

# The Water Spout

Nebraska Department of Health and Human Services  
Division of Public Health

Volume XXVIII “SAFE DRINKING WATER IS WHAT WE SPOUT ABOUT” December 2016

## **RTCR – Level 1 & 2 Assessments**

By Michael Wentink; Field Services and Training

Under the Revised Total Coliform Rule (RTCR), total coliforms serve as an indicator of a potential pathway of contamination into the distribution system. A public water system (PWS) that exceeds a specified frequency of total coliform occurrence (a trigger), or incurs an *E. coli* MCL violation, must conduct an assessment to determine if any “sanitary defects” exist, and if found, correct them - a ***find and fix*** approach.

A sanitary defect is “a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place”.

The RTCR specifies two levels of assessment triggers and corresponding levels of assessment (Level 1 and Level 2) in response to those triggers. The degree and depth to which a PWS must examine its system, including monitoring and operational practices, depends on the triggers’ potential impact to public health. In short, a Level 2 assessment requires a more in-depth and comprehensive review of the PWS compared to a Level 1 assessment. The system must submit the completed Level 1 and Level 2 assessment forms to the Department within 30 days after the system learns that it has exceeded a trigger.

Let’s return to the ***find and fix*** approach for a moment. As the words imply, the object of the assessments are to identify and fix the problems which exposed the PWS to microbiological vulnerability. Level 1 assessments are performed by the PWS water operator, and with that task lies the responsibility to look closely at any possible means for coliform to enter the public water system, including water sample collection procedures and the water sample sites. A second triggered Level 1 assessment within a rolling 12 month period will trigger a Level 2 assessment which is performed by the PWS Program Field Representative. Irrespective of which level assessment is triggered, the PWS is responsible for submittal of the completed assessment form to the Department within 30 days after the system learns that it has exceeded a trigger.

Although different in degree and depth of examination, both Level 1 and 2 assessments include review and identification of similar elements such as changes in distribution system maintenance and operation, atypical events that may affect distributed water quality, and source and treatment considerations that bear on distributed water quality.

The time spent closely evaluating your water system during a Level 1 assessment may help avoid additional time spent participating in Level 2 and subsequent assessments.

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### **Editor: Michael Wentink**

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# REGULATORY UPDATE

## The Notorious

(A couple of enforcement activities)

(August 11, 2016) The U.S. Environmental Protection Agency (EPA) has issued a legal order directing the Village of Tarrytown, New York to comply with the Safe Drinking Water Act's Lead and Copper Rule. A recent investigation by the EPA revealed that Tarrytown had violated numerous provisions of the rule, including failing to properly evaluate the village's water distribution system before establishing tap sampling locations and failing to meet requirements for properly identifying tap monitoring locations. The EPA has issued a legal order requiring the Village of Tarrytown to deliver consumer notices and conduct public education activities for individuals and organizations using the village's water supply. <https://www.epa.gov/newsreleases/epa-takes-action-address-lead-drinking-water-problems-tarrytown-new-york>.

(August 31, 2016) The Pico Village Water Corp. of Killington VT, was levied a \$37,000 fine as part of a consent order agreement with the Vermont Attorney General's Office. This public water system, serving 90 people, agreed to the penalty to resolve claims of management and operational requirements violations. Among those nine claimed violations are failing to contract with a certified water operator and failure to submit certain documentation and reports. <http://astheskiturns.blogspot.com/2016/08/pico-village-water-corp-fined-37k.html>

## Sanitary Survey Protocol

By Michael Wentink; Field Services and Training

Sanitary surveys of public water systems (PWS) are performed by the Public Water Supply Program Field Representatives—one representative for each of the eight field areas. Routine sanitary surveys are conducted once every three years for community water systems (CWS) and non-transient non-community (NTNC) public water systems, and once every five years for transient non-community (TNC) PWSs.

A sanitary survey is an on-site review of the water source, facilities, equipment, operation and maintenance of a public water system for the purpose of evaluating the system's adequacy and ability to reliably produce and distribute safe drinking water within the confines of regulatory requirements. Although the survey is performed by Public Water Supply Program personnel, the water operator then has responsibility to correct sanitary deficiencies that are identified and to notify the Program when those corrections have been completed.

