Drinking Water Program Update

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and Health & Human Services
Regulatory and Licensure Program staff

Upcoming Regulations – Tentative Effective Dates for Systems

Consumer Confidence Report (CCR)_____October 1999

Capacity Development New Systems _____October 1999

Unregulated Contaminant Monitoring_____January 2001 (small systems)

Operator Certification _____No later than February 2001

IESWTR_____Surface water >10,000 January 1, 2002

D/DBP_____SW>10,000 January 1, 2002

Public Notification _____early 2002*

LT1/Filter Backwash (ESWTR)_____ November 2002*

Arsenic_____January 2003

Groundwater Rule _____November 2003*

Radionuclides _____November 2003*

D/DBP_____Small systems – January 2004*

LT 2 _____May 2004*

Sulfates_____2005???*

Radon_____Initial Monitoring February 2005*

* Exact date will be determined by the date of the final rule

The Proposed Arsenic Rule

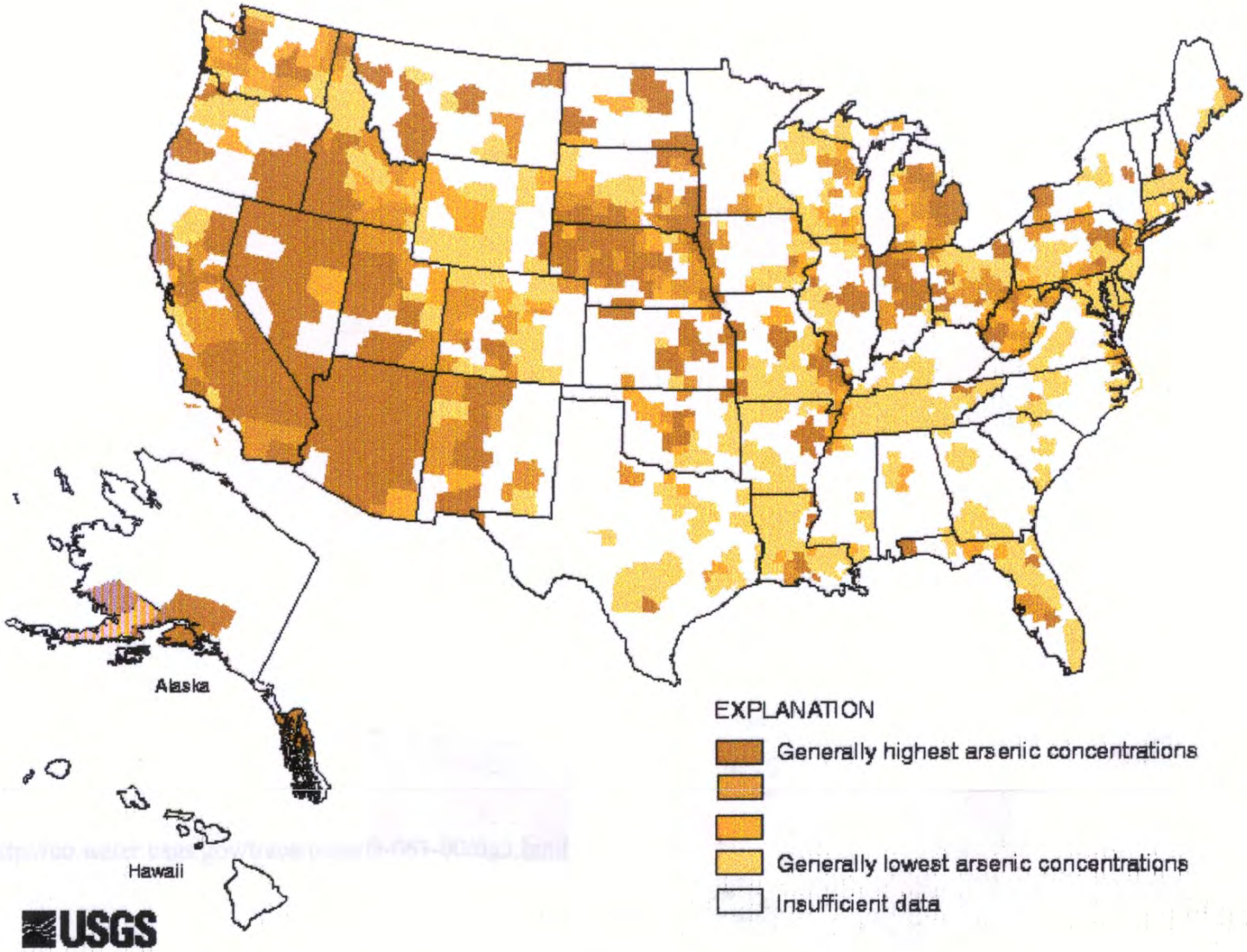


Figure 3. Counties with arsenic concentrations exceeding possible new MCLs in 10 percent or more of ground-water samples.

