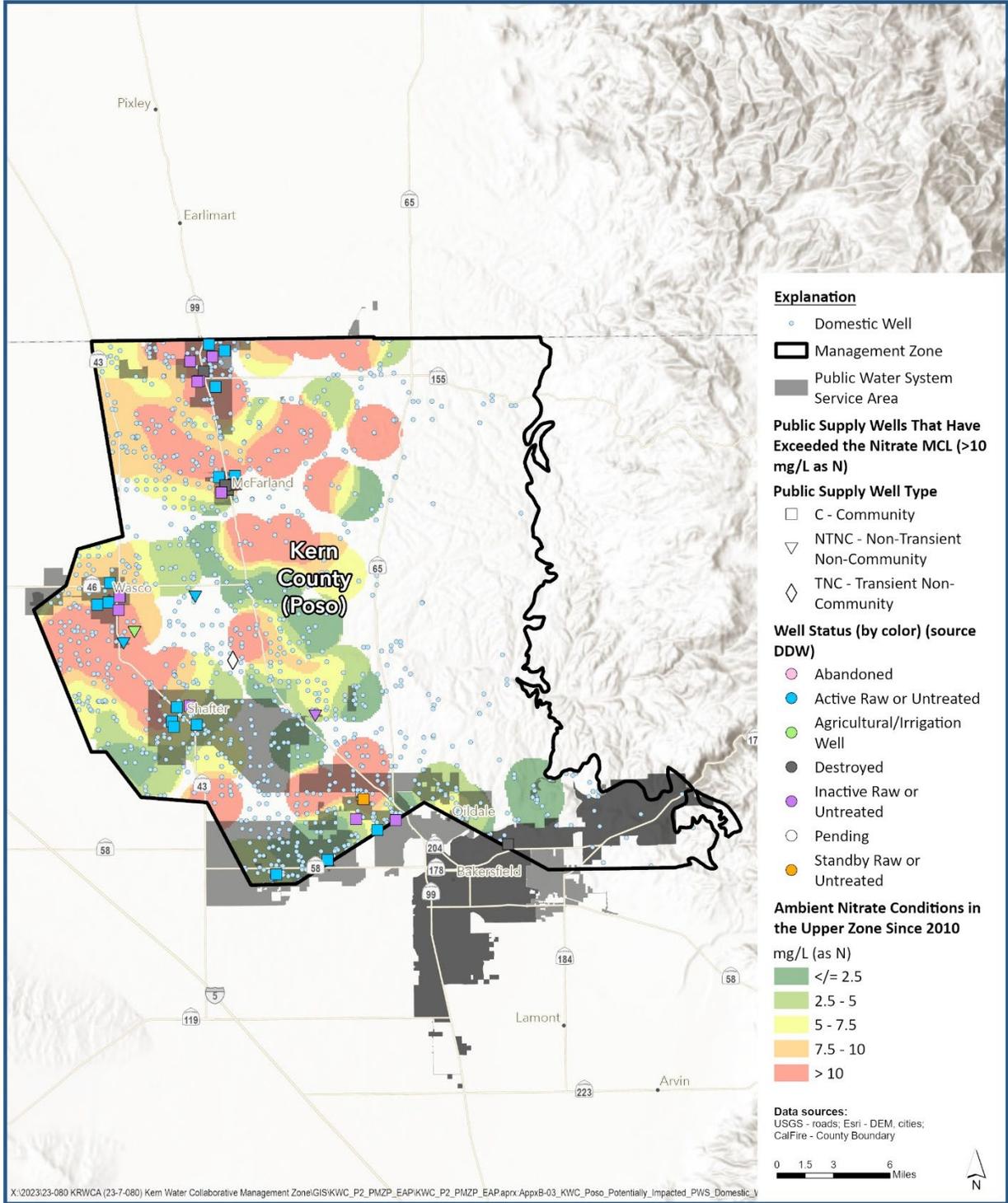
TBD = To Be Determined.

*TBD or city council member information that needs to be updated once appropriate DAC point of contact is identified.

APPENDIX C-2 AMBIENT POST-2010 NITRATE CONCENTRATIONS IN THE UPPER ZONE OF GROUNDWATER UNDERLYING THE KERN COUNTY (POSO) AREA