After completion of the sanitary survey, the operator and owner of the PWS are provided with a copy of the findings, which includes a **Sanitary Survey Deficiency Compliance Plan** that lists the identified deficiencies. That document is to be completed by the operator and **returned to the Field Representative within 30 days**. On that Plan, the operator is to indicate in writing when the correction to each identified deficiency was made, or expected to be made. **All significant deficiencies must be corrected within 120 days of the date of the letter** that accompanied the operator's receipt of the sanitary survey results.

Failure to submit the **Sanitary Survey Deficiency Compliance Plan**, or make the required corrections within the specified timeframes may constitute a violation of public water supply regulations and subject the PWS to subsequent disciplinary action from Nebraska DHHS.

### Title 179 Latest Revision Dates of Regulations

#### NAC

|              |                           |
|--------------|---------------------------|
| <b>2-001</b> | <b>November 15, 2003</b>  |
| <b>2-002</b> | <b>March 22, 2016</b>     |
| <b>2-015</b> | <b>September 22, 1999</b> |
| <b>3</b>     | <b>March 22, 2016</b>     |
| <b>4</b>     | <b>March 22, 2016</b>     |
| <b>5</b>     | <b>December 22, 2012</b>  |
| <b>6</b>     | <b>March 22, 2016</b>     |
| <b>7</b>     | <b>April 4, 2010</b>      |
| <b>8</b>     | <b>March 22, 2016</b>     |
| <b>9</b>     | <b>March 22, 2004</b>     |
| <b>10</b>    | <b>June 21, 2011</b>      |
| <b>11</b>    | <b>November 15, 2003</b>  |
| <b>12</b>    | <b>December 22, 2012</b>  |
| <b>13</b>    | <b>March 22, 2016</b>     |
| <b>14</b>    | <b>March 22, 2016</b>     |
| <b>16</b>    | <b>March 22, 2016</b>     |
| <b>17</b>    | <b>November 13, 2005</b>  |
| <b>18</b>    | <b>November 15, 2003</b>  |
| <b>19</b>    | <b>November 13, 2005</b>  |
| <b>21</b>    | <b>March 22, 2004</b>     |
| <b>22</b>    | <b>March 22, 2004</b>     |
| <b>23</b>    | <b>June 11, 2013</b>      |
| <b>24</b>    | <b>June 11, 2013</b>      |
| <b>25</b>    | <b>June 11, 2013</b>      |
| <b>26</b>    | <b>March 22, 2016</b>     |

***These regulations can be viewed at:***  
**[http://dhhs.ne.gov/Pages/reg\\_t179.aspx](http://dhhs.ne.gov/Pages/reg_t179.aspx)**

## RTCR MCL VIOLATIONS

**TC+** = Total coliform-positive or present; **TC-** = Total coliform-negative or absent  
**EC+** = *E. coli*-positive or present; **EC-** = *E. coli*-negative or absent

| If Routine Sample Is | And | Any Repeat Sample Is:             | <b>Action:</b> What do your sample results mean?   | Violation                     |
|----------------------|-----|-----------------------------------|--|-------------------------------|
| <b>TC+<br/>EC-</b>   | &   | <b>TC+<br/>EC-</b>                | The presence of total coliform bacteria in both the original routine sample and in the follow-up repeat sample suggests there could be a problem and the water may not be safe to use.<br><b>1. Conduct a Level 1 or Level 2 assessment. The Department will tell the system which type of assessment is required.</b> | <b>No MCL violation</b>       |
| <b>TC+<br/>EC-</b>   | &   | <b>TC+<br/>EC+</b>                | The presence of <i>E. coli</i> bacteria in the system's water is an indicator of fecal contamination and your water may not be safe to use. The Department will consult with the system.<br><b>1. Issue a Public Notice (PN) within 24 hours.</b><br><b>2. Conduct a Level 2 assessment within 30 days.</b>            | <b>E. coli MCL violation*</b> |
| <b>TC+<br/>EC-</b>   | &   | Any or all repeat samples missing | The presence of total coliform bacteria in the original routine sample suggests there could be a problem, and because repeat samples were not tested, it is unknown whether or not the water is safe to use.<br><b>1. Conduct a Level 1 or Level 2 assessment.</b>   | <b>No MCL violation</b>       |
| <b>TC+<br/>EC+</b>   | &   | <b>TC+</b>                        | The presence of <i>E. coli</i> bacteria in the water is an indicator of fecal contamination and the water may not be safe to use. The Department will consult with the system.<br><b>1. Issue a PN within 24 hours.</b><br><b>2. Conduct a Level 2 assessment within 30 days.</b>                                      | <b>E. coli MCL violation*</b> |
| <b>TC+<br/>EC+</b>   | &   | Any or all repeat samples missing | The presence of <i>E. coli</i> bacteria in the water is an indicator of fecal contamination and the water may not be safe to use. The Department will consult with the system.<br><b>1. Issue a PN within 24 hours</b><br><b>2. Conduct a Level 2 assessment within 30 days.</b>                                       | <b>E. coli MCL violation*</b> |

