

Water System Regulatory Update

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Office of Drinking Water and Environmental Health
Division of Public Health
Nebraska Department of Health and Human Services

NSAWWA Annual Conference
November 5, 2010 - Kearney, NE

Regulation Update

- ~~179 NAC 7 – Engineer Design~~
 - 179 NAC 10 – Operator Licensure – UCA
 - 179 NAC 8 – GWR
 - 179 NAC 23 & 24 – DBP2
 - 179 NAC 25 – LT2
 - 179 NAC 12 – Revised Lead & Copper
 - 179 NAC 3 – Revised Total Coliform Rule
- Note: Existing EPA regulations revised every 6 years

Proposed Credentialing Changes for Water Operators 2010

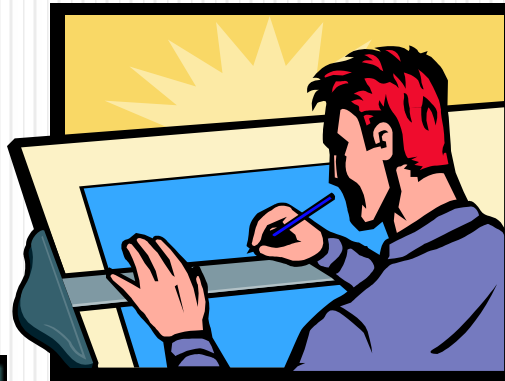
- By December 31, 2011, all will be on the 2 year cycle. To bring all into this cycle:
 - Licenses that expired on 12-31-2008 – renewed for 3 years;
 - Licenses that expired on 12-31-2009 – renewed for 2 years;
 - Licenses that expire on 12-31-2010 – renewed for 1 year;
 - Licenses that expire on 12-31-2011 – renewed for 2 years;
- After 12-31-2011, all licenses will expire on 12-31 of odd-numbered years
- CEUs prorated by the number of years

Note: EPA Water Operator Grant expires 12-31-2011

Title 179 NAC 7

Siting, Design and Construction of Public Water Systems

Contact Chin Chew
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chin.chew@nebraska.gov



Effective Date: 4/4/2010

179 NAC 7 Overview

- 7-001 Scope and Authority
- 7-002 Definitions
- 7-003 Submission of Plans and Specifications
- 7-004 Plans and Specifications-Required/Not Required
- 7-005 Fees
- 7-006 Siting
- 7-007 Design Standards
- 7-008 Water Quality
- 7-009 Construction
- 7-010 Distinctions applied to non-community water systems

7-004.03 Three-Year Review Program

Construction of new distribution mains and replacement of existing distribution water mains (those not already exempted by 179 NAC 7-004.02 item 3).

