



New Mexico Environment Department

Safe Drinking Water Act and Small Water System Resiliency
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Presented by:
New Mexico Environment Department Drinking Water
Bureau



Topics of Today's Presentation

1. Brief Overview of Safe Drinking Water Act (SDWA)
2. Resiliency for Small Water Systems

Goal/s: Thinking about the fundamental basics of SDWA and the day-to-day operations of small public water systems in the context of increasing resiliency, resulting in incremental improvements to the operation of your own water system.



Safe Drinking Water Act

1. Overview of Safe Drinking Water Act
2. Utility Operator Certification Act
3. Required Sampling
4. Sanitary Survey
5. Drinking Water Watch
6. Violation Notification
7. Consumer Confidence Reports



What is the Safe Drinking Water Act?

- ❑ Authorizes the U.S. Environmental Protection Agency (EPA) to set national health-based standards for drinking water
- ❑ Ensures all public water systems (PWS) provide drinking water that meets the same water quality standards
- ❑ Applies to every *public water system* in the U.S.
 - ✓ Community PWS - Serve at least 15 service connections or 25 year-round residents.
 - ✓ Non-Transient Non-Community PWS - Serve 25 of the same people over 6 months out of the year.
 - ✓ Transient Non-Community PWS - Does not serve 25 of the same people over 6 months out of the year.



State Drinking Water Regs

- ❑ **Drinking Water Rules are under NMAC 20.7.10.1** (NMAC is the New Mexico Administrative Code)
- ❑ **State Drinking Water Regulations are only 13 pages long.**
- ❑ **Rule includes the following:**
 - ✓ PWS Population Determination
 - ✓ Adoption of Federal Regulations
 - ✓ Requirements for Water System Projects
 - ✓ General Operating Requirements
 - ✓ Inspections
 - ✓ Application process for Water Haulers



Evolution of the Safe Drinking Water Act

- ❑ SDWA originally focused on treatment as the means to provide safe drinking water.
- ❑ The law was amended to recognize source water protection, operator training, funding, and public information as important components of safe drinking water.
- ❑ This approach is intended to protect drinking water from “*Source to Tap*”.



SDWA Requirements

Purpose: Set national health-based standards for drinking water to ensure all public water systems provide safe drinking water

How to comply:

- Contract a certified operator
- Collect regular samples and ensure water meets water quality standards
- Undergo regular inspections and correct any deficiencies identified during inspections
- Public Notification
- Record Keeping
- Report to customers on water quality

Oversight agency: New Mexico Environment Department Drinking Water Bureau
https://www.env.nm.gov/drinking_water/
1-877-654-8720



Certified Operator Requirements

- ❑ Every public water system must be operated by or be under the supervision of an operator certified by the State.
- ❑ Certified operators must complete training and pass an exam.
- ❑ Certification must be renewed every 3 years and renewal requires 30 hours of continuing education.

For information on operator certification, go to

https://www.env.nm.gov/drinking_water/utility-operator-certification-program/



Online Training Resources

ONLINE Trainings

NMED Website: Event Calendar

- <https://www.env.nm.gov/events-calendar/>
- Filter Search by words(s)
 - “Training, Workshop, Conference, etc.”
- Operators must submit a copy of the ‘Certificate of Completion’ to UOCP.Certification@env.nm.gov

New **CERTEMY** System

Operators will be responsible to report earned credits by uploading a copy of the “Certificate of Completion” into your operator record in **CERTEMY**. Training Providers are also responsible to provide Certificates and Training transcript to operators at the end of a training.



Water Quality Sampling

Public water systems must be able to provide evidence of their water quality:

- ❑ Routine water samples collected by the system and DWB are submitted to a certified lab for analysis.
- ❑ Only certified operators and samplers can collect samples. Samples must be analyzed at a laboratory certified by DWB.
- ❑ Samples must be collected in accordance with the schedule in the regulations and a Sampling Plan approved by DWB.

*For questions about your sampling requirements, contact your DWB Compliance Officer.
Sampling results can be found in **Drinking Water Watch** at :*

<https://dww.water.net.env.nm.gov/NMDWW/>



Sanitary Surveys

- ❑ DWB staff may, upon presentation of credentials and after receiving consent from the PWS, conduct a sanitary survey or inspection of the water system.
- ❑ If permission is not granted by the PWS to conduct an inspection, a court order may be applied for by NMED allowing access.
- ❑ The system operator or other system representative will be given the opportunity to accompany the inspector.
- ❑ Sanitary surveys are conducted every 3 years for CWS and every 5 years for Non-CWS and will involve:
 - ✓ Inspecting any records, monitoring equipment or facility for regulatory or sanitary deficiencies.
 - ✓ Sample or test water quality.
 - ✓ Draws conclusions about the system's ability to consistently and reliably deliver an adequate supply of safe drinking water to consumers.
 - ✓ Outlines deficiencies that require correction.



