Early Action Plan for Priority 2 Proposed Management Zones – Public Draft

Attachment H of the VWC Priority 2 Preliminary Management Zone Proposal



VALLEY WATER COLLABORATIVE www.valleywaterc.org

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Acronyms

Acronym	Definition
1,2,3-TCP	1,2,3-Trichloropropane
APN	Assessor Parcel Numbers
Central Valley Water Board	Central Valley Regional Water Quality Control Board
CV-SALTS	Central Valley Salinity Alternatives for Long-term Sustainability
DDW	Division of Drinking Water
DWR	California Department of Water Resources
DWW	Drinking Water Watch
EAP	Early Action Plan
FAQ	Frequently Asked Questions
GAMA	Groundwater Ambient Monitoring and Assessment
GIS	Geographic Information Systems
GSA	Groundwater Sustainability Agency
ILRP	Irrigated Lands Regulatory Program
LPA	Local Primacy Agency
LSWS	Local Small Water System
MCL	Maximum Contaminant Level
mg/L-N	milligrams per liter nitrate as nitrogen
MZIP	Management Zone Implementation Plan
NGOs	Non-Governmental Organizations
O&M	Operation and Maintenance
PMZP	Preliminary Management Zone Proposal
POU	Point of Use
PWS	Public Water System
RO	Reverse Osmosis
SGMA	Sustainable Groundwater Management Act
SSWS	State Small Water System
State Water Board	State Water Resources Control Board
Strategy	Valley Water Collaborative Community Engagement Strategy
VWC	Valley Water Collaborative
WCR	Well Completion Reports

La version en Español se encuentra al final de este Resumen Ejecutivo

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) is implementing the Nitrate Control Program in the Central Valley. This program 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 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 Valley Water Collaborative (VWC), a local non-profit organization, was established to achieve these three goals in areas of the Central Valley designated as Priority 1 under the Nitrate Control Program, resulting in the formation of the Modesto and Turlock Nitrate Management Zones. Now that the Nitrate Control Program is expanding into Priority 2 (P2) areas, the VWC is proposing to establish five additional nitrate Management Zones: Delta-Mendota, Eastern San Joaquin, Madera, Merced, and Yolo. (**Figure ES-1**). VWC is managed by a 12-member Board of Directors representing local cities and industry operating in the basin including agriculture, dairies, poultry facilities, wineries, and food processors.



Figure ES-1. Location of the VWC P2 Proposed Management Zones

Establishment of Management Zones requires the preparation of an Early Action Plan (EAP) that identifies initial actions the VWC will carry out to address drinking water being used by residences in the basin with unsafe nitrate levels. The key element of this EAP, which was developed in collaboration with the community, is the Interim Replacement Water Program (Program). This Program provides immediate alternative sources of drinking water for residences that depend on groundwater that contains unsafe levels of nitrate used for drinking and cooking (water with more than 10 milligrams per liter nitrate as nitrogen (mg/L-N).

This EAP provides detailed information on:

- The nitrate problem in the VWC P2 Proposed Management Zones;
- How residents can be involved in its implementation; and
- How the VWC can assist a residence if a drinking water source is found to have unsafe levels of nitrate.

The VWC has identified the areas in the VWC P2 Proposed Management Zones where nitrate levels are most likely to be > 7.5 mg/L-N (see orange and red areas in **Figure ES-2**).¹ Implementation of the EAP will initially focus on these high-risk areas. However, anyone in the VWC P2 Proposed Management Zones may request that the VWC test their well to determine if their water has unsafe nitrate levels.

This 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 several options for obtaining safe water upon implementation of the Program:

- Home bottled water delivery; and
- Installation of a Point-of-Use (POU) treatment system in your home; or
- Local fill station to fill water bottles, which may be available in the future.

¹ Areas are based on best available groundwater nitrate data compiled and analyzed for Upper Zone wells with samples between January 2010 and May 2024. These areas are subject to change as more Upper Zone nitrate data become available.



Figure ES-2. Areas in the VWC Priority 2 Proposed Management Zones where Nitrate Levels in Groundwater Are Most Likely To Be > 7.5 mg/L-N (Orange and Red Areas) (Note: This map is subject to change as more Upper Zone nitrate data become available)

A residence located in a VWC P2 Proposed Management Zones may receive bottled water delivery or installation of a POU treatment system if a resident can answer yes to the following three statements:

- 1. My home is in a VWC P2 Proposed Management Zone (Delta-Mendota, Eastern San Joaquin, Madera, Merced, or Yolo);
- 2. I am willing to sign an agreement with the service provider; and
- 3. My well has unsafe nitrate levels (> 10 mg/L-N) (see **Figure ES-3**) as determined by a water quality analysis conducted by a certified laboratory.



Figure ES-3. Scale Showing Nitrate Safe and Unsafe Levels

If the resident does not know if their well water has unsafe nitrate levels, contact the VWC. A VWC representative will test the well at no cost to the resident. Results from the nitrate test, which will be provided to the resident, determines the next steps as shown in **Figure ES-4**. If nitrate levels are unsafe the VWC will work immediately with the resident to obtain a safe source of drinking water. If nitrate levels are high but safe the VWC is offering to test the well the following year.



Figure ES-4. Nitrate Results and VWC Follow-Up Actions

VWC began holding community meetings in Summer 2024 to obtain input on the development of this EAP. Community meetings will continue during implementation to gain

further input from residents on temporary solutions included in the Program and development of long-term drinking water solutions.

To support its community outreach efforts, the VWC established the following platforms to share information about the Program. Members of the community are encouraged to sign up on VWC's email list to receive Program updates and invitations to community meetings.

- VWC website: <u>https://valleywaterc.org/</u>
- Facebook page: <u>https://www.facebook.com/Valley-Water-Collaborative-340350387401852/</u>
- Instagram: <u>https://www.instagram.com/valleywatercollaborative/</u>

Once the Program is launched in late February 2025, residences in the Management Zones can apply for well testing and replacement water on the VWC website. Anyone who signs up now to be included on the VWC email list to receive community notifications will be contacted when the Program begins. Residents with any questions or concerns about the EAP may contact VWC by phone at (209) 750-3867 or by email at <u>contact@valleywaterc.org</u>. For any residents needing translation services, access to bilingual staff will be available and additional language resources will be provided as needed.

La Junta Regional de Control de Calidad del Agua del Valle Central esta implementando el Programa de Control de Nitratos en el Valle Central. Este programa está diseñado para lograr tres objetivos de gestión de zonas de nitratos:

- Meta 1 Garantizar un suministro de agua potable segura;
- Meta 2 -Reducir la carga de nitratos para que las descargas constantes no amenacen con degradar la alta calidad de agua sin los estudios apropiados de la Junta del Valle Central, además de no ser una causa o contribución a exceeder los objectivos de calidad del nitrato en el agua.
- *Meta 3 Implementar la restauración gestionada a largo plazo de cuerpos de agua impactados.*

Valley Water Collaborative (VWC), una organización local sin fines de lucro, se estableció para lograr estos tres objetivos en áreas del Valle Central designadas como Prioridad 1 bajo el Programa de Control de Nitratos, que resultó en la formación de la Zonas de Gestión de Modesto y Turlock. Ahora que el Programa de Control de Nitratos se está expandiendo a áreas de Prioridad 2 (P2), VWC está proponiendo establecer cinco zonas de gestión de nitratos adicionales: Delta-Mendota, Este de San Joaquín, Madera, Merced y Yolo. (**Figura ES-1**). VWC es administrado por una Junta Directiva de 12 miembros de Directores que representan a las ciudades locales y a la industria que opera en la cuenca, incluida la agricultura, lecherías, instalaciones avícolas, bodegas y procesadores de alimentos.



Figura ES-1. Ubicación de las Zonas de Gestión proponidas de VWC P2

El establecimiento de Zonas de Gestión requiere la preparación de un Plan de Acción Temprana (EAP) que identifica las acciones iniciales que el VWC llevará a cabo para abordar el uso del agua potable por residencias en la cuenca con niveles inseguros de nitrato. El elemento clave de este EAP, fue desarrollado en colaboración con la comunidad, es el Programa Interino de Reemplazo de Agua (Programa). Este Programa proporciona fuentes alternativas inmediatas de agua potable para residencias que dependen de aguas subterráneas que contienen niveles peligrosos de nitrato utilizados para beber y cocinar (agua con más de 10 miligramos por litro de nitrato como nitrógeno (mg/L-N).

Este EAP proporciona información detallada sobre:

- El problema de los nitratos en las Zonas de Gestión Propuestas de VWC P2;
- Cómo los residentes pueden participar en su implementación; y
- Cómo el VWC puede ayudar a una residencia si se descubre que una fuente de agua potable no es segura y tiene niveles de nitrato elevado.

El VWC ha identificado las áreas en las Zonas de Gestión Propuestas de VWC P2 donde los niveles de nitrato son más probable que sean mayor que 7.5 mg/L-N (ver áreas naranjas y rojas en la **Figura ES-2**).¹ La implementación del EAP se centrará inicialmente en estas áreas de alto riesgo. Sin embargo, cualquiera en el las Zonas de Gestión Propuestas de VWC P2 pueden solicitar que el VWC pruebe su pozo para determinar si su agua tiene niveles peligrosos de nitrato.

Este programa proporciona una solución inmediata para aquellos que actualmente experimentan niveles inseguros de nitrato en su fuente de agua potable. Sin embargo, estas soluciones son sólo temporales y eventualmente seran reemplazado por soluciones permanentes a largo plazo.

Existen varias opciones para obtener agua potable al implementar el Programa:

- Entrega de agua embotellada a domicilio; y
- Instalación de un sistema de tratamiento de punto de uso (POU) en su hogar; o
- Estación de servicio local para llenar botellas de agua, que puede estar disponible en el futuro.