APPENDIX C-3 POTENTIALLY IMPACTED PUBLIC WATER SUPPLY WELLS AND ALL DOMESTIC WELLS, KERN COUNTY (POSO) AREA



APPENDIX C-4 SUMMARY OF NITRATE-IMPACTED PUBLIC SUPPLY WELLS (BY WELL STATUS) FOR THE KERN COUNTY (POSO) AREA

Well ID	Other Well Name	Date Range	Number (N)	Min.	Max.	Most Recent Exceedance Date	Well Status	DDW Water System Name	PWS Type	No. of Connections	Population Served
1500409_001	WELL01 - SOUTH - RAW	3/03/1989 - 8/01/2024	152	0.25	13.00	8/1/2024	AR	BROOK MUTUAL WATER COMPANY	COMMUNITY	155	462
1500409_002	WELL02 - NORTH - RAW	7/03/1991 - 8/01/2024	150	0.90	14.23	11/14/2008	AR	BROOK MUTUAL WATER COMPANY	COMMUNITY	155	462
1500584_001	WELL01 STEPHANIE ST - RAW	1/17/1990 - 7/04/2024	98	0.70	12.42	8/18/2022	AR	GOOSELAKE WATER COMPANY	COMMUNITY	32	90
1502139_001	WELL 205D	6/15/1990 - 7/22/2024	44	0.38	12.00	7/22/2024	AU	V LIONS OPS WATER SYSTEM	NON-TRANSIENT NON-COMMUNITY	3	250
1502139_002	WELL 105C - SHOP WELL - AGRICULTURAL	4/12/1989 - 7/09/2003	23	0.23	19.65	1/9/2003	AG	V LIONS OPS WATER SYSTEM	NON-TRANSIENT NON-COMMUNITY	3	250
1502663_002	WELL 02 - BOREL - STANDBY	6/25/1991 - 1/11/2024	6	ND	17.00	1/11/2024	SU	TOWN & COUNTRY WATER COMPANY	COMMUNITY	22	73
1503182_002	WELL02-INACTIVE	6/03/1997 - 5/02/2022	52	ND	18.52	12/7/2017	IU	SUN PACIFIC SHIPPERS-LERDO	NON-TRANSIENT NON-COMMUNITY	3	175
1503384_001	WELL01	8/04/2011 - 7/02/2024	31	3.20	10.39	9/14/2012	AR	SOUTH VALLEY FARMS-BEECH HULLER/OFFICE	NON-TRANSIENT NON-COMMUNITY	5	75
1503657_001	WELL01 - BEFORE NO3/DBCP TRT	6/15/2012 - 7/02/2024	57	9.10	21.00	7/2/2024	PN	KIMBERLINA HOUSING UNIT	TRANSIENT NON-COMMUNITY	8	26
1510003_070	WELL 109-01 - DESTROYED '89	12/18/1985 - 12/18/1985	1	15.36	15.36	12/18/1985	DS	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510003_077	WELL 110-01 - DESTROYED '91	8/05/1985 - 8/05/1985	1	12.42	12.42	8/5/1985	DS	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510003_080	WELL 113-01 - RAW - INACTIVE	8/27/1985 - 9/29/2009	28	0.45	10.62	9/29/2009	IR	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510003_097	WELL 132-01 - BEFORE NO3 BLEND	5/06/1986 - 5/06/2024	211	0.01	11.11	11/3/2008	AR	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510003_102	WELL 137-01 - RAW	12/16/1986 - 10/31/2016	45	0.23	11.00	10/31/2016	IR	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510003_104	WELL 139-01 - INACTIVE (NO3)	6/15/1985 - 5/28/2002	21	0.45	10.17	5/22/2002	IR	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510003_107	WELL 142-01 - RAW	7/18/1985 - 8/31/2022	96	1.13	11.52	9/21/1993	AR	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510003_130	WELL 169-01 - RAW	1/23/1989 - 9/20/2010	65	5.20	10.17	6/11/1993	AR	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510003_138	WELL 171-01 - DESTROYED '89	7/22/1985 - 7/22/1985	1	11.30	11.30	7/22/1985	DS	CWS - BAKERSFIELD	COMMUNITY	64884	266643
1510005_004	WELL 04 - RAW INAC-2014	4/28/1987 - 7/11/2012	68	6.42	10.50	4/5/1988	IR	DELANO, CITY OF	COMMUNITY	10112	51428
1510005_008	WELL 08 - DESTROYED	4/28/1987 - 1/31/1989	5	10.21	13.51	1/31/1989	DS	DELANO, CITY OF	COMMUNITY	10112	51428
1510005_012	WELL 12 - RAW INAC-2014	4/28/1987 - 11/06/2012	78	7.00	10.17	11/6/2012	IR	DELANO, CITY OF	COMMUNITY	10112	51428
1510005_016	WELL 19 - RAW INAC-2014	4/27/1987 - 7/11/2012	27	0.20	11.52	2/29/2000	IR	DELANO, CITY OF	COMMUNITY	10112	51428
1510005_017	WELL 20 - RAW	4/28/1987 - 7/02/2024	46	ND	14.21	1/31/1989	AR	DELANO, CITY OF	COMMUNITY	10112	51428
1510005_038	WELL 32 - RAW	3/23/2011 - 7/07/2017	23	8.58	11.00	7/7/2017	AR	DELANO, CITY OF	COMMUNITY	10112	51428
1510005_039	WELL 33 - RAW	4/03/2011 - 7/02/2024	60	6.00	10.62	12/28/2012	AR	DELANO, CITY OF	COMMUNITY	10112	51428
1510005_041	WELL 35 - RAW INAC2015	12/06/2011 - 10/19/2021	183	9.04	11.80	10/19/2021	IR	DELANO, CITY OF	COMMUNITY	10112	51428
1510006_005	WELL 13 - BEFR AS BLEND INAC2012	8/21/1985 - 6/18/2009	45	0.09	10.50	6/24/1997	IR	EAST NILES CSD	COMMUNITY	8238	32517
1510006_009	WELL 17 - RAW - INACTIVE	7/29/1985 - 7/31/2000	37	2.80	20.56	3/17/1999	IR	EAST NILES CSD	COMMUNITY	8238	32517
1510006_013	WELL 22 - BEFORE NO3 BLEND	8/12/2008 - 7/02/2024	170	2.10	11.16	8/12/2008	AR	EAST NILES CSD	COMMUNITY	8238	32517
1510006_029	WELL 21 - BEFORE ARSENIC TREATMENT	3/08/2006 - 7/02/2024	241	0.10	15.00	11/1/2017	AR	EAST NILES CSD	COMMUNITY	8238	32517
1510013_001	WELL 01 - DESTROYED	7/01/1985 - 10/03/1989	2	15.81	17.01	10/3/1989	DS	MCFARLAND, CITY OF	COMMUNITY	2849	15506
1510013_002	WELL 02 - RAW-BEFORE NO3 TRT - INAC 2012	11/14/1986 - 10/31/2007	148	0.68	26.66	10/31/2007	IR	MCFARLAND, CITY OF	COMMUNITY	2849	15506
1510013_003	WELL 03 - DESTROYED	7/01/1985 - 7/01/1985	1	23.95	23.95	7/1/1985	DS	MCFARLAND, CITY OF	COMMUNITY	2849	15506
1510013_004	WELL 04 - DESTROYED 2012	5/16/1987 - 10/31/2007	152	0.84	26.92	10/31/2007	DS	MCFARLAND, CITY OF	COMMUNITY	2849	15506
1510013_006	WELL 06 - RAW	3/27/1987 - 8/22/2023	56	0.10	28.00	3/22/2022	AR	MCFARLAND, CITY OF	COMMUNITY	2849	15506
1510013_009	WELL 04 - BLENDED - ABANDONED 2/9/2000	3/29/1988 - 10/13/1988	36	1.31	10.39	7/16/1997	AB	MCFARLAND, CITY OF	COMMUNITY	2849	15506
1510013_010	WELL 04 - NO3 TRT DESTROYED 2012	8/31/1988 - 10/31/2007	141	0.09	18.30	10/5/1999	DS	MCFARLAND, CITY OF	COMMUNITY	2849	15506
1510013_016	BROWNING RD WELL - RAW	5/23/2011 - 6/20/2024	29	0.88	14.00	6/20/2024	AR	MCFARLAND, CITY OF	COMMUNITY	2849	15506
1510015_017	WELL 26 - INAC (NO3)	9/23/1986 - 3/18/2014	43	3.39	15.59	3/18/2014	IR	OLDDALE MWC	COMMUNITY	12683	39756
1510015_030	WELL 31 - INAC (#2 THSTD)	1/15/1993 - 11/09/2012	9	5.65	18.07	11/9/2012	IU	OLDDALE MWC	COMMUNITY	12683	39756
1510019_003	WELL 07 - RAW INAC2017	2/24/1987 - 4/06/2022	72	2.10	12.20	3/14/2017	AR	SHAFTER, CITY OF	COMMUNITY	4930	21036
1510019_004	WELL 08 - RAW INAC2017	2/24/1987 - 3/28/2017	65	0.79	11.50	3/28/2017	AR	SHAFTER, CITY OF	COMMUNITY	4930	21036
1510019_005	WELL 09 - INACTIVE (HIGH DBCP)	2/24/1987 - 12/21/1990	3	3.41	17.01	12/21/1990	IU	SHAFTER, CITY OF	COMMUNITY	4930	21036
1510019_007	WELL 11 - BEFORE GAC-TCP	2/24/1987 - 7/02/2024	133	0.41	10.10	7/24/2018	AR	SHAFTER, CITY OF	COMMUNITY	4930	21036
1510019_009	WELL 14 - BEFORE 123TCP GAC	8/18/2000 - 7/02/2024	338	2.71	12.00	4/14/2021	AR	SHAFTER, CITY OF	COMMUNITY	4930	21036
1510021_004	WELL 06 - SANTA FE - INACTIVE	2/18/1988 - 8/16/2005	212	3.00	15.00	8/9/2005	IU	WASCO, CITY OF	COMMUNITY	5343	22608
1510021_006	WELL 08A - POSO - RAW	5/31/1989 - 5/21/2024	260	2.30	11.00	11/15/2022	AR	WASCO, CITY OF	COMMUNITY	5343	22608
1510021_007	WELL 09 - 16TH & G - RAW (INAC 2010)	2/18/1988 - 9/15/2016	160	3.80	14.19	9/15/2016	IR	WASCO, CITY OF	COMMUNITY	5343	22608
1510021_008	WELL 10 - IRIS - RAW	2/05/1985 - 5/16/2024	484	3.50	21.00	5/16/2024	AR	WASCO, CITY OF	COMMUNITY	5343	22608
1510021_009	WELL 11 - OAK - RAW	2/05/1985 - 5/14/2024	552	0.70	14.01	4/4/2023	AR	WASCO, CITY OF	COMMUNITY	5343	22608
1510029_004	BARON WELL - INAC 1982	2/22/1989 - 2/22/1989	1	11.81	11.81	2/22/1989	IU	VAUGHN WC INC	COMMUNITY	11448	37075
1510029_010	JEWETTA WELL - INAC 1980	2/13/1989 - 6/13/1989	3	10.01	12.31	6/13/1989	IU	VAUGHN WC INC	COMMUNITY	11448	37075
1510029_013	PALM WELL 01 - INAC 1982	2/10/1989 - 4/14/1994	6	5.51	15.02	4/14/1994	IU	VAUGHN WC INC	COMMUNITY	11448	37075
1510029_016	TORREY WELL - BEFORE GAC	8/08/1990 - 6/06/2024	300	0.32	11.45	1/3/2005	AR	VAUGHN WC INC	COMMUNITY	11448	37075
1510029_036	R V WELL 01 - DESTROYED	3/25/1987 - 11/10/1994	10	0.11	16.26	11/10/1994	DS	VAUGHN WC INC	COMMUNITY	11448	37075
1510055_002	WELL 172-01 - INACTIVE	7/22/1985 - 7/13/1995	12	5.65	15.14	7/13/1995	IU	CWS - NORTH GARDEN	COMMUNITY	8352	22657
1510055_003	WELL 173-01 - RAW - INACTIVE	12/17/1986 - 2/24/2015	57	4.52	12.35	2/24/2015	IR	CWS - NORTH GARDEN	COMMUNITY	8352	22657
1510055_005	WELL 175-01 - BEFORE GAC (H2S) & NO3	7/22/1985 - 10/11/2016	325	0.20	14.01	10/11/2016	AR	CWS - NORTH GARDEN	COMMUNITY	8352	22657
1510055_014	WELL 203-01 - INACTIVE	11/14/2000 - 10/14/2004	13	3.84	13.87	10/14/2004	IR	CWS - NORTH GARDEN	COMMUNITY	8352	22657
5410024_002	1961 WELL - DESTROYED	2/13/1985 - 10/27/1988	3	1.68	13.51	9/7/1988	DS	RICHGROVE COMMUNITY SERVICES DISTRICT	COMMUNITY	526	1617
5410024_004	WELL 04 - RAW	2/27/1987 - 12/19/2022	46	1.40	16.00	5/10/2018	AR	RICHGROVE COMMUNITY SERVICES DISTRICT	COMMUNITY	526	1617
5410024_005	WELL 05 - RAW	4/28/1992 - 1/10/2022	65	0.10	20.00	12/21/2021	AR	RICHGROVE COMMUNITY SERVICES DISTRICT	COMMUNITY	526	1617
1510021_004	WELL 06 - SANTA FE - INACTIVE	2/18/1988 - 8/16/2005	106	3.00	15.00	8/9/2005	IU	WASCO, CITY OF	COMMUNITY	5343	22608
1510021_006	WELL 08A - POSO - RAW	5/31/1989 - 5/21/2024	130	2.30	11.00	11/15/2022	AR	WASCO, CITY OF	COMMUNITY	5343	22608
1510021_007	WELL 09 - 16TH & G - RAW (INAC 2010)	2/18/1988 - 9/15/2016	80	3.80	14.19	9/15/2016	IR	WASCO, CITY OF	COMMUNITY	5343	22608
1510021_008	WELL 10 - IRIS - RAW	2/5/1985 - 5/16/2024	242	3.50	21.00	5/16/2024	AR	WASCO, CITY OF	COMMUNITY	5343	22608
1510021_009	WELL 11 - OAK - RAW	2/5/1985 - 5/14/2024	276	0.70	14.01	4/4/2023	AR	WASCO, CITY OF	COMMUNITY	5343	22608

