

Nebraska's



David Miesbach, Nebraska Department of Environmental Quality

Groundwater Monitoring at Livestock Facilities

- Actively monitoring 287 facilities
- Most biannually
- Nitrate, Ammonia & Chloride
- Water level, Conductivity, pH & Temp.
- Only monitor waste control facility



● Irrigation Well

● Livestock Well

● Monitoring Well

Monitoring Results

Upgradient

Nitrate 36.8 ppm

Ammonia 0.06 ppm

Chloride 76 ppm

Conductivity 1296

Downgradient

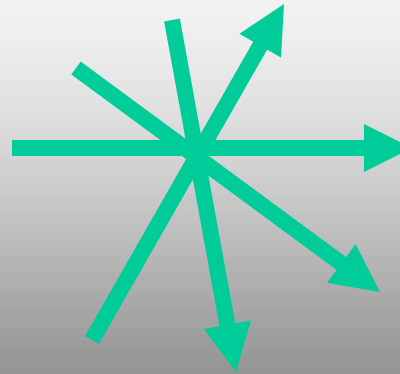
Nitrate 0.3 ppm

Ammonia 236 ppm

Chloride 415 ppm

Conductivity 5328

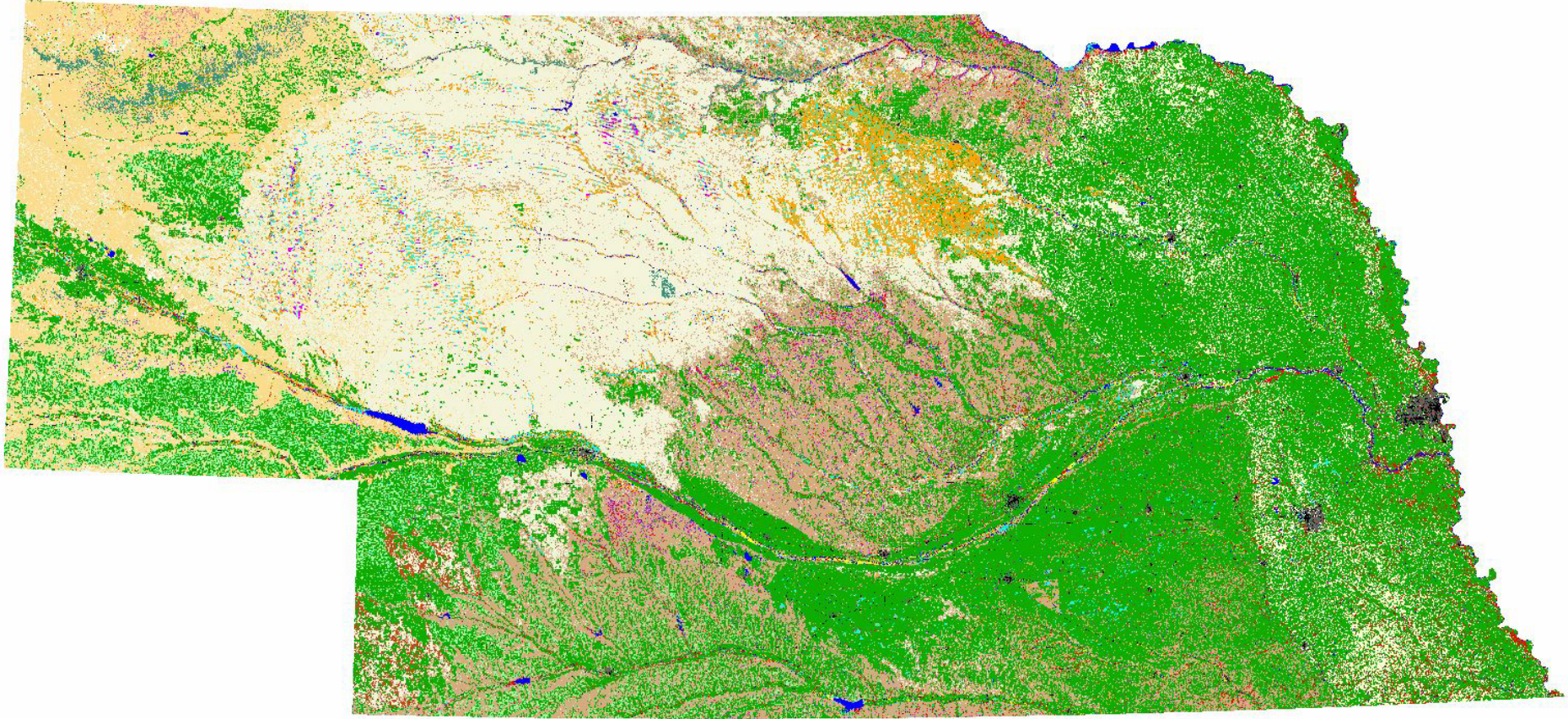
Groundwater Flow