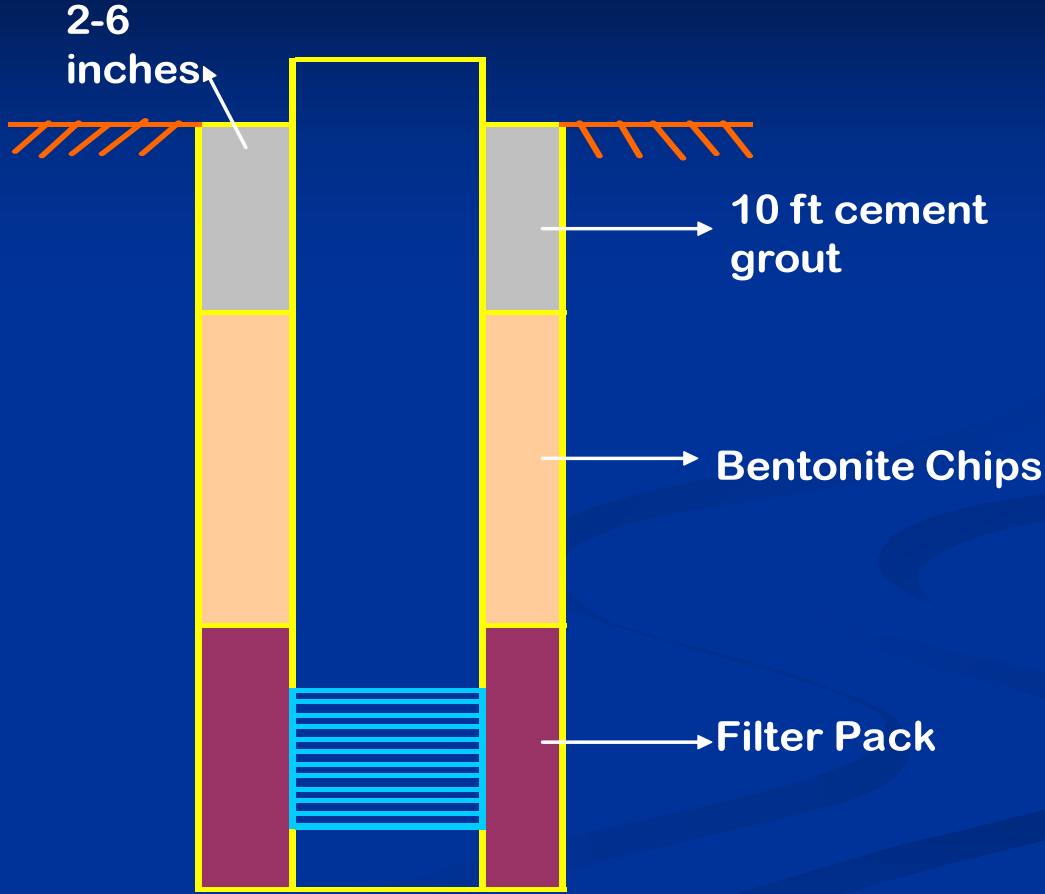
1. The system must submit two sets of standard specifications and standard drawings sealed, signed and dated by an engineer for approval by the Director. Changes of sanitary significance to the approved standard specifications and standard drawings must be submitted to the Director for review and written approval prior to implementation.
2. The sizing of the mains and appurtenances must not cause any part of the system pressure to go below 20 psi under normal operating conditions. All distribution main projects must be designed by an engineer and must be in substantial conformance to the *Recommended Standards for Water Works*, 2007 Edition. Any distribution main project with estimated or actual costs that do not exceed \$86,000 do not need to be designed by an engineer, but must follow the standard specifications and standard drawings approved by the Department.
3. The Department will conduct annual audits to assure compliance with 3 year program.

7-004.03 Three-Year Review Program (continued)

For the three-year review program, the following fees apply:

- PWS with pop. $> 100,000$ \$1800/year
- PWS with pop. $> 10,000$ but $< 100,000$ \$900/year
- PWS with pop. $> 3,300$ but $< 10,000$ \$600/year
- PWS with pop. $< 3,300$ \$300/year