¹ Las áreas se basan en los mejores datos disponibles sobre nitrato de agua subterránea compilados y analizados para los pozos de la Zona Superior con muestras entre Enero de 2010 y Mayo de 2024. Estas áreas están sujetas a cambios a medida que se obtengan más datos de nitrato de la Zona Superior cuando esten disponible.



Figura ES-2. Áreas en las Zonas de Gestión Propuestas de Prioridad 2 del VWC donde es más probable que los Niveles de Nitrato en aguas subterráneas sean mayor que 7.5 mg/L-N (áreas naranja y roja) (Nota: este mapa es sujeto a cambios a medida que haya más datos disponibles sobre nitratos de la Zona Superior)

Una residencia ubicada en una Zona de Gestión Propuesta VWC P2 puede recibir entrega de agua embotellada o instalación de un sistema de tratamiento POU si un residente puede responder sí a las siguientes tres declaraciones:

- 1. Mi casa está en una Zona de Gestión Propuesta VWC P2 (Delta-Mendota, Este de San Joaquín, Madera, Merced o Yolo);
- 2. Estoy dispuesto a firmar un acuerdo con el proveedor del servicio; y
- Mi pozo tiene niveles peligrosos de nitrato (> 10 mg/L-N) (ver Figura ES-3) según lo determina un análisis de la calidad del agua realizado por un laboratorio certificado.



Figura ES-3. Escala que muestra niveles seguros e inseguros de nitrato

Si el residente no sabe si el agua de su pozo tiene niveles peligrosos de nitrato, comuníquese con el VWC. Un representante de VWC analizara el pozo sin costo alguno para el residente. Resultados de la prueba de nitrato, que se proporcionará al residente, determina los próximos pasos como se muestra en **Figura ES-4**. Si los niveles de nitrato no son seguros, el VWC trabajará inmediatamente con el residente para obtener una fuente segura de agua potable. Si los niveles de nitrato son altos pero seguros, el VWC ofrece probar el pozo el año siguiente.



Figura ES-4. Resultados de nitratos y acciones de seguimiento del VWC

VWC comenzó a realizar reuniones comunitarias en el verano del 2024 para obtener opiniones sobre el desarrollo de este EAP. Las reuniones comunitarias continuarán durante la implementación para obtener más aportes de los residentes sobre las soluciones temporales incluidas en el Programa y el desarrollo de soluciones de agua potable a largo plazo.

Para apoyar sus esfuerzos de extensión comunitaria, VWC estableció las siguientes plataformas para compartir información sobre el Programa. Se anima a los miembros de la comunidad a registrarse en la lista de correo electrónico de VWC para recibir actualizaciones del programa e invitaciones a reuniones comunitarias.

- VWC sitio web: <u>https://valleywaterc.org/</u>
- Pagina de Facebook : <u>https://www.facebook.com/Valley-Water-Collaborative-340350387401852/</u>
- Instagram: <u>https://www.instagram.com/valleywatercollaborative/</u>

Cuando que se lance el Programa a fines de Febrero de 2025, las residencias en las Zonas de Gestión podrán solicitar pruebas de pozos y reemplazo de agua en el sitio web de VWC. Cualquiera que se registre ahora para ser incluido en la lista de correo electrónico de VWC para recibir notificaciones de la comunidad; será contactado cuando comience el Programa. Los residentes que tengan preguntas o inquietudes sobre el EAP pueden comunicarse con VWC por teléfono al (209) 750-3867 o por correo electrónico a contact@valleywaterc.org. Para cualquier residente que necesite servicios de traducción, acceso a personal bilingüe estará disponible y recursos lingüísticos adicionales se proporcionará según sea necesario.

1. Background and Purpose

The Nitrate Control Program was established by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) in the Water Quality Control Plan for the Sacramento and San Joaquin River Basins. A requirement of the Nitrate Control Program is to develop an Early Action Plan (EAP), defined as a plan that identifies community outreach activities and an implementation schedule that will ensure access to safe drinking water for those dependent on groundwater wells exceeding the nitrate drinking water standard of 10 milligrams per liter nitrate as nitrogen (mg/L-N). While these wells are primarily domestic wells, this EAP also addresses areas where public water supply wells have nitrate levels exceeding the drinking water standard. This EAP provides temporary solutions for providing safe drinking water to those impacted by nitrate contamination in groundwater; it will be in effect until permanent solutions for safe drinking water are implemented through an approved Management Zone Implementation Plan (MZIP).

1.1 Early Action Plan Requirements

An EAP must include the following, unless otherwise approved by the Central Valley Water Board's Executive Officer:

- i. 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;
- iii. 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
- iv. A funding mechanism for implementing the Early Action Plan, 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 Valley Water Collaborative's (VWC) Priority 2 (P2) Preliminary Management Zone Proposal (PMZP), December 28, 2024. The PMZP submittal supports the establishment of the VWC P2 Proposed Management Zones which include the Delta-Mendota, Eastern San Joaquin, Madera, Merced, and Yolo Subbasins (**Figure 1-1**). This EAP applies to all areas within the VWC P2 Proposed Management Zones, but 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. Implementation of this EAP will begin within 60 days of submittal (i.e., by February 26, 2025) unless the Central Valley Water Board objects and notifies the VWC that this EAP is incomplete. If any objections are identified, the VWC will work with the Central Valley Water Board to address their concerns in a timely manner. EAP activities for the VWC P2 Proposed Management Zones will be coordinated jointly.



Figure 1-1. VWC Priority 2 Proposed Management Zones, Central Valley of California

1.3 Valley Water Collaborative

The VWC is a non-profit organization established to organize and operate the VWC Priority 1 (P1) Management Zones (Modesto and Turlock) and P2 Proposed Management Zones (Delta Mendota, Eastern San Joaquin, Merced, Madera and Yolo). The VWC 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. VWC's mission is "to maintain and improve the quality of life in the northern San Joaquin Valley by implementing programs that provide access to safe drinking water for residents, and by engaging in activities with the goal of protecting or enhancing the quality of groundwater used as drinking water for residents in the region". The VWC is responsible for the implementation of this EAP within all the VWC P2 Proposed Management Zones.

1.3.1 How to Contact Valley Water Collaborative

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

- By phone at (209) 750-3867
- By email at contact@valleywaterc.org
- Through VWC website at https://valleywaterc.org/
- Direct Mail: 1201 L Street, Modesto, CA 95354

VWC 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 development of this EAP. These activities were guided by the VWC Community Engagement Strategy ("Strategy") (see **Appendix A**) which is supported by the community profiles developed for each VWC P2 Proposed Management Zone (**Appendix B-1**: Delta-Mendota, **Appendix C-1**: Eastern San Joaquin, **Appendix D-1**: Madera, **Appendix E-1**: Merced, **Appendix F-1**: Yolo). The community outreach activities described below were conducted jointly for all VWC P2 Proposed Management Zones.

2.1 Community Engagement Strategy

This Strategy guided VWC outreach activities and targeted potential nitrate-impacted residents to provide them opportunities to participate in the development of this EAP. The Strategy was developed in accordance with the *Guidance for Engaging Communities During Development of Early Action Plans* (State Water Resources Control Board 2020) and was updated to support the VWC's application for SAFER grant funding (see Section 6.4) **Appendix G** summarizes how the State Water Board's community engagement recommendations were addressed during EAP development.

The Strategy established the following objectives for VWC's outreach process:

- Objective 1 Educate the public about the development and implementation of the EAP and their 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 Make community and non-discharger participation easy and accessible.
- Objective 4 Provide a roadmap for Valley Water Collaborative leadership.

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.

Figure 2-1 provides an overview of the different entities with interests in the VWC P2 Proposed Management Zones that are referred to in this EAP. While all these entities have a vested interest in the communities they live and work in, they may have very different interests or expectations in how the Nitrate Control Program requirements are implemented within the planned Management Zones. Collectively all these groups or individuals are considered Management Zone "interested parties."



Figure 2-1. VWC P2 Proposed Management Zones Interested Parties

Management Zone interested parties are often divided into 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 Zones, who rely on domestic wells or small water systems as their source of drinking water and whose well has 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.

Implementation of the Strategy focused on engaging non-dischargers – both community participants and other stakeholders. Community participants are the primary focus of the EAP and its purpose 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

VWC conducted a variety of community engagement activities to encourage active involvement of diverse social, cultural, and economic elements of the community. (see **Appendix H** for supporting documentation). The following sections summarize key elements of the program to engage the community. As part of this effort, the VWC 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, VWC will evaluate the need for additional language translation support. VWC 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 Maintain Management Zone Website

In October 2020 VWC established a website (<u>https://valleywaterc.org</u>/) to optimize outreach and engagement in their P1 Management Zones. This same website will also be used to support EAP implementation in the P2 Proposed Management Zones. The VWC website includes the following:

- Information about the VWC, including its mission, Board of Directors and staff;
- Upcoming community outreach activities;
- Previously completed outreach meeting information, including recorded meeting presentations; and
- Frequently Asked Questions (FAQ) about nitrate and potential impacts to drinking water.
- Website is translated into Spanish using Google Translate. However, based on community input from residents and key community leaders/organizations, which may be language-based. VWC will evaluate the need for additional language translation of the website.

The VWC 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 "Community Participant" or as a "Stakeholder." Individuals providing their email will receive information about upcoming meetings, new postings to the VWC website, or other Management Zone activities. Encouragement to sign up to VWC'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 VWC's presence in the area, VWC has set up a Facebook page (<u>https://www.facebook.com/Valley-Water-Collaborative-340350387401852/</u>) and Instagram (<u>https://www.instagram.com/valleywatercollaborative/</u>). VWC will continue exploring other social media avenues prior to EAP implementation.

