Drinking Water Related Updates: 2011 and 2012 Legislative and Regulatory Updates

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Today's Topics

- Legislative Updates:
  - Preservation of Highest Quality Sources
  - Streamlined Source Abandonment
  - Bottled Water and Bottled Water Sources
  - Operator Certification Application Fees
- Regulations in Progress:
  - RCSA Section 19-13-B102
  - Operator Certification Regulations
  - Certificate of Public Convenience and Necessity (CPCN)-Creation of New Public Water Systems

Today's Topics- cont.

- Straight from EPA at the ASDWA Conference
  - Reduction of Lead in Drinking Water Act of 2011
  - Perchlorate
  - Small Systems
  - Hydraulic Fracturing
- Emergency Preparedness, Post-Storm After Action Report and Resulting Regulatory Initiatives
- Regulatory Reminders for Various Rules

Legislative Updates

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Highest Quality Source List

- PA 11-242, Sec. 59. (NEW) (Effective from passage) Not later than October 31, 2011, the Commissioner of Public Health, in consultation with the Water Planning Council established pursuant to section 25-33o of the general statutes, shall prepare a list designating sources or potential sources of water that require protection so that the highest quality sources of water are available to provide water for human consumption. In preparing such list, the commissioner shall take into consideration the plans produced pursuant to sections 22a-352, 25-32d and 25-33h of the general statutes and such other plans or information that the commissioner deems relevant. The commissioner shall update the list annually or more frequently as the commissioner deems necessary. Nothing in this section shall be construed to limit the commissioner's authority to approve a source of water supply that is not on the list.

Public Act 11-242 – Source Abandonment

PA 11-242 streamlined the source abandonment process when “the source of water supply to be abandoned is a groundwater source with a safe yield of less than ten gallons per minute and is of poor water quality.” (modifies CGS Section 25-33k)

Bottled Water Supplies

Sec. 61. Section 21a-150a of the general statutes is repealed and the following is substituted in lieu thereof (Effective October 1, 2011): (2) A bottler selling or distributing bottled water obtained from a source located in the state shall obtain approval for the use of such source from the Department of Public Health. The Department of Public Health shall inspect each bottled water source located in the state and, if such source meets quality and safety requirements, issue an approval for such source. An approval issued by the Department of Public Health pursuant to this subsection shall expire three years from the date of issue.

Operator Certification Fees
DWS Circular Letter 2011-01

Certification Type	Initial Application Fee*[1]	Renewal Application Fee*[1]
Class I, II, III or IV Water Treatment Plant Operator	$224*[2]	$98
Class I, II, or III Distribution System Operator	$224*[2]	$98
Class I, II, III, or IV Water Treatment Plant Operator-In-Training (OIT)	$224*[2]	$98
Class I, II, or III Distribution System OIT	$224*[2]	$98
Small Water System Operator	$224*[2]	$98
Limited Distribution System Operator	Not applicable	$98
Limited Water Treatment Plant Operator	Not applicable	$98
Conditional Small Water System Operator	Not applicable	$98
Conditional Distribution System Operator	Not applicable	$98
Conditional Water Treatment Plant Operator	Not applicable	$98
Backflow Prevention Device Tester	$154	$69
Cross Connection Survey Inspector	$154	$69

Regulations in Progress

- B102
- Emergency Generators
- Emergency Plans
- B46 - Notification
- Certified Operator
- Certificate Non-Community systems

Straight from EPA at the ASDWA Conference

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Slides are courtesy of Pam Barr, Acting Office Director
Office of Ground Water & Drinking Water
U.S. Environmental Protection Agency

Reduction of Lead in Drinking Water Act of 2011

- Amends SDWA Section 1417 – Prohibition on Use and Introduction into Commerce of Lead Pipes, Solder and Flux
  - Changes the definition of **“**lead-free**”** by reducing lead content from 8% to a weighted average of not more than 0.25%
  - Exemptions:
    - used exclusively for non-potable services or not anticipated to be used for human consumption
    - toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.

