CENTRAL VALLEY IRRIGATED LANDS PROGRAM EAST SAN JOAQUIN DRAFT ORDER

Environmental Justice Concerns

Presented by:

Clean Water Action
California Rural Legal Assistance Foundation
Community Water Center
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The San Joaquin Vally is the Epicenter of the nitrate challenge.

In 2007, 75% of the California's nitrate exceedances occurred in water systems located in the Valley.

Nitrate in groundwater poses 2 major problems and risks:

- **Public health concerns:**
  - risks to infants and pregnant women
  - impacts to spleen, kidney, and thyroid functions
  - various forms of cancer

- **Financial costs of nitrate contamination:**
  -drinking water treatment
  -new wells
  -monitoring
  -bottled water


In the Valley, ground water contamination is drinking water contamination.
Over 90% of Valley residents are dependent on groundwater sources for their drinking water supplies.

Why is this important?

- One third of San Joaquin Valley residents surveyed reported that they use their contaminated tap water for drinking or cooking.
- More than half of those surveyed did not know that their water system had a nitrate problem.
- Despite the acute health effects of nitrate contamination, some communities in the state have been waiting for more than a decade for measures to restore the safety of their drinking water.
- In the interim, residents in these communities must replace the contaminated tap water—by purchasing water or installing point-of-use filters—at their own expense.

Our most vulnerable communities pick up the tab for the contamination.

- Among community water systems, small ones with less than 200 connections comprise the majority of systems with persistent nitrate violations.
- Some families spend 10% of their income on drinking water.
- Rural schools must purchase drinking water with funding intended for educational purposes.

Agriculture is the lifeblood of our local economy.

What goes into the ground water through the use of fertilizer and pesticides has serious implications for all of us.

For the small, disadvantaged communities, the regional water board is the ONLY protection from degradation of groundwater quality.

Pesticides

Testing for pesticides must be incorporated into the ILRP's monitoring program.

Lack of Adequate Monitoring for Pesticides in Groundwater:

- The PCPA requires DPR to monitor each pesticide on the Groundwater Protection List within one year after the pesticide is placed on the List.
- In 2010, DPR monitored groundwater for only 6 of the 98 pesticides on the Groundwater Protection List, and relied on data provided by the Department of Public Health (DPH) for 37 more pesticides.
- For the remaining 55 pesticides, no monitoring was conducted.
- DPR has no soil monitoring program, despite the requirement of the PCPA.

Impacted Communities

- Overlooking systems that are impacted by a lack of clean drinking water
  - Small water systems
  - Private wells
  - School systems
  - Systems that may be run by private businesses
- Significant costs to avoid contaminated tap water