Type and Number of PWSs Potentially Affected by Proposed Arsenic Rule

		SYSTEM SIZE							
	TYPE	>10,000	≤10,000	≤ 5,000	≤ 2,000	≤ 1,000	≤ 500	≤ 100	TOTAL
3 ug/L	C	10	347	334	313	265	209	44	452
	NTNC	0	0	95	93	90	84	59	
5 ug/L	C	8	246	234	220	189	144	29	320
	NTNC	0	0	66	65	64	59	43	
10 ug/L	C	3	58	54	51	45	28	5	80
	NTNC	0	0	0	0	19	18	13	
20 ug/L	C	2	7	6	5	2	1	0	11
	NTNC	0	0	0	0	0	1	1	

Effective Dates of Proposed Arsenic Rule

- Three years after promulgation (June **22, 2004**)
  - All community water systems (CWS) serving >10,000 people
  - All NTNC water systems
- Five years after promulgation (**June 22, 2006**)
  - All other CWS ‘s serving ≤10,000 people

Proposed Maximum Contaminant Level (MCL)

- EPA is proposing to lower the current MCL of **50 ug/L** to **5 ug/L**.
- In addition to the proposed 5 ug/L, EPA is requesting comment on 3, 10, and 20 ug/L.
- NTNC water systems would not be required to comply with the revised MCL.

Proposed Radon and Radionucleide Rule

Proposed Radon Rule

- Maximum contaminant level (MCL) of 300 pCi/l
- Alternate MCL of 4,000 pCi/l linked to Multimedia Mitigation (MMM) Program
- Applies only to community water systems
- Final rule might include non-transient non-community water systems

Compliance Dates

- Initial sampling starts within 4 years after rule becomes final (anticipated February – June 2001)
- Statewide MMM program is implemented within 4 years

MMM Program Plan

- Prepared by the Department of Health and Human Services Regulation and Licensure
- Based on the existing State Indoor Radon Program
- Goal: Reduce public health risk by an amount comparable to that achieved by treating drinking water to the 300 pCi/l MCL

MMM Program Components

- Public participation
- Development of risk reduction goals
- Strategic plan to achieve goals
- Method(s) for tracking results

Radionuclides

- Gross alpha screen (name may change)
- Radium 226 & 228
- Uranium (includes different forms)
- Beta particles & photon emitters (primarily man-made radionuclides; only vulnerable systems)

Uranium

- All forms of uranium combined
- *Three proposed MCLs:
  - 20 μg/l (20 pCi/l); preferred by USEPA
  - 40 μg/l (40 pCi/l); acceptable to USEPA
  - 80 μg/l (80 pCi/l); unlikely to be chosen

  - *Final MCL <u>may</u> be different from these proposed MCLs

Uranium Risk

- 20 μg/l is the "no effect level" for kidney toxicity
  - most protective of human health
  - cellular damage; kidney disease link not known
- 40 μg/l has a risk of 1×10^{-4}
  - other regulated substances also have a calculated risk of 1×10^{-4}

Uranium in Nebraska

- Most systems in Nebraska can meet a MCL of 40 pCi/l
- Approximately 50 systems identified to date that may have problems meeting the 20 pCi/l MCL
- Systems in the North Platte, Platte and Republican River Valleys are more likely to have higher uranium concentrations

Proposed Groundwater Rule Requirements

Ground Water Rule Basics

- Final Rule issued later this year and effective in 2003, three years after the Final Rule issue Date.
- Who will be potentially affected: **ALL Community and NTNC Systems which use non-disinfected groundwater or <u>99% of all systems in Nebraska.</u>**

Proposed GWR Requirements

- Sanitary Survey Requirements
  - Increased Frequency – For Nebraska once every three years.
  - Expanded coverage – Looks more in depth at all areas of the PWS
  - In Nebraska this type of Sanitary Survey will go into effect for all Systems as of January 1, 2001.

Proposed GWR Requirements

- Hydrogeological Assessments of Source Wells:
  - Proposed sensitive types include Karst, Gravel, and fractured bedrock.
  - Assessments are a one-time effort shared by the Systems and the State and must be completed within 3–5 years after the rule is effective.

Proposed GWR Requirements

- Source Water Monitoring for *E.coli*:
  - Monthly if Sanitary Survey finds significant deficiencies, or
  - Monthly source water testing if the aquifer is sensitive and no barrier exists, or
  - Monitoring can be triggered with immediate source samples every time a total coliform positive occurs in the distribution system.