Reduction of Lead in Drinking Water Act of 2011

- Eliminates Section 1417(d)(3) – which requires certain products (plumbing fittings and fixtures) to comply with standards for lead leaching (NSF/ANSI Standard 61 Section 9)

- Establishes statutory requirement for calculating lead content

- New law effective 36 months from signature: Jan 4, 2014

Reduction of Lead in Drinking Water Act of 2011

- Aug 16, 2012: EPA held public stakeholder meeting

- Input from Stakeholders:
  - EPA needs to specify what products are covered by the lead free
  - Some prefer dual product lines for non-potable applications
  - Some prefer only lead free product lines with dual product lines and packaging labeling during the transition period
  - Repair components for fittings/fixtures are often not lead free nor are they tested/certified
  - Want more time to clear product inventory – manufacturers not taking back product – Statutory Effective Date
  - Little to no support for acid washing or coatings – consistent with SDWA

Regulatory Updates:

- Perchlorate
  - Feb 2011: Made determination to regulate
  - Feb 2013: SDWA deadline for proposed regulation

- Identified 5 analytical methods for measuring perchlorate from <0.1 ug/L to 4ug/L.
- Evaluating Best Available Technologies & Small Systems Compliance Technologies
- Developing costs for analytical methods & treatment technologies

Perchlorate

- Seeking recommendation from SAB on how to consider available health data.
  - July 2012: Science Advisory Board (SAB) review meeting
  - Sept 2012: Draft “SAB Advisory Report on Approaches for Deriving an MCLG for Perchlorate”

- SAB next steps:
  - Panel to Revise and hold another public teleconference
  - Chartered SAB QA review teleconference
  - Revise Quality Review Draft for Chartered SAB approval of Final Report
  - Final Report

Perchlorate

- Sept 2012: Public Meeting to share information on:
  - treatment technologies
  - analytical methods
  - other information pertaining to the development of a proposed regulation
  - receive public questions and input
- Oct 2012: NDWAC Consultation
  - Analytical Methods
  - Treatment Technologies
  - Source Water Protection Measures

Small Systems

- Continuing the “Re-Energizing” state of mind to support small systems
- State/EPA Workgroups: Continue to share best practices
  - EPA/State Asset Management Workgroup
    - Launched this summer to identify best practices to implement asset management at the state and utility level
  - EPA/State Non-Community Water System Workgroup
    - Launched this summer to identify best practices on how to work with NCWSs to return or maintain them in compliance
  - EPA/State Water System Partnership Workgroup
    - Re-launching this workgroup in 2013 to include more states members
    - Identify benefits and barriers of encouraging water system partnerships for utilities that lack capacity

Small Systems

- Federal Partnerships:
  - EPA/USDA partnership: to reach small systems in Rural America
    - Trained USDA staff on EPA regulations & how regulations are developed to take into account small systems
    - Hosted a webinar in January that reached over 450 individuals
    - Interagency Task Force to coordinate federal efforts for infrastructure in Indian country - (EPA, USDA, IHS,HUD)
    - Co-hosted four part webinar training on water system partnership.
  - Veteran Affairs – promote water sector careers to veterans
    - VA attended, hosted booth & conducted presentations water sector conferences
    - Series of training webinars to cross educate veteran affairs and water sector profession

Hydraulic Fracturing

- EPA released this year a draft guidance on Diesel Fuels Hydraulic Fracturing
  - Guidance provides recommendations to help strengthen existing environmental regulations & clarify EPA's role in the permitting process
- Increase concern regarding the protection of drinking water during hydraulic fracturing
  - Over 90,000 comments were received on the draft guidance
- EPA is working through those comments, & expects to finalize the guidance in 2013.