2.2.2 Outreach to Community Participants

VWC conducted regular meetings to provide opportunity 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: <u>https://valleywaterc.org/meetings/.</u> Prior to each meeting, VWC 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 opportunity for community participation. Spanish translation was provided during every outreach meeting. VWC 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 the community outreach meetings to provide local input to the VWC. Requests for community feedback have been made during outreach meetings and posted on VWC's website, Facebook page, and Instagram. VWC will continue to seek local participants.

Activity	Purpose	Date/Time	
VWC P2 Proposed Management Zones	Introduction of the VWC and Nitrate Control Program. Overview of potentially nitrate-impacted	August 13, 2024 2-3:30 pm	
Community Outreach Meeting #1	areas, possible interim solutions, and how residents participate.	August 15, 2024 6-7:30 pm	
VWC P2 Proposed	Overview of nitrate conditions and potential interim drinking water solutions under the EAP as well as	October 10, 2024 2 – 3:30 pm	
Community Outreach Meeting #2	interim replacement water program elements. Inform about public draft EAP and opportunity to review and comment.	October 10, 2024 6 – 7:30 pm	
VWC P2 Proposed Management Zones	Present draft EAP contents and reminder for	TBD	
Community Outreach Meeting #3	public draft EAP.	TBD	

Table 2-1. Summary of Community Outreach Meetings during EAP Development

2.2.3 Outreach to Other Stakeholders

VWC developed an initial list of other stakeholders by identifying organizations within each VWC P2 Proposed 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 including Valley Improvement Projects and California Rural Legal Assistance. Other entities and regulatory programs may include, but not be limited to, GSAs (SGMA), Coalitions (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.

Category	Key Role(s) in EAP Development or Implementation					
	Board of Supervisors – Dissemination of information to County residents; support approval of EAP-related projects					
Counties	Planning and Community Development – Support approval of EAP-related projects					
	Health Services Agency – Support implementation of EAP-related activities					
Incorporated Communities ¹	Given the presence of shopping centers ² in these locations, some of these					
Unincorporated Communities/ Census- Designated Places	Coordination with these communities can facilitate establishment of these facilities.					
Central Valley Water Board	Ensure that EAP development and implementation is 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 VWC P2 Proposed Management Zones and can assist with implementation of EAP elements, especially activities related to community outreach. Key participants to date have included, e.g., California Rural Legal Assistance, Valley Improvement Projects, Self-Help Enterprises, Clean Water Action, Community Water Center, Leadership Counsel for Justice and Accountability.					
Groundwater Sustainability Agencies (GSAs)	The GSAs located within the VWC P2 Proposed Management Zones are included in the PMZP as Attachments B-1.3, C-1.3, D-1.3, E-1.3, and F-1.3). EAP implementation activities involving use of water will be coordinated with these agencies, which can also assist with dissemination of information within their jurisdictions					
Representative Organizations	Trade organizations may represent various facilities that are dischargers within the VWC P2 Proposed Management Zones. 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 dissemination of information through their members (which may be dischargers) and community outreach activities.					

 Table 2-2. Categories of Other Stakeholders in the VWC P2 Proposed Management Zones

¹ Some incorporated communities may be participating in the EAP as permitted dischargers subject to the requirements of the Nitrate Control Program.

² Shopping centers includes public access areas such as: strip malls, grocery stores, gas stations, etc.

Several hybrid meetings were held to seek input from stakeholders. Prior to each meeting, VWC sent meeting notices via email to all stakeholders on the VWC's contact list. Topics discussed in the stakeholder meetings included: an introduction of the VWC and Nitrate Control Program, an overview of nitrate conditions, discharger commitment process, selecting Advisory Committee Members, discharger outreach, contents of the EAP, potential interim drinking water solutions under the EAP, presentation of the draft EAP to provide opportunity for community participants to review and comment on the public draft EAP.

3. Identification of Potentially Impacted Groundwater Users

3.1 Nitrate-impacted Areas

To support the development of the VWC P2 Proposed Management Zones PMZP, nitrate groundwater data were requested, downloaded, and compiled using various publicly available sources, including the State Water Board's DDW, GeoTracker Groundwater Ambient Monitoring and Assessment (GAMA) data, and the Irrigated Lands Regulatory Program (ILRP) monitoring data. These data were complemented by data requested from the counties in each Management Zone subbasin area. Groundwater data were categorized into depth zones, following previously developed CV-SALTS best management practices and wells meticulously vetted and completed in the Upper Zone of the groundwater aquifer were used to determine recent average ambient nitrate concentrations for data since year 2010. Wells with data since year 2010 completed in lower zones (Lower Zone and Below Lower Zone) were also used to determine recent average ambient nitrate concentrations. The focus of the NCP is on the Upper Zone, as it is the portion of the groundwater aquifer where most domestic wells pump from.

The Upper, Lower, and Below Lower Zone average nitrate concentrations for wells in the Management Zone were used to produce a geospatial analysis of ambient conditions across the Management Zone. A description of the methodology is described in PMZP Section 3.2.1, along with the actual datasets used for the ambient nitrate condition analyses. **Appendices B-11, C-11, D-11, E-11** and **F-11** provides the nitrate groundwater dataset specific to each respective VWC P2 Proposed Management Zones. The series of figures in **Appendices B-2, C-2, D-2, E-2,** and **F-2** provide the geospatial analysis of ambient conditions in the Upper Zone since year 2010. Data gaps exist where well data are lacking, but the analysis provides evidence of several pockets of nitrate-impacted areas occurring within each Management Zone

3.2 Residential and Other Public Water Supply Sources

3.2.1 Public Water System

Public Water Systems (PWS) are defined as systems that provide drinking water to: (1) 15 or more households (or "connections") for Community systems; or (2) regularly serves at least 25 people for 60 days or more per year for non-Community systems. Non-Community systems include any facility that provides drinking water, such as churches, rest stops, stores, schools, businesses, etc. (**Table 3-1**).

 Table 3-1. Classification of Drinking Water Systems by Constituency, Connections, and Duration of Service per Year (adapted from Boyle et al. 2012)

Duration	Connections:		< 5	5 +	< 15	15 +	< 200	200 +
of Service	Persons Serve	d:	< 25			25 +		
N/A	Small Water System (SWS) ¹	l By	Connections			-		
< 60 days/year	Local Small Water System	Defined	Connections & (persons, duration)					
< 60 days/year	State Small Water System	fication		Conneo (persons,	ctions & duration)			
>= 60 days/year	Community Public Water System (PWS) ²	Classi				Conne	ctions or (pe duration)	ersons,

¹ Classification as a SWS does not preclude classification as any of the other types. SWS may be regulated by DDW or by Local Primary Agency county.

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 PWSs, which are regulated by DDW, 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 through multiple State Water Board websites².

3.2.2 State Small Water Systems

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 a SSWS. Typically, SSWS are regulated by county environmental health departments; regulatory oversight of these systems varies by county. In general, counties require 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. Usually, the data available include sporadic water quality data for a few constituents, and 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.

² <u>https://data.ca.gov/dataset/drinking-water-public-water-system-information;</u> <u>https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/EDTlibrary.html;</u> and <u>https://sdwis.waterboards.ca.gov/PDWW/</u>

3.2.3 Local Small Water Systems

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 a LSWS.

3.3 Potentially Impacted Public Supply Wells

The following sections provide information about public supply wells that have experienced elevated nitrate levels (above the nitrate MCL of 10 mg/L as N).

3.3.1 Public Supply Wells in the Management Zone

Elevated nitrate concentrations have been found in PWS wells in the VWC P2 Management Zones. The State Water Board's Drinking Water Source and Water Systems identification documentation was accessed via the internet to complement data from DDW. Together, these two sources provide information about how many systems with active versus inactive wells that have nitrate (as N) exceeding the MCL. This documentation provides a status code for each well, as well as a population served and 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, 173 public supply wells in the five VWC P2 Management Zones have exceeded the MCL for nitrate. Of those, 96 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 wells. The 67 PWS that cover a portion of the VWC P2 Management Zone areas that have historically experienced nitrate levels from wells that exceed the MCL serve an estimated population of about 1.02 million people. Public supply wells that have experienced nitrate concentrations exceeding the MCL are mapped in each VWC P2 Management Zone (Appendix B-3, C-3, D-3, E-3, and F-3).

California Department of Water Resources (DWR) provides approximate well locations for all Well Completion Reports (WCR) they have on record. These records include location information for domestic wells drilled across the state. The maps in **Appendices B-3**, **C-3**, **D-3**, **E-3**, and **F-3** show the locations provided by DWR for the domestic drinking water wells in their WCR database, as well as the service area boundaries of PWSs available in the area. Publicly available PWS service area boundaries are compiled by the California Environmental Health Tracking Program (CEHTP).

Tables provided in **Appendix B-4, C-4, D-4, E-4**, and **F-4** provide 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:
 - i. Date range of measurements;
 - ii. Number of measurements;
 - iii. Range of nitrate measurements; and
 - iv. Date of the most recent nitrate exceedance.
- b) Well system characteristics, including:
 - i. Well status (active, inactive, etc.);
 - ii. Water system the well provides water to;
 - iii. Water system type (community, non-community non-transient, etc.);
 - iv. Number of connections; and
 - v. Population served by that water system.

Tables provided in **Appendices B-5**, **C-5**, **D-5**, **E-5**, and **F-5** provide the list of unique public water supply systems that have had at least one well where nitrate concentrations have exceeded the MCL. 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 50,000);
- e) Number of wells in each well status category that have exceeded the nitrate MCL;
- f) Population served by the PWS; and
- g) If the PWS has an active impacted well, the population of potentially affected people served by the PWS (an estimated total of about 860,000 people).

3.3.2 Public Water System Delivered Water Treatment Status

Although there are some active PWS wells that have been tested for nitrate with results indicating nitrate concentrations have exceeded the MCL of 10 mg/L-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 which is sampled after any treatment.
- *CT Combined Treated*: Combined sources which are treated.
- *DT Distribution System Sample Point, Treated*: Sample point within the distribution system after treatment.

