Comments on the Recommended Irrigated Lands Regulatory Program Framework

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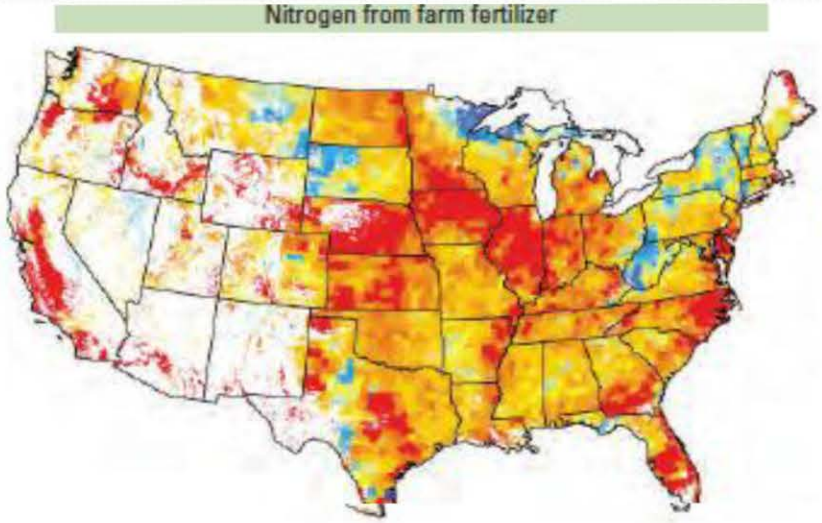
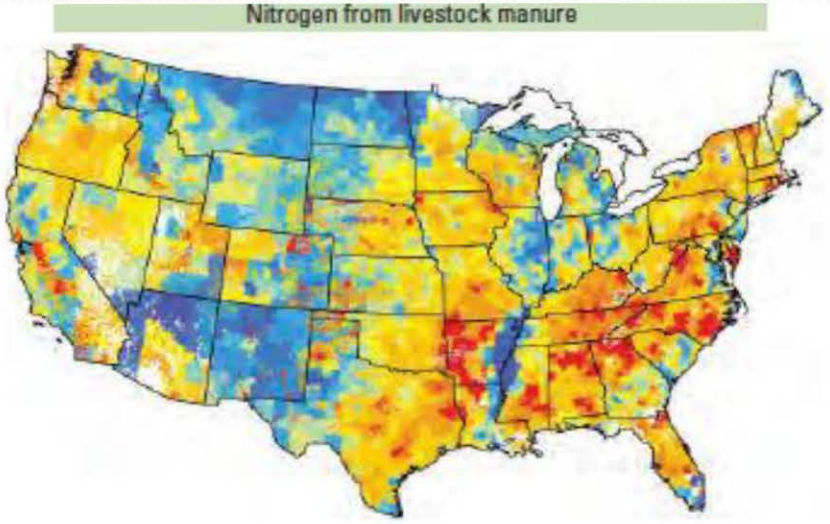
It is important to develop strong regulatory program because:

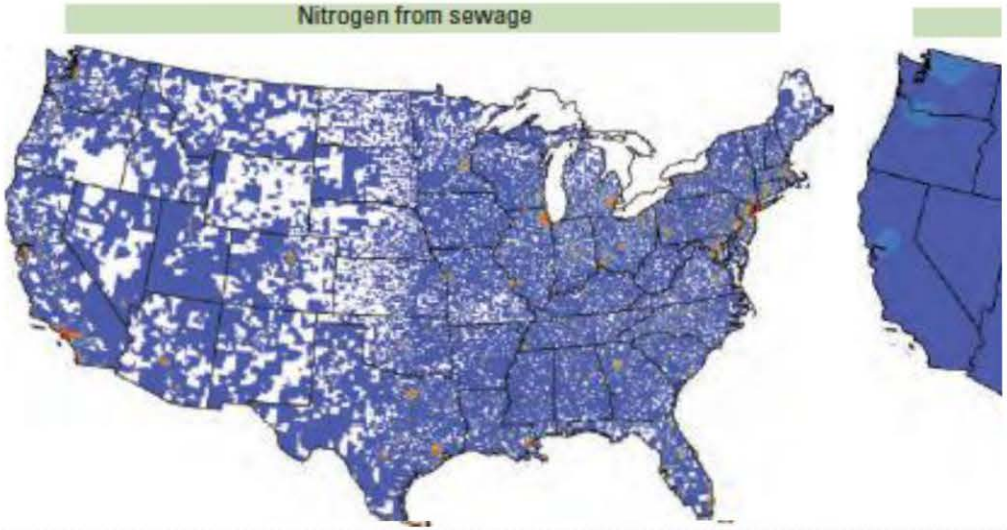
Data indicates nitrate:

- Key contaminant deriving from agriculture
- Contamination is widespread
- Increasing
- Increasingly impacts cities and towns
  - With key impacts on low-income communities
- Signals presence of other agricultural contaminants (Ekdahl et al, GAMA presentation)

Agriculture is a major source of nitrate





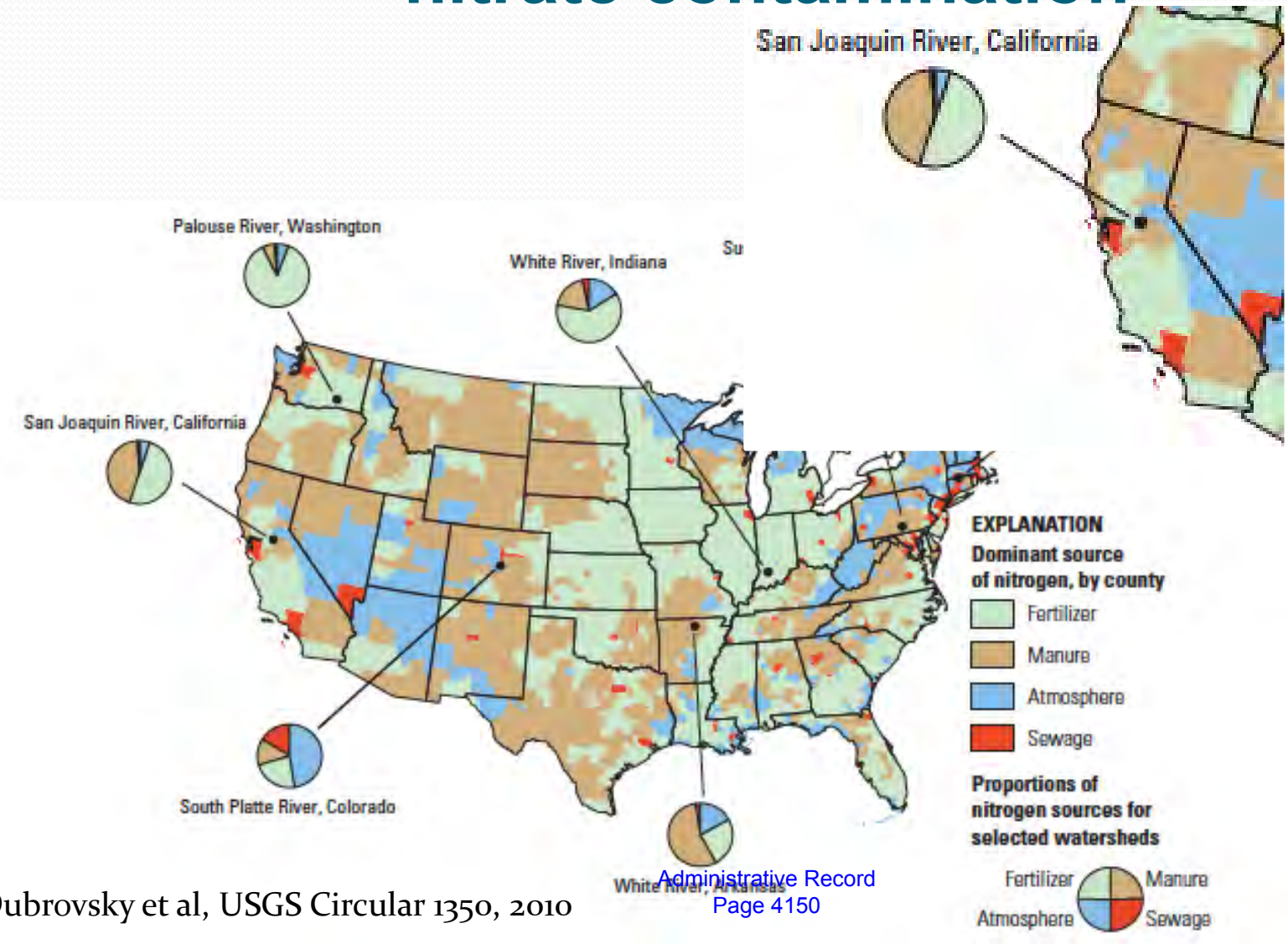


Estimated 1997 nitrogen input rate from farm and nonfarm fertilizer, manure, atmospheric deposition, and sewage, in pounds per square mile