Emergency Preparedness, Post-Storm After Action Report and Resulting Regulatory Initiatives

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Storms Irene & Alfred Risk Communication

- Pre-storm notice – Boil Water Advisory SOP, forecasts, other storm advisories
- Governor's Office – system status, twice per day
- Storm Response - messages
  - Press releases, phone calls, conference calls, EPA assistance
  - Web-site, emails and Everbridge
- DWS staff response – 24/7 availability
  - DPH ECC
  - State Armory SEOC

Storm Irene August 2011

- 137 small Community Public Water Systems (CWS) on Boil Water Advisory (30% of small CWS)
- 16,624 people affected
- 99% of CT Residents retained their CWS service
- Majority of large CWS on shoreline lost street power, however operations not affected due to emergency power capacity, street power restored in a few days, flooding had little effect
- Isolated storm damage – water main washout, isolated flooding issues, no real facility access problems


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Storm Alfred October 2011

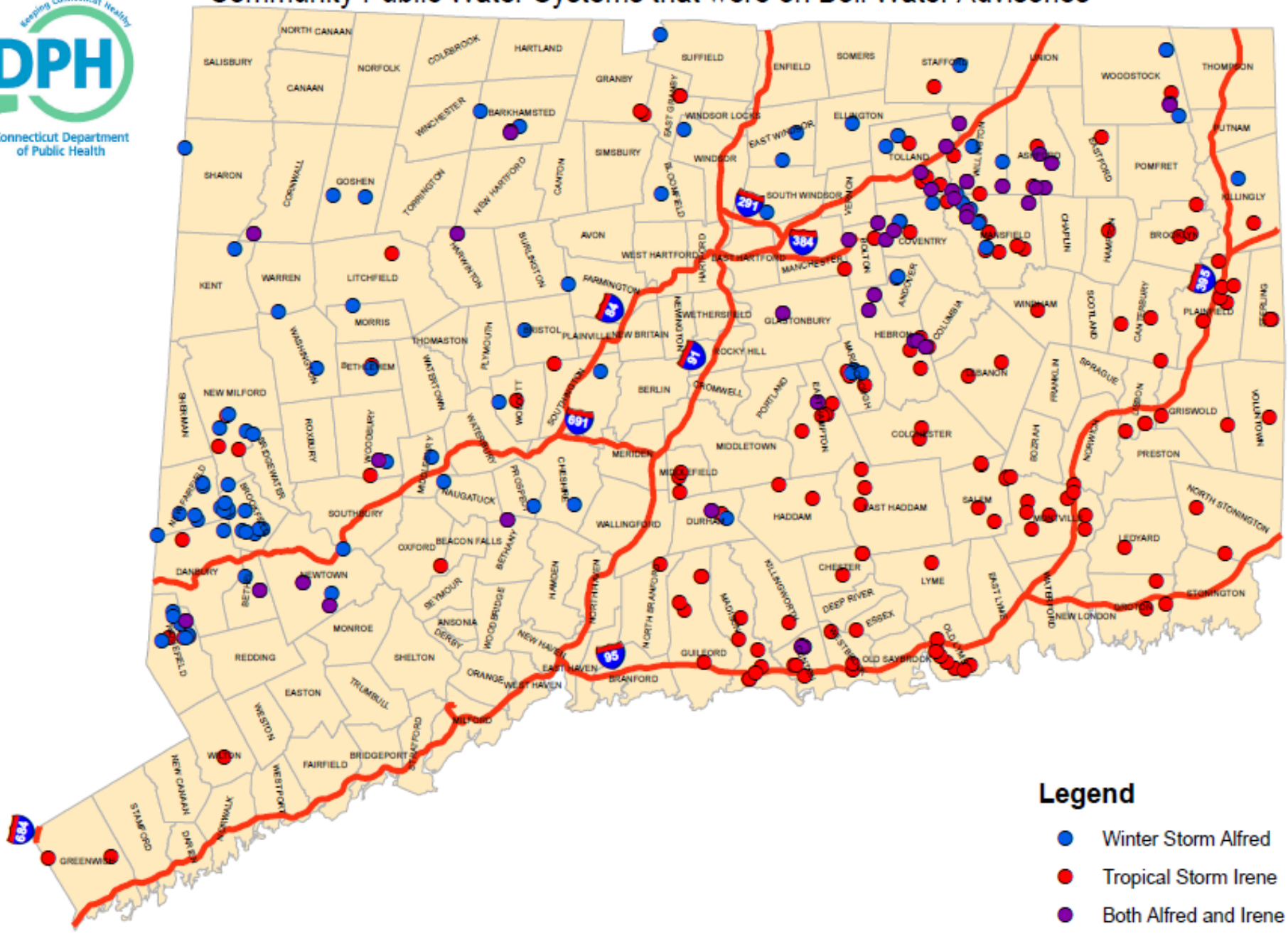
- 121 small CWS on Boil Water Advisory (26% of small CWS)
- 20,212 people affected
- 98% of CT Residents retained their community public water service
- Majority of large CWS along and north of I-84 lost street power, however operations not affected due to emergency power capacity, street power restored slowly some large CWS without street power for 8 to 9 days
- Some facility accessibility issues and communication/unable to report status scenarios

