EPA Region 8 Drinking Water Program
Direct Implementation and Sanitary Surveys in Wyoming

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Introductions of the EPA Crew

- Jamie Harris
  - Revised Total Coliform Rule Manager
  - Speaking on RTCR Monitoring and Compliance
- Natalie Cannon
  - Lead and Copper Rule Manager
  - Speaking on Lead and Copper Rule Monitoring and Compliance
- Kendra Morrison
  - Phase II/V Rule Manager
  - Speaking on Various Chemical Monitoring and Compliance Topics
- Michael Copeland
  - Wyoming DW Liaison
  - Speaking on Intro to DI in Wyoming and Sanitary Surveys

Overview

- **What is EPA's Role in Wyoming for Drinking Water?**
- What is a Public Water System (PWS)?
- What are the different types of PWSs?
- What are the general sampling requirements?
- What are Sanitary Surveys?

What are EPA's Roles in Wyoming for Drinking Water?

- Monitoring/reporting of water testing
- Sanitary surveys
- Technical assistance to water operators
- Laboratory certification
- Compliance determinations
- Formal enforcement
- Homeland security

What are Wyoming's Roles in Wyoming for Drinking Water?

- Plan and specification review
- Construction/well drilling permits
- Water rights
- Operator certification
- Capacity development

What are Wyoming's Roles in Wyoming for Drinking Water? (cont.)

- Source water and wellhead protection
- Operation of state laboratories
- Food and beverage inspections
- Financing drinking water projects
- General public health

What is a Public Water System (PWS)?

Definition of PWS:

- A system for the provision to the public of water for human consumption through pipes or, other constructed conveyances
- The system must also have at least fifteen service connections, or
- Regularly serve an average of at least twenty-five individuals daily at least 60 days out of the year (does not have to be continuous)

Different Types of PWSs

- Transient
- Non-Transient-Non-Community
- Community

Transient (TNC)

- Transient population (Non-permanent consumers)
- Restaurants, rest stops, gas stations, camp grounds, etc.

Non-Transient-Non-Community (NTNC)

- Permanent population
- Serves same 25 people/population
- At least 6 months/year
- Not normally publicly accessible
- Examples: schools, factories, etc.

Community (CWS)

- Serves same 25 people or 15 service connections;
- Year-round residents
- HOAs, cities, towns, prisons

What are the sampling requirements for the various types of PWS?

Sampling Requirements: GW vs. SW

General Groundwater Sampling Requirements

- Less potential for contamination
- Monitoring requirements and treatment are minimal, usually
- Depending on system type:
  - Minimum: Revised Total Coliform Rule (RTCR-Bacteriological), Nitrates
  - Max: Chems (IOC, SOC, VOC, Asbestos, LCR, Nitrates, Rads), RTCR, Disinfection Byproduct Rule (DBP)

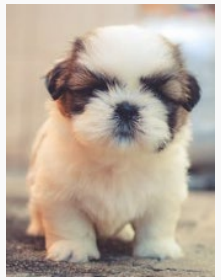
General Surface Water Sampling Requirements

- Includes Groundwater Under the Direct Influence of Surface Water (GWUDISW)
- Much higher potential for contamination
- Surface Water Treatment Rule (SWTR) requirements (filtration, conventional treatment, special monitoring for treatment and disinfection)
- RTCR, Nitrates, Chems (IOC, SOC, VOC, Asbestos, LCR, Nitrates, Rads), DBP

Sampling Requirements: TNC/NTNC/CWS

General Monitoring req's for TNC

- RTCR & Nitrates (the acutes) →
- If SW (or GWUDI):
  - SWTR treatment and monitoring rules apply



General Monitoring req's for NTNC

- RTCR & Nitrates (the acutes)
- Some Chems monitoring (IOCs, SOCs, LCR, Asbestos (if applicable))
- DBP (if chlorinating)
- If SW: SWTR treatment and monitoring rules apply

General Monitoring req's for CWS

- RTCR & Nitrates (the acutes)
- Chems monitoring (IOCs, SOCs, VOCs, Rads, LCR, Asbestos (if applicable))
- Disinfectant Byproduct (DBP) Rule
- If SW: SWTR treatment and monitoring rules apply

Sanitary Surveys and Significant Deficiencies

What are Sanitary Surveys?