**NOTE:**

\* A system is required to provide Tier 1 public notice within 24 hours of the Department's notification and consultation in response to an *E. coli* MCL violation. For more information, visit our website at <http://dhhs.ne.gov/drinkingwater> or contact Sherry Wirth at 402-471-0932.

## Water Operator Grades I - IV and VI Continuing Education – 2017

**Please contact the appropriate organization at the phone number provided for further information regarding these scheduled training activities.**

For additional upcoming training events, visit <http://dhhs.ne.gov/publichealth/Documents/TrainingSchedule.pdf>.

### HOURS AVAILABLE FOR GRADE

| DATE        | LOCATION       | TOPIC(S)        | I   | II  | III | IV  | VI  | CONTACT      | PHONE        |
|-------------|----------------|-----------------|-----|-----|-----|-----|-----|--------------|--------------|
| January 5   | Wahoo          | Wastewater      | TBA | TBA | TBA | TBA | TBA | NeRWA        | 402-443-5216 |
| Jan. 11-13  | Lincoln        | Utilities Conf. | TBA | TBA | TBA | TBA | TBA | LoNM         | 402-476-2829 |
| January 12  | Grand Island   | Backflow        | 5   | 5   | 5   | 5   | 5   | CCC          | 877-222-0780 |
| January 18  | Wahoo          | Water           | 6   | 6   | 6   | 6   | 0   | NeRWA        | 402-443-5216 |
| January 18  | So. Sioux City | Water           | 5   | 5   | 5   | 5   | 0   | LoNM/AWWA    | 402-476-2829 |
| January 19  | Norfolk        | Water           | 5   | 5   | 5   | 5   | 0   | LoNM/AWWA    | 402-476-2829 |
| January 24  | Gordon         | Backflow        | 5   | 5   | 5   | 5   | 5   | NeRWA        | 402-443-5216 |
| January 24  | Kearney        | Water           | 5   | 5   | 5   | 5   | 1   | LoNM         | 402-476-2829 |
| January 25  | Bridgeport     | Backflow        | 5   | 5   | 5   | 5   | 5   | NeRWA        | 402-443-5216 |
| Jan. 25-26  | Kearney        | WW Conf.        | 3.5 | 3.5 | 3.5 | 3.5 | 0   | LoNM/NWOD    | 402-476-2829 |
| February 2  | Omaha          | Backflow        | 0   | 0   | 0   | 0   | 5   | TBR          | 888-305-5292 |
| February 7  | Norfolk        | Water           | 3   | 3   | 3   | 3   | 0   | DHHS DPH     | 402-471-0523 |
| February 7  | Nebraska City  | Backflow        | TBA | TBA | TBA | TBA | TBA | NeRWA        | 402-443-5216 |
| February 8  | Staplehurst    | Wastewater      | TBA | TBA | TBA | TBA | TBA | MAP          | 402-389-0900 |
| February 9  | Crofton        | Wastewater      | TBA | TBA | TBA | TBA | TBA | MAP          | 402-389-0900 |
| February 14 | Schuyler       | Water           | TBA | TBA | TBA | TBA | TBA | LoNM/AWWA    | 402-476-2829 |
| February 15 | Blair          | Water           | TBA | TBA | TBA | TBA | TBA | LoNM/AWWA    | 402-476-2829 |
| February 15 | Bridgeport     | Wastewater      | TBA | TBA | TBA | TBA | TBA | NeRWA        | 402-443-5216 |
| February 16 | Beatrice       | Water           | TBA | TBA | TBA | TBA | TBA | LoNM/AWWA    | 402-476-2829 |
| February 16 | Alliance       | Backflow        | 5   | 5   | 5   | 5   | 5   | CCC          | 877-222-0780 |
| March 7     | Chadron        | Water           | TBA | TBA | TBA | TBA | TBA | LoNM/AWWA    | 402-476-2829 |
| March 7     | Norfolk        | Backflow        | 5   | 5   | 5   | 5   | 5   | CCC          | 877-222-0780 |
| March 8     | Gering         | Water           | TBA | TBA | TBA | TBA | TBA | LoNM/AWWA    | 402-476-2829 |
| March 8     | Kearney        | Backflow        | TBA | TBA | TBA | TBA | TBA | Reg. 12 ABPA | 308-535-6740 |
| March 13-15 | Kearney        | Annual Conf.    | TBA | TBA | TBA | TBA | TBA | NeRWA        | 402-443-5216 |
| March 16    | Grand Island   | Backflow        | 0   | 0   | 0   | 0   | 5   | TBR          | 888-305-5292 |
| March 21    | Madison        | Wastewater      | TBA | TBA | TBA | TBA | TBA | MAP          | 402-389-0900 |
| March 22    | Beatrice       | Wastewater      | TBA | TBA | TBA | TBA | TBA | MAP          | 402-389-0900 |