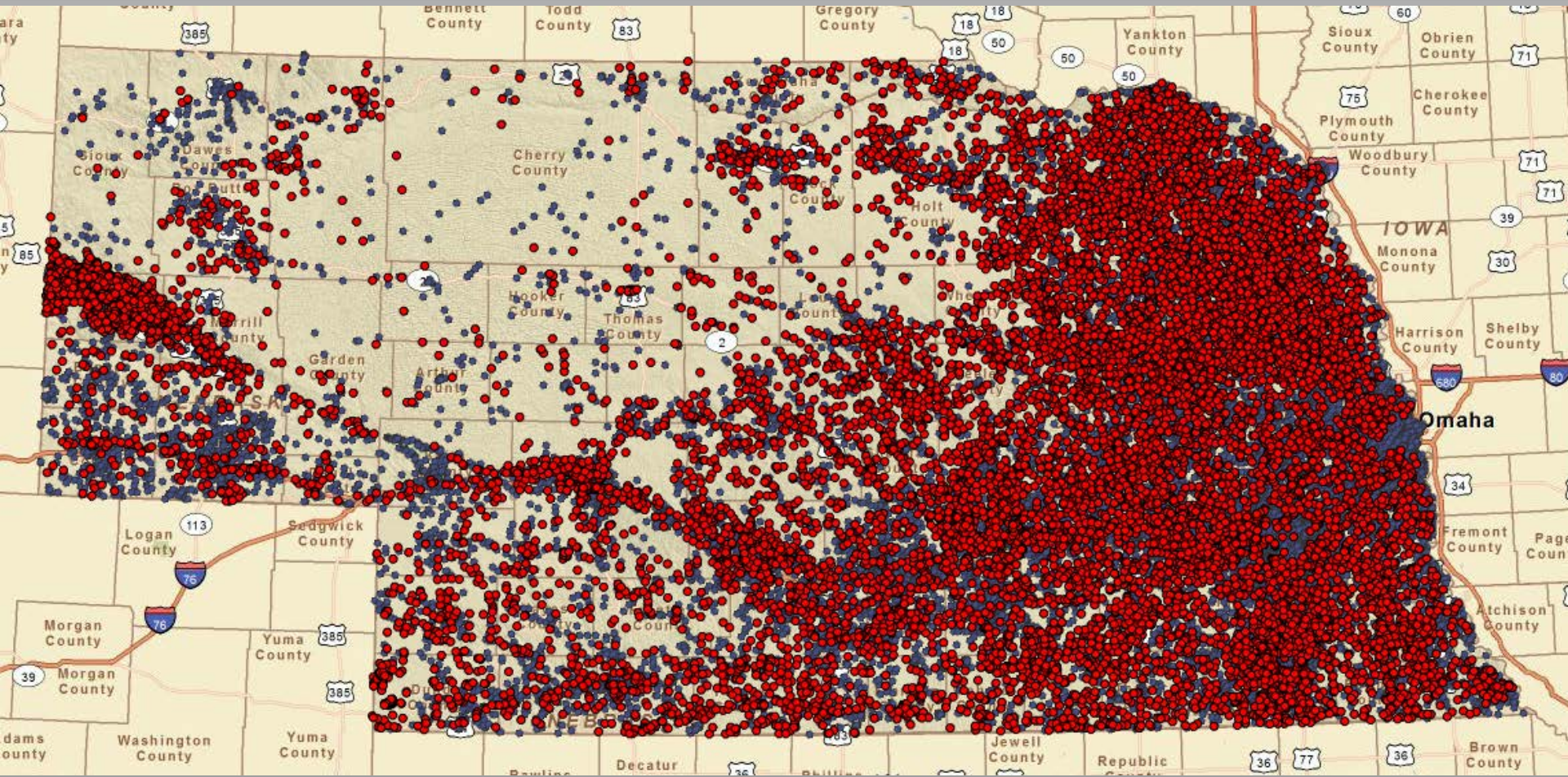
Problems Identifying Source & Extent



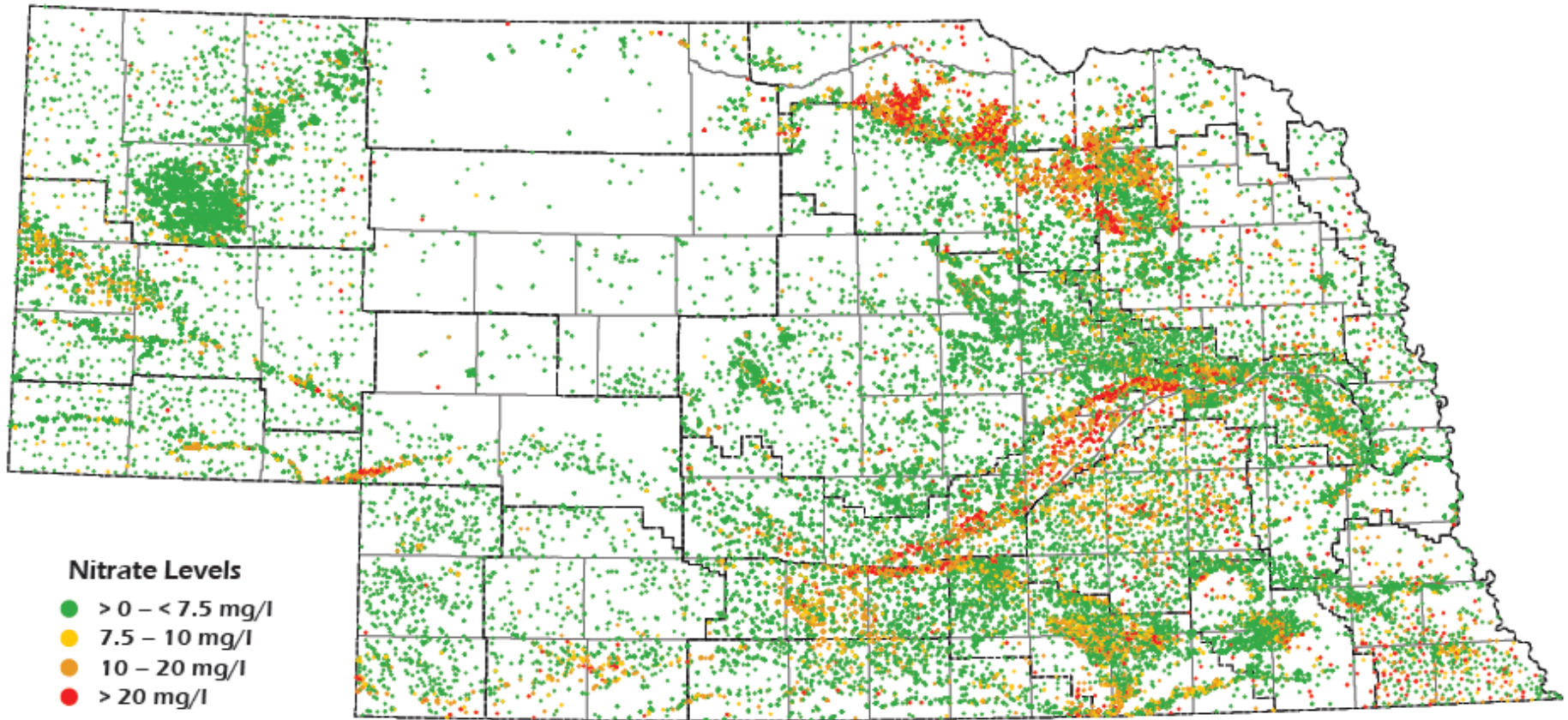
Land Usage



Livestock Facilities



Nitrates in Groundwater



Problem?



Solutions



Before



After

Before



After



Other Solutions

- Well rehab
- Liner evaluation
- Records review
- Site visits
- Step 7

Thoughts?