- No nutrient input
- >0–≤1,000
- >1,000–≤2,000
- >2,000–≤3,000
- >3,000–≤4,000
- >4,000–≤5,000
- >5,000–≤6,000
- >6,000–≤8,000
- >8,000–≤10,000
- >10,000–≤20,000
- >20,000–≤30,000
- >30,000–≤40,000
- >40,000

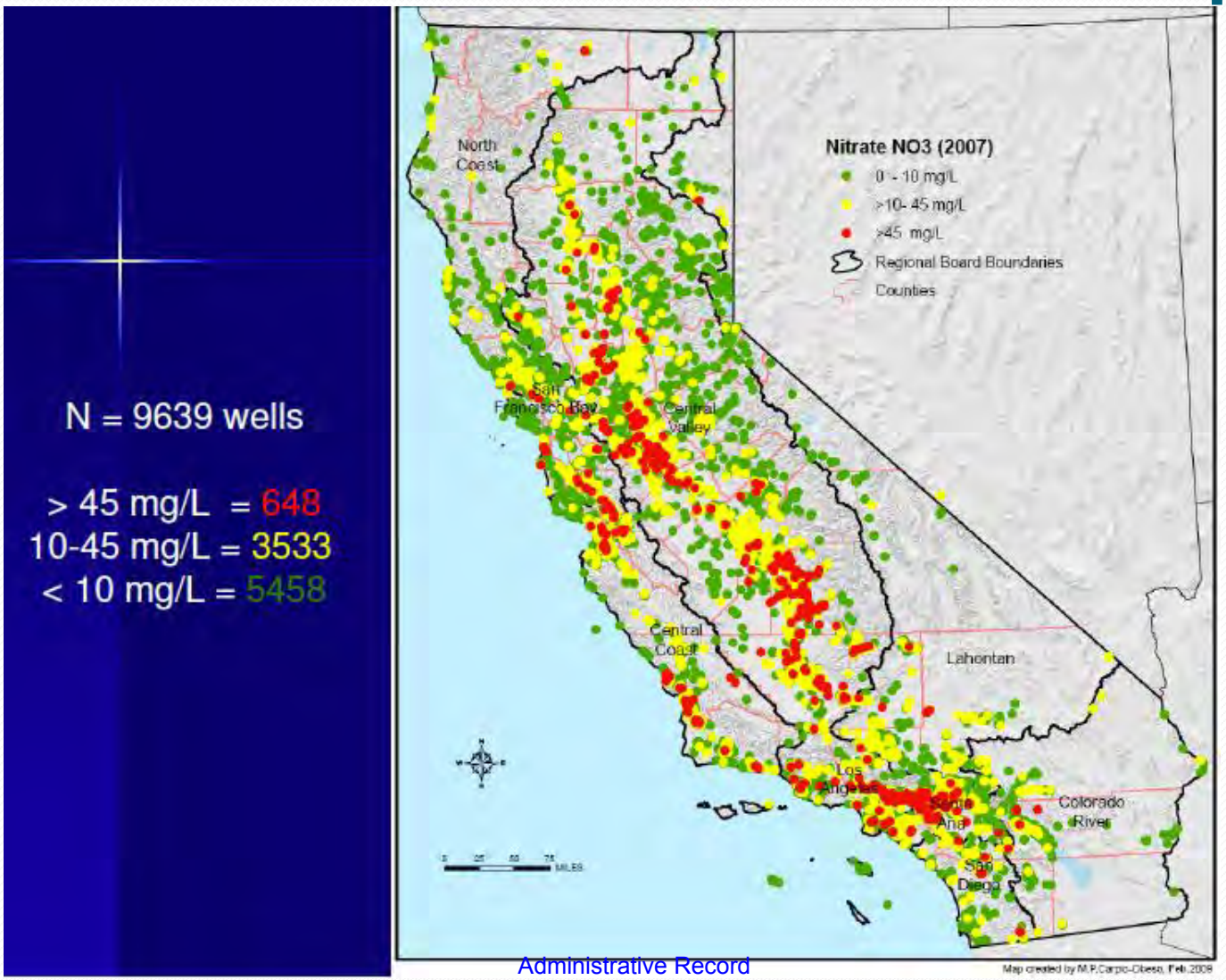
Dubrovsky et al, USGS Circular 1350, 2010, figures rearranged