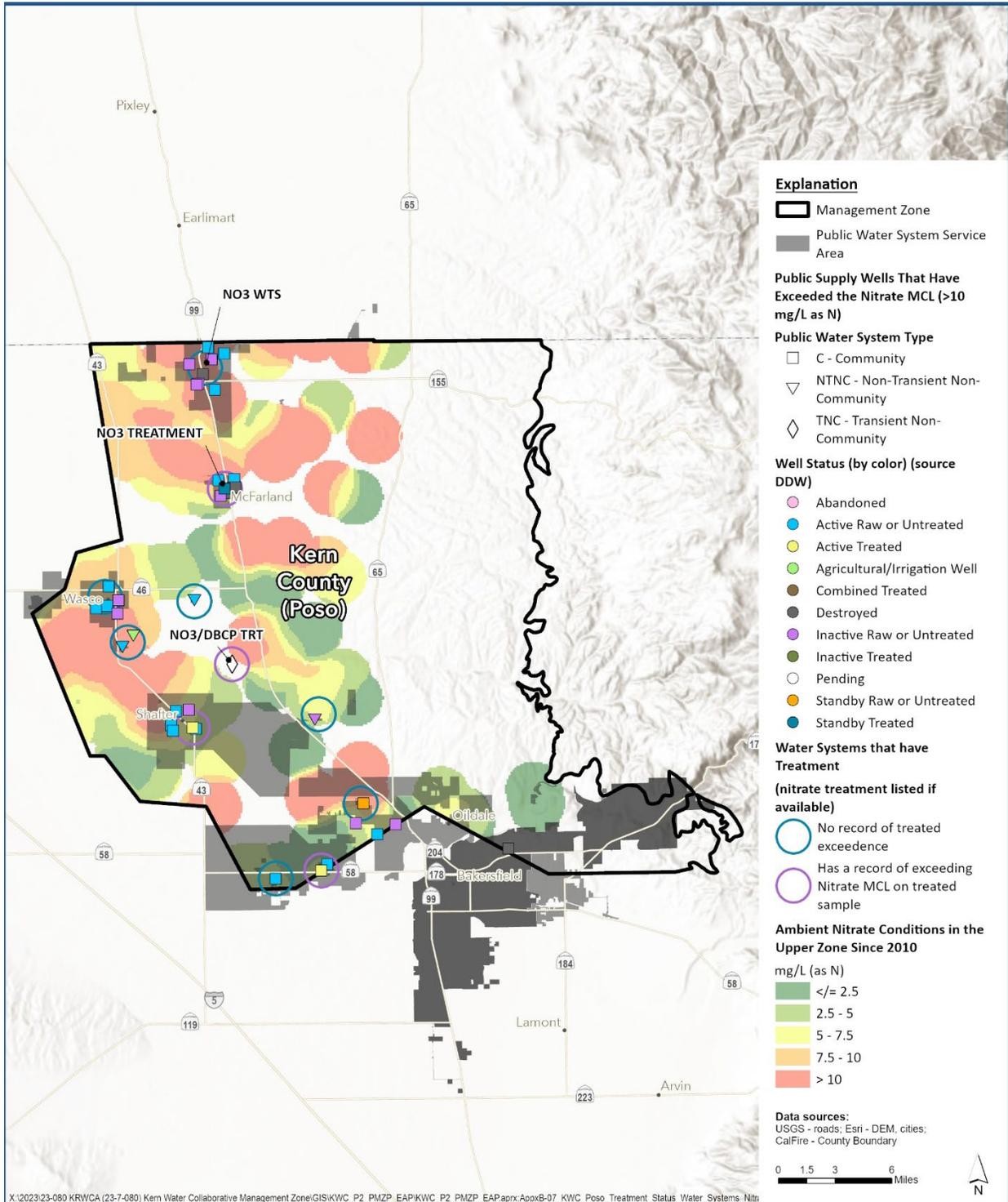
APPENDIX C-5 SUMMARY OF PUBLIC WATER SYSTEMS THAT HAVE HAD NITRATE-IMPACTED WELLS IN THE KERN COUNTY (POSO) AREA