NeRWA – Nebraska Rural Water Association, Wahoo  
 LoNM – League of Nebraska Municipalities, Lincoln  
 AWWA – Nebraska Section American Water Works Association  
 CCC – Central Community College, Grand Island (When calling the 877 number, select extension #7527, or call 308/398-7527.)  
**TBA** – Hours not assigned at time of printing

DHHS – Nebraska Department of Health and Human Services, Division of Public Health  
 MAP – Midwest Assistance Program  
 TBR – Total Backflow Resources; Salix Iowa.  
 ABPA - American Backflow Prevention Association (When calling the 535 number, select extension 3124)  
 NWOD-Nebraska Wastewater Operators Division of the Nebraska Water Environment Association

## **ICS/NIMS Training For Public Water System Security Grant Qualification**

**By: Doug Woodbeck; Field Services and Training**

Recently I have been asked by water operators from several water systems about water system security grants. Whether or not they are still available, and if so, what does a system have to do to get one. First a little history.

Several years back, in the early 2000's, Nebraska DHHS started the security grant program using funds from the Drinking Water State Revolving Loan Fund (SRF). We looked at the description of uses in Federal Guidance that the funds could be used for, and received approval from Region 7 USEPA to initiate the program.

We first had to develop a set of rules, (everyone likes rules) for implementation of the program. At first the rules were pretty simple. Over the years they have become a bit more complicated. However, one constant has been a requirement for the life of the program. That is, to be eligible to receive these grant funds, a water system must have at least one licensed water operator who had successfully passed the ICS/NIMS (Incident Command System / National Incident Management System) training. At first the training just consisted of two modules; ICS 100 and 200. Later on, we added ICS 700 to the mix. The requirement for ICS/NIMS 100, 200, and 700 training still exists today in order for a public water system to qualify to get one of our security grants.

It appears that one of the problems currently afflicting more than a few systems is that many of the licensed water operators are either at, or nearing, the age of retirement. Over the years, as long as the system had at least one licensed operator with ICS/NIMS training, the water system didn't worry about having additional personnel trained in ICS/NIMS. Now that the ICS/NIMS trained staff have left or are leaving, there is no one trained and the systems are no longer eligible to receive the security grant funds.

With this obstacle to receiving a security grant in mind, I am asking Nebraska's water systems to let your DHHS Field Representative know if you need to have someone go through the ICS/NIMS training. I am trying to schedule this

training in Western Nebraska through EMS Region 23. If we can get enough people to attend, the manager for Region 23 said she'd be glad to put on the training.

Another viable option systems have is to complete the training on-line. In my opinion, the on-line training is not ideal, but it is an option if you are disciplined enough to dedicate yourself to it. It is a timed event, so if you don't complete it in the allotted time, the training will automatically shut off and you will have to start over from the beginning.

Through either means of obtaining the needed ICS/NIMS training, on-line or the classroom course, those licensed water operators successfully completing the course have obtained water operator continuing education hours. That will continue as we go forward with this training.

