Drinking Water Permitting, Regulations, and Protection

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Agenda

- Safe Drinking Water Act
- Definition of a Public Water System
- Permitting
- Types of Systems and Sources
- Regulated Contaminants
- Source Water Protection
Safe Drinking Water Act (1974)

The Safe Drinking Water Act applies to every US Public Water System (PWS):

- Public Water Systems
  (Arizona has approximately 1520 PWS)

- Private/shared wells are unregulated
40 CFR 141.2 Definitions – Public water system means a system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year. Such term includes: any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Such term does not include any “special irrigation district.” A public water system is either a “community water system” or a “non-community water system.”
The Drinking Water Engineering Review Unit conducts technical reviews of various infrastructure facilities under the SDWA which include

- new drinking water wells
- water distribution systems
- point of use water systems
- water lines
- water treatment plants
Engineering Review

ATC – Approval to Construct
 Fee
 Application 
 Constructions Plans/Drawings 
 Design Report 
 (Water Services Agreement) 
 (New Source Analysis) 
 (Notice of Intent to Drill)

AOC – Approval of Construction
 Application 
 As Built / Engineer Certified 
 Disinfection Testing 
 Pressure Testing 
 (Operation and Maintenance Plan) 
 (Water Quality Analysis Report)
Public Water System Types

Community (CWS)
- 15 or more connections used by same people year round, or
- Serves the same 25 or more people year round used for drinking, cooking, bathing and cleaning

Non-Transient Non-Community (NTNCWS)
- 15 or more connections used by same people for more than 6 months/year, or
- Serves the same 25 or more people for at least 6 months/year.
- Examples include schools and hospitals

Transient Non-Community (NCWS)
- 15 or more connections not by same people for more than 6 months/year, or
- An average of at least 25 people/day for at least 60 days/year, but not the same 25 people for more than 6 months/year.
- Examples include truck stops, restaurants, and campgrounds
Regulated Source Types

**Ground Water (GW)**
- Sources: Ground Water Wells, Springs,
- Subject to triggered Ground Water Rule (GWR)

**Surface Water (SW)**
- Sources: Lakes, Rivers, Inlets
- Subject to Surface Water Treatment Rules (SWTR)

**Ground Water Under the Direct Influence of Surface Water (GUDI)**
- Subject to Surface Water Treatment Rules (SWTR)
Community Water System

- Total Coliform
  - GWR if applicable and triggered
- Nitrate/Nitrite
- IOC\(_s\) (including fluoride - CWS only)
- SOC\(_s\)
- VOC\(_s\)
- Radionuclides (CWS only)
- Lead & Copper
- DBP and MRDL (if disinfecting)

Surface Water systems have additional testing.
Non-Transient Non Community

- **Total Coliform**
  - GWR if applicable and triggered
- **Nitrate/Nitrite**
- **IOCs** (except fluoride - CWS only)
- **SOCs**
- **VOCs**
- **Lead & Copper**
- **DBP and MRDL** (if disinfecting)

*Surface Water systems have additional testing*
Transient Non Community

- Total Coliform
  - GWR if applicable and triggered
- Nitrate/Nitrite

Surface Water systems have additional testing
ADEQ has a Source Water Protection program designed to protect drinking water sources from becoming contaminated in the future. The program provides a mechanism through which ADEQ and local communities throughout Arizona can protect both surface and groundwater drinking water sources.
Source Water Assessments

1. Delineate the source water protection area
2. Inventory sources of contamination
3. Determine susceptibility
4. Notify the public
5. Implement best management practices
6. Develop contingency plan
QUESTIONS