



IDNR Water Supply Update

2014 Laboratory Symposium

September 8, 2014

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IDNR Water Supply Operations Section



Today's Agenda

- 💧 Water Use Updates
- 💧 Rulemaking
- 💧 Federal Rules
- 💧 Annual Public Drinking Water Compliance Report

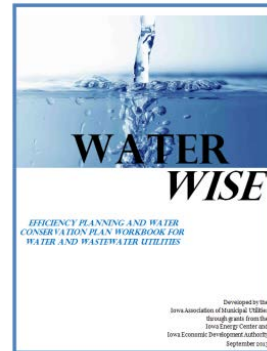
*AWOP - Performance
Based Training 3:
Awarding Certificates –
Session 6, June 2014*



Water Use Permits

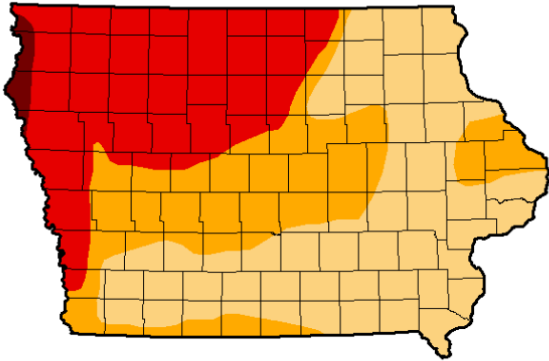


- 💧 Water Use Permit required of anyone withdrawing at least 25,000 gallons in a single day during the year
 - Many PWS have WU permits, but not everyone
 - Many non-PWS users have WU permits (recreation, industry, ag)
- 💧 The WU database is accessible via the Internet
 - Gain access to your WU permit(s) via that portal
 - Update information, provide the annual report, pay fees, etc.
- 💧 Initially, you must complete username & password
 - It's called A&A: Authorization and Authentication
 - Contact Jim, Charlotte, or Mike for more information
- 💧 Annual fee (due Dec. 1) will go to EPC in September: \$99
- 💧 A resource to develop water conservation plan: IAMU's *Water Wise* booklet and spreadsheet, updated Sept. 2013

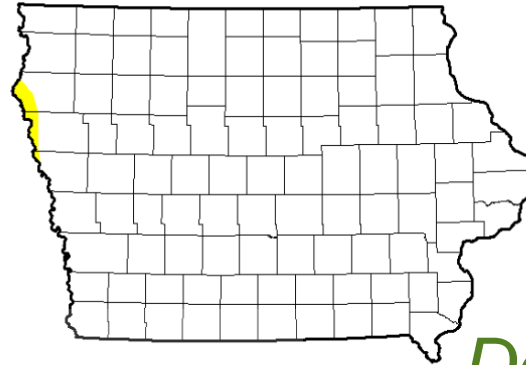


Drought Monitor: last 24 months

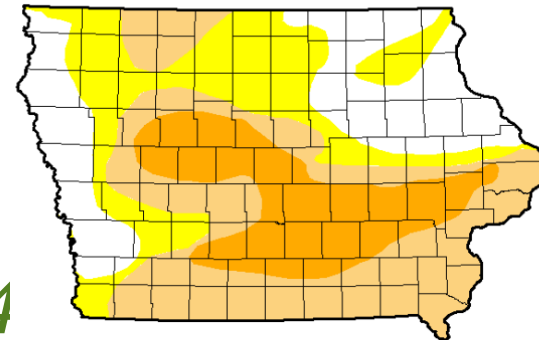
Dec. 25, 2012



July 2, 2013



Dec. 31, 2013



Key:

Abnormally dry, D0

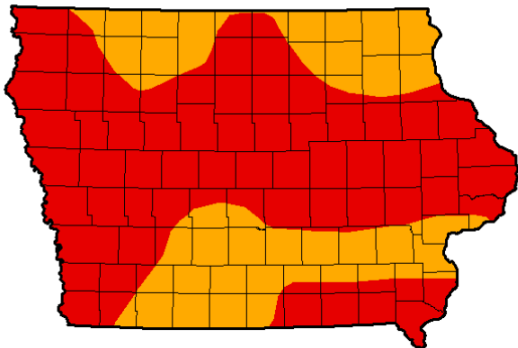
Moderate drought, D1

Severe drought, D2

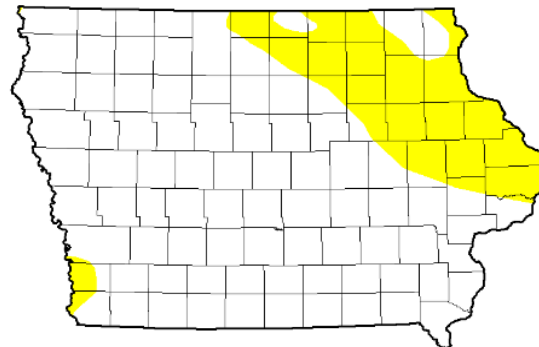
Extreme drought, D3

Exceptional drought, D4

August 21, 2012

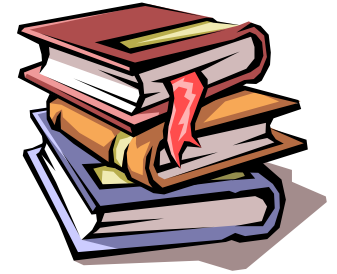


August 19, 2014



Iowa Rules in Process

- 💧 Public Water Supply Program Rules
 - Groundwater Rule, Lead & Copper Short-term Revisions, and many analytical methods
 - ▶ We're already implementing all of these
 - ▶ Finishing rule drafts; then technical advisory review
 - Revised Total Coliform Rule (RTCR) and additional analytical methods will be in the next package
- 💧 New Chapter 48, Geothermal Heat Exchange Borehole Rules (GHEX)
 - Minimum construction standards for GHEX boreholes



Iowa Rules in Process

- ◆ Water Use: Jordan Aquifer (Cambrian-Ordovician) & IAAP Des Moines & Lee Counties Protected Source
 - Direction from EPC will be sought in October regarding EO80 recommendations for the Jordan Aquifer
 - ▶ Protected source designation in parts of Linn, Johnson, and Webster Counties (means DNR must issue all well permits in delineated area)
 - ▶ Retain 2,000 gpm restriction on industrial and power generation
 - ▶ Change 200 ft limit on decline of groundwater piezometric head; allow more allocation where feasible
 - Iowa Army Ammunition Plant RDX Plume in parts of Des Moines & Lee Counties protected source designation
 - ▶ Will require additional well drilling protections if a well is drilled through the plume, to protect the underlying aquifer

Sampling Reminder



- 💧 Check your permit to know when to sample!
 - TTHM & HAA5:
 - ▶ Sampling is in a specific **MONTH** now (not quarter)
 - ▶ Follow your approved sampling plan. Use the new “DB” code: DB01, DB02, etc. (It’s a zero, not an O).
 - Lead & Copper:
 - ▶ Do you need to sample before Sept 30?
 - ▶ Follow your approved sampling plan
 - ▶ Send in your lead certification after you’ve done the consumer notice
- 💧 If you don’t understand your permit, call the person listed on the letter for help
- 💧 If you receive a “monitoring reminder” letter, it means we don’t have the data and you need to check it out!

Data Transmission

- 💧 Sample comment field
 - Sample taken at 100 N 3rd St
 - 100 N 3rd St
 - Set for 15 spaces
- 💧 7th of the month
- 💧 15th of the month – compliance run

SDWIS

💧 Safe Drinking Water Information System

- 1999
- EPA designing new database

💧 ~~Nextgen~~

💧 SDWIS Prime

- Cloud platform
- May 2015 (ready for RTCR)
- Now delayed 6-9 months
- RTCR module for SDWIS