Anyway, if any system from Western Nebraska is interested in sitting through the training, let me know and I will try my best to get a session set up somewhere in the Panhandle, but I make no guarantees.

## **IMPORTANT**

### **2017 Coalition Water Training Calendar**

By Michael Wentink; Field Services and Training

Historically, the Nebraska Operator Training Coalition has produced and distributed to operators, a calendar identifying dates and locations of training events throughout the year. Included in that calendar has been an insert page, for convenient posting, with the listed events identified by month.

Unfortunately, due to state budget restrictions, only the insert page will be distributed by mail. The complete calendar, in the format you have been accustomed to over the years, will be posted on the Public Water Supply Program webpage: [www.dhhs.ne.gov/DrinkingWater](http://www.dhhs.ne.gov/DrinkingWater).

If you have any questions about this, please feel free to contact me, Mike Wentink, at (308) 535-8135. You can also contact me by email at [mike.wentink@nebraska.gov](mailto:mike.wentink@nebraska.gov).

# Water Operator Courses - 2017

**Register Early!**  
**Registration required prior to the class.**  
**(Seating is limited)**  
Call Jennifer at (402) 471-0523.

The course registration form for grades I – IV water operator training courses is available at [www.dhhs.ne.gov/DrinkingWater](http://www.dhhs.ne.gov/DrinkingWater).

## PWS Regulation Review

Encouraged for Grade IV Course Attendees  
**Open to all**; 3 hours of continuing education available for water operator grades I – IV.  
Begins at 1:00 P.M. on the afternoon prior to the scheduled two-day Grade IV course

|             |              |
|-------------|--------------|
| February 7  | Norfolk      |
| March 28    | North Platte |
| May 23      | Beatrice     |
| July 25     | Scottsbluff  |
| September 6 | Fremont      |
| December 12 | Grand Island |

## Grade IV

*Cost is \$80.00 for the class and \$98.00 for the two textbooks if needed.*

|                  |                                |
|------------------|--------------------------------|
| February 8 - 9   | Norfolk <b>(Class is Full)</b> |
| March 29 - 30    | North Platte                   |
| May 24 - 25      | Beatrice                       |
| July 26 - 27     | Scottsbluff                    |
| September 7 - 8  | Fremont                        |
| December 13 - 14 | Grand Island                   |

## Grade III

*Cost is \$200.00 for the class and \$98.00 for the two textbooks if needed.*

|               |              |
|---------------|--------------|
| April 17 - 21 | Grand Island |
| October 2 - 6 | Beatrice     |

## Grade I & II

*Cost is \$200.00 for the class and \$98.00 for the two textbooks if needed.*

|                       |              |
|-----------------------|--------------|
| February 27 - March 3 | Blair        |
| August 7 - 11         | Grand Island |

## Grade VI Training Courses

**Note** – To obtain additional information on the **Grade VI** (backflow) courses below, please contact the identified training provider.

### **January 9 – 13**

### **Wahoo**

Contact the Nebraska Rural Water Association at (800) 842-8039 or (402) 443-5216.

**Note:** You may also register for NeRWA classes at <http://www.nerwa.org/trainc.htm>.

### **January 30 – February 3**

### **Omaha**

Contact Total Backflow Resources at (888) 305-5292 or (712) 946-1012.

**Note:** You may also register for TBR classes at <http://www.totalbackflow.com/nebclassagenda.htm>.

### **March 13 – 17**

### **Grand Island**

Contact Total Backflow Resources at (888) 305-5292 or (712) 946-1012.

**Note:** You may also register for TBR classes at <http://www.totalbackflow.com/nebclassagenda.htm>.

### **April 10 – 14**

### **Wahoo**

Contact the Nebraska Rural Water Association at (800) 842-8039 or (402) 443-5216.

**Note:** You may also register for NeRWA classes at <http://www.nerwa.org/trainc.htm>.

### **September 11 – 15**

### **North Platte**

Contact Total Backflow Resources at (888) 305-5292 or (712) 946-1012.

**Note:** You may also register for TBR classes at <http://www.totalbackflow.com/nebclassagenda.htm>.

### **October 2 – 6**

### **Grand Island**

Contact Total Backflow Resources at (888) 305-5292 or (712) 946-1012.