Proposed Required GWR Corrective Actions

- If *E.coli* is detected at the source or a Sanitary Survey shows significant deficiencies then one or more of the following apply:
  - The PWS must correct the deficiency within a specific time frame,
  - Eliminate the source of contamination
  - Disinfect to 4-log standard (All water to storage for adequate detention time prior to first customer)
  - Provide alternate supply of water

Expected GWR Impact in Nebraska

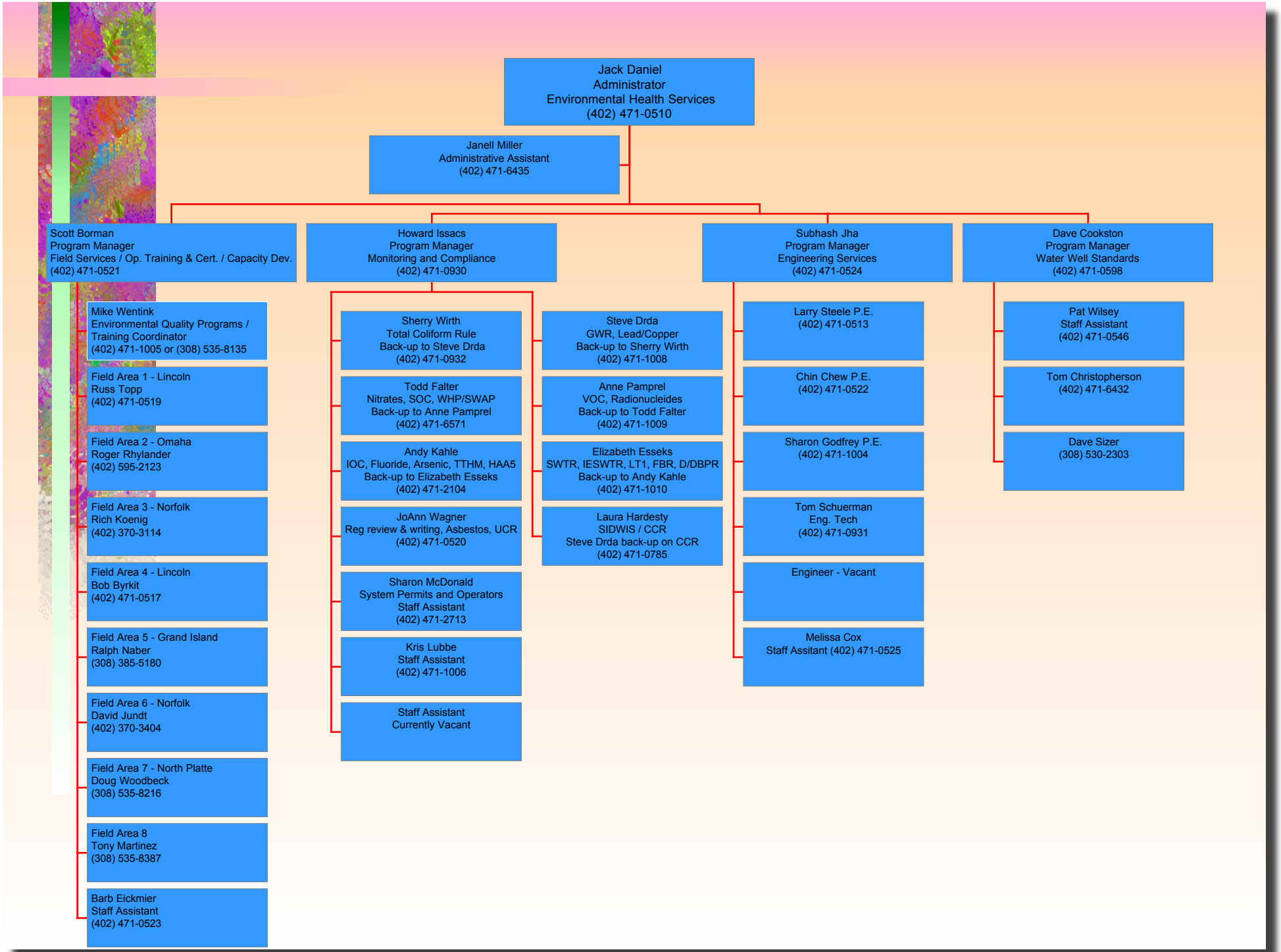
- Good news: Few, if any, of the **proposed** sensitive aquifers exist in Nebraska.
- Bad news: EPA may include sandy aquifers as sensitive in the final rule. This would mean all aquifers in Nebraska are sensitive
- Most systems will be required to do triggered monitoring