Change in Well Design

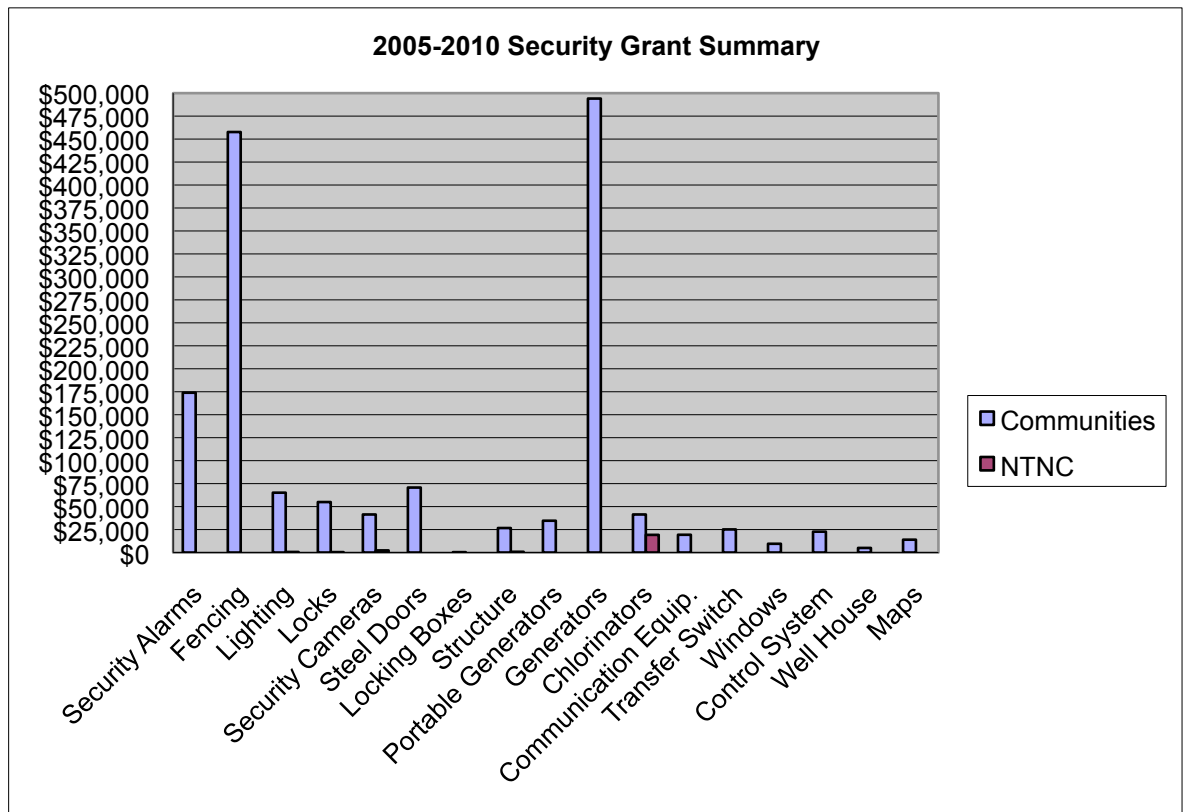


Public Water System Security Grants

Contact Kris Luebbe
(402) 471-1007
kristin.luebbe@nebraska.gov

2005-2010 Security Grants Summary

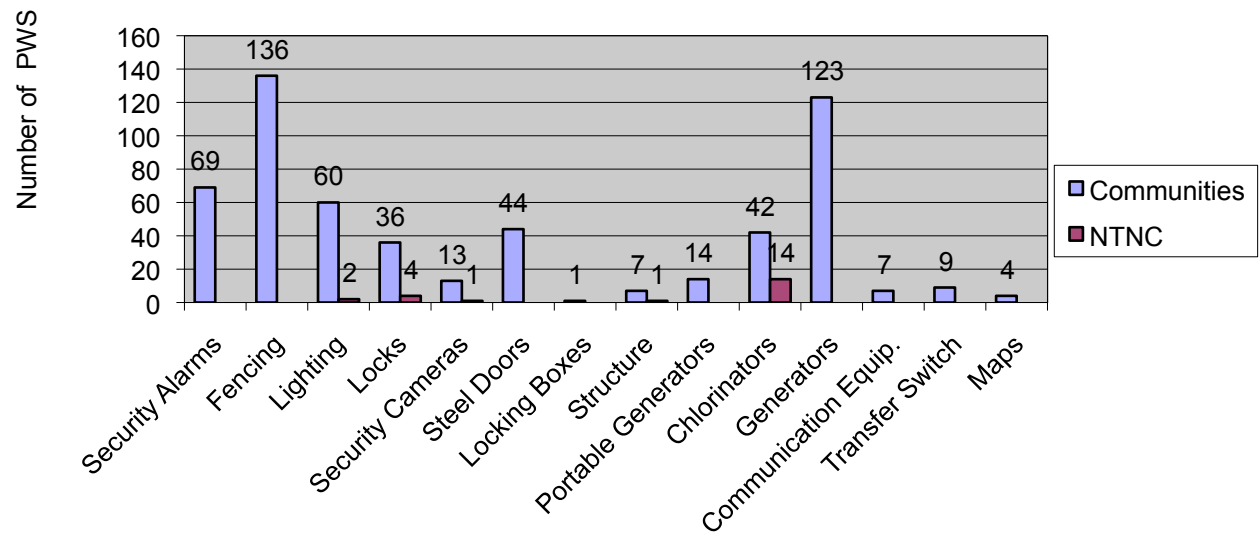
2005-2010 Security Grant		
	Communities	NTNC
Total Communities	596	181
Total PWS Applying	529	20
Security Alarms	\$173,931.15	
Fencing	\$457,685.11	
Lighting	\$65,137.30	\$621.00
Locks	\$54,942.33	\$437.09
Security Cameras	\$41,415.34	\$2,308.97
Steel Doors	\$70,721.48	
Locking Boxes	\$405.00	
Structure	\$26,671.00	\$800.00
Portable Generators	\$34,617.56	
Generators	\$494,097.23	
Chlorinators	\$41,417.02	\$19,229.67
Communication Equip.	\$19,329.87	
Transfer Switch	\$25,152.40	
Windows	\$9,525.93	
Control System	\$22,698.20	
Well House	\$5,000.00	
Maps	\$13,980.00	
Total \$ Allocated	\$1,556,726.92	\$23,396.73



