Kaweah Water Foundation

Safe Drinking Water Public Workshop Series
PART TWO SUMMARY – COMMUNITY WATER SYSTEMS

SHORT-TERM DRINKING WATER SOLUTIONS FOR COMMUNITY WATER SYSTEMS

Workshops held January 19, 2021

Summary prepared by the Sacramento State Consensus and Collaboration Program

Overview

The Kaweah Water Foundation (KWF) held a series of workshops in early 2021 to provide information on nitrate contamination in drinking water supplies in the Kaweah area and gather input from stakeholders on emergency and interim drinking water solutions for nitrate-impacted users. These meetings will inform the KWF's Early Action Plan (EAP), one of the components of the Central Valley Regional Water Quality Control Board's Nitrate Control Program.

All workshops were held remotely using Zoom webinar due to COVID-19 stay-at-home orders. These workshops are one among a variety of ways that stakeholders can access information from and share feedback with KWF; see below for other options stakeholders can use.

Part Two of the workshop series included two meetings providing information and gathering input about short-term drinking water solutions for users whose water is impacted by nitrates. This workshop was focused on residents that are connected to a State small or community water system; the second Part Two workshop focused on domestic well users. The workshop was offered in both English and Spanish through separate, concurrent meetings. The English meeting had 18 unique participants and the Spanish meeting had one participant. Substantive questions and comments from participants were shared across both the English and Spanish meetings, as were the KWF's responses.

Recordings of the meetings can be accessed online through the KWF Outreach page at https://kaweahwater.wpcomstaging.com/learn-more/.

Workshop Summary

Welcome & Introductions

KWF staff opened the meeting, welcoming participants and sharing context, objectives, and a broad overview of the workshop. Facilitators from the Sacramento State Consensus and Collaboration Program gave participation instructions for the remote participation platform for both video conference and phone-only participants. Participants were invited to introduce themselves, if they felt comfortable doing so; participants were also able to remain anonymous.

In addition to the workshop series, participants were encouraged to keep informed and share thoughts and concerns using the following channels:

- Share your thoughts or concerns in English or Spanish by:

    - Completing an Impacted Resident survey at www.kaweahwater.org
    - Sending an email to admin@kaweahwater.org
    - Calling Kaweah Water Foundation at 559-325-4463 to discuss or leave a voicemail
    - Sending a letter to Kaweah Water Foundation at 130 N. Garden Street, Visalia, CA 93291
    - Messaging Kaweah Water Foundation on Facebook or Instagram
- Keep informed of progress by:
    - Following Kaweah Water Foundation on social media
        - Facebook: https://www.facebook.com/kaweahwaterfoundation
        - Instagram: @kaweahwaterfoundation
    - Visiting the Kaweah Water Foundation website for updates on meetings and plan progress: http://kaweahwater.org/
    - Signing up for e-mail list to receive updates: https://kaweahwater.wpcomstaging.com/
    - Calling Kaweah Water Foundation for information: 559-325-4463

Understanding Your Drinking Water

The workshop presentation included three sections:

Section 1. Review: Understanding Your Drinking Water
Section 2. Public Water Systems & Nitrate Impacted Drinking Water
Section 3. Solutions for Nitrate-Impacted Drinking Water

Section 1 reviewed key information shared in the Part One workshops, such as where tap water comes from, what groundwater is and what is in it, whether chemicals and minerals in groundwater can be harmful, which chemicals found in some local drinking water supplies have potential health impacts, what nitrate is, and what sources of nitrates in groundwater.

Section 2 provided information about risks, impacts, and short-terms solutions to nitrate in drinking water. The presentation reviewed how water system users can determine if their water is safe to drink by accessing and understanding a consumer confidence report, further information about risks and impacts of nitrate in drinking water, what users should do if their water is impacted, and which water systems within the KWF service area currently have nitrate exceedances.

Section 3 presented possible solutions for those impacted by nitrate exceedances. Potential short-term solutions include free bottled water, reverse osmosis filtration systems, and drinking water kiosks. The presentation shared pros and cons of each and provided information about two currently available free drinking water kiosks in the service area. Possible future long-term solutions for impacted communities include drilling a new community well, improving treatment systems, consolidating with larger water systems, and blending impacted water with water from other wells.

Responding to Questions and Comments

Participants were invited to ask questions or share comments between presentation sections and after the presentation. Facilitators also shared the comments and questions asked in the other language meeting. KWF staff answered the questions from both meetings. Participants were also asked to provide input on the replacement water options, with the following questions to prompt the discussion:

- What situations make a solution more attractive to you?
- What criteria (pros and cons) are the most important to you?
- What do you need to know to guide your preference?

- What other ideas do you have?

All comments, questions, and responses are summarized below.