Stage 2 MCL & OEL

- 💧 14 TTHM MCL

 - LRAA

- 💧 2 HAA5 MCL

- 💧 Violations at 9 systems

 - Since 2013

- 💧 16 OEL reports at 12 systems

Long-term 2 ESWTR: Second Round

- Surface water and influenced groundwater systems will begin the second round of source water monitoring on a phased schedule, similar to the first round. Start date:
 - Schedule 1 (>100,000): April 2015
 - Schedule 2 (50,000 – 99,999): October 2015
 - Schedule 3 (10,000 – 49,999): October 2016
 - Schedule 4 (<10,000 & *E. coli*): October 2017
 - Schedule 4 (<10,000 & *Crypto*): April 2019
- SHL is certified for *Crypto*
- Letters have been sent to the Schedule 1 & 2 CWS as a budget & schedule reminder
- No EPA database (DCTS) this round



Revised Total Coliform Rule (RTCR)

- 💧 Final Rule published February 13, 2013
- 💧 Effective date is April 1, 2016
 - This rule affects all Iowa systems
 - Eliminates the non-acute coliform bacteria MCL; still in effect until March 31, 2016
 - Replaces it with Level 1 Assessment, required whenever the former non-acute trigger is met
 - ▶ Trigger: 5.0% rule for large systems; 2 positives in small systems
 - ▶ Corrective action required if defect found
 - Acute MCL remains and includes PN; also requires Level 2 Assessment (more thorough evaluation)