2005-2010 Security Grants

Types of Funded Projects

Water Security Projects Funded
2005-2010



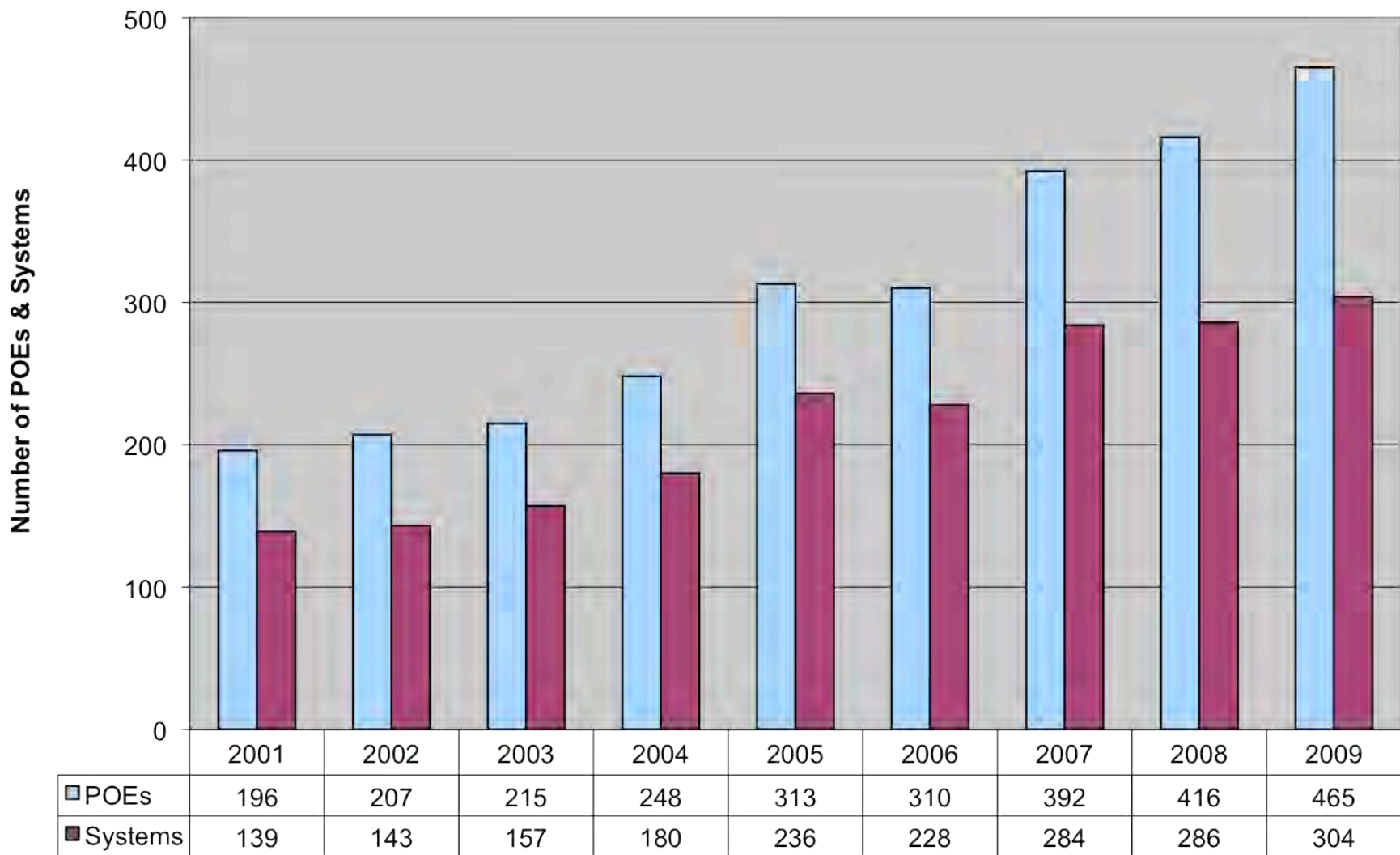
	Communities	NTNC
Total PWS	596	181
Total PWS Applying	529	20
Security Alarms	69	
Fencing	136	
Lighting	60	2
Locks	36	4
Security Cameras	13	1
Steel Doors	44	
Locking Boxes	1	
Structure	7	1
Portable Generators	14	
Chlorinators	42	14
Generators	123	
Communication Equip.	7	
Transfer Switch	9	
Maps	4	