DDW No.	System Name	PWS Type	No. of Connections	Number of Wells in Public Water Supply Systems by Well Status									Population Served	Est. Potentially Affected Population with Active Wells > MCL	
				Active Wells	Agricultural/Irrigation Wells	Abandoned Wells	Destroyed Wells	Inactive Wells	Pending Status Wells	Standby Wells	Total No. of Wells That Have Exceeded MCL	No. of Currently Active Wells That Have Exceeded MCL			
CA1500409	BROCK MUTUAL WATER COMPANY	COMMUNITY	155	2	0	0	0	0	0	0	0	2	2	462	462
CA1500584	GOOSELAKE WATER COMPANY	COMMUNITY	32	1	0	0	0	0	0	0	0	1	1	90	90
CA1502133	V LIONS OPS WATER SYSTEM	NON-TRANSIENT NON-COMMUNITY	3	1	1	0	0	0	0	0	0	2	1	250	250
CA1502663	TOWN & COUNTRY WATER COMPANY	COMMUNITY	22	1	0	0	0	0	0	0	1	1	0	73	
CA1503182	SUN PACIFIC SHIPPERS-LERDO	NON-TRANSIENT NON-COMMUNITY	3	2	0	0	0	1	0	0	0	1	0	175	
CA1503384	SOUTH VALLEY FARMS-BEECH HULLER/OFFICE	NON-TRANSIENT NON-COMMUNITY	5	1	0	0	0	0	0	0	0	1	1	75	75
CA1503657	KIMBERLINA HOUSING UNIT	TRANSIENT NON-COMMUNITY	8	0	0	0	0	0	1	0	0	1	0	26	
CA1510003	CWS - BAKERSFIELD	COMMUNITY	64884	76	0	0	36	32	0	10	9	3	266643	266643	
CA1510005	DELANO, CITY OF	COMMUNITY	10112	13	0	0	11	7	1	0	8	3	51428	51428	
CA1510006	EAST NILES CSD	COMMUNITY	8238	6	0	0	2	3	0	0	4	2	32517	32517	
CA1510013	MC FARLAND, CITY OF	COMMUNITY	2849	4	0	2	5	1	0	0	8	2	15506	15506	
CA1510015	OILDALE MWC	COMMUNITY	12683	4	0	2	1	10	0	3	2	0	39756		
CA1510019	SHAFTER, CITY OF	COMMUNITY	4930	9	0	0	3	2	0	0	5	4	21036	21036	
CA1510021	WASCO, CITY OF	COMMUNITY	5343	6	0	1	0	3	0	0	5	3	22608	22608	
CA1510029	VAUGHN WC INC	COMMUNITY	11448	12	0	2	9	7	0	0	5	1	37075	37075	
CA1510055	CWS - NORTH GARDEN	COMMUNITY	8352	12	0	0	0	6	1	0	4	1	22657	22657	
CA5410024	RICHGROVE COMMUNITY SERVICES DISTRICT	COMMUNITY	526	2	0	1	2	0	0	0	3	2	1617	1617	
CA1510021	WASCO, CITY OF	COMMUNITY	5343	6	0	1	0	3	0	0	5	3	22608	22608	