In the SJV, fertilizer is main source of nitrate contamination



Dubrovsky et al, USGS Circular 1350, 2010

Nitrate contamination in SJV is widespread

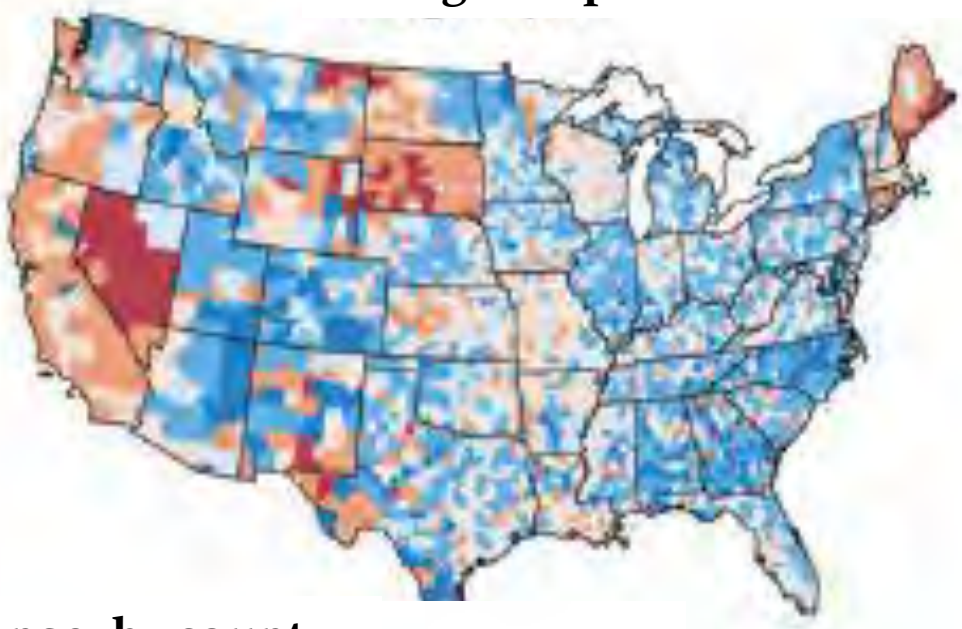


Slide from Ekdahl et al, State Water Resources Control Board

Nitrate in SJV is increasing