Participants were also invited to share additional input through the stakeholder survey, available in both English (https://forms.gle/vYsbGXpzkmFu8zJeA) and Spanish (https://forms.gle/8ZU8jZpeL377SdLv8). KWF shared how questions and feedback would be used, emphasizing that a primary purpose of the workshop series was to gather input to inform development and implementation of the EAP. Participants were reminded of ways to keep informed and share thoughts and concerns (see above). KWF shared a "call to action" for participants to invite additional stakeholders, particularly from impacted communities, to the upcoming domestic well users workshop, to share feedback through the channels outlined above, and/or to invite KWF staff to give a presentation to community organizations they are involved in.

The formal portion of the workshop was then adjourned; participants were invited to stay on the line to continue the discussion informally.

Informal Discussion Time with Team Members

KWF staff remained in the workshops to continue to hear comments and answer questions in a more informal way.

Summary of Questions & Comments

Questions and Answers

- How much does it cost to build a nitrate filtration plant?
    - KWF: The cost can vary greatly and depends on the size of the system, the amount of nitrate, and other co-contaminants within that system. Sometimes when considering the best long-term solution, a community may undertake a feasibility study to determine the relative costs of various options.
- Has KWF mapped where there are multiple MCL violations that would keep a system out of compliance even if nitrate were addressed? This should be considered in the cost estimates.
    - KWF is in the process of completing the Preliminary Management Zone Proposal, which looks at nitrate as well as other contaminants, so that these can be considered as communities make decisions about drinking water solutions. The overall goal is for communities to have drinking water that is safe for all potential contaminants. The State will not support projects that would meet compliance metrics only for nitrate if there are co-contaminants over the MCL. Additionally, the treatment process for nitrate can result in a by-product that contributes to TCP contamination, so while KWF is focused specifically on nitrate, any safe drinking water solution will need to account for other contaminants as well.
- Is reverse osmosis the best at-home drinking water filtration option?
    - KWF: Yes, reverse osmosis is one of best options to treat nitrate contamination for domestic well users, though if there are multiple constituents in the water, and depending on the level of nitrate, reverse osmosis may not be sufficient. For example, activated carbon or ion exchange may be needed to address other constituents.
- Are atmospheric water generators being considered? Small communities may be able to install solar arrays that could help generate water from atmospheric humidity.

    - KWF: Atmospheric water generators may be considered in rural areas that can accommodate the footprint of such a system. As with all the options, the solution that is implemented will depend on the community's preference, and considerations such as cost and ability to connect households to the system. KWF is keeping abreast of a pilot project using this technology in Madera County.
- In the bottled water option, would that water be brought to the residents' homes or would residents need to pick up the water from a central location?
    - KWF: This has not yet been defined, since the program is not fully developed. Impacted residents are encouraged to complete Impacted Resident Stakeholder Survey to share their perspectives, key considerations, and preferences (see survey links above).

Comments

- Some households with limited income carry a monetary burden due to having to pay both a water utility bill for tap water that does not meet public health standards and also taking on an additional monthly expense to purchase packaged water for drinking and cooking.
    - KWF: KWF was formed to address the disproportionate cost and burden to users whose drinking water does not meet standards. KWF is looking to identify and implement the best solution for the specific users and communities in the short and long term.
- When considering treatment facilities, consider both the cost of building the facility as well as the ongoing operational expenses of running the treatment facility.
- Community members have expressed that kiosks and water pick-up locations can be inaccessible for elderly community members, as they may be unable to lift water jugs of more than a half-gallon. For these community members, water delivery or point of use treatment will be preferable.
- In addition to the Spanish-speaking community, KWF should do outreach to the Hmong community. Consider doing outreach at grocery stores as well as connecting to organizations like United Way to reach impacted communities.
- The Waukena and Sequoia Union schools have a bottled water program.

Post-Workshop Evaluation & Modifications Made

- The workshop went more smoothly than previous workshops.
- There seemed to be more participants in the workshop, and it was nice to be able to see the other participants rather than only the presenters.
- It would be nice to be able to see the participants in both language meetings.
- Engagement within the meetings is low. Consider prompting with specific questions, for example those in the stakeholder survey.
    - During the Part Two workshops, discussion prompts were used that asked participants to share about the criteria that makes an option more attractive and what additional information they need to be able provide informed input on the options.
- There seemed to be increased interest in the technical aspects and it was helpful to have someone with additional technical expertise available to help answer questions.
- Comments on replacement water options:
    - Consider potential opportunities for combining technologies and approaches to provide custom options that will address water quality issues beyond nitrate, for example combining in-home reverse osmosis systems with carbon or other filtration that is needed to mitigate other contaminants. Cost information is also important.
    - Single-use water bottles may add to the environmental issues in the long-term.

- Consider the needs of elderly community members; direct service to homes will likely be needed for these stakeholders.