Keeping Connecticut Healthy

DPH

Connecticut Department of Public Health

Community Public Water Systems that were on Boil Water Advisories



DWS After Action Report

- Revisions to the Boil Water Advisory SOP
- WebEOC Waterboard - >1000 CWS
- Communication, Communication, Communication
  - directly with LHD and PWS early and often
  - messages prepared, reviewed and sent quickly
  - Assure correct emergency contact information
- Organization
  - DWS ICS structure>DPH ECC>SEOC
  - Frequent training for multiple staff
  - Coverage – weekends, nights, etc.

DWS After Action Report

- Small CWS Emergency Planning
  - Asset management/Capacity Development
  - Emergency Response Plans/Contacts
  - Sanitary Survey focus
- CtWARN support and expanded membership
- ALL CWS should know who and how to contact their EMDs!!
- Outreach and Training – Internal and External
  - Certified Operator training curriculum
  - ICS/NIMs training
- Data management absolutely critical for DWS
- Partnerships with all sectors and stakeholders – power companies, public works, DOHs, EMDs, etc.

Superstorm Sandy October 2012

- 109 small CWS on Boil Water Advisory (24% of small CWS)
- 14,740 people affected
- 99% of CT Residents retained their community public water service
- After Action Review process initiated internally and externally – future DWESAC meeting
- Improved coordination between PWS and electrical utilities, DEMHS, Regional Coordinators, EMDs
- Pre-storm messaging from PWS
- Storm surge a big concern – some SLOSH sources but many distribution facilities/mains

Resulting Regulatory Initiatives

- Emergency generators at small CWS
  - Draft regulations
- DWSRF loan program for generators

Regulatory Reminders for Various Rules

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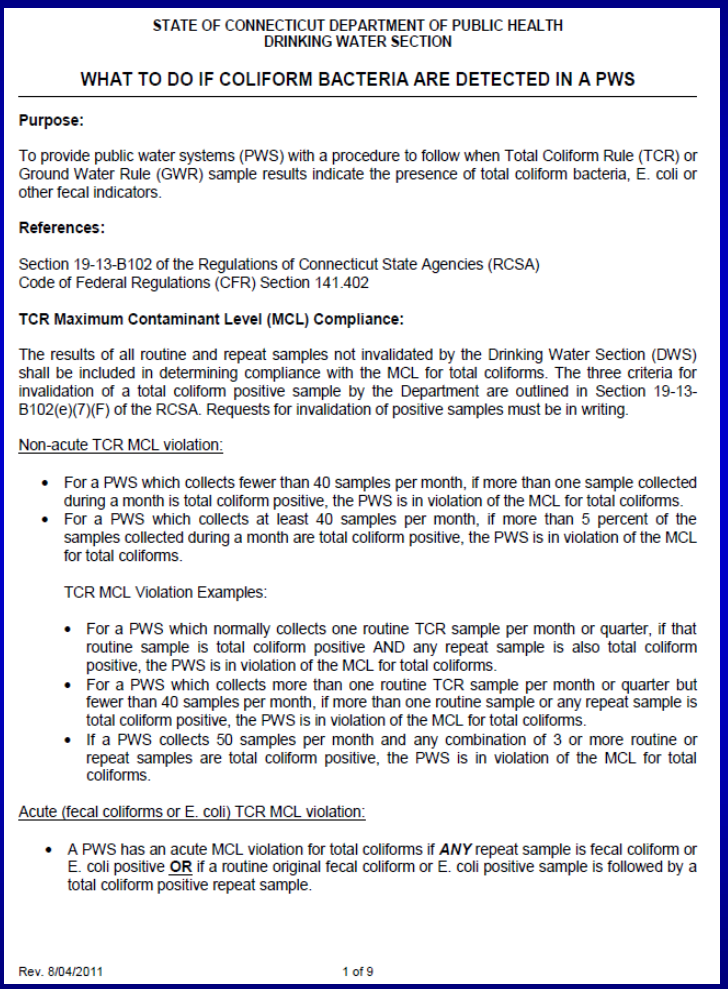
Ground Water Rule