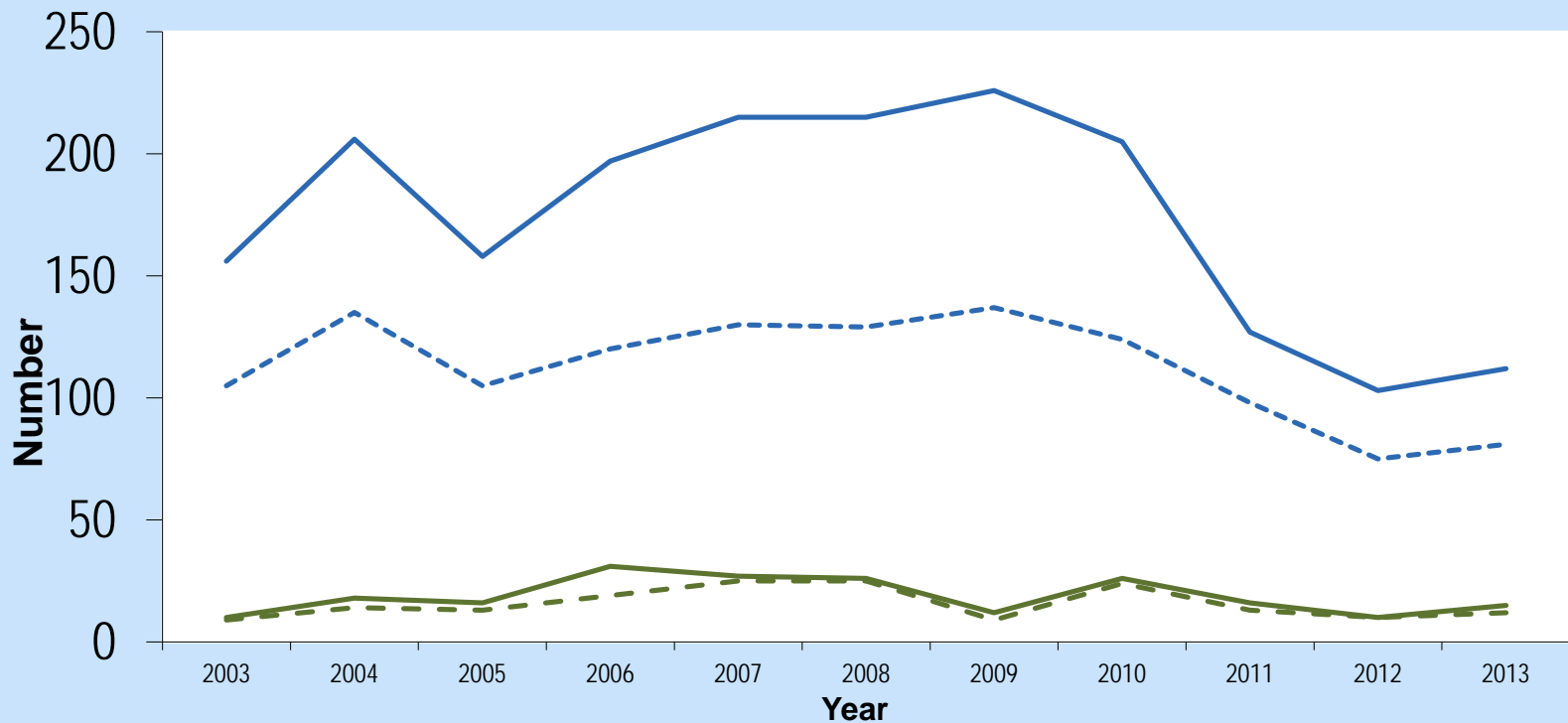
RTCR highlights, continued

- System with more than one Level 1 Assessment in a year will also have to do a Level 2 Assessment
 - ▶ Likely system to do the Level 1; DNR to do the Level 2
- 💧 Several other parts to the rule
 - 💧 Routine sampling remains the same; repeat sampling is 3 samples for all systems
 - 💧 Failure to take repeats after *E. coli* positive is an acute MCL violation
- 💧 Seasonal systems required to have an approved start up plan & clean sample before opening
 - Seasonal defined as “depressurized” during part of the year
 - This part of the rule will require a lot of training.
 - 237 TNC in Iowa that are potentially affected



Iowa TCR MCL Violations: 2003-2013