“Wild Card” issues with the Proposed GWR

- No one knows if sandy aquifers will be determined as sensitive.
- EPA is still considering a requirement to provide routine disinfection until the source is proven safe (Guilty until proven innocent)
- EPA may still define what is a significant deficiency
- No consensus on how source will be defined for Systems with multiple wells

“Wild Card” Issues with Proposed GWR

- Any consensus by EPA on the previous issues can cause the rule to go from having a relatively small impact on Nebraska to a **HUGE** regulatory monster that has significant regulatory and fiscal impact on Nebraska PWS(s).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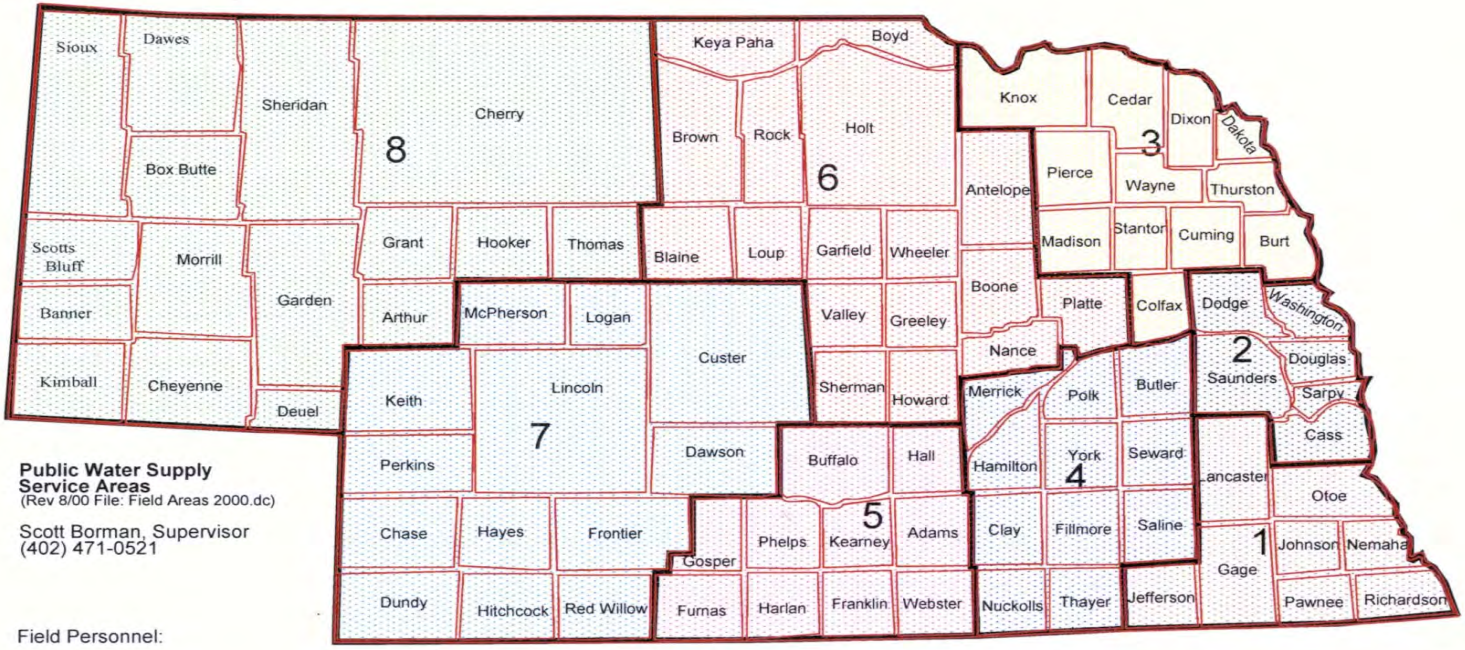
Field Area Designations

State of Nebraska
Department of Health and Human Services
Regulation and Licensure



Public Water Supply Service Areas
(Rev 8/00 File: Field Areas 2000.dc)

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HHS R&L Laboratory Services Schedule

	FY2000	FY2001
Coliform via Colilert	$ 8.75	$ 7.00
Coliform via Quantitray	.$ 9.75	$ 9.00
Coliform via Membrane Filter	NA	$ 15.00
Nitrate/Nitrite	$ 18.10	$ 11.00
Phase II IOCs	$146.18	$112.00
Phase V IOCs	$141.27	$107.00
Lead/Copper (each)	$ 17.61*	$ 14.00*
SOC 525.2 Pesticides	$220.61	$155.00
SOC 515.3 Herbicides	$163.00	$140.00
VOC's/THMs 524.2	$154.00	$135.00
Total Water Quality (New Well Scan)	$3473.99**	$3041.00

*w/o digestion * *Contracted Tests