DRINKING WATER SOLUTIONS FOR NORTHEAST TULARE COUNTY

DRAFT FEASIBILITY REPORT SUMMARY

Prepared by the State Water Resources Control Board
Draft Feasibility Study Prepared by Provost & Pritchard

STATE WATER RESOURCES CONTROL BOARD
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About this factsheet

The State Water Resources Control Board contracted Provost & Pritchard to conduct a draft feasibility study (the study) that explores solutions to provide safe and reliable drinking water to communities in Northeast Tulare County. The study evaluates options to improve water supply and quality in the communities of: Cutler, Orosi, East Orosi, Yettem, Seville, Monson, and Sultana.

This fact sheet summarizes the study's findings to provide the participating communities with an opportunity to review potential solutions and to help decide which approach is best for the long-term future of the Northeast Tulare County region.

Why was this study done?

The study was conducted to identify what drinking water problems currently exist in the participating communities and to explore potential regional solutions.

The study was initiated to address the following water supply and quality issues:

- **Contaminated water:** High levels of nitrates, 1,2,3,-Trichloroproprane (TCP), and 1,2,-Dibromo-3-Chloropropane (DBCP) in groundwater.
- **Water Shortages:** Some of the communities do not have sufficient water supply or storage capacity.
- **Aging Infrastructure:** Wells, pipes, storage tanks, and treatment facilities are nearing their useful life and need upgrades.
- **Affordability issues:** Water rates must remain affordable for local families while also covering the cost to run the system.

Results of the study

The study marks an important step in the process of providing safe and reliable drinking water for the communities of Northeast Tulare County. The study found the following key takeaways:

- The region relies heavily on groundwater, but some wells are contaminated and can't be used.
- One community relies on hauled water because there is insufficient supply from the existing wells.
- The local water systems are small and don't have the resources to address water quality and supply issues on their own without significant rate increases.
- Joining systems together (consolidation) could improve reliability, lower costs, and provide safe drinking water.

Next steps

Community meetings will be held to gather input on which alternative the Northeast Tulare County region would like to move forward with. Local water systems will then decide on the best option based on feasibility, costs, and public support. After a preferred alternative has been selected, an engineering report will be developed for the alternative.

Proposed Solutions

The feasibility study reviewed three potential drinking water alternatives. A chart on the back page of this booklet compares the pros and cons of each alternative, including capital costs and annual operations and maintenance costs of each approach.

Alternative 1	Alternative 2	Alternative 3
Individual System Improvements and Physical Consolidation Loop	Regional Surface Water Treatment Plant Partial Supply	Regional Surface Water Treatment Plant Relies on Surface Water
Alternative 1 utilizes groundwater wells only. All existing water systems will be physically connected, and improvements will be made to existing wells and tanks. This is the most affordable option both short term and long term.	Alternative 2 involves using both existing groundwater wells and surface water from the Friant-Kern Canal. All water systems will be physically connected—just like in Alternative 1. Existing groundwater wells would be supplemented by a regional surface water treatment plant reducing reliance on groundwater pumping, while retaining the capacity to serve the communities.	Alternative 3 proposes the same regional surface water treatment plant as Alternative 2 but relies primarily on blending treated surface water (67%) to groundwater (33%) due to water quality concerns. Most groundwater wells would be removed. This is the most expensive option both in the short and long term and most reliant on uncertain surface water supply costs and reliability.

What would the outcome of each proposed solution look like?

Alternative 1

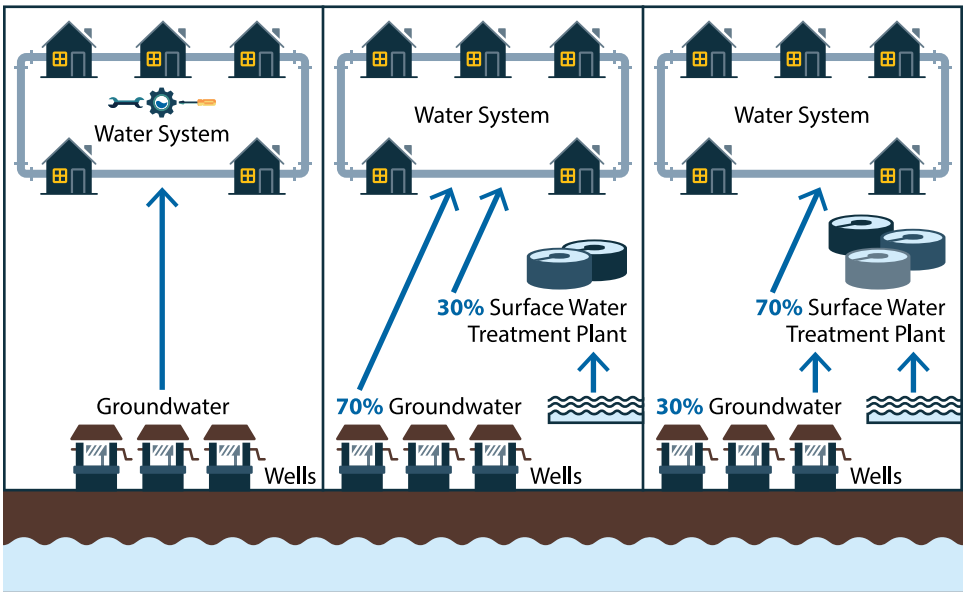
Individual System Improvementsand Physical Consolidation Loop

Alternative 2

Regional surface water treatment plant, supplemented with groundwater

Alternative 3

Regional surface water treatmentplant, blended with groundwater



Proposed Alternative	Pros	Cons	Capital Cost Estimate	Annual Operations and Maintenance Estimate
Alternative 1: System Improvements and Physical Consolidation	• Faster implementation than larger projects. • Lower initial capital costs compared to full consolidation or treatment plant. • More reliable and resilient water supply. • Reduces individual system costs by sharing infrastructure and resources through a single district. • Removes aging wells and wells with poor water quality.	• Full scope of benefits realized will be dependent on the governance structure decided by the communities. • Increased costs and technical, managerial, and financial burden if participating in a joint powers agreement. • Does not address long-term regional water challenges like decreased groundwater supply due to drought.	$37,657,000	$880,948
Alternative 2: Regional Surface Water Treatment Plant Partial Supply	• Retains groundwater supply capacity for resiliency against surface water supply interruption in drought years. • Improved water quality and resiliency from surface water as secondary source of supply. • Reduces the total amount of groundwater pumped in the region. Groundwater depletion can lead to high concentrations of contaminants, increased pumping costs, and risks long-term water availability for the region.	• Initial capital costs for infrastructure are high. • Full scope of benefits realized will be dependent on the governance structure decided by the communities. • Increased costs associated with the purchase of surface water. • Increased operational complexity and operating costs for surface water treatment.	$79,625,000	$3,801,343
Alternative 3: Regional Surface Water Treatment Plant	• Reduces the total amount of groundwater pumped in the region. Groundwater depletion can lead to high concentrations of contaminants, increased pumping costs, and risks long-term water availability for the region.	• Surface water treatment adds operational complexity resulting in increased costs. • Resiliency in drought years is uncertain due to reliability of surface water supplies and limited groundwater wells. • Higher surface water purchase, operation, and maintenance costs for customers. • Full scope of benefits realized will be dependent on the governance structure decided by the communities.	$81,532,000	$5,536,880

For more information on the Northeast Tulare County Regionalization effort,
please visit the project website at **bit.ly/saferntc**, email **SAFER@waterboards.ca.gov**, or call **916.445.5615**