Succession Planning

4 Most Problematic Contaminants

1. Nitrates
 2. Arsenic
 3. Uranium
 4. Total Coliform
- * **See Attachment 1**

Number of POEs and Systems on Quarterly Nitrate Sampling in Nebraska



Laboratory Cost to Public Water Systems

Each Point-of-Entry represents the number of quarterly tests for the level of nitrate in the PWS

Year	Number of PWSs	Point-of-Entry	Laboratory Cost
2000	128	171	\$8208.00
2001	139	196	\$9408.00
2002	143	207	\$9936.00
2003	157	215	\$10320.00
2004	180	248	\$11904.00
2005	236	313	\$15024.00
2006	228	310	\$14880.00
2007	284	392	\$18816.00
2008	286	416	\$19968.00
2009	304	465	\$22320.00
		Total Cost	\$140,784.00

*** See Attachment 2**

*An Urgent Call to Action
Report of the State-EPA Nutrient
Innovations Task Group*

Revised Total Coliform Rule

July 14, 2010

Federal Register

- National Primary Drinking Water Regulations: Revisions to the Total Coliform Rule; Proposed Rule
- Public comments may be made to EPA no later than October 13, 2010

Tentative Time Table

- Mid to Late 2012 – Final Rule-Revised Total Coliform Rule (RTCR)
- Mid to Late 2015 – Implementation of Revised Total Coliform Rule

Some Key Core Elements of the RTCR

- *E. coli* becomes the MCL
- Establishes Level 1 & 2 Assessments (based on severity of violation)
- Establishes a Treatment Technique trigger in place of MCL/MCLG for Total coliform
- Monitoring
 - Pop. <4100, reduces additional routine to 0
 - Pop. <1000, reduces repeat samples from 4 to 3

Capacity Development

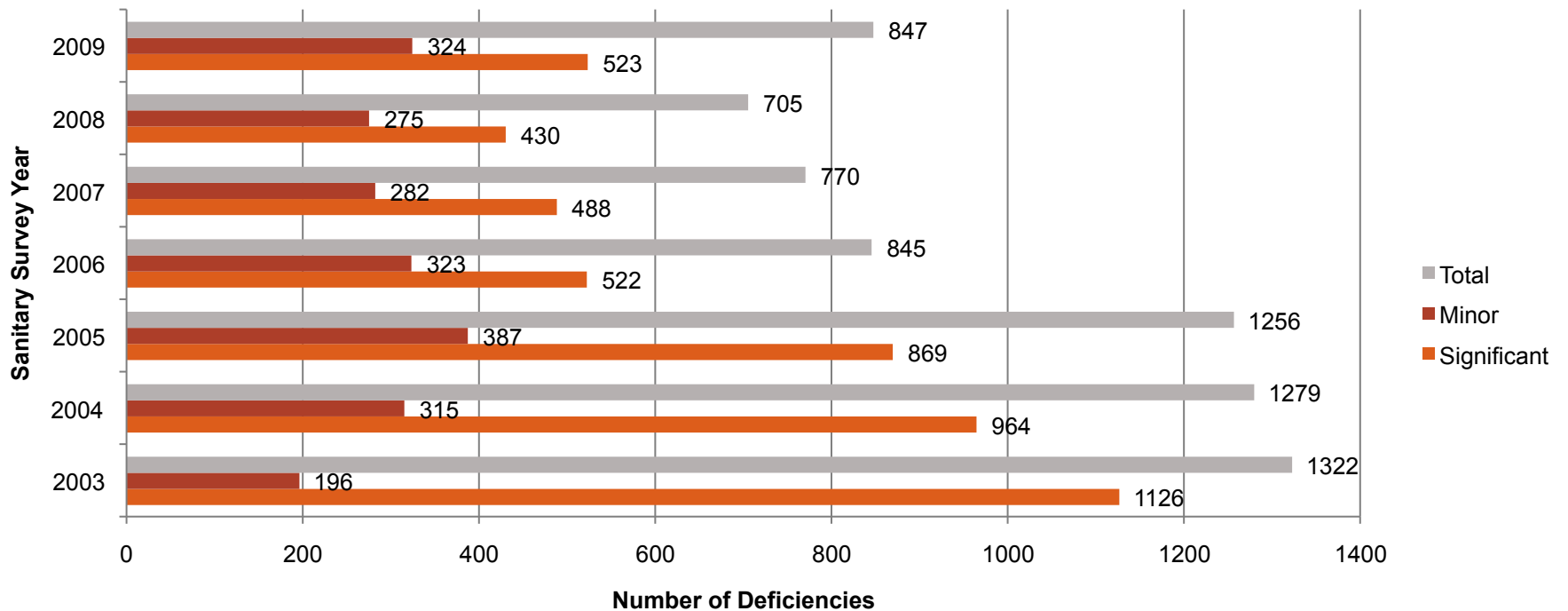
- Major driving theme and cornerstone of the Department's PWS Program
- Developing capacity in:
 - Technical Capacity – Water Operators
 - Managerial Capacity – System Owners
 - Financial Capacity – Running a water system like a business
- Capacity Development Coordinator
 - Scott Sprague
 - (402) 471-0088 / scott.sprague@nebraska.gov
- The Silent Service