Monterey Park Tract

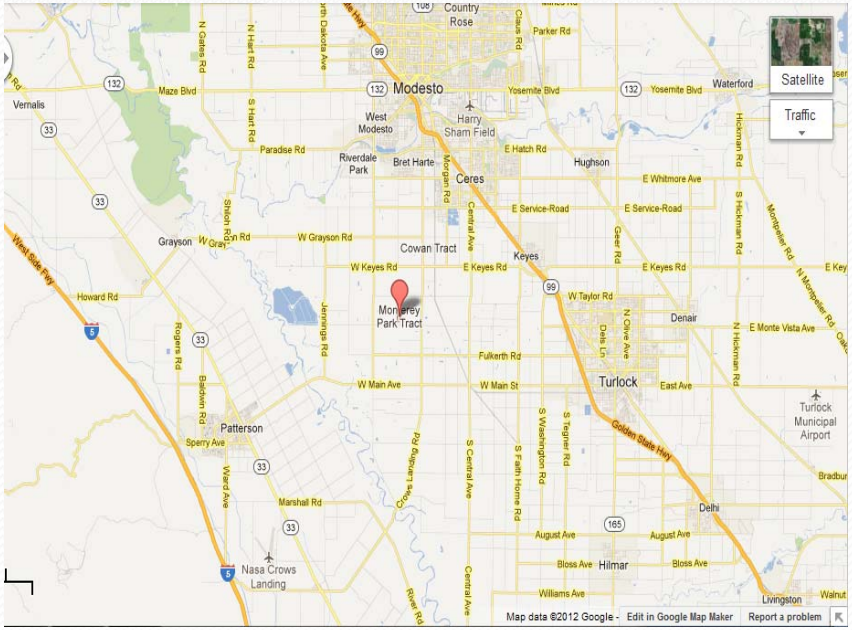


Photo from Clean Water Action publication

Living with nitrates in Monterey Park Tract

- Self-Help Enterprises Income Survey:
  - Median income about $27,000 per year
  - Current $35 monthly water bill represents 1.6% of the community's median income
- Source of Water: Two wells which are contaminated
- Small communities and the difficulties in affording the ongoing costs of treating contaminated water
  - Existing funds insufficent

Drinking Contaminated Groundwater

- The 15 counties with the most communities that rely on contaminated groundwater for drinking include:
  - Kern
  - Tulare
  - Fresno
  - Madera
  - San Joaquin
  - Stanislaus

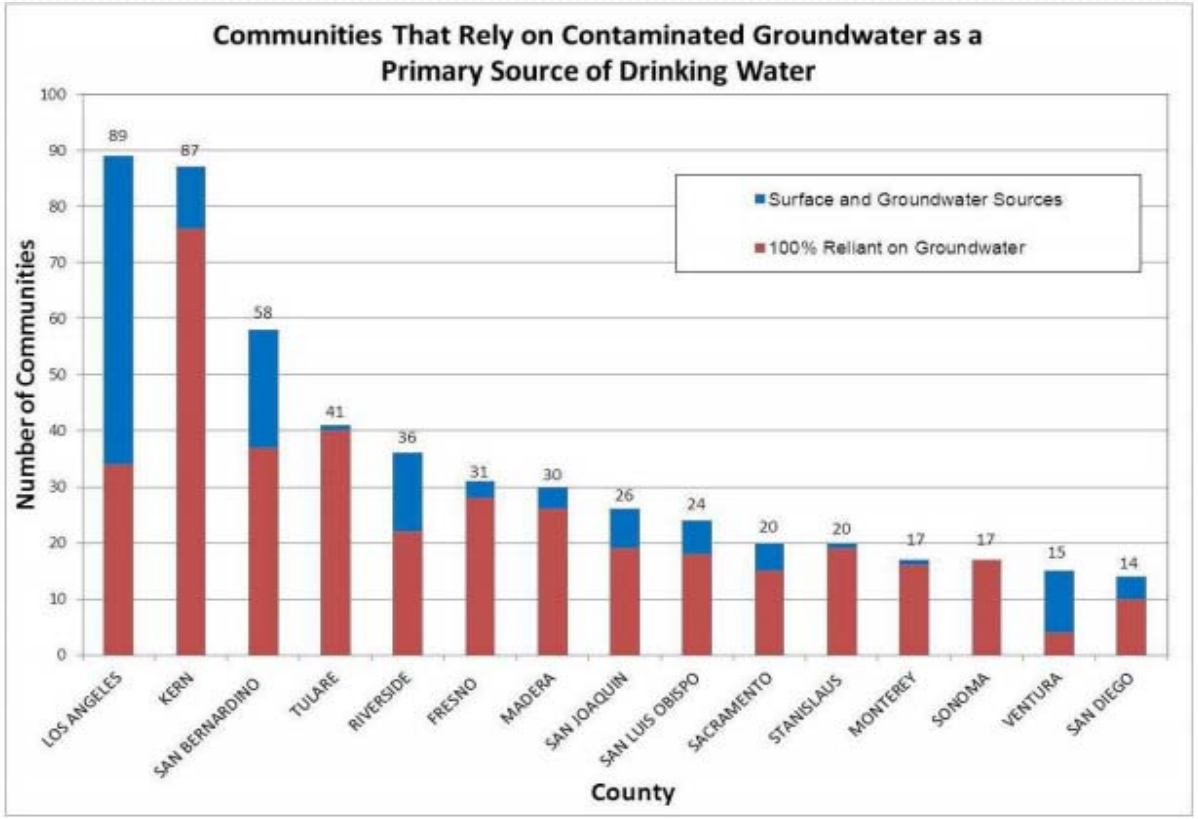


Figure 1: Top 15 Counties with the Greatest Number of Communities that Rely on Contaminated Groundwater as their Primary Source of Drinking Water