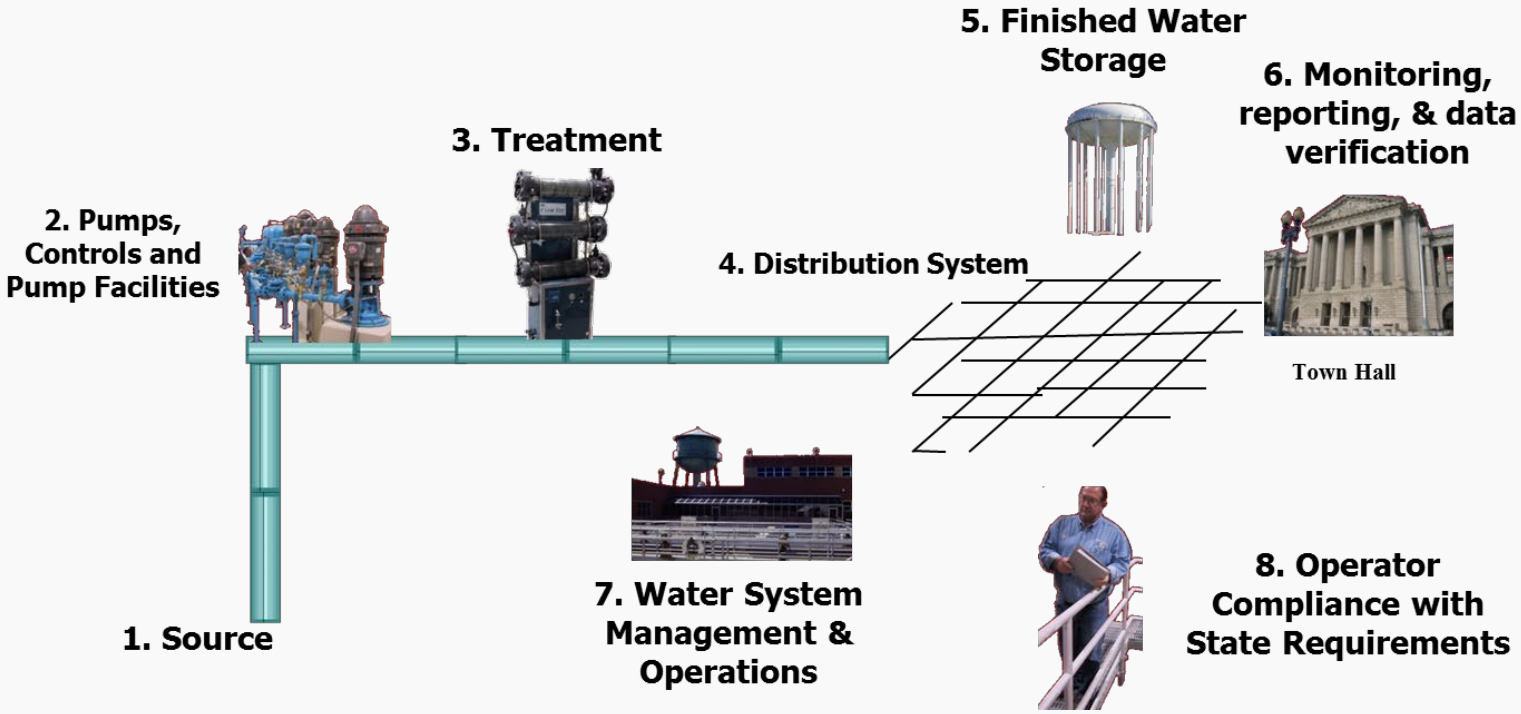
- Inspection of PWSs to Ensure Safe Drinking Water!
- Onsite review of the water source, facilities, equipment, operation and maintenance of a public water system
- Purpose of evaluating the adequacy of such for producing and distributing safe drinking water.

What are Sanitary Surveys? (cont.)

What is evaluated:

1. Source
2. Treatment
3. Distribution system
4. Finished water storage
5. Pumps, pump facilities, and controls
6. Monitoring, reporting, and data verification
7. System management and operation
8. Operator compliance with State requirements

What are Sanitary Surveys? (cont.)



What is the Frequency of Sanitary Surveys?

- 3 Year
  - Community
- 5 Year
  - Non-community

Preparing for Sanitary Surveys

- Ensure that your records are available and organized
- Ensure your system is in good working order
- Review the EPA Region 8 pamphlet “Preparing for Your Drinking Water Sanitary Survey”
  - (https://www.epa.gov/sites/production/files/2017-11/documents/ss_brochure_wyoming.pdf)
- Surveyor will contact you prior to survey to coordinate

Significant Deficiencies and Recommendations

What are significant deficiencies?

