

DEQ Presentation for Senate Interim Study 15-51: Status of Oklahoma's Water Reservoirs

Jimmy Givens

Deputy Director

Oklahoma Department of Environmental Quality

November 18, 2015

The mission of DEQ is to “protect the health of Oklahoma’s citizens by protecting, preserving and restoring the water, land and air of the state . . .” We appreciate the opportunity today to briefly explain DEQ’s role in protecting health, with a focus on water.

Within its jurisdictional areas of responsibility, DEQ implements state law and most delegable federal requirements regarding protection of the air, land, and water.

Some Key DEQ Responsibilities Regarding Surface Water

- Issue discharge and stormwater permits to limit and control pollutants.
- Issue swimming and fishing advisories related to health hazards.
- Help ensure the safety of water used for public water supplies.
 - Paramount among DEQ's concerns related to Oklahoma reservoirs is to ensure safe drinking water. A safe, reliable drinking water supply is essential not only for a healthy populace, but for the economic well-being of the state (quality of life, tourism, etc.).
 - In Oklahoma there are about 1,700 public water supply systems (PWSs), of which upwards of 750 utilize a surface water source in whole or in part. Almost 200 of these 750+ PWSs treat surface water; the rest are purchase-water systems.

Overview of Division Roles

- The Water Quality Division (WQD) has the central role in helping to protect public health by ensuring that public water supplies deliver reliable, safe drinking water. We will talk a bit more about this in succeeding slides.
- State Environmental Laboratory Services Division
 - Provides analytical support to various programs within DEQ, to other state agencies, to citizens who request services, and – most importantly for our purposes today – to the majority of the state's approximately 1,700 public water supply systems.
 - Operates the laboratory accreditation program to ensure the quality of analytical data produced by other environmental labs and used in environmental decision-making.
- Environmental Complaints and Local Services Division
 - Consists primarily of locally based environmental specialists, housed in 24 offices across the state. They provide regulatory inspections and technical assistance for drinking water facilities having a DEQ permit. Most importantly, the local environmental specialists initially respond to all citizen complaints regarding drinking water.

Multiple Barrier (Safeguard) Approach

Integrated barriers, from the source to the consumer at the tap, can help protect communities from the risk of contamination and waterborne disease.

1. Risk Prevention
2. Risk Management
3. Monitoring and Compliance
4. Individual Action

1. Risk Prevention

Risk prevention includes selecting the best source of water, or protecting a current source of water.

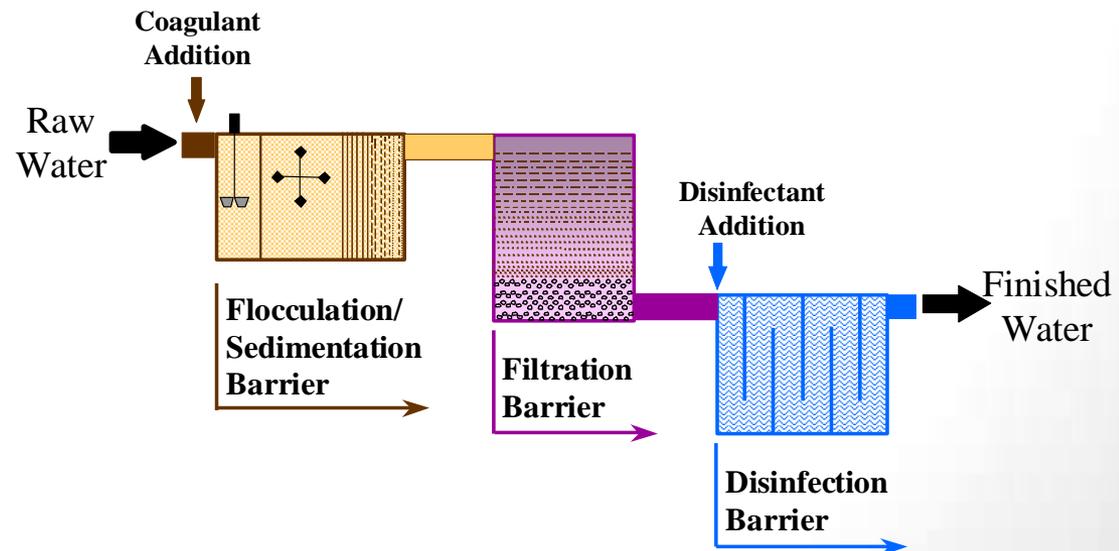
- Source Water Protection Program and Wellhead Protection Program.
- Oklahoma Pollutant Discharge Elimination System (OPDES) permitting.
- Watershed Planning
 - Surface water bodies are sampled by the Oklahoma Water Resources Board and the Oklahoma Conservation Commission.
 - Classified as “impaired” if contaminant levels are exceeded.
 - Total Maximum Daily Load (TMDL) is conducted and OPDES permits are revised to reduce contaminants.

2. Risk Management

To protect public health, a water system must meet minimum design and construction standards, be maintained to provide sound infrastructure, and meet federal and state drinking water standards.

- DEQ risk management tools:
 - Permitting
 - Technical Assistance
 - Field Inspections
 - Comprehensive Performance Evaluations
 - Enforcement

Water Treatment
Barrier Concept



3. Monitoring and Compliance

Monitoring and compliance helps systems maintain the physical integrity of their components and make adjustments as necessary to provide a consistent, safe supply of water.

This is accomplished by collecting information about the presence of contaminants, the effectiveness of current treatment processes, and any deterioration in the quality of source or treated water.

DEQ compliance activities:

- Provide technical assistance on sampling, reporting, and Safe Drinking Water Act rules.
- Track sample schedules.
- Assist with sample collection.
- Track sample results and required reporting.
- Issue Notices of Violations (precursors to potential formal enforcement actions) for errors or deficiencies in treatment techniques and for failing to report.
- Issue boil advisories and “do not use” orders.

4. Individual Action

Customer awareness and participation are key components in the multiple barrier approach.

- Annual Consumer Confidence Reports (Annual Water Quality Reports) are provided to water system customers that discuss:
 - The condition of the system's source water.
 - The level of contamination in the system's drinking water.
- Public notification of any violation of drinking water standards ensures that:
 - Consumers are informed of any health risks in a timely manner.
 - Water systems build trust with consumers by sharing information.
- Informed customers have a better understanding of the true cost and value of water, and may be more likely to support measures to fund a strong multiple-barrier approach.

RELATED DEQ PROGRAMS AND ACTIVITIES

- Drinking Water State Revolving Fund (DWSRF)
 - Low-interest loan fund for drinking water infrastructure.
 - Subsidy (principal forgiveness for regionalization/consolidation of water systems).
- Capacity Development Program
 - The development of a system's technical, managerial, and financial ability to provide safe and adequate drinking water to its customers, which is the foundation of a successful multiple barrier approach for any system.
 - Voluntary water loss audit pilot, to identify the water loss of water systems. This allows the system to locate and repair leaks, broken equipment, etc.
- Operator Certification
 - Properly trained and certified operators employed at the level of certification needed for the complexity of their water system.
 - The operators must know how to apply treatment concepts to the specific circumstances facing their system.

DEQ is dedicated to ensuring that barriers are in place to protect public health and that safe drinking water is provided to Oklahoma communities, with an emphasis on assistance and collaboration, but with a viable enforcement capability.