- Non-acute TCR contributes the largest number of MCL violations in Iowa
- GWR helping to eliminate some problem situations
- Drought reduces TCR MCL violations; rain increases them



— Non-Acute Coliform Violations

— Acute Coliform Violations

- - - PWSs with Non-Acute MCL Violations

- - - PWSs with Acute MCL Violations

Using Iowa 2013 violation data:

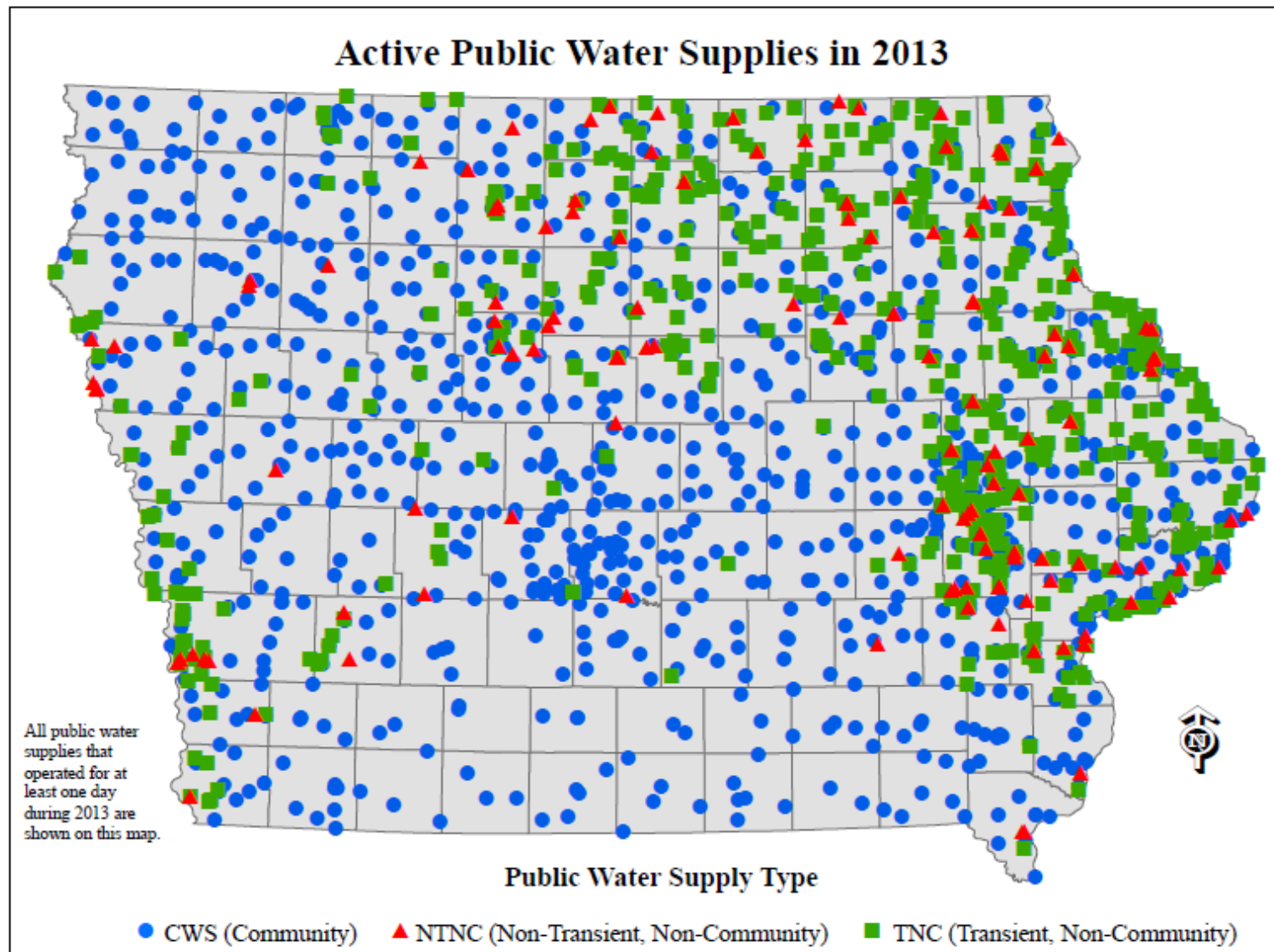
- 103 Level 1 Assessments
- 31 Level 2 Assessments
- 112 Systems requiring at least one assessment
 - ▶ 18 are seasonal TNC
 - ▶ 1 is seasonal NTNC
- We have 237 seasonal systems under the current definition of operating season, all of which need start up plans.
 - ▶ Some are likely pressurized year-round, so those would fall off this list.
 - ▶ 230 are TNC and 7 are NTNC (all schools)