APPENDIX C-6 TREATMENT OF WATER SYSTEMS WITH NITRATE-IMPACTED WELLS IN THE KERN COUNTY (POSO) AREA

DDW No.	System Name	PWS Type	No. of Connections	Population Served	Has a Treated Water Source Filled with DDW? (Y/N)	Treatment Pertaining to Nitrate Mentioned in Source Name (Y/N)	Has Nitrate Samples from Treated Sources Filled with DDW? (Y/N)	Has Treated Source(s) with Nitrate Exceeding MCL (>10 mg/L as N) (Y/N)	Most Recent Exceedance for a Treated Source
CA1500409	BROCK MUTUAL WATER COMPANY	COMMUNITY	155	462	Y	N	N	N	N
CA1500584	GOOSELAKE WATER COMPANY	COMMUNITY	32	90	Y	N	N	N	N
CA1502133	V LIONS OPS WATER SYSTEM	NON-TRANSIENT NON-COMMUNITY	3	250	Y	N	N	N	N
CA1502663	TOWN & COUNTRY WATER COMPANY	COMMUNITY	22	73	Y	N	N	N	N
CA1503182	SUN PACIFIC SHIPPERS-LERDO	NON-TRANSIENT NON-COMMUNITY	3	175	Y	N	Y	N	N
CA1503384	SOUTH VALLEY FARMS-BEECH HULLER/OFFICE	NON-TRANSIENT NON-COMMUNITY	5	75	Y	N	N	N	N
CA1503657	KIMBERLINA HOUSING UNIT	TRANSIENT NON-COMMUNITY	8	26	Y	Y	Y	Y	5/8/2023
CA1510003	CWS - BAKERSFIELD	COMMUNITY	64884	266643	Y	N	Y	N	N
CA1510005	DELANO, CITY OF	COMMUNITY	10112	51428	Y	Y	Y	N	N
CA1510006	EAST NILES CSD	COMMUNITY	8238	32517	Y	Y	Y	Y	10/17/2019
CA1510013	MCFARLAND, CITY OF	COMMUNITY	2849	15506	Y	Y	Y	Y	10/8/2002
CA1510015	OILDALE MWC	COMMUNITY	12683	39756	Y	N	N	N	N
CA1510019	SHAFTER, CITY OF	COMMUNITY	4930	21036	Y	N	Y	Y	4/14/2021
CA1510021	WASCO, CITY OF	COMMUNITY	5343	22608	Y	N	N	N	N
CA1510029	VAUGHN WC INC	COMMUNITY	11448	37075	Y	N	Y	Y	1/31/2005
CA1510055	CWS - NORTH GARDEN	COMMUNITY	8352	22657	Y	N	Y	N	N
CA5410024	RICHGROVE COMMUNITY SERVICES DISTRICT	COMMUNITY	526	1617	Y	N	N	N	N
CA1510021	WASCO, CITY OF	COMMUNITY	5343	22608	Y	N	N	N	N

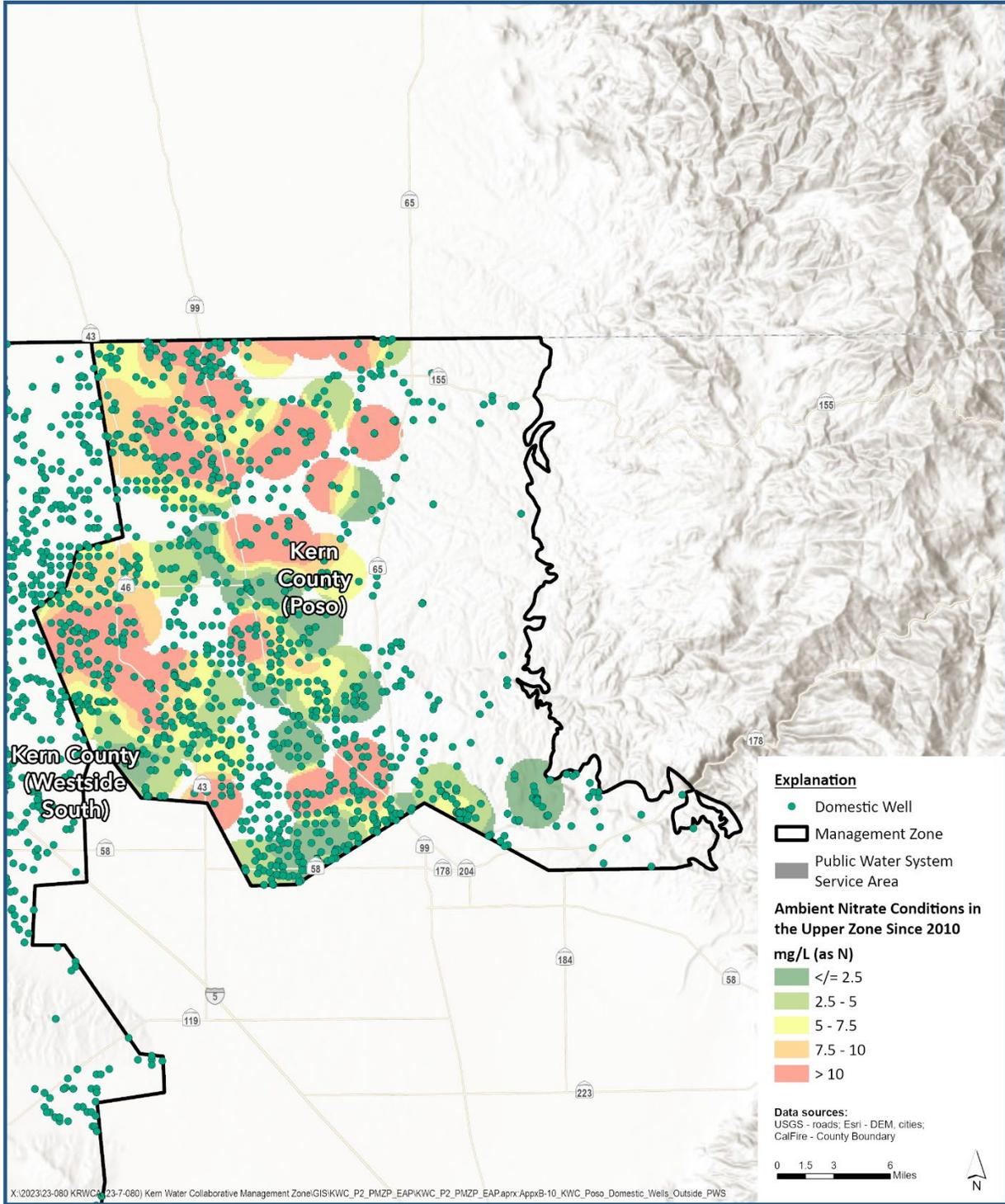
APPENDIX C-7 TREATMENT STATUS FOR WATER SYSTEMS THAT HAVE WELLS WITH NITRATE-IMPACTED SAMPLES, KERN COUNTY (POSO) AREA