Sanitary Surveys as a Compliance Indicator

- An integral part of the RSS process is insuring that each and every PWS has a water operator who has the appropriate license in order to legally operate the PWS for which s/he works.
- In 2003, there were approximately 34 community PWS in Nebraska that did not have a licensed water operator in responsible charge. Including all PWS, today that number hovers around 5, mainly because of staff turn over at Non-community PWS.

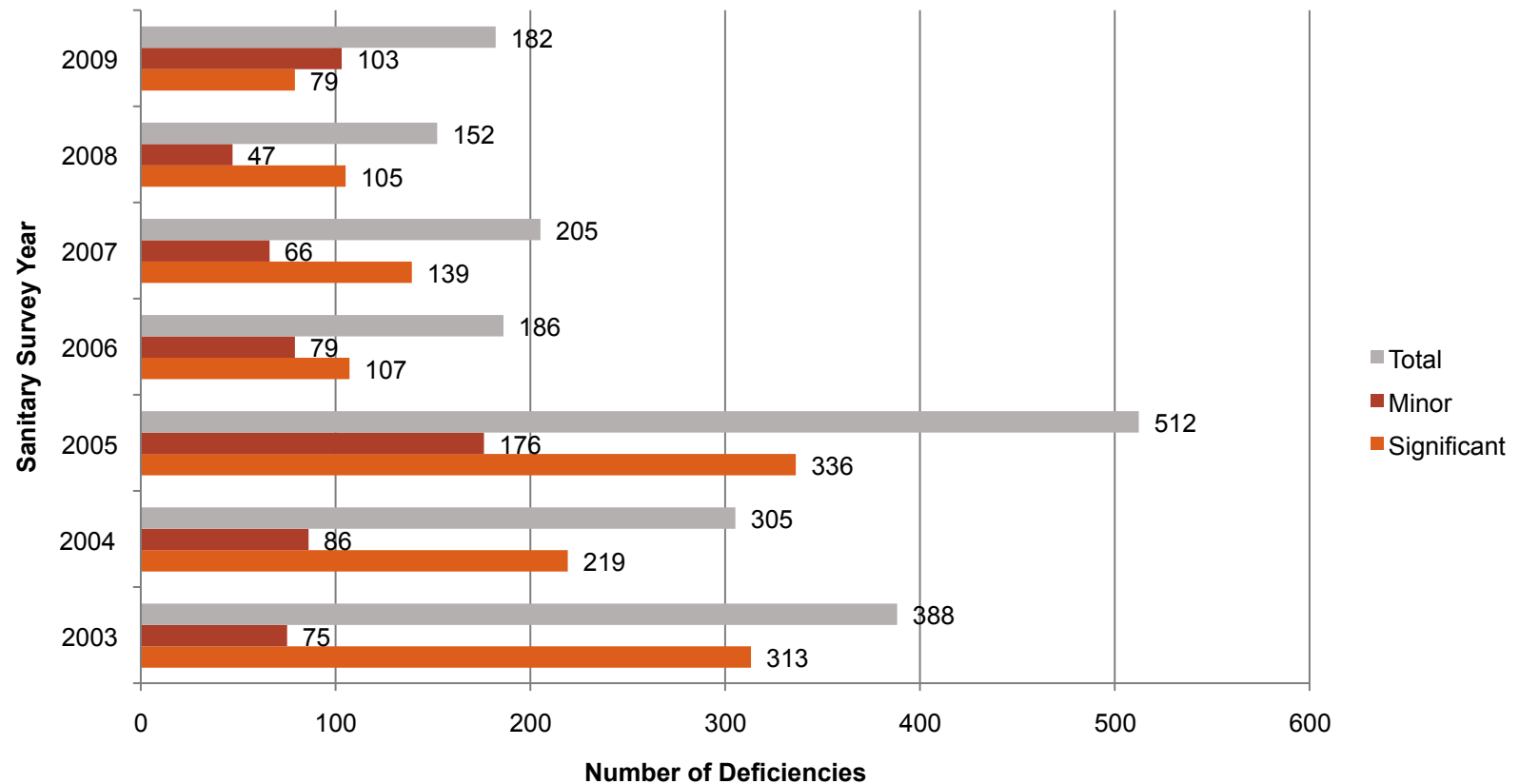
Sanitary Surveys as a Compliance Indicator