- Applies to all PWS that use groundwater sources
- Implementation agreement with EPA
- Triggered monitoring
  - GW Source sampling for E. coli within 24 hours of a Total Coliform Rule (TCR) positive sample
  - One GW sample per TCR positive per source “in use”
  - Consecutive system notification requirements
- Confirmation monitoring
  - 5 GW Source samples after an E. coli positive trigger
- Assessment monitoring
  - Coming soon!

Ground Water Rule

- Tier 1 public notification within 24 hours
- Do NOT disinfect until Triggered and Confirmation samples (if required) are collected!
- Significant Deficiencies
  - Coming soon!
- PWS response to a GW source EC+ (TG or CO) or a Significant Deficiency
  - Consultation with DPH within 30 days
  - Corrective Action (CA) or CA Plan within 120 days
- Failure to perform corrective action = Tier 2 Treatment Technique Violation

Ground Water Rule



STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
DRINKING WATER SECTION

WHAT TO DO IF COLIFORM BACTERIA ARE DETECTED IN A PWS

Purpose:

To provide public water systems (PWS) with a procedure to follow when Total Coliform Rule (TCR) or Ground Water Rule (GWR) sample results indicate the presence of total coliform bacteria, E. coli or other fecal indicators.

References:

Section 19-13-B102 of the Regulations of Connecticut State Agencies (RCSA)
Code of Federal Regulations (CFR) Section 141.402

TCR Maximum Contaminant Level (MCL) Compliance:

The results of all routine and repeat samples not invalidated by the Drinking Water Section (DWS) shall be included in determining compliance with the MCL for total coliforms. The three criteria for invalidation of a total coliform positive sample by the Department are outlined in Section 19-13-B102(e)(7)(F) of the RCSA. Requests for invalidation of positive samples must be in writing.

Non-acute TCR MCL violation:

- For a PWS which collects fewer than 40 samples per month, if more than one sample collected during a month is total coliform positive, the PWS is in violation of the MCL for total coliforms.
- For a PWS which collects at least 40 samples per month, if more than 5 percent of the samples collected during a month are total coliform positive, the PWS is in violation of the MCL for total coliforms.

TCR MCL Violation Examples:

- For a PWS which normally collects one routine TCR sample per month or quarter, if that routine sample is total coliform positive AND any repeat sample is also total coliform positive, the PWS is in violation of the MCL for total coliforms.
- For a PWS which collects more than one routine TCR sample per month or quarter but fewer than 40 samples per month, if more than one routine sample or any repeat sample is total coliform positive, the PWS is in violation of the MCL for total coliforms.
- If a PWS collects 50 samples per month and any combination of 3 or more routine or repeat samples are total coliform positive, the PWS is in violation of the MCL for total coliforms.

Acute (fecal coliforms or E. coli) TCR MCL violation:

- A PWS has an acute MCL violation for total coliforms if ***ANY*** repeat sample is fecal coliform or E. coli positive **OR** if a routine original fecal coliform or E. coli positive sample is followed by a total coliform positive repeat sample.