APPENDIX C-8 COMPLIANCE STATUS FOR ALL PUBLIC WATER SYSTEMS IN THE KERN COUNTY (POSO) AREA WITH VIOLATION AND CHEMICAL EXCEEDANCE INFORMATION, BY SYSTEM NAME (AS OF SEPTEMBER 2024)

PWS ID	PWS Name	Management Zone	County	Regulating Agency	Federal Classification	State Classification	Service Area Classification	SAP Status	RPI Status	Number of Connections (Source PWS or SDMS D/W)	Population Served (Source PWS or SDMS D/W)	Compliance Status [1]	Compliance Status Source	Violation Category (Code or ID)	Violation Description (Code or ID)	Date of Violation (QWR/DEM/Drum/Ann Date)	PWS Compliance			Total Population Served by Core PWS (QWR/DEM/Drum/Ann Only)	Population Served by Core PWS (QWR/DEM/Drum/Ann Only)	Population Served by Core PWS (QWR/DEM/Drum/Ann Only)	
																	Pass	Minor/Class. Compliance	Other Compliance				
CA131001	WAGO, CITY OF	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	3,541	22,903	Out of Compliance	SDWS 3/9/2024	MCL	1,2,5-CP	4/1/2018	X			2,200	0	0	
CA131003	SHARBY WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	1,202	28,700	In Compliance	SDWS 3/9/2024								0	0	0
CA131004	WAGNER WALKER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	17	30	Out of Compliance	SDWS 3/9/2024	MON	Lead/Col. (v.s.)	1/1/2018				X	30	0	0
CA131005	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	1,148	27,073	In Compliance	SDWS 3/9/2024								0	0	0
CA131006	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	2,222	22,317	In Compliance	SDWS 3/9/2024								0	0	0
CA131011	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	275	275	In Compliance	SDWS 3/9/2024								0	0	0
CA131012	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	110	280	In Compliance	SDWS 3/9/2024								0	0	0
CA131013	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	2	230	Out of Compliance	SDWS 3/9/2024	MCL, MCL	Micro, 1,2,5-CP	10/1/2021, 10/1/2021				X	230	0	230
CA131014	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	3	31	Out of Compliance	SDWS 3/9/2024	MCL, MCL	Micro, 1,2,5-CP	10/1/2021, 10/1/2021				X	31	0	0
CA131015	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	6,824	20,945	In Compliance	SDWS 3/9/2024								0	0	0
CA131016	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	2,022	22,707	In Compliance	SDWS 3/9/2024								0	0	0
CA131017	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	4,970	13,770	In Compliance	SDWS 3/9/2024								0	0	0
CA131018	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	27	27	In Compliance	SDWS 3/9/2024								0	0	0
CA131019	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	400	21,029	Out of Compliance	SDWS 3/9/2024	II	1,2,5-CP	7/1/2021				X	210,200	0	0
CA131020	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	101,122	31,428	In Compliance	SDWS 3/9/2024								0	0	0
CA131021	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	2,049	13,309	Out of Compliance	SDWS 3/9/2024	MCL, MCL, MCL	1,2,5-CP, 1,2,5-CP	7/1/2021, 7/1/2021				X	13,309	0	13,309
CA131022	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	326	1,617	Out of Compliance	SDWS 3/9/2024	MCL, MCL, MCL, MCL	1,2,5-CP, 1,2,5-CP, 1,2,5-CP, 1,2,5-CP	7/1/2021, 7/1/2021, 7/1/2021, 7/1/2021				X	1,617	0	1,617
CA131023	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	19	22	Out of Compliance	SDWS 3/9/2024	MON	Micro	1/1/2022				X	22	0	0
CA131024	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	25	64	In Compliance	SDWS 3/9/2024								0	0	0
CA131025	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	24	62	In Compliance	SDWS 3/9/2024								0	0	0
CA131026	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	2	20	In Compliance	SDWS 3/9/2024								0	0	0
CA131027	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	20	40	In Compliance	SDWS 3/9/2024								0	0	0
CA131028	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	1	130	In Compliance	SDWS 3/9/2024								0	0	0
CA131029	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	9	100	In Compliance	SDWS 3/9/2024								0	0	0
CA131030	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	13	44	In Compliance	SDWS 3/9/2024								0	0	0
CA131031	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	2,249	3,800	In Compliance	SDWS 3/9/2024								0	0	0
CA131032	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	22	30	Out of Compliance	SDWS 3/9/2024	MCL, MCL	Micro, 1,2,5-CP	1/1/2022, 10/1/2018				X	30	0	30
CA131033	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	19	22	In Compliance	SDWS 3/9/2024								0	0	0
CA131034	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	33	34	Out of Compliance	SDWS 3/9/2024	MCL	1,2,5-CP	7/1/2021				X	34	0	0
CA131035	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	31	200	Out of Compliance	SDWS 3/9/2024	MCL	1,2,5-CP	4/1/2018				X	200	0	0
CA131036	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	20	30	Out of Compliance	SDWS 3/9/2024	MCL	Col. (v.s.)	10/1/2018				X	30	0	0
CA131037	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	4	401	Out of Compliance	SDWS 3/9/2024	MCL	1,2,5-CP	4/1/2018				X	401	0	0
CA131038	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	1,793	3,042	In Compliance	SDWS 3/9/2024								0	0	0
CA131039	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	133	462	Out of Compliance	SDWS 3/9/2024	MCL, MCL	Micro, 1,2,5-CP	1/1/2021, 1/1/2018				X	462	0	462
CA131040	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	13	40	In Compliance	SDWS 3/9/2024								0	0	0
CA131041	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	22	25	In Compliance	SDWS 3/9/2024								0	0	0
CA131042	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	30	130	In Compliance	SDWS 3/9/2024								0	0	0
CA131043	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	14	20	In Compliance	SDWS 3/9/2024								0	0	0
CA131044	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	1	200	Out of Compliance	SDWS 3/9/2024	MON, MON	Col. (v.s.)	1/1/2021, 1/1/2018				X	200	0	0
CA131045	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	1	173	In Compliance	SDWS 3/9/2024								0	0	0
CA131046	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	3	25	In Compliance	SDWS 3/9/2024								0	0	0
CA131047	WAGNER WWC	Central Valley (New)	CPM	DBPMS 1.2 - VSALR	COMMUNITY	COMMUNITY	X (No Dec. v.s.)	Tag	SDAC	2	26	In Compliance	SDWS 3/9/2024								0	0	0