Change in fertilizer, 1993 to 2003

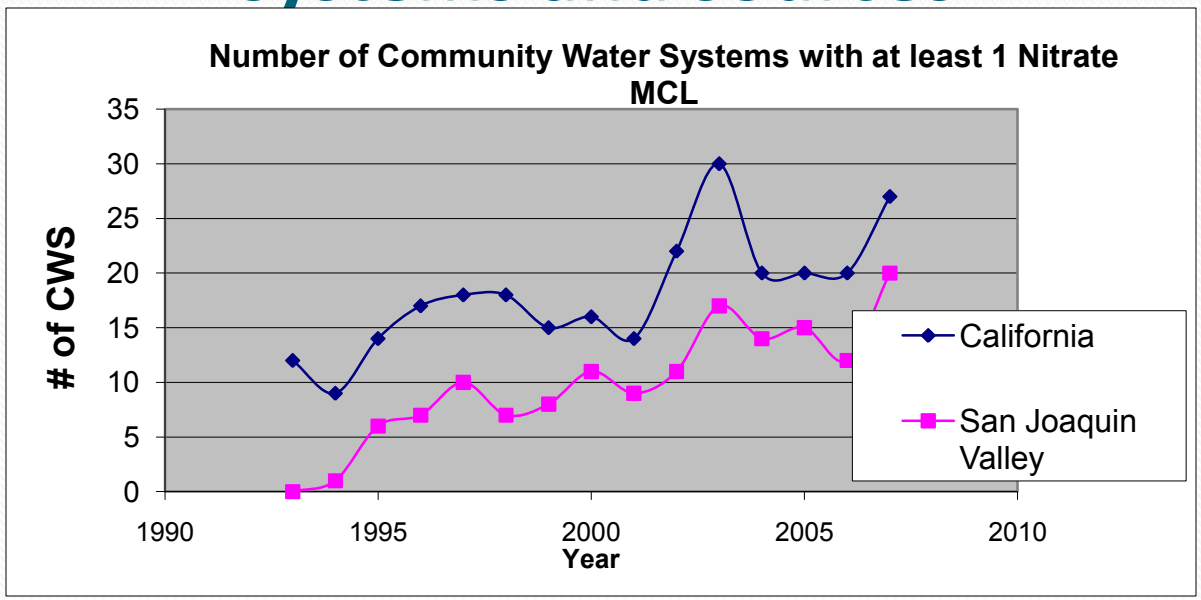
Nitrogen Inputs



Percent change, by county

Dubrovsky et al, USGS Circular 1350, 2010

Nitrate impacts an increasing number of systems and sources



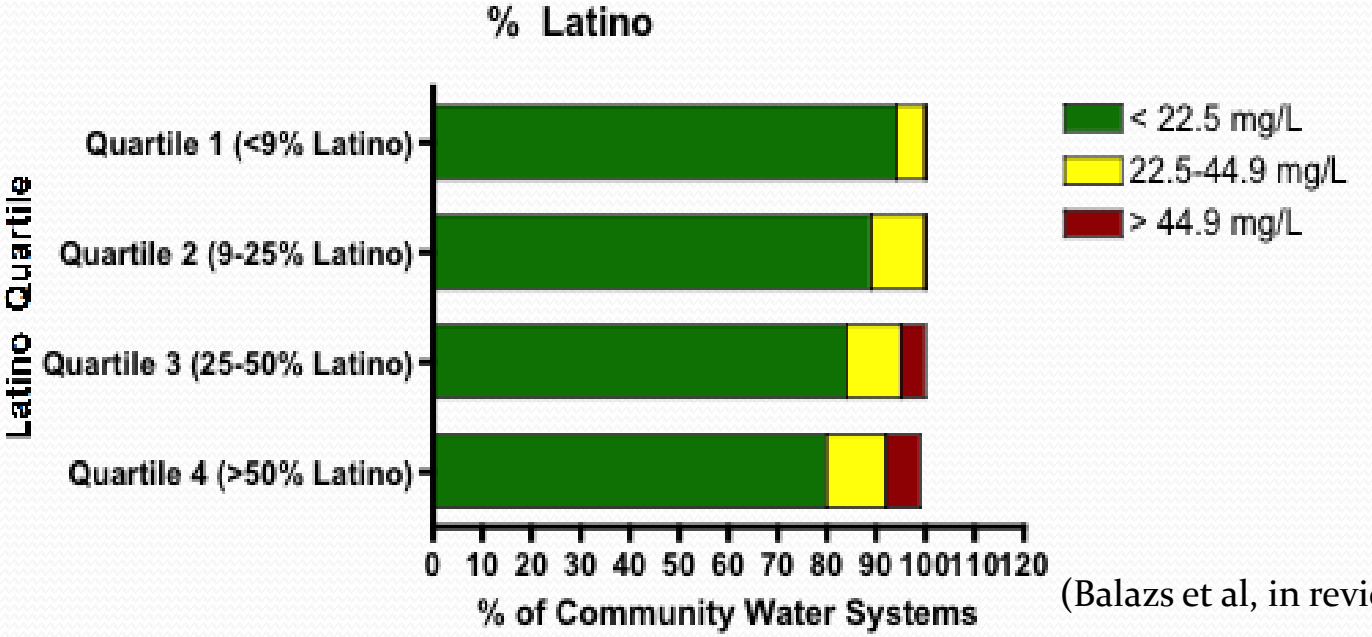
Data source: CDPH 2008, in Balazs 2011.