**Note:** You may also register for TBR classes at <http://www.totalbackflow.com/nebclassagenda.htm>.

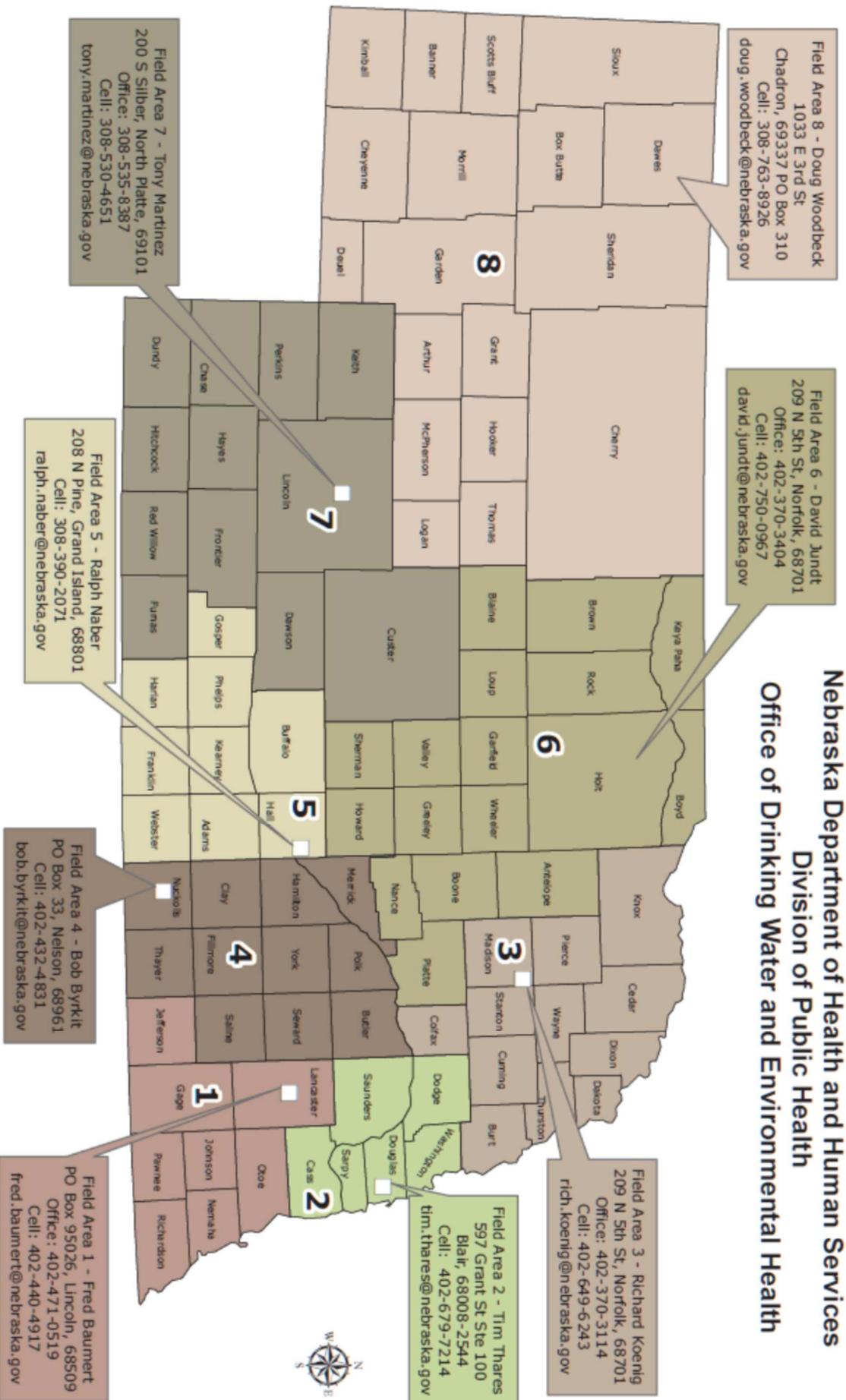
### **October 16 – 20**

### **Wahoo**

Contact the Nebraska Rural Water Association at (800) 842-8039 or (402) 443-5216.

**Note:** You may also register for NeRWA classes at <http://www.nerwa.org/trainc.htm>.

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



Field Service Area Offices

County outline

**PWS Field Service Areas**

**Legend**

- 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  
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