Communities That Rely on Contaminated Groundwater with MCL Violations

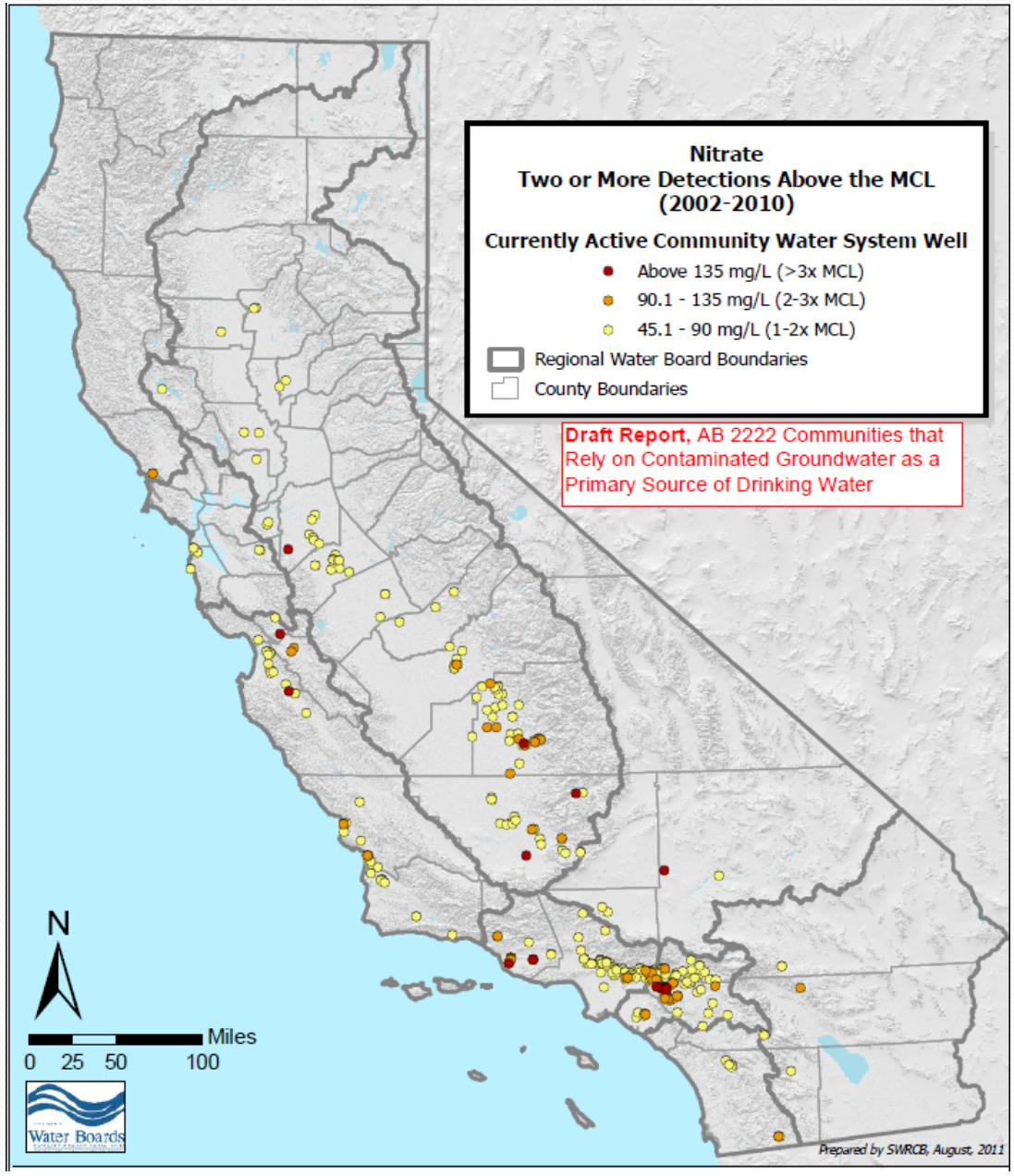
- 265 Communities with MCL Violations
  - 2,175,058 – Population of Communities with MCL Violations
- 236 Communities with MCL Violations that are 100% Reliant on Groundwater
  - 770,178 – Total Population with MCL Violations 100% Reliant on Grounwater