- San Joaquin Valley is home to 10% of CA pop., but 67% of Californians supplied by water systems that exceed MCL, 2003-07
- # of sources with a previous exceedance also increasing (Ekdahl et al, GAMA presentation)
- Trend likely to worsen as elevated concentrations in deeper wells take longer to appear (Dubrovsky et al 2010)

Costs of contamination impact all Valley residents

- From 2005-07, 92 systems had at least 1 well over the nitrate MCL
- This impacts big and small communities alike
  - Cities of Fresno, Modesto etc
  - Tooleville
- Costs of contamination are borne not by polluters but by residents

Contamination impacts all residents, but falls heavily on vulnerable groups



(Balazs et al, in review)

- Positive association between % Latino customers and nitrate concentration
- People of color disproportionately exposed to high nitrate levels (Balazs et al, in review)

Conclusion:
Central Valley could be a leader & model

- "Long-term, consistent monitoring can provide insight …for evaluating progress towards water-quality goals, anticipating where action may be necessary to prevent degradation of water resources, and planning effective remediation strategies."—Dubrovsky et al 2010

- We can be a model for the state/country

Comments on the Recommended Irrigated Lands Regulatory Program Framework

Jennifer Clary
Water Policy Analyst
Clean Water Action

Basic Components of an Effective Program

Five Key Components

- Set clear water quality benchmarks
- Result in farm-level practices to improve water quality
- Collect basic information to ensure an effective program
- Strong oversight and enforcement
- Cleanup and abatement

Information gathering and tracking

“How do you measure success?”

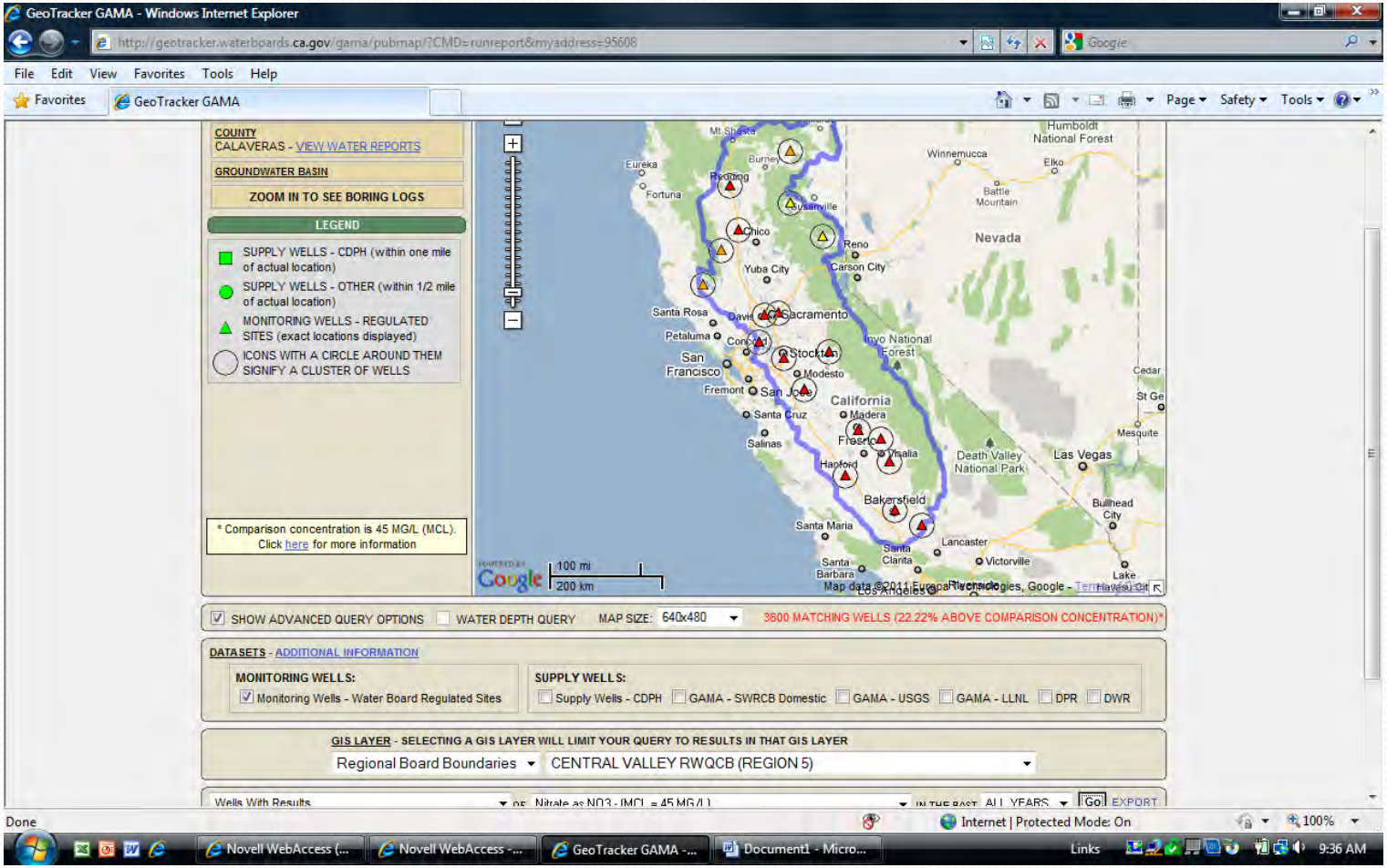
Current state of data

- CV Salts Technical committee – review of efforts to model salinity and nitrates