Routine Sanitary Survey Deficiency Reduction CWS & NTNC



Sanitary Surveys as a Compliance Indicator

Routine Sanitary Survey Deficiency Reduction TNC



DHHS Public Health Environmental Laboratory LIMS Web Portal

- Web Portal is so that a PWS can access their data in a quicker fashion
- Colilert – fill sample bottle to \geq line
- Return lab kits < 90 days or \$

Drinking Water State Revolving Fund

Contact Steve McNulty

(402) 471-1006

steve.mcnulty@nebraska.gov

What's Happened Since?

- Intensive Effort
 - See Attachments 3, 4, 5, 6

Title 179 NAC 7

- No project that is considered major construction shall be placed into service prior to a final inspection and approval by the Department (Title 179 NAC 7-009, item 4). The only exception to this requirement is interior tank coating and water distribution main projects. The Department may allow these projects to be placed into service when requested by the owner and/or the engineer. The request must be accompanied with a certification of project completion by the engineer and copies of satisfactory bacteriological testing results for the project.
- Beginning in March 2009, the Department may be issuing administrative penalties as authorized in Neb. Rev. Stat. § 71-5304.01, to any system that violates this regulation.

Policy #1

- Responsibility of the operator to ensure that these projects are not placed into service without proper approval beginning March 2009
- If discovered, Department will issue an AO:
 - 30 days to address issue
 - Provide certification of completion
 - Satisfactory bacteriological results
 - Failure to comply with AO
 - Penalties as allowed under the Nebraska SDWA
 - PWS < 10,000 – not more than \$500 per day (\$5000, max)
 - PWS \geq 10, 000 – not less than \$1000 per day (\$25,000 max)
 - Effective date for determination of fine (date AO issued)
- Repeat violations – Fines instead of issuing AOs