Room for Improvement in the Order

- Transparency needed to satisfy the mandate in the California Water Code
- Complying with the State's Anti-Degradation Policy
  - Prohibit Discharges that contribute to exceedances of water quality objectives and include enforcement mechanisms
  - "Maximum benefit of the people of the state"
- Enforcement Mechanisms
- Prioritizing Operations for Inspection

Relevant Findings from UC Davis Nitrate report

- Less than 40%o f nitrogen applied is harvested by crops
- Improperly constructed, abandoned or dry wells can leak as much as .4Gg/N/yr
- Nitrate leaching to groundwater is both a legacy issue and a continuing problem


Nitrate
Two or More Detections Above the MCL
(2002-2010)
Currently Active Community Water System Well
Above 135 mg/L (>3x MCL)
90.1 - 135 mg/L (2-3x MCL)
45.1 - 90 mg/L (1-2x MCL)
Regional Water Board Boundaries
County Boundaries
Draft Report, AB 2222 Communities that Rely on Contaminated Groundwater as a Primary Source of Drinking Water
N
Miles
0 25 50 100
Water Boards
Prepared by SWRCB, August, 2011

Necessary components of an effective regulatory program

- Collect basic information on farm practices and water quality
- Results in real farm-level changes that protect groundwater
- Sets clear standards for compliance
- Ensures that Board has effective mechanisms to ensure compliance
- Addresses cleanup of legacy contamination as well as mitigation of continued degradation

East San Joaquin Water Quality Coalition comment letter

"the role of the third-party is to assist Members and to be responsible for fulfilling regional requirements…"

- The good
  - Trend monitoring of groundwater
  - Requirement for nutrient budgets
  - Annual Monitoring Report
  - Exceedance trigger for groundwater quality management plan
- The bad
  - No monitoring of on-farm wells
  - No individual reporting

Other problems

- Regionally specific information is lacking
- Aggregate reporting restricts Board's ability to enforce order based on water quality issues
- Confirmation of BPTC through representative monitoring is unnecessarily lengthy
- Order doesn't require basic on-farm information that could provide immediate improvements to water quality
- Linkage between on-farm practices and water quality is missing

Lacks clear standards for compliance

- Need information about individual farm practices in order to prioritize inspections/enforcement based on threat to water quality
- Need to ensure that implementation schedule will result in compliance in 10-year period

Information requirements of order will not be known until after Board adoption

- Farm Evaluation
- Sediment and Erosion Control Plan
- Annual Nutrient Budget
- Where surface water or groundwater quality management plans will be required
- Identification of hydrologically vulnerable areas

Recommendations for changes prior to adoption

- Require individual reporting of nutrient balance and fertilizer application
- Require basic information as part of initial permit, including on-farm wells

Recommendations for changes prior to adoption

- Identify areas where beneficial uses are impaired or where additional information is needed to determine impairment
- Develop initial map of high vulnerability areas using exisiting data (USGS model, GAMA data, etc..)
- Provide draft report templates for public /Board review

Address cleanup of legacy contamination as well as mitigation of continued degradation

- Set up SEP to funnel enforcement fees to mitigation of water quality impacts
- Develop program to identify/protect state small systems and domestic wells