APPENDIX C-9: DOMESTIC WELLS LOCATED OUTSIDE PUBLIC WATER SYSTEM AREAS IN THE KERN COUNTY (POSO) AREA AND ADJACENT AREA



APPENDIX C-10: SUMMARY OF DOMESTIC WELLS AND POPULATION WITH ESTIMATED UPPER ZONE NITRATE CONCENTRATION CATEGORIES IN THE KERN COUNTY (POSO) AREA AND ADJACENT AREA

Kern County - Westside South					
Estimated Upper Zone Ambient Nitrate (2010-2024)**	DWR Domestic Wells Located Outside PWS Boundaries		DWR Domestic Wells Located Within PWS Boundaries	DWR Total Domestic Wells in Management Zone	2023 Census Block Analysis (Outside PWS service areas)
	Domestic Well Count Outside of PWS Boundaries	% of Total Domestic Wells Outside PWS Boundaries	Total Domestic Wells in MZ Within PWS Boundaries	All Domestic Wells in Management Zone	Population Outside PWS Boundaries
Group 1: ≤ 2.5 mg/L as N	100	61.7%	62	162	8,555
Group 2: > 2.5 - 5.0 mg/L as N	87	51.8%	81	168	6,942
Group 3: > 5.0 - 7.5 mg/L as N	131	64.2%	73	204	10,701
Group 4: >7.5 - 10.0 mg/L as N	108	73.5%	39	147	2,337
Group 5: > 10.0 mg/L as N	214	74.3%	74	288	1,911
Group 6: Unknown*	209	78.6%	57	266	2,185
Total	849	68.7%	386	1,235	32,631

*Domestic wells of Census Blocks are located in a "Gap Area" where insufficient Upper Zone nitrate data exist to do a spatial interpolation of ambient nitrate conditions

**Ambient nitrate levels are based on best available groundwater nitrate data meticulously vetted at the time of analysis and are based on Upper Zone nitrate data from January 2010 to May 2024. These mapped nitrate levels are subject to change and are therefore adaptable, as new data become available.

**APPENDIX D STATE WATER BOARD COMMUNITY ENGAGEMENT
CHECKLIST**

APPENDIX D STATE WATER BOARD COMMUNITY ENGAGEMENT CHECKLIST

State Water Board (2020) provides a table that summarizes the guidance found in its community engagement document. **Table D-1** below demonstrates how the Kern Water Collaborative Management Zone’s community outreach program aligns with the guidance.

Table D-1. Alignment Between Kern Water Collaborative Management Zone Community Outreach Actions and State Water Board Guidance (Table adapted from State Water Board (2020), page 17)		
Community Engagement Element	Potential Actions to Implement Element	EAP Development and Implementation
Communicate Effectively	Communicate with affected communities remotely	<ul style="list-style-type: none"> • KWC conducted virtual and hybrid community outreach meetings. • Information is distributed via email, website, Facebook page, and Instagram. • KWC made phone calls with non-dischargers to increase community participation. • KWC’s website allows for the public to submit comments.
	Translate materials into Spanish and other language(s) identified	<ul style="list-style-type: none"> • All flyers and direct mail were distributed in English and Spanish. • Webinars included live Spanish translation; recordings were posted on YouTube. • All live polling conducted during the webinars included both English and Spanish translated text. • Webinar registration and sign-up information was provided in both English and Spanish. KWC’s website https://kwcmz.org/ includes a translation feature at the top right of the page that can translate content into Spanish.
	Provide a point of contact who speaks residents’ primary language	<ul style="list-style-type: none"> • Resident may request to ask for a Spanish speaker when calling KWC.
	Ensure planned one-on-one communications have personnel fluent in the primary language	<ul style="list-style-type: none"> • KWC contracts with a communications consulting firm that has a designated staff member that speaks Spanish, and attended all outreach events.

Table D-1. Alignment Between Kern Water Collaborative Management Zone Community Outreach Actions and State Water Board Guidance (Table adapted from State Water Board (2020), page 17)

Community Engagement Element	Potential Actions to Implement Element	EAP Development and Implementation
	Offer live interpretation at community meetings	<ul style="list-style-type: none"> • Live Spanish interpretation is provided at community meetings. • Spanish translation initially identified and further research to identify other languages will be conducted during EAP Implementation.
	Provide written materials in plain language	<ul style="list-style-type: none"> • All materials intentionally included simple language to ensure understanding across all audiences. Technical language was avoided whenever possible.
Communicate Effectively (ctd)	Speak in plain language	<ul style="list-style-type: none"> • Outreach events provided an opportunity to learn the key components of the Early Action Plan and why it is relevant to residents. The information verbally communicated was simplified while still providing enough to explain the purpose of the EAP. • Ample time for Question and Answer was left at webinars to ensure understanding from the audience. Polling was also conducted as a means to gauge the audience and distill the key points of the material presented.
	Consult community groups if your materials are understandable to the community	<ul style="list-style-type: none"> • Flyers were reviewed by KWC's communications consulting firm familiar with Spanish interpretation and the needs of community residents.
	Ask participants if materials are understandable	<ul style="list-style-type: none"> • Ample time for Question and Answer was left at webinars to ensure understanding from the audience. Polling was also conducted to gauge the audience and distill the key points of the material presented.
	Present information without bias	<ul style="list-style-type: none"> • EAP program information and potential interim drinking water solutions are presented as concepts without bias to residents in initial outreach meeting. • At the end of each meeting, KWC encourages community participation and input.