RTCR – Maintaining Compliance

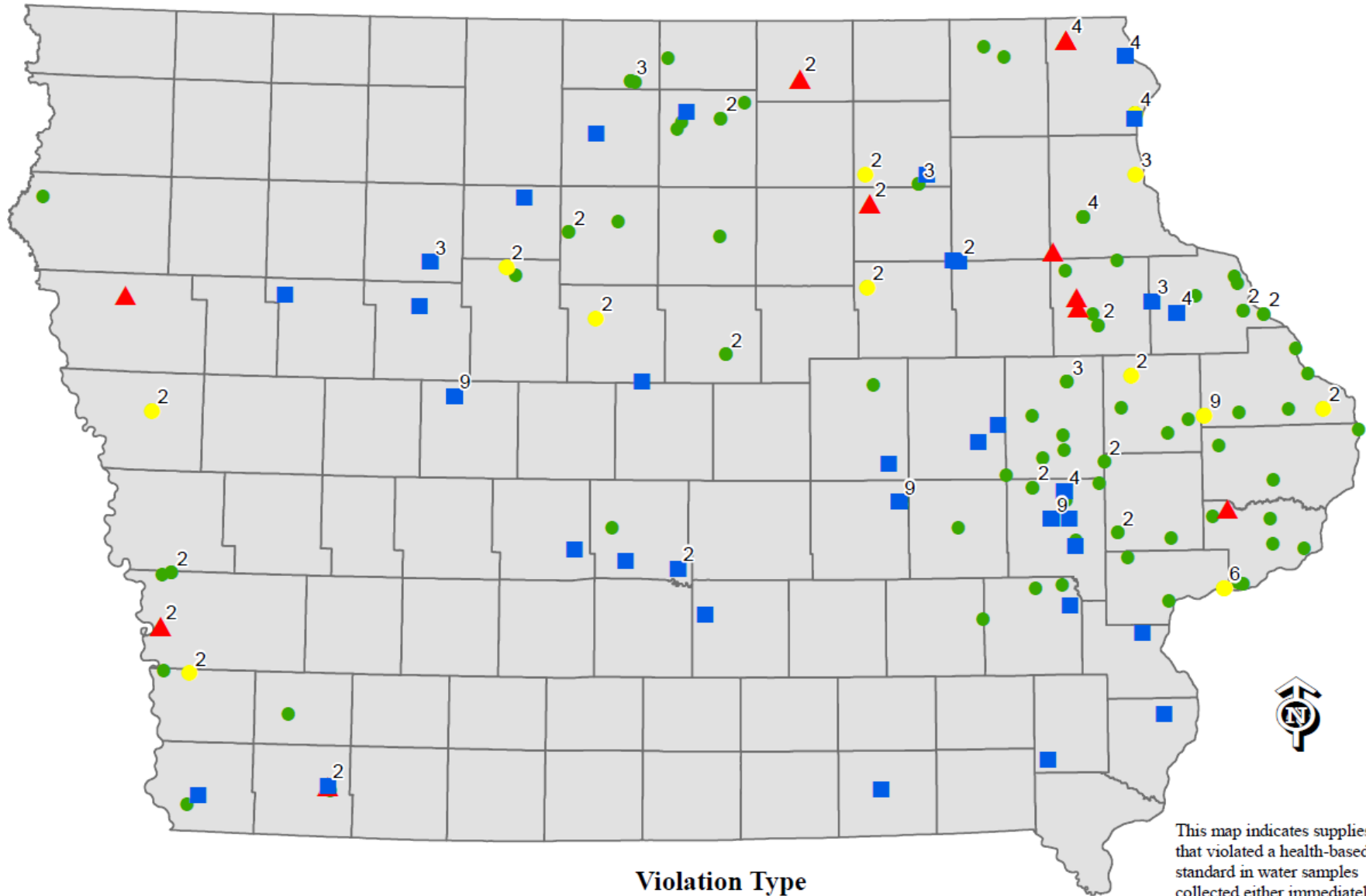
- 💧 Sample plan must be current and accurate
- 💧 Take the samples using proper technique from sample plan sites, on time
 - Sample early in period
 - Sample early in the week
 - Sample from appropriate, clean locations
 - Train your backup sampling person
- 💧 Inspect the parts of your system that could have sanitary defects and fix when needed
 - Well cap sealed, vent screened, electrical conduits sealed, storage reservoir screens intact, etc.
- 💧 More training on this rule in 2015