- *IT Inactive Treated*: A source which is not in service for periods of one year or greater and which provides treated water to a system.
- *ST Standby Treated*: A source which is used less than 15 calendar days per year, with periods not to exceed five consecutive days and which provides raw water which 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 inorganic or organic chemicals). PWS typically treat elevated nitrate by using blending, reverse osmosis (RO; membrane technology), ion exchange (IX), or biological or chemical nitrate removal via denitrification (less common). Six Public Water Systems in the VWC Priority 2 Management Zones have nitrate treatment capabilities as indicated by having a treated source in the DDW records. Treatment capabilities for public water systems that have wells inside the Management Zone that have been impacted by elevated nitrate are noted on the maps in **Appendix B-7, C-7, D-7, E-7**, and **F-7**.

Tables in **Appendix B-6, C-6, D-6, E-6**, and **F-6** summarize the water system treatment information that is available from DDW for the public water systems that have exceeded the nitrate MCL in the past. Solutions typically taken by public water systems that had a nitrate problem include abandoning, destroying, or deepening wells that had elevated nitrate, or by instituting nitrate-specific water treatment prior to distribution.

3.3.3 Public Water Systems Out of Compliance Due to Nitrate

Public supply wells impacted by nitrate have been identified, and information about treatment status has been summarized above and provided in Appendices for each VWC P2 Management Zone. Based on further investigation of PWSs with potential nitrate issues, it is possible to determine current compliance status, as of August 2024. If a PWS is fully incompliance 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 [DWW]).

The Human Right to Water Data Portal³ (State Water Board) provides information about compliance status for community and non-transient non-community PWSs that are regulated by the State Water Board or Local Primacy Agency (LPA). The State Water Board's regulatory authority does not include water systems that are defined as "SSWS", "LSWS", or private domestic wells. The Human Right to Water Data Portal does not provide specifics as to why PWSs may be out of compliance. This information is available, however, through individual investigation of each PWS through the DWW website. Using a combination of information gleaned from data summarized in Section 3.3.1, the Human Right to Water Data Portal, and the DWW website, a compilation of the compliance status of all PWSs in the

³ https://www.waterboards.ca.gov/water_issues/programs/hr2w/. Accessed August 2024.

VWC P2 Management Zones can be seen in **Appendices B-8, C-8, D-8, E-8,** and **F-8**. This table illustrates that besides nitrate, there are several other chemicals that are causing PWSs to be out of compliance (including but not limited to 1,2,3- Trichloropropane (1,2,3-TCP), uranium, lead, hexavalent chromium, copper, perchlorate, coliform, and arsenic). **Table 3-2** summarizes the PWSs in the VWC P2 Management Zones that are currently (as of August 2024) out of compliance due to nitrate or nitrate *plus* a co-contaminant (such as 1,2,3 TCP or another chemical).

If PWSs are out of compliance due to nitrate conditions that exceed the safe drinking water limit, they are indicated in the table, and the population served by these systems is listed. As of August 2024, there are currently six PWSs in the VWC P2 Management Zones that are out of compliance due to nitrate alone, which translates to a total population served of 680 people. There are currently four PWS in the VWC P2 Management Zones that are out of compliance due to nitrate plus a co-contaminant, serving 1,452 people. In total, the population served by PWSs that are currently out of compliance with a nitrate issue is 2,132 in the VWC P2 Management Zones.

 Table 3-2. Non-Compliant Public Water Systems (as of August 2024) due to Nitrate and Nitrate Plus Co-Contaminants in Proposed VWC

 Priority 2 Proposed Management Zones

	PWS Name	Number of Connections 1	Population Served ¹	Violation Chemical(s) ²	Most	MCL Exceedance		Pop. Served	Pop. Served by	
PWS ID					Recent Date of Violation ²	Nitrate Only	Nitrate Plus Co- contaminant	Compliant PWS (Nitrate Only)	Non-Compliant PWS (Nitrate + Co- contaminant)	
	Proposed Delta-Mendota Management Zone									
CA5000574	Eastin	10	26	Nitrate, Hg	7/1/2023		x		26	
CA5000213	Hamlet Motel	15	26	Nitrate	4/1/2023	x		26		
CA5000443	Triangle Truck Stop (Water)	1	25	Nitrate	4/1/2022	х		25		
						Т	otal Population	51	26	
			Proposed E	astern San Joa	quin Manage	ment Zon	e			
CA3910014	San Joaquin County- Raymus Village	329	1086	Nitrate, 1,2,3, TCP	7/1/2022		x		1,086	
CA3900751	Martinez Apartments	9	26	Nitrate, As, 1,2,3, TCP	1/1/2023		x		26	
CA5000483	River Oak Grace-Water System	4	500	Nitrate	10/1/2021	x		500		
CA3901474	Fremont One	15	39	Nitrate	7/1/2021	x		39		
Total Population									1,112	

 Table 3-2. Non-Compliant Public Water Systems (as of August 2024) due to Nitrate and Nitrate Plus Co-Contaminants in Proposed VWC

 Priority 2 Proposed Management Zones

PWS ID	PWS Name	Number of Connections 1	Population Served ¹	Violation Chemical(s) ²	Most Recent Date of Violation ²	MCL Nitrate Only	Exceedance Nitrate Plus Co- contaminant	Pop. Served by Non- Compliant PWS (Nitrate Only)	Pop. Served by Non-Compliant PWS (Nitrate + Co- contaminant)
			Prop	osed Merced M	anagement Z	Zone			
CA2400334	California Sweet Potato Growers Coop	1	44	Nitrate	10/1/2021	x		44	
						Т	otal Population	44	0
			Pro	posed Yolo Mai	nagement Zo	ne			
CA5700623	Davis JUSD - Fairfield School	1	46	Nitrate	4/5/2023	х		46	
CA5700788	North Davis Meadows	95	314	Fe, Nitrate	10/1/2015		x		314
						Т	otal Population	46	314

¹ Source: Human Right to Water or DWW Databases

² Source: DWW Database

3.4 Potentially Impacted Domestic Wells and Local Small Water Systems

The map figures in **Appendix B-9, C-9, D-9, E-9**, and **F-9** illustrate the locations of potentially impacted domestic wells and areas of elevated nitrate (> 7.5 mg/L-N to 10 mg/L-N, and > 10 mg/L-N) for the VWC P2 Proposed Management Zones. These areas were used along with DWR's domestic well locations based on WCRs⁴. The approach to identify potentially impacted domestic wells and local small water systems utilizes PWS service area GIS map coverages, which are only available for larger systems. PWS boundaries are not the same as city limits, although most large cities do have their own PWS, with mapped service areas. Domestic wells located within the boundaries of a PWS were identified even though they may not be used for drinking (**Appendix B-9, C-9, D-9, E-9**, and **F-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 domestic wells within the PWS residential service areas in each of the VWC P2 Management Zones. It is unknown whether any of these wells are still being used even though they are potentially in a PWS area⁵. The number of domestic wells outside of PWS service areas far outweighs those of unknown use status within PWS service areas. Smaller PWSs do not have a mappable service area associated with them, simply a physical address and 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 domestic wells located outside PWS boundaries and potentially impacted by elevated nitrate, domestic wells were placed into six groups:

- *Group 1* Groundwater in the Upper Zone at or below 2.5 mg/L-N;
- Group 2 Groundwater in the Upper Zone above 2.5 mg/L-N and at or below 5.0 mg/L-N;
- *Group 3* Groundwater in the Upper Zone above 5.0 mg/L-N and at or below 7.5 mg/L-N;
- Group 4 Groundwater in the Upper Zone above 7.5 mg/L-N and at or below 10 mg/L-N;
- Group 5 Groundwater in the Upper Zone exceeding 10 mg/L-N; 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.

⁴ Several domestic well locations provided by DWR's WCR database may not be exact locations, but rather plot 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.

⁵ 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.

The total number of domestic wells located inside and outside PWS boundaries was compared to the number of wells in each elevated nitrate category to provide an estimate of the percent of domestic wells potentially impacted by elevated nitrate in the groundwater. Tables provided in **Appendix B-10, C-10, D-10, E-10**, and **F-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 subject to change as additional Upper Zone groundwater nitrate data become available over time).

To estimate the population potentially impacted by residents relying on domestic wells that may have elevated nitrate, 2023 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 concentration described above). Tables in **Appendix B-10**, **C-10**, **D-10**, **E-10**, and **F-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 is underestimated based on information from DWR's WCR database. It may be possible during MZIP development to improve the accuracy of current estimates by conducting additional parcel analysis, e.g., by comparing the number of parcels inside and outside of PWS boundaries.

4. Process to Identify Potentially Affected Areas

Appendix B-2 (Delta-Mendota), Appendix C-2 (Eastern San Joaquin), Appendix D-2 (Madera), Appendix E-2 (Merced), and Appendix F-2 (Yolo) identify the portions of the VWC P2 Proposed Management Zones where nitrate conditions in the Upper Zone of the groundwater likely exceed 7.5 mg/L-N (see orange and red-colored areas). Except for those areas which 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. VWC will target some of its outreach efforts specifically to those identified as being most likely affected by elevated nitrate. This ensures that those most likely impacted by nitrate contamination learn about their replacement water options as quickly as possible. Targeted outreach will occur at the same time VWC is also implementing general community outreach activities to the entire VWC P2 Proposed Management Zones so that all residents in each Management Zone are aware of the Interim Replacement Water Program.