Table D-1. Alignment Between Kern Water Collaborative Management Zone Community Outreach Actions and State Water Board Guidance (Table adapted from State Water Board (2020), page 17)

Community Engagement Element	Potential Actions to Implement Element	EAP Development and Implementation
	Know and communicate your constraints	<ul style="list-style-type: none"> • During meetings, KWC provides answers to questions regarding program requirements. • Community meetings express for community involvement and input to help develop the plan.
	Be transparent with decision-making processes	<ul style="list-style-type: none"> • Community continues to be informed during meetings on the concepts and options to be provided for the Interim Replacement Water Program.
Protect Personal Information	Mitigate concerns about information collection	<ul style="list-style-type: none"> • Personal information was never required to be collected. • Poll responses were not published or tied to the respondent.
	Minimize collection of personal information	<ul style="list-style-type: none"> • Only contact information including resident name, phone number, and email are collected. • Contact information is used to follow up on outreach activities and questions. • Personal information is not shared with the public.
Acknowledge Diverse Interests	Be inclusive of all groups within a community	<ul style="list-style-type: none"> • KWC developed and implemented a Community Engagement Strategy to encourage involvement of all groups within the community. • Public meetings and opportunities for engagement are open to all community members.
	Provide “balanced access” to groups you are engaging with	<ul style="list-style-type: none"> • KWC continues to hold meetings with stakeholder and community groups for opportunities to provide feedback and recommendations. • All groups receive direct communications from KWC by email and postings on KWC’s website, Facebook page and Instagram.

Table D-1. Alignment Between Kern Water Collaborative Management Zone Community Outreach Actions and State Water Board Guidance (Table adapted from State Water Board (2020), page 17)

Community Engagement Element	Potential Actions to Implement Element	EAP Development and Implementation
Evaluate and Revise	Evaluate your community engagement strategy	<ul style="list-style-type: none"> • KWC Board of Directors reviewed the first draft of Community Engagement Strategy. • It is the full intent of the KWC to continually evaluate and track outreach efforts and adjust if/when needed.
	Make modifications	<ul style="list-style-type: none"> • KWC considered and incorporated feedback into the Community Engagement Strategy where feasible and reasonable. • The Community Engagement Strategy is a living document that is updated routinely to maximize community outreach efforts.
Learning About the Community	Develop a Community Profile	<ul style="list-style-type: none"> • KWC developed a preliminary community profile and continues to update it periodically and uses it to continue conducting outreach.
	Develop a Contact List	<ul style="list-style-type: none"> • KWC developed a preliminary contact list based on research and initial outreach and continues to update it. • KWC has a website, Facebook page, and Instagram encouraging the public to join the email list. As KWC receives this request, contact info is added to the contact list.
Educating the Community	Develop educational materials	<ul style="list-style-type: none"> • KWC references education materials from CV-SALTS and posts them on the KWC website.
	Establish contact(s)	<ul style="list-style-type: none"> • KWC maintains an interested persons contact list. Anyone can sign up to receive email updates. The KWC also maintains a list of community leaders, and NGOs who are familiar with community needs.
	Establish locations where information is publicly accessible	<ul style="list-style-type: none"> • KWC has a website, Facebook page, and Instagram to post educational materials, such as FAQs, and uploads meeting

Table D-1. Alignment Between Kern Water Collaborative Management Zone Community Outreach Actions and State Water Board Guidance (Table adapted from State Water Board (2020), page 17)

Community Engagement Element	Potential Actions to Implement Element	EAP Development and Implementation
	Distribute materials using multiple communication platforms	<p>information and recordings for the public to easily access as a follow up.</p> <ul style="list-style-type: none"> • Educational and meeting materials have been and continues to be distributed via email and posted on the KWC website, Facebook page, and Instagram.
Educating the Community	Hold community meetings to educate the community	<ul style="list-style-type: none"> • KWC conducted and continues to conduct multiple virtual and hybrid community meetings to encourage public participation and feedback on the EAP development as well as provide opportunity to educate the community on nitrate issues.
Collaborating with the Community	Create a process for collaborative decision-making	<ul style="list-style-type: none"> • Opportunities for Q&A is provided during community outreach meetings. • Contact information is provided at the end of each meeting and the public may provide comments via KWC’s website. • Polling questions are provided at community meetings to engage the audience. • Public draft was posted to KWC’s website. • Community meetings are held to summarize important elements of the EAP for the residents.
Maintaining Involvement	Provide updates	<ul style="list-style-type: none"> • KWC maintains an email interested persons list for timely updates on EAP development. Those on the list were clearly notified of EAP development milestones including public meetings to educate and receive input, EAP draft availability for public review and comment, and reminders to submit comments and ask questions.

Table D-1. Alignment Between Kern Water Collaborative Management Zone Community Outreach Actions and State Water Board Guidance (Table adapted from State Water Board (2020), page 17)

Community Engagement Element	Potential Actions to Implement Element	EAP Development and Implementation
		<ul style="list-style-type: none"> • Updates are regularly provided at community meetings, KWC’s website, Facebook page, and Instagram.
	<p>Maintain contact and process for responding to community inquiries</p>	<ul style="list-style-type: none"> • KWC manages their email account, website, Facebook page, and Instagram for any inquiries about the collaborative and outreach activities. • Prior to community meetings, phone calls and emails are made to community organizations to assist with outreach. • Any emails and/or inquiries received through the KWC website are responded to in a timely manner.

APPENDIX E COMMUNITY OUTREACH TO SUPPORT EAP DEVELOPMENT

Appendix is under development.

APPENDIX F PROGRAM APPLICATION FORM

Appendix is under development.

**APPENDIX G PRELIMINARY LIST OF POTENTIAL VENDORS FOR
BOTTLED-WATER DELIVERY AND POINT OF USE
TREATMENT SYSTEMS**

Appendix is under development.