2013 Annual Compliance Report



Health-Based Standard Violations at Iowa Public Water Supplies in 2013

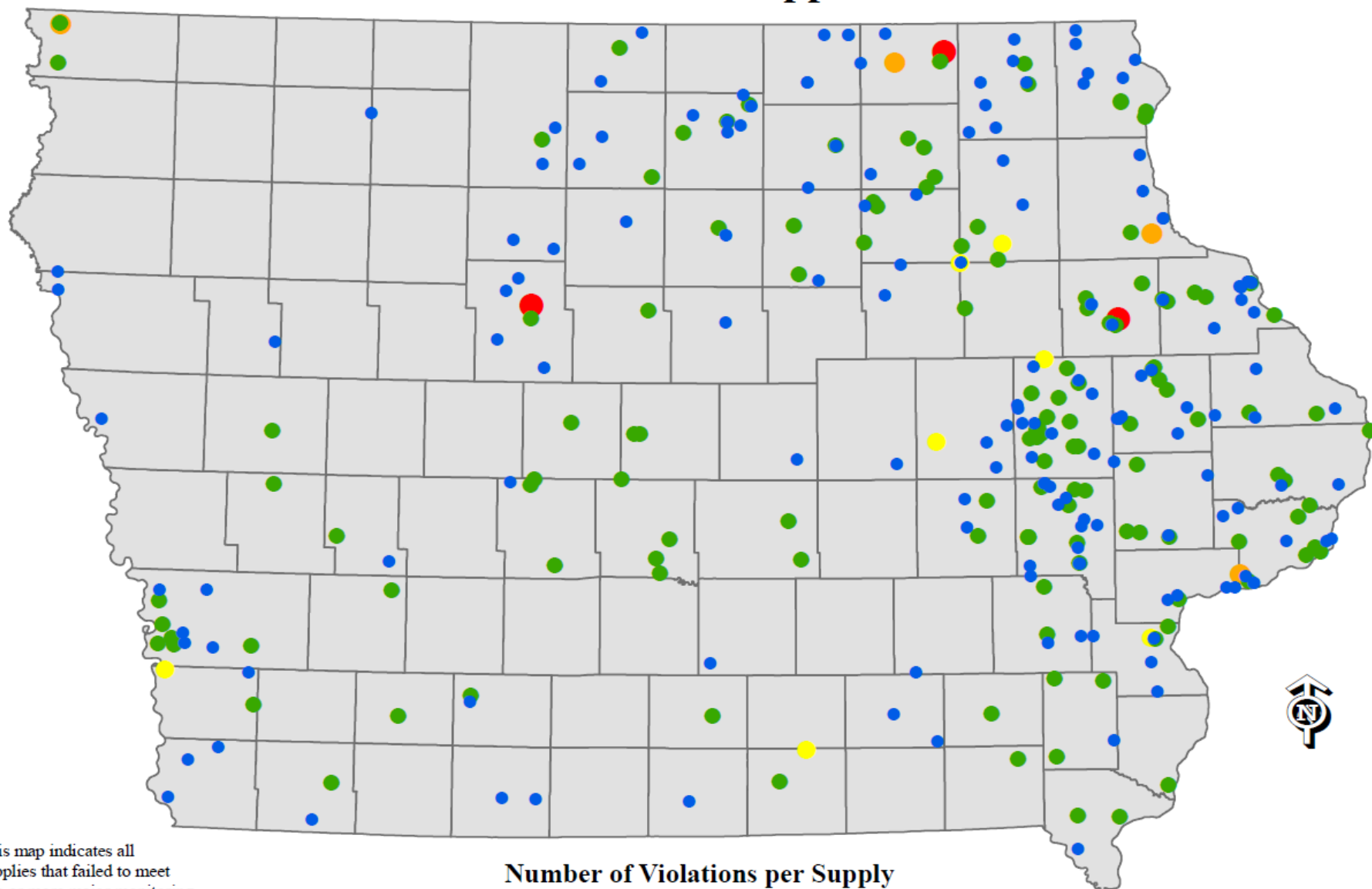


- Number of Violations
per Supply (if > 1)

● Coliform, Total ● Coliform, Fecal ▲ Nitrate ■ Other

This map indicates supplies that violated a health-based standard in water samples collected either immediately after treatment or in the distribution system.

Major Monitoring and Reporting Violations at Iowa Public Water Supplies in 2013



This map indicates all supplies that failed to meet one or more major monitoring or reporting requirements during the year.

What to do when you move on...

- 💧 Please leave the information for the person who follows you
 - **Sampling Plans:**
 - ▶ Bacteria Sampling Plan (all systems)
 - ▶ Lead & Copper Sampling Plan (CWS and NTNC)
 - ▶ Disinfectants/Disinfection Byproducts Sampling Plan (that you've just updated; only required for CWS and NTNC that use disinfected water)
 - **Monthly Operation Reports:**
 - ▶ On-site testing SOP
 - **Operation Permit:**
 - ▶ Current permit
 - ▶ Name of the laboratory you use, contact person, phone number
 - **Standard Operating Procedures:**
 - ▶ Maintaining your equipment: how to, schedules, purveyors, etc.
 - ▶ Flushing practices
- 💧 Notify the FO that you're moving on within 30 days

DNR Staff Update

- 💧 Water Supply moved back to the Wallace Building in January
 - 502 E. 9th St, Des Moines, Second floor – north side
- 💧 Reorganization of Agency: now 2 Divisions
- 💧 Reorganization of Environmental Services Division
 - Now 4 bureaus: Air, Land, Water, and Field Services
- 💧 Iowa Geological Survey moved to the Univ. of Iowa
 - Eight DNR staff from IGS were hired at the University
 - All remaining staff were offered positions; most in Des Moines; some people will retire
 - Move was completed by April 15



Reminder – sign up for WS Listserv

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Questions?

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