Policy #2

Chlorination for Water Treatment Projects

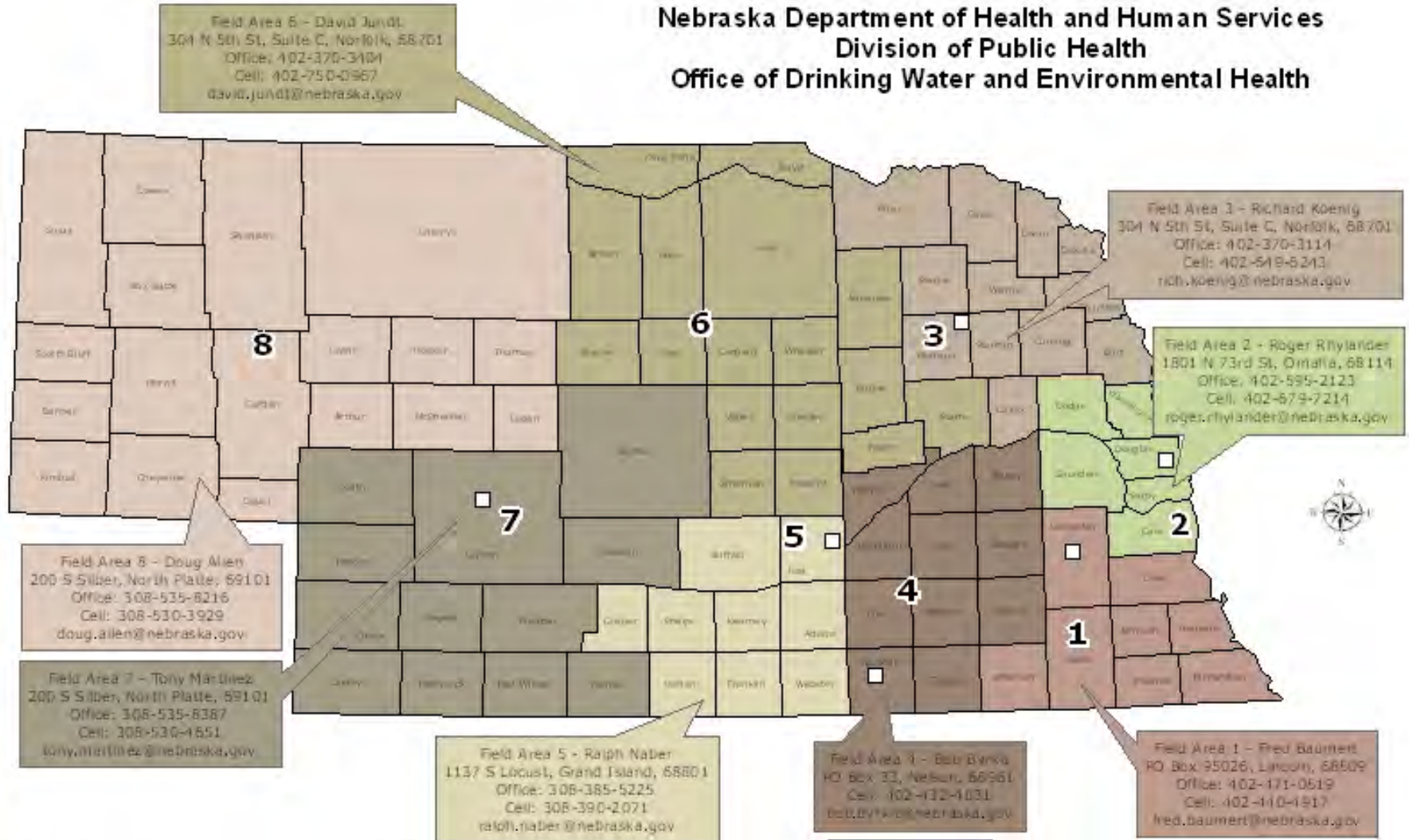
Section 4.3 of the *Recommended Standards for Water Works* states that **disinfection is required at all surface water supplies and at any groundwater supply of questionable sanitary quality or where other treatment is provided.**

- Chemical feed systems such as fluoridation or pH adjustment will not require chlorination.
- Disinfection is required for all surface water and groundwater under the influence of surface water plants per Title 179 NAC 13.
- Chemical feed system (nutrient based chemicals) such as phosphate feed will require chlorination due to the potential for microbial growth.
- Water treatment processes with exposure to the atmosphere such as aeration or gravity filtration will require chlorination.

Policy #2 (continued)

- Other water treatment processes which are not exposed to the atmosphere such ion-exchange, membranes, UV etc – can request a demonstration of performance
 - period of 1 year to account for seasonal variations
 - Weekly influent and effluent samples - Total coliforms (TC) and HPCs
 - Results submitted to the Department on a quarterly basis
- Continuous chlorination will be required if
 - One TC violation (a detect plus a confirmation) after first quarter
 - Three or more treated (effluent) samples show the presence of TC during the year
 - Three or more untreated (influent) samples show the presence of TC (groundwater of questionable sanitary quality) during the year
 - Three or more treated (effluent) samples showing a 50% increase in HPCs from the untreated (influent) samples during the year

**Nebraska Department of Health and Human Services
Division of Public Health
Office of Drinking Water and Environmental Health**



Legend	
	County
	Field Service Area Office
	County Seat
PWS Field Service Areas	
	Field Area 1
	Field Area 2
	Field Area 3
	Field Area 4
	Field Area 5
	Field Area 6
	Field Area 7
	Field Area 8

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Map created by:
Nate Healy GIS Analyst
Date: 11/17



Virginia Graeme Baker Pool and Spa Safety Act

- Applies to all public pools and spa
- Anti-Suction/Anti-Entrapment Drain \geq 18 x 23 inches
- Pool main drains, feature pump suction outlets, skimmers equalizer lines – must be fitted with ASME/ANSI A112.19.8 (2007 version) certified covers
- All public pool and spa were to be in compliance before December 20, 2008
- Outdoor pool and spa that are closed must be in compliance prior to reopening next year
- Enforce by CPSC – potential fine of up to \$15M
- For more information, please visit state website:
<http://www.dhhs.ne.gov/puh/enh/san/swimming/swimindex.htm>
- Contact – Steve Jillson (402) 471-6448 or Troy Huffman (402) 471-0387