4.1 Process to Identify Affected Residents

Process to identify affected residents that may have a domestic well or may be connected to a PWS that is not compliant with the nitrate drinking water standard will be done in a timely manner as indicated in the EAP implementation schedule provided in Section 7.1. This stepwise process, which is described below, focuses on the development of a mailing list to facilitate the direct delivery of EAP-related information to potentially affected residents. Findings from Sections 3.1 and 3.4 (and associated appendices) that identified domestic wells and small water systems in nitrate-impacted areas have been used as a starting point for this effort. As nitrate data are received from the Residential Well Testing Program (See Section 6.3), the VWC will continually incorporate these new data into the VWC P2 Proposed Management Zone's database to re-evaluate where targeted outreach should be conducted. The overall approach will be adaptively managed as needed to meet the EAP schedule; however, any modifications made to the process would not reduce the areas being targeted for direct mail outreach.

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

VWC will use public databases that provide PWS boundary information for identified PWSs in Section 3.2 and associated appendices. This will provide a depiction of which parcels are served by a PWS. To identify the parcels within the VWC P2 Proposed Management Zones, County assessor parcel GIS data will be requested. The parcel GIS data will be overlaid with the PWS data obtained above and groundwater quality data (as was used to develop Appendices B-2, C-2, D-2, E-2, and F-2). The outcome will be a base map that identifies areas not served by a PWS and where nitrate is most likely > 7.5 mg/L-N.

Step 2: Remove Parcels Served by Nitrate Compliant PWS

Each PWS will be evaluated to determine if it is compliant with the nitrate drinking water standard. Parcels located within compliant PWS boundaries will be removed from further evaluation. If it is unclear whether the PWS is compliant with the nitrate requirements, the associated parcels will be retained. After Step 2 all remaining parcels should meet the following criteria:

- Located within a VWC P2 Proposed 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 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 to develop a targeted outreach list. Parcels that are part of ILRP Coalitions, CVDRMP, and others as appropriate that are part of the VWC P2 Proposed Management Zones, will be removed to the extent possible as residents on these parcels are already aware of Nitrate Control Program requirements. These residents will not be targeted for direct outreach under the EAP; however, their well will continue to be re-tested as required by Central Valley Water Board. The final spreadsheet will be provided to a third-party vendor to generate a mailing list. The outcome of this step will be a mailing list for targeted outreach activities. These are described in Section 5.2.3 below.

4.2 Process for Non-Compliant Public Water Systems

Table 3-2 identifies the non-compliant PWSs due to nitrate and nitrate plus co-contaminants for each respective proposed Management Zone. There were no identified non-compliant PWSs in the proposed Madera Management Zone due to nitrate and nitrate plus co-contaminants. VWC intends to reach out and work with non-compliant PWSs during MZIP development and, as appropriate, support their efforts to come into compliance with State regulations. VWC will also periodically re-evaluate these findings to verify that all PWSs in the area remain compliant with regards to nitrate. If any PWS is found to be non-compliant, VWC 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.

5. Community Outreach During EAP Implementation

Community outreach activities will continue during EAP implementation. As community input is received, modifications to this EAP may occur (see Section 6.6 on the process to amend the EAP). To support a cost-effective strategy, all the VWC P2 Proposed Management Zones community outreach activities will be coordinated jointly.

5.1 Information Sharing

Several community outreach activities are designed to support establishment of interim replacement water until long-term solutions are implemented. These activities support both general community outreach efforts to the entire VWC P2 Proposed Management Zones and targeted residents identified from the process outlined in Section 4. The VWC 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, VWC will evaluate the need for additional language translation support. VWC 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

VWC established a website in late October 2020 to optimize outreach and engagement in the P1 Management Zones (<u>https://valleywaterc.org/</u>). The VWC website, which is regularly updated, provides an opportunity for interested parties to sign up for notification alerts so they may receive information related to their respective P2 Proposed Management Zone. Individuals providing their email will receive information about upcoming meetings, or other Management Zone activities. Encouragement to sign up to VWC's website has been and will continue to be advertised in meeting flyers and outreach activities.

The VWC website will update the community on upcoming meetings, locations and operational hours of water fill stations (when established) and the process to request participation in the Tailored Water Delivery Program (see Section 6.2). VWC will continue to work with permitted dischargers and non-dischargers to provide links on their respective websites directing users to the VWC. In addition, to further assist with efforts to inform the public on VWC's presence in the area, VWC has set up a Facebook page (<u>https://www.facebook.com/Valley-Water-Collaborative-340350387401852/</u>) and Instagram (<u>https://www.instagram.com/valleywatercollaborative/</u>). VWC 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). Decision 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, VWC 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 material that have been and will continue to be provided includes, but not limited to:

- Educational material regarding nitrate in drinking water as a potential health concern.
- Purpose for establishment of the VWC 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 or website to contact 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 VWC P2 Proposed Management Zones, 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 Tailored Water Delivery Program.

5.2 General Management Zone Outreach

VWC will conduct periodic community outreach meetings to support EAP implementation (see Section 7.1 for general schedule of when meetings are planned in 2025). Upcoming meeting schedules will be shared with the community during outreach activities and through postings on VWC's website, Facebook page, Instagram, and other social media platforms.

5.2.1 Community Outreach Meetings

All VWC P2 Proposed Management Zones interested parties, including community participants, will be invited to the meetings. To provide frequent opportunities and updates on EAP implementation activities, it is anticipated community meetings will be held approximately quarterly or when there is new information to share with community residents for the first year of EAP implementation. After the first year, meetings frequency may be

reduced based on need and community feedback. 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 the EAP;
- 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 for the VWC P2 Management Zones and MZIPs for each P2 Management Zone; and
- Schedule for subsequent meetings and upcoming milestones.

When and where appropriate, VWC will make efforts to conduct in-person meetings and may provide a mixture of both in-person and virtual meetings to accommodate the needs of different individuals.

Table 5-1 summarizes the tasks to be completed to conduct a community outreach meeting.At a minimum, Spanish translation will be provided. However, based on community inputfrom residents and key community leaders/organizations, which may be language-based,VWC will evaluate the need for additional language translation support. Notification of thesemeetings will be conducted, but not limited to using one or more of the following methods:

- Direct mail marketing to all residents or targeted groups of residents, e.g., those most likely impacted by elevated nitrate in groundwater;
- 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 within the respective County areas;
- Social media platforms such as Nextdoor, Facebook, and Instagram;
- Door to door
- Organizational websites, e.g., VWC, Coalition, or Central Valley Water Board; or
- Others, as determined by VWC.

Table 5-1.	Process to	Conduct	Community	Outreach	Meetings
	1100003010	oonaaot	Community	ouncuon	meetings

	Task		Activities
1.	Address meeting logistics (if meeting is virtual, 1a will not apply)	a. b. c. d. e.	Secure public venue for in-person meeting Prepare and send out "Save the Date" meeting notice at least 5 days in advance of meeting date (English and Spanish); post same information on VWC website, Facebook page, Instagram, and other social media platforms Send out follow-up meeting notice in English and Spanish within 1-3 days of the meeting date Send out meeting notice flyers to other interested stakeholders for dissemination and posting on their websites Secure necessary translation service for meeting
2.	Prepare meeting materials	a. b.	Prepare meeting agenda, handouts, PowerPoint presentation materials specific to the purpose of the meeting Bring copies of any VWC informational materials for distribution at the meeting (if in-person and as needed)
3.	Post follow-up information after outreach meeting	a.	Post meeting presentation materials and handouts (as needed) to VWC website. (Note: If meeting was virtual, post recording of the meeting on VWC website)
4.	Follow-up directly with meeting participants after meeting, as needed	a. b.	Follow-up on action items from meeting Respond to post-meeting emails/inquiries

To further assist with community outreach efforts, VWC will establish partnerships with local community organizations as they are entities that provide a trusted presence in the areas encompassed by the VWC P2 Proposed Management Zones; therefore, already have a connection with the local residents. Once local partnerships have been established, VWC will continue developing these partnerships so that these local organizations (a) understand the risks of drinking water with unsafe levels of nitrate; (b) can explain how the EAP's Interim Replacement Water Program can provide residents with an alternative source of drinking water, and (c) understand VWC's role in the implementation of this program. During EAP implementation the VWC will be working with these partners to ensure they are knowledgeable about the program and prepare them to be able to effectively answer questions from community residents. Examples of the types of community outreach activities they may assist with include:

- Applicant referral assistance;
- Sharing and assistance with social media posts;
- Assistance with contacting rural residents;
- Attending monthly non-profit coalition meetings;
- Offering space availability for VWC at their events;
- Public dissemination of VWC Program flyers to the community;
- Assistance with school audience outreach and school events; and

• Providing facilities for VWC community meetings.

5.2.2 Coordination with Other Stakeholders

VWC will continue to coordinate with other stakeholders within the VWC P2 Proposed Management Zones, especially those entities with potential roles in the management of water that may be used as a drinking water supply. Other entities and regulatory programs may include, but not be limited to Path A dischargers with potential areas of contribution adjacent to the Management Zones (Nitrate Control Program), GSAs (SGMA), Coalitions (ILRP), and dischargers enrolled under the Concentrated Animal Feeding Operation General Orders. The purpose of this coordination is to facilitate the following:

- Identification of potentially affected residents (see Section 4);
- Establishment of Interim Replacement Water Program;
- Support of outreach activities to all residents within the VWC P2 Proposed Management Zones;
- Preparation of outreach materials tailored to the constituencies associated with each stakeholders organization;
- Informing 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.
- Keeping 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;
- Identifying opportunities for grants that support not just implementation of the Nitrate Control Program but other area programs to ensure the community has safe drinking water;
- Working collaboratively with NGOs as needed to assist with outreach gaps; and
- Developing long-term solutions for providing safe drinking water to residents in the VWC P2 Proposed Management Zones.