  ….data gaps exist with regards to soil processes, quantities and quality of groundwater that discharge to surface water, groundwater levels, groundwater salinity and nitrate concentrations, agricultural well pumping rates, agricultural return flow rates (i.e., tailwater), and well construction records

  ….. only 1 of 21 irrigation districts provided requested groundwater quality data for the Tule River Pilot Study Area.

GAMA database offers excellent opportunity to readily accept and interpret data



What's Gotten Better

Improvements
from the July 2010
Draft Framework.

Tiering System

- Reduces requirements where threat is low;
- Prioritizes actions and oversight according to water quality threat
- Ensures that Water Board's focus will be on most serious water quality problems

Nutrient management plans
in Tier 3 areas
for nitrate.

Regional Groundwater Quality Management Plans approved by the Executive Officer

Individual grower responsibilities

- Outreach & education
- Individual farm evaluations

Critical Components Still Missing

Board must give staff
guidance in these areas
as they develop
the individual orders.

TIER 2 – a large potential loophole

"unknown" threats should become known in a finite time period

What information is public?

- Third party role creates a huge gray area: what do they know, and when do we know it?
  - Water Quality monitoring
  - Water Quality Management plans
  - Fertilizer application
  - Best practices implementation

Accountability

- Biting the hand that feeds you – how and when will third party coalitions disclose non-performing members to water board?

- What action or inaction will trigger enforcement action by Water Board staff?

COMPLIANCE

We should have more than “demonstrated improvement in water quality “ in the first five-ten years of the program

Set standard of not causing or contributing to exceedances of drinking water standards, as measured in shallow groundwater.

Consequences: Paying for on-going impacts

- Create a Supplemental Environmental Program (SEP) to fund safe drinking water projects in impacted communities
- Assess fines for nonperforming operations
- Use enforcement revenue generated in cleanup and abatement account to fund SEP projects.

Protecting Drinking Water Sources from Irrigated Agricultural Discharges

Laurel Firestone
Co-Director and Attorney at Law
Community Water Center

Proposed Changes to the Resolution

The framework is flawed, but we believe the Board should move forward and approve the framework with the following guidance for staff as they develop the draft Orders.

1. Recognize Community Impacts
2. Mitigation/Clean-Up & Abatement Program
3. Clear Compliance Standards
4. Transparency

Recognize Community Impacts

Whereas:

- Recognize importance of groundwater as community drinking water source
- significant groundwater quality impacts from agriculture,
- communities have had to pay the costs of these impacts.

Mitigation / Clean Up & Abatement Program

Specific Staff Guidance:

1. Establish a formal **mitigation/ clean-up & abatement mechanism** directing dischargers who continue to pollute to contribute to supplying communities with safe drinking water.

Mitigation / Clean-up and Abatement is within the mandate and jurisdiction of the Board.

- Compliance Orders
- Clean Up & Abatement Orders
  - Cal. Water Code Section 13304(a).
  - Clean-up and Abatement Policy
- Supplemental Environmental Programs (SEP)
- Central Coast Order as example
  - Water Code section 13267

Instead, the proposed framework creates a **barrier** to mitigation by not creating a clear, enforceable compliance standard.

Set Clear Compliance Standard

Specific Staff Guidance –

2. **Set Clear Compliance Standards** to not cause or contribute to exceedance of drinking water quality standards.

Legal Requirements

Compliance with long-standing water quality standards must be required by all WDRs, as set forth in:

- the Basin Plans
- Porter-Cologne Water Quality Control Act

Causing or contributing to exceedance of water quality objectives must be prohibited under:

- State Anti-Degradation Policy
- Non-Point Source Policy

Transparency in development of Orders

Specific Staff Guidance –

3. engage with all stakeholders, including members of the public and impacted community residents, in a transparent decision making process in the development of the specific Orders.

Thank You!