- Defects in the design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system
- Determined to be causing or have the potential for causing the introduction of contamination into the water delivered to consumers.
- Significant deficiencies are identified at your water system, you must respond to the EPA and you will be required to address them according to a schedule or you will receive a violation

What are Recommendations?

- Recommendations to improve the operation of the water system and to protect public health
- While not required, the EPA recommends that all such items be corrected

Examples of Significant Deficiencies

<All names withheld!>
<Most issues have been addressed.>

Lack of Sanitary Seal! (well heads)

Conduit
not sealed

No wellhead sanitary seal; conduit & wires not properly sealed

No wellhead sanitary seal; missing bolts = not properly sealed

No wellhead sanitary seal; conduit & wires not properly sealed

Lack of Sanitary Seal! (well head/casing)

Conduit is not properly sealed.

Lack of Sanitary Seal! (hatches and lids)

Deteriorating concrete around the spring needs to be repaired

Improper repair of lid of spring box…if it can't be duct'd….

Storage Tanks!
(improper construction, lack of sanitary seal)

Un-repaired bullet hole in storage tank.

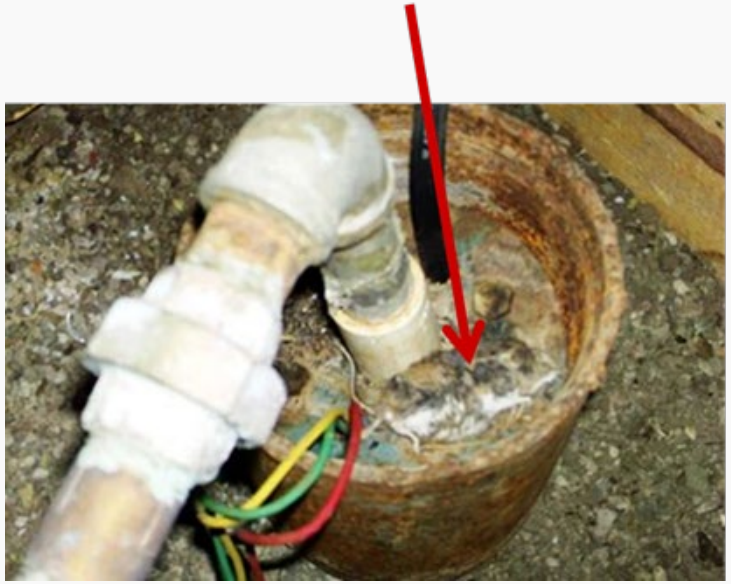
Overflow not brought down to 12 – 24” above the ground surface

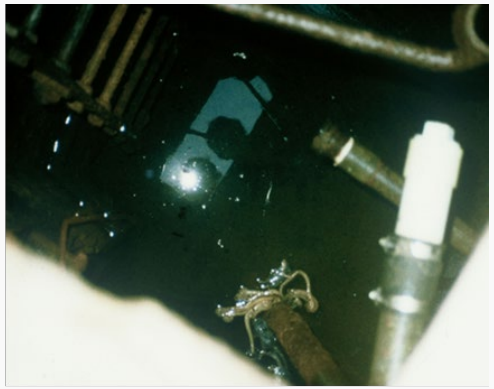
Hatch on buried tank is not 24” above ground, and does not have gasket (manhole-type cover).

Overflow at ground level (not 12” – 24” above); does not have discharge structure or splashpad

Rats, and snakes, and poop and birds and spiders…oh my!

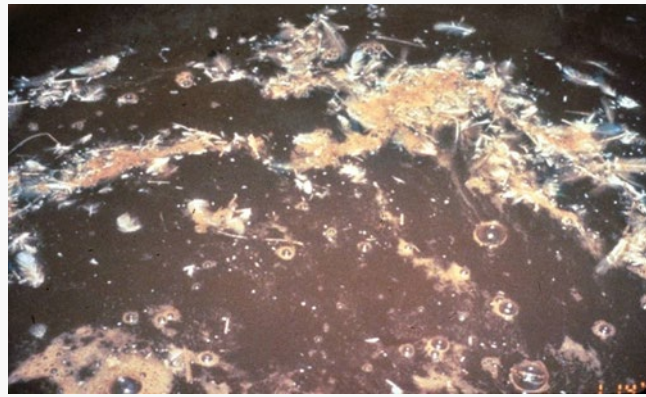
Dead mouse carcass on wellhead





Dead snakes and mice floating in a spring box

Spider webs in casing showing lack of a sanitary seal



Bird feathers in a finished water storage tank.

Thank you!

Any questions?