5.2.3 Targeted Community Outreach

Section 3 and supporting appendices identify areas within the VWC P2 Proposed Management Zones where nitrate concentrations in the Upper Zone of the underlying groundwater are most likely to exceed 10 mg/L-N. Potentially affected residents identified through the process described in Section 4.1 will be targeted for direct outreach during EAP implementation. VWC will develop information to send to each resident targeted for outreach. 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, VWC will evaluate the need for additional language translation support. The types of information that needs to be communicated (e.g., via a trifold flyer, letter or other form of communication) to each household includes, but may not be limited to:

- Explanation of the EAP and how its implementation may apply to their residence.
- Educational material regarding nitrate in drinking water as a potential health concern.
- Upcoming community meeting opportunities, as scheduled.
- Options available to obtain replacement water and, if needed, have their domestic well tested for nitrate.
- Opportunities to participate in EAP implementation and development of long-term drinking water solutions.
- Contact information for a VWC representative and website where the resident can obtain more information and to sign up for the emailing list.

Additional outreach to targeted residents will be conducted when residents are unresponsive to initial mailer. Such outreach activities may include, but not be limited to, follow up mailout (unless previous mailed information was returned as undeliverable), door to door, or by other methods as recommended from discussions with key community leaders/organizations. VWC will look for opportunities to broadcast information at locations where people gather in local areas, for example, local community centers, schools, houses of worship, or farm labor centers. As discussed in Section 5.2.1, developed partnerships with local organizations may assist with any of these outreach activities.

This EAP provides interim drinking water solutions while the VWC P2 Proposed Management Zones develops permanent, long-term solutions to ensure residents are not drinking water impacted by nitrate. The Interim Replacement Water Program described below, at no costs to residents, will begin at the start of EAP implementation and continue until permanent solutions are in place. The Interim Replacement Water Program includes two elements: (1) Tailored Water Delivery Program to meet the needs of individual households, i.e., through bottled water delivery or installation of a POU Treatment System; and (2) consideration of a Centralized Water Delivery Program that makes water available to any VWC P2 Proposed Management Zone resident through establishment of water fill stations.

6.1 Tailored Water Delivery Program

The Tailored Water Delivery program is designed to meet needs of individual homeowners and is implemented in parallel with the Centralized Water Delivery program. Two replacement water options available in the Tailored Water Delivery program include: (1) bottled water delivery; and (2) POU treatment.

6.1.1 Request to Participate in Program

The VWC will communicate the availability of this Interim Replacement Water Program to residents in the VWC P2 Proposed Management Zones through its targeted and general community outreach program (see Section 5). Residents will be directed to contact the VWC to discuss available services. For residents that want home bottled water delivery, or a POU treatment system installed in their home, the resident will be asked to fill out a Program Application Form (**Appendix I**) available at the VWC website or provided by email if requested. A VWC representative will assist with the preparation of this form if needed. Once a completed request form is received, the VWC will confirm the resident making the request the following eligibility criteria:

- Residence is within a VWC P2 Proposed Management Zone and does not receive drinking water from a state or county regulated PWS that is compliant with the nitrate drinking water standard.
 - If any PWS is found to be non-compliant, VWC 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.
- Current drinking water source at the residence has a nitrate concentration that is > 10 mg/L-N. This may be verified by having the VWC conduct a well test at no cost to the resident (see Section 6.3 below).

• If a third-party vendor requires the resident to sign an agreement to receive bottled water or POU treatment, resident must be willing to sign the agreement and meet the third-party provider agreement's terms and conditions.

If a resident meets the eligibility criteria, VWC will work with the resident to identify the best approach to receive interim replacement water from this program. Should a resident be ineligible to participate in this program (e.g., residence is not located within a VWC P2 Proposed Management Zone), the VWC 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.

6.1.2 Bottled Water Delivery Option

Through the bottled water delivery option, participating residents will be provided regular bottled water deliveries at no cost from a vendor(s) contracted by the VWC. It is anticipated the vendor(s) providing the bottled water service will: (a) provide a hand pump (b) deliver 5-gallon water bottles monthly (Note: Smaller sized bottle options, e.g., 1 or 3-gallon, and deliveries twice per month may also be made available); and (c) pick-up the empty bottles. Initial volume of water allocated monthly to a household is based on household size as depicted in **Table 6-1**. If warranted, this initial volume may be modified on a case-by-case basis at any point during participation in this program option (see Section 6.1.5).

Household Size	5-gallon Bottles Delivered per Month
1	6
2	8
3	9
4	10
5	12
6	14
7	16
8	18
9	20
10	22

Table 6-1. Initial 5-gallon Bottles Delivered per Month

6.1.3 Point-of-Use Treatment System Option

Through the POU treatment option, participating residents will be provided the POU treatment system at no cost from a vendor(s) contracted by the VWC. The POU treatment system option includes installation of a RO treatment unit under a sink where water is obtained by the resident for drinking or cooking purposes (e.g., under the kitchen sink). For every request of a POU treatment system installation VWC will require testing for a full range of water quality contaminants known in the subbasin, prior to installation. In some cases, due to site-specific circumstances a POU treatment system may not be a viable interim replacement water option for the residence. Reasons why installation of a POU treatment system may not be a viable option include, but may not be limited to:

- Inadequate incoming pressure to the treatment system;
- High nitrate levels in excess of 20 mg/L-N that limit the effectiveness of the POU treatment system to treat the water to a safe level;
- Presence of other contaminants besides nitrate that limit the effectiveness of the POU treatment system and/or are not treatable through the treatment device; and
- Presence of bacteria from the drinking water well; and
- Inadequate location for the POU treatment system waste stream disposal.

To support implementation of this replacement water option, the VWC will coordinate with DDW and the vendor(s) as needed to assist with POU treatment system technical issues. If the technical problems are unresolvable, the residence may alternatively participate in the bottled water delivery program.

Where a POU treatment system is a feasible interim replacement water option, following sampling and evaluation of additional water quality contaminants previously mentioned, and with a robust service plan in place, the VWC's vendor(s) will work with the resident to install the treatment system. The cost of these services will be borne by the respective Management Zone 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 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. In the event the landowner does not provide consent to install and maintain the POU system, the VWC will provide drinking water through an alternative source, such as the bottled water delivery option.

Once approved, the resident will schedule with the VWC's vendor(s) to install a POU treatment system at the residence. The robust service plan 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 treatment system (as required by the manufacturer, which may require that the vendor enter the home). If the resident does not allow required maintenance and monitoring of the POU System to take place (as per the vendor agreement), then the respective Management Zone has the discretion

to modify the approved interim replacement water option from a POU System to bottled water delivery.

Operation and maintenance (O&M) of a POU treatment system requires periodic monitoring to verify the treatment system is effectively treating nitrate as intended. If not, the VWC will work with the vendor to determine if an alternative POU treatment system could be installed to provide the necessary treatment, or the resident will be switched from POU to bottled water delivery immediately and the POU treatment system will be removed from the residence at no cost to the resident.

6.1.4 Agreements Between Residents and Vendors

VWC may select one or more vendors to implement the Tailored Water Delivery Program (Note: **Appendix J** lists potential vendors for the VWC P2 Proposed Management Zones). During vendor selection, VWC will confirm POU treatment vendors have adequate Operation and Maintenance program requirements. It is the responsibility of the VWC to ensure that its agreements with vendors to provide services to the VWC P2 Proposed Management Zones remain in effect as long as the EAP is effective. Selected vendors may have their own terms and agreements that must be met for their organization to provide services at a residence. Residents participating in the Tailored Water Delivery Program are responsible for the following:

- If an agreement between the VWC's vendor and resident is required to receive services, residents are responsible for establishing the agreements and complying with the terms and conditions of any signed agreements. VWC will assist residents as needed with any questions or issues that arise during establishment of the agreement with the vendor.
- For residents receiving bottled water delivery, to the extent practicable the resident is responsible for working with the third-party vendor to schedule delivery of bottled water and pickup of empty bottles. However, where necessary the VWC will provide scheduling support.
- For residents that will have a POU treatment system installed, the resident is responsible for working with the VWC's vendor to schedule installation and abide by any required maintenance of the POU treatment system. The cost of maintenance will not be the responsibility of the resident. However, once a long-term, permanent source of safe drinking water becomes available in the area that serves the residence, the VWC will no longer support the POU maintenance agreement. Some examples of long-term, permanent sources of safe drinking water may include, but not limited to, consolidation with a nearby compliant PWS, connection to a water well meeting nitrate drinking water standards, etc. As part of its ongoing community outreach efforts under this EAP, VWC will be obtaining input from residents on possible long-term, permanent solutions for the VWC P2 Proposed Management Zones. 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.

6.1.5 Program Assessment

After implementation of service at a residence, VWC will contact the residence by email (by phone if an email is not provided), or other means deemed appropriate at that time by sending a recipient survey with the following topics:

- Application process
- Well sampling process with VWC's contracted certified lab
- Bottled water delivery service with VWC's contracted vendor
- POU treatment system service with VWC's contracted vendor

The recipient survey allows for residents to indicate their satisfaction level on a scale of 1-10 on the above listed topics along with sharing any feedback they may have on each of the topics. With the bottled water service, the resident is also asked if the amount of bottled water being provided is sufficient for the household. If needed, the VWC will increase or decrease the volume delivered. With the POU treatment system service, the resident is asked to provide any feedback on the installation process and operation.

To better understand if the VWC is meeting the needs of the residents, survey questions include:

- Overall satisfaction level of the VWC on a scale of 1-10.
- What does VWC do best?
- Suggestions to improve VWC's outreach efforts and ways to provide a better experience.
- Sharing any feedback on the VWC.
- If the resident would like VWC to follow up on their experience via email or phone.

6.2 Centralized Water Delivery Program: Water Fill Stations

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 Centralized Water Delivery 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 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.

6.2.1 Water Filling Station Locations

Section 3 identified the areas within the VWC P2 Proposed Management Zones 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 residents' 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 a selected location could also benefit residents in neighboring VWC P2 Proposed Management Zones.