Rev. 8/04/2011 1 of 9

- *What To Do If Coliform Bacteria Are Detected In A PWS*
  - TCR/GWR guidance document
  - Available on DWS website

Stage 2 Disinfectants & Disinfection By-Products Rule

- Applies to all CWS and NTNC that deliver water treated with a primary disinfectant (not UV)
- Implementation agreement with EPA
- Early Implementation tasks complete (IDSE)
- Maximum Contaminant Levels have not changed
  - TTHM MCL = 0.080 mg/L
  - HAA5 MCL = 0.060 mg/L
  - Compliance is based on a Locational Running Annual Average (LRAA)
- Compliance Monitoring Plans are required

Stage 2 Disinfectants & Disinfection By-Products Rule

Compliance Monitoring for the Stage 2 DBP Rule

Schedule 1	Public water systems serving at least 100,000 people or part of a combined distribution system serving at least 100,000 people	Compliance Monitoring Begins: **April 1, 2012**
Schedule 2	Public water systems serving 50,000 to 99,999 people or part of a combined distribution system serving 50,000 to 99,999 people	Compliance Monitoring Begins: **October 1, 2012**
Schedule 3	Public water systems serving 10,000 to 49,000 people or part of a combined distribution system serving 10,000 to 49,999 people	Compliance Monitoring Begins: **October 1, 2013**
Schedule 4	Public water systems serving less than 10,000 people or part or a combined distribution system serving less than 10,000 people	Compliance Monitoring Begins: **October 1, 2013**

Stage 2 Disinfectants & Disinfection By-Products Rule

- Operational Evaluation Level (OEL)
  - Predictive calculation that indicates a location may be on a path to non-compliance
  - Operational Evaluation Levels must be calculated by the PWS each quarter for each sampling location
  - Operational Evaluation and a written report must be submitted to the Department within 90 days
  - The Operational Evaluation Level Guidance Manual is available on EPA's website at:

http://www.epa.gov/safewater/disinfection/stage2/pdfs/draft_guide_stage2_operationalevaluation.pdf

Stage 2 Disinfectants & Disinfection By-Products Rule

- OEL for both TTHM and HAA5 at each compliance monitoring location is calculated as:

$$[A + B + (2 \times C)] / 4 = D$$

Where:

A = TTHM or HAA5 result for the quarter before the previous quarter (mg/L)

B = TTHM or HAA5 result for the previous quarter (mg/L)

C = TTHM or HAA5 result for the current quarter (mg/L)

D = Operational Evaluation Level (mg/L)

If D for TTHM is > 0.080 mg/L, you have an OEL Exceedance

If D for HAA5 is > 0.060 mg/L, you have an OEL Exceedance

Lead and Copper Rule

- Short-Term Revisions
  - Clarified “end of the monitoring period” trigger date
  - Changes to minimum number of samples required
  - Return to standard monitoring after an ALE
  - Additions to Lead Public Education content and delivery requirements
  - Consumer Notification within 30 days of sample collection
  - Certification of Consumer Notification due to DPH within three months
- Long-Term revisions in the works

Unregulated Contaminant Monitoring Rule 3

- EPA Implementation
- Monitoring for 30 contaminates (28 chemicals and 2 viruses)
- Basis for future regulatory action
- All PWS serving > 10,000 (37)
- Selected PWS serving <= 10,000 (4)
- 12 months of monitoring between 2013 and 2015
- October 1, 2012 – Deadline to report contact info and/or revise sampling locations and schedules
- SDWARS

SDWIS NextGen

What?

Safe Drinking Water Information System

Who?

EPA, EPA Contractors and State Program personnel

How?

Complete redesign using Agile System Development methodology

Where?

In the EPA Cloud

When?

September 2014

Reporting Changes

- New version of SDWIS installed August 2012
- Informational packet to be sent to all data submitters soon
  - New sample type (TG) added
  - Additional reporting fields to link triggered, repeat and confirmation samples to original sample
  - Sample analysis methodology required
- XML format preferred
- Anticipated implementation by January 1, 2013
- DPH web installation of Lab-To-State???