6.2.2 Requirements to Establish a Water Filling Station

Filling stations can provide an all-encompassing option to obtain safe drinking water in the VWC P2 Proposed Management Zones. 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.
- VWC 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., 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 to 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.

6.2.3 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, VWC 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 agreement with the PWS supplying water to the fill station.
- Construct and complete tasks to make water fill station operational.
- Notify interested parties that water fill station is operational, including community participants, the Central Valley Water Board, PWS providing water and other interested parties in the VWC P2 Proposed Management Zones.
- Inform 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.

6.3 Residential Well Testing Program

Implementation of the Tailored Water Delivery Program includes a Residential Well Testing Program paid for by the VWC P2 Proposed Management Zones to verify residents requesting bottled water or POU Treatment System services in their home have nitrate-impacted drinking water, nitrate levels exceeding 10 mg/L-N. Any resident within a VWC P2 Proposed Management Zone may request to have their well tested for nitrate. This well testing program is coordinated with other well testing programs in the area to the extent practical to provide opportunity for testing drinking water for other potential contaminants. To support this need, the VWC has established a co-funding agreement with the State Water Board for sampling co-contaminants and providing replacement water through SAFER (See Section 6.4). In addition, where available, VWC will coordinate with other local and state agencies where opportunities arise to partner and obtain additional funding to address cocontaminants in the VWC P2 Proposed Management Zones.

6.3.1 Well Test for Nitrate

Well testing will be provided to residents that live within the VWC P2 Proposed Management Zones boundaries, are not currently receiving drinking water from a nitratecompliant PWS and receive their drinking water from a well. In addition, well testing will be provided to residents that live outside a VWC P2 Proposed Management Zone boundary *where* the resident is located immediately downgradient from a VWC P2 Proposed Management Zone dischargers within their area of contribution. The VWC P2 Proposed Management Zones will only test the well that provides water to the residence. 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, VWC representatives will work with them to evaluate this question.

Table 6-2 describes the five-step well testing program that will be implemented at a residence requesting well testing. Key elements include:

- Well needs to be operational and used regularly (well is the source of water used to provide drinking water to the residence).
- Permission from the property owner is required if the resident is not the owner of the property where the well test is requested (see Program Application Form in Appendix H). If requested by the resident, the VWC will follow up and obtain permission from the property owner on behalf of the resident. If the VWC learns that the resident is unable to obtain permission from the landowner or the landowner is not responsive to requests to obtain permission, the VWC will work with the Central Valley Water Board staff to address the issue.
- Requests to test a well may be received either from the resident or the property owner.
- Outreach will continue periodically to capture new residents that may have moved into the area.

Stage	Program Component
Step 1 – Resident Submits Program Application Form	Resident or property owner submits Program Application Form to VWC and indicates need to have well tested for nitrate. If the form has not been received by the resident by mail or at a community workshop, the form will also be available on the VWC website. In cases where the resident is not the property owner, property owner's permission and signature will be required.
Step 2 – Eligibility Determination	VWC will verify residence is within a VWC P2 Proposed Management Zone or within an area of contribution of a discharger in the Management Zones and that the resident is not already having their well sampled under any other regulatory state or federal program(s) (as may be required for a PWS). Once verified the resident is eligible to have their well sampled under this EAP, the VWC will submit a work order to its contractor responsible for conducting wells sampling on behalf of the VWC. If the residence is not in the VWC P2 Proposed Management Zones or contribution areas, the VWC will advise the resident. If the residence is in an adjacent Management Zone, the resident will be referred to the VWC representative for the appropriate Management Zone.
Step 3 – Well Sampling	VWC's contractor will contact the resident and schedule a date and time for sample collection. Contractor will collect the sample and deliver it to the VWC-approved laboratory within the required sample holding time.

Table 6-2. Stages of Residential Well Testing Program

	Table 6-2.	Stages o	f Residential	Well Testin	g Program
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Stage	Program Component Residents and property owners will receive a copy of the well test result in writing regardless of the nitrate concentration. However, if the test result indicates nitrate levels above the nitrate drinking water standard, the resident and property owner (if appropriate) also will be informed by email of the result within 24 hours of the VWC being notified. If an email was not provided on the Program Application Form, the VWC will call the resident and property owner (if appropriate) of the result. Once a				
Step 4 – Evaluation of Results and Resident Contact	Residents and property owners will receive a copy of the well test result in writing regardless of the nitrate concentration. However, if the test result indicates nitrate levels above the nitrate drinking water standard, the resident and property owner (if appropriate) also will be informed by email of the result within 24 hours of the VWC being notified. If an email was not provided on the Program Application Form, the VWC will call the resident and property owner (if appropriate) of the result. Once a lab report is available, the VWC will email the lab report or mail if no email was provided. The VWC will immediately begin coordinating with the resident (and property owner if needed) to implement an interim replacement water option. If the test result show that nitrate levels are $\leq 10 \text{ mg/L-N}$, the resident will not be able to participate in VWC's Tailored Water Delivery Program, but will be notified of other drinking water alternatives, e.g., water fill stations if available in the area. The resident or property owner may also be eligible for follow-up well testing under Step 5 below.				
Step 5 – Follow-up Well Testing	 For a resident or property owner that has a well test showing nitrate levels that are ≥ 7.5 mg/L-N but ≤ 10 mg/L-N, VWC will offer the opportunity to have follow-up well testing conducted. Within one year of receiving the well test result VWC will contact the resident or property owner to offer an opportunity to retest the well at no cost: For a nitrate result between 7.5 and 10 mg/L-N: A year after the initial well test, the VWC will send an email to the resident or property owner to provide an opportunity for a follow-up well test on an annual basis at no cost to the resident until the nitrate concentration is < 7.5 mg/L-N. If the resident or property owner does not respond within 30 days, the VWC will send a second email and attempt to reach the resident by phone. If still no response, then the VWC will end the outreach effort for that year; efforts to contact the resident or property owner is still non-responsive, then no more follow-up outreach will occur in the future under this EAP. For a nitrate result < 7.5 mg/L-N: The VWC will reach out to the resident every five years or during the length of EAP implementation, whichever is longer, to offer an opportunity to retest the well at no cost to the resident. If the resident or property owner does not respond within 30 days, the VWC will send a second email and attempt to reach the resident out as described above. If the resident or property owner is still non-responsive, then no more follow-up outreach will occur in the future under this EAP. For a nitrate result < 7.5 mg/L-N: The VWC will reach out to the resident every five years or during the length of EAP implementation, whichever is longer, to offer an opportunity to retest the well at no cost to the resident. If the resident or property owner does not respond within 30 days, the VWC will send a second email and attempt to reach the resident by phone. If the resident or property owner d				

6.3.2 Well Testing for Other Contaminants

Although nitrate is the focus of the Nitrate Control Program, VWC 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 (see Section 6.4). Through this program, the VWC has secured a grant to support efforts to have a well tested for multiple constituents all at one time. This provides efficiency across regulatory programs and for the residences of the region who may have contaminated wells.

If at the time a resident or property owner requests 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. VWC 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, VWC 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, VWC 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.

6.3.3 Coordination with Irrigated Lands Regulatory Program

VWC will use their best efforts to coordinate its Residential Well Testing Program with ILRP's Drinking Water Well Monitoring Program. As there are overlaps between both regulatory programs, the VWC recognizes the importance to streamline a resident's desire to have their private domestic water well tested, regardless of which program their well is part of. If a resident applying for a well test under this program happens to be an enrolled parcel within the ILRP, if needed, the VWC will work with the resident and the associated Coalition member to determine if the well has been sampled through the ILRP and if not, to coordinate sampling of the resident's private domestic water well and to provide replacement water per the outlined steps of the Residential Well Testing Program defined in Section 6.3. In the event that the VWC tests a well that otherwise should have been tested under the requirements applicable to growers permitted under the ILRP, the well test conducted by the VWC does not constitute compliance with ILRP requirements and the grower/landowner is still responsible for meeting all ILRP requirements. However, the VWC wants to ensure that residents are not harmed or denied well tests just because the well in question happens to be located on an ILRP related parcel.

To further assist residents in enrolled parcels with the ILRP, the VWC will coordinate with Coalitions to obtain a list of nitrate well test results > 10 mg/L-N. Upon receiving this list, the VWC will send the resident a letter along with an application for the resident to participate in the VWC's bottled water delivery option. In addition, residents are offered additional well testing for co-contaminants.

6.3.4 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 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 VWC P2 Proposed Management Zones, the CVDRMP will encourage dairies and confined bovine feeding operations to share domestic well test results with the VWC to facilitate implementation of the EAP in a more cost effective and efficient manner.

6.4 SAFER Grant

As part of P1 Management Zones EAP implementation, VWC (along with other Management Zones) held discussions with the State Water Board's SAFER program to identify ways to enhance the EAP. As a result of these discussions, the VWC secured an approval of a co-funding agreement with the State Water Board of \$5.5 million for expanding their EAP. The approval was granted to VWC on December 17, 2021, with a funding agreement in place on September 28, 2022. The SAFER funds will be expanded into VWC P2 Management Zones.

The purpose of the co-funding agreement was to establish and implement the Expanded Constituent Well Sampling and Replacement Water Program in conjunction and coordination with the Management Zone's efforts. This co-funding agreement provides funds to expand outreach efforts, conduct sample analysis for additional contaminants, and provide interim replacement water solutions for those with contamination issues beyond nitrate.

Under the co-funding agreement, the VWC provides funding labor and laboratory costs associated with sampling specifically for nitrate. SAFER funds are then used for any incremental increase in costs associated with sampling for other co-contaminants. SAFER funds are also available to be used to provide interim replacement water solutions to those residents that have contamination in addition to, or instead of, nitrate as long as the household in question is eligible under SAFER's guidelines.

The VWC SAFER agreement will continue through December 31, 2025, or when the project funding amount of \$5.5 million has been exhausted. As there will be potential for future program expansion and the need to keep the co-funding agreement in place, the VWC intends to continue efforts with the State Water Board to amend the co-funding grant agreement prior to its ending date or when funds are exhausted, as determined appropriate.

6.5 Monitoring and Data Management

VWC will gather data to understand the effectiveness of community outreach activities, community involvement, and progress of EAP implementation. Information that is tracked includes communications with the residents, laboratory well test results, and other details necessary for reporting to regulators and internally. This is tracked in a database managed by the VWC. The following sections describe the minimum requirements for data collection and record-keeping.

6.5.1 Tailored Water Delivery Program

In the Tailored Water Delivery Program, VWC will maintain the following data: (1) number of requests received to participate; (2) database of residents approved to participate; (3) follow up contact with residents to verify implementation at their residence; and (4) documentation of residences that were approved but did not follow through with implementation at their residence. Data will be obtained from third-party vendors periodically as follows for each residence where service is being provided:

- Bottled water delivery:
 - Initial bottled water delivery date
 - Usage of water
- POU treatment system:
 - Installation date of POU treatment system
 - Status of any recommended nitrate monitoring by POU manufacturer
 - Status of maintenance

6.5.2 Water Fill Stations

VWC will monitor each water fill station it installs to obtain the following data: (1) volume of water dispensed; (2) dates and times that water is dispensed; (3) fill station sampling plan analytical results; and (4) cleaning schedule. At a minimum, this information will be analyzed periodically to:

- Determine patterns of usage at each facility;
- Confirm fill station is meeting drinking water standards;
- Determine if cleaning schedule at each facility is adequate;
- Evaluate whether additional water fill stations are needed because of high demand at specific locations; and
- Provide a basis for compensating the land/property owner for water usage.

If periods of high usage are identified at any water fill station, additional site monitoring may be temporarily conducted to determine if there are significant delays in obtaining water or congestion at the site.

6.5.3 Residential Well Testing Program

Laboratory data, including those obtained through the ILRP – Drinking Water Well Monitoring Program for drinking water wells on enrolled parcels, will be used to continually update the information that the VWC P2 Proposed Management Zones uses to identify additional areas for targeted outreach. The following information will be maintained by this program:

- Requests received from residents to have their water tested and the outcome of the request.
- Laboratory reports indicating the sample date and the test results.
- Record of responses to residents and property owners informing them of their test results.
- Status of follow-up well sampling.
- 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.

6.6 Program Implementation Metrics and Adaptive Management

At the request of the Central Valley Water Board's Executive Officer and in coordination with other P1 Management Zones, the VWC established the following metrics to track progress in the implementation of the P1 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 Priority 2 Proposed Management Zones. In general, the VWC P2 Proposed Management Zones along with other P1 and P2 Management Zones will provide the above information generally on a monthly basis to the Central Valley Salinity Coalition (CVSC). The CVSC then compiles the information into a monthly report which is submitted to the CV-SALTS Executive Committee and 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 into a dashboard format and is also publicly available on the CVSC's website at: https://cvsalts.mljenv.com/.

The Management Zones report this information in numeric and graphic formats. Reported information includes 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 Zones 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, 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 manages a website (VWC P1 and P2 Management Zones share the same website) that provides information regarding the program and allows for well testing applications to be submitted on-line. The Management Zones utilize on-line 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 Management Zone's 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 VWC P2 Proposed Management Zones 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, VWC will begin implementation of the revised EAP within 60 days of submittal unless the Central Valley Water Board objects and notifies the VWC that this EAP is incomplete. If the Central Valley Water Board objects to the proposed revisions, the VWC P2 Proposed Management Zones 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.

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. Where appropriate and to support a cost-effective strategy, some of these activities may be coordinated with the adjacent VWC P2 Proposed Management Zones.

If it is necessary to modify the EAP schedule, VWC will request modification to this EAP as a recommended revision following the process described in Section 6.6. 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.

	Subtasks		2025				2026			
Task			QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	
General	Outreach to Management Zone									
Outreach	Conduct public community and stakeholder meetings		\diamond	♦		2026 s	chedule d	etermined	in 2025	
	Develop mailing list of targeted residents									
Targeted	Mailout Interim Replacement Water Program Materials									
Outreach	Coordinated outreach to non-compliant public water systems									
	Conduct follow up outreach (as necessary)									
Interim Replacement	Secure third-party vendor services									
Water: Bottled Water & POU	Process requests for services (eligibility verification, well-testing, initiate services)									
Systems	Follow-up with residents to confirm provided services									
Interim Replacement Water: Water Filling Stations			·	Schedule	dependen	t on reside	nts' input			
Monitoring and	Gather monitoring data from all program activities									
Reporting	Prepare E AP status reports		\diamond					\diamond		

Figure 7-1. General Implementation Schedule for VWC P2 Proposed Management Zones EAP

Table 7-1. Valley Water Collaborative EAP	Implementation Schedule
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Task	Subtasks	Schedule (Assumes EAP Start Date: February 26, 2025)		
	Maintain VWC website, Facebook page, Instagram, and other social media platforms	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		
General Community Outreach	Send out public notice of upcoming community meetings	 "Save the Date" public meeting notice – send within 5 business days prior to scheduled meeting. Final meeting notice – send within 1-3 business days of meeting date (include Zoom link if meeting will be virtual). 		
	 Conduct public community meetings to provide: EAP status update; Information on Interim Water Replacement Program options; Implementation schedule; Well-testing opportunity; and Other topics as needed. 	 Initial EAP implementation kickoff meeting – March 2025. Additional meetings – approximately quarterly after March 2025 kickoff meeting or when there is new information to present to residents. 2026 schedule to be determined in 2025. Note: When and where appropriate, VWC will make efforts to conduct in-person meetings and may provide a mixture of both in-person and virtual meetings to accommodate the needs of different individuals.		

Table 7-1. Valley Water Collaborative EAP Implementation Schedule

Task	Subtasks		Schedule (Assumes EAP Start Date: February 26, 2025)		
	Establish mailing domestic well in a concentrations > 7	list for targeted residents (residents with reas most likely impacted by nitrate at 7.5 mg/L-N)	Complete by April 30, 2025.		
Targeted Community Outreach	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 respond to initial o returned as undeli	outreach to residents that did not contact or had mailed information iverable	As needed, but complete by July 15, 2025 for first mailing. Within 45 days after subsequent mailings when they occur.		
	Establish third-party agreements with vendors 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. VWC will follow up within 2 weeks of receipt.		
Interim Replacement	Schedule and conduct well test to verify eligibility of requesting services		Resident contact information is sent to VWC contracted vendor and coordinates with resident to schedule well testing as quickly as possible.		
Water: Tailored Water Delivery Program	Advise residents	Result is > 10 mg/L-N	Within 24 hours of receipt of test results, contact resident via email. Email includes test result and statement to initiate bottled water or POU treatment system programs. If no email is available, contact resident via phone with test results within 24 hours or receipt of test results and follow up with mailing test results.		
	of nitrate well test results	Result is ≤ 10 mg/L-N	Within 3 business days of receipt of test results, send written notice to the resident of ineligibility to participate in bottled water or POU treatment system programs (see Section 6.1 regarding other information to be communicated).		

Table 7-1.	Vallev Water	Collaborative	EAP Imp	plementation Schedule	е
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Task	Subtasks		Schedule (Assumes EAP Start Date: February 26, 2025)		
Interim Replacement Water: Tailored Water Delivery Program (cont.)	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-N but ≤ 10 mg/L-N	 Within one-year offer resident the opportunity to retest the well at no cost. If the resident: Does not want their well retested, no additional follow-up is required. Agrees to have the well retested and the result remains between 7.5 and 10 mg/L-N, then the Management Zone will continue to reach out to the resident on an annual basis to provide the opportunity to have the well tested at no cost to the resident until the nitrate concentration is < 7.5 mg/L-N (see Section 6.3.1, Table 6-2 for more detailed process). 		
	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 treatment system programs.		
InterimReplacementWork closely with residents to identify planning locations ofWater: Fillfill stationsStations			To be discussed with residents during EAP implementation at community meetings. VWC will work with the residents on best opportunities and timing for fill stations.		
	Collect monitoring data/maintain records as described in Section 6.5		Ongoing		
Monitoring and Reporting	Provide data to support compilation of EAP program metrics in collaboration with other Management Zones into 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.		

7.2 Funding Mechanism

Since the VWC was formed in 2020, it has demonstrated its commitment to funding the implementation of the EAP to provide safe drinking water to residents in established P1 Management Zones. The VWC is committed to expanding EAP implementation in the proposed P2 Management Zones. All efforts to provide safe drinking water are funded through the combined support of P1 and P2 Management Zone participants. Each Management Zone participant voluntarily participates in the Management Zone, and as part of their volunteer 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.

In addition to financial contributions provided by Management Zone participants, the VWC may also seek (or support efforts of other entities to seek) local, state, and federal funds that are available to support implementation of short-term and long-term drinking water or nitrate management projects or activities. For example, the VWC secured a SAFER grant through a co-funding agreement with the State Water Board. The existing agreement will continue through December 31, 2025, or when the project funding amount of \$5.5 million has been exhausted. The purpose of the co-funding agreement is to establish and implement the Expanded Constituent Well Sampling and Replacement Water Program in conjunction and coordination with Management Zone implementation activities. This co-funding agreement is providing funds to conduct multiple contaminants well testing to identify potential applicants, who when qualified, may receive interim replacement water solutions as described in MZIP Section 6. The potential exists for future program expansion and keeping the co-funding agreement in place; accordingly, at this time, the VWC intends to work with the State Water Board to amend the co-funding grant agreement prior to its ending date or when funds are exhausted.

VWC also continues to 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.

8. References

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