Drinking Water Watch

Information on all NM public water systems is available in “Drinking Water Watch”

- Points of contact for water system
- List of water system facilities
- # of service connections & population served
- Sample schedules
- Sample results
- Violations/enforcement actions
- DWB site visits
- Operator contact information

Go to: <https://dww.water.net.env.nm.gov/NMDWW/>



Public Notice of Violations

- ❑ Your system must notify customers of any violations of drinking water regulations.
- ❑ Different time frames are required for the notice based on the severity of the violation:
 - ✓ Tier 1: 24 hours, any drinking water regulation violation with the potential to have serious adverse effects on human health because of short-term exposure. (E.coli and Nitrates)
 - ✓ Tier 2: 30 days, any drinking water regulation violation with the potential to have serious adverse effects on human health because of long-term exposure. (Coliform with no E.coli)
 - ✓ Tier 3: 1 year, all other drinking water regulation violations not included in Tier 1 and Tier 2 (missed sample or secondary MCL)

For questions about public notice requirements, contact your DWB Compliance Officer.



Violations and Enforcement

- ❑ If your system is out of compliance with drinking water regulations, DWB will issue a violation and offer your system technical assistance.
- ❑ Your system must correct the violation or submit a Corrective Action Plan within a specified timeframe.
- ❑ If the violation is not resolved, your system may be subject to an Enforcement Action. Fines may be issued.
- ❑ Communicate with your DWB Compliance Officer and take advantage of the assistance offered by DWB. We are here to help you understand and meet our requirements.



Consumer Confidence Report

- ❑ The CCR provides information your system's source water, any detected contaminants, violations of the drinking water regulations, as well as educational information.
- ❑ The Consumer Confidence Reports (CCR) is a brief water quality report that must be distributed no later than June 30th every year to your customers.
- ❑ A copy of the CCR must be submitted to DWB no later than July 1st every year.
- ❑ A CCR Certification Form must be submitted to NMED-DWB no later than October 1st every year.
- ❑ If you submit your CCR to DWB in early June, the rule administrator will make every effort to review it for accuracy and allow you to correct it if needed.
- ❑ If you provide water to another system, the CCR is due April 1st.

For questions regarding the CCR Rule please contact Tim Willy at 505-690-6657 or via email at nmenv.ccr@state.nm.us



HOW DOES MY SYSTEM AVOID ENFORCEMENT

- ❑ Resolve all violations within the timeframes required by DWB.
- ❑ Be in constant communication with DWB.
- ❑ As long as you can show that you are actively working towards compliance, DWB will work with you to figure out an adequate compliance plan.

DWB would rather help you achieve compliance than issue violations or Enforcement Actions.



Resiliency in Small Water Systems

1. Objective
2. Assets
3. Hazards and Vulnerabilities
4. Measuring Resiliency
5. Watershed and Land
6. People
7. Malevolent Acts
8. Risk and Resiliency
9. Group Discussion



Resiliency

Objective

To understand the definition of resiliency in context of a public water system and how we can measure it. Also learning to identify vulnerabilities in our systems and being awared of opportunities and resources to improve resiliency.



Resiliency for Public Water Systems

- The ability of a water system, or an asset of a water system, to deliver safe and clean drinking water, to adapt to or withstand the effects of a natural hazard without interruption or if service is interrupted, to rapidly return to a normal operating condition.



Public Water System Assets

□ Water Source

□ Infrastructure

□ Land

□ People

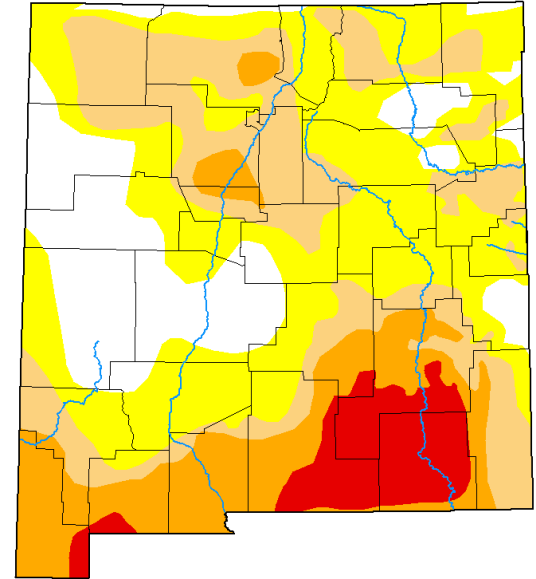




Natural Hazards and Vulnerabilities

- Drought
- Fire
- Flooding
- Lack of Operators
and Water system
Managers
- Malevolent Acts

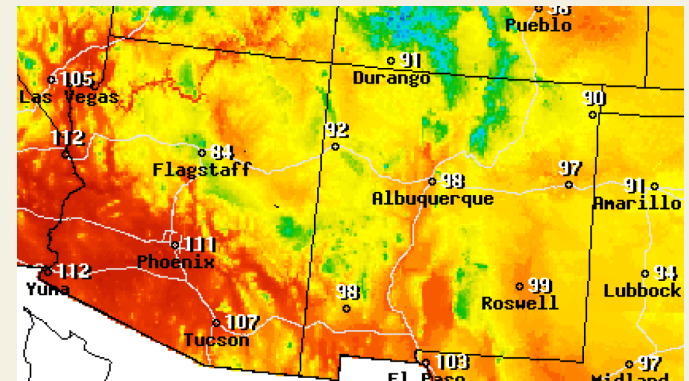
U.S Drought Monitor, August 15, 2024





Changes in our Climate/Predictions

- The trends we are experiencing in NM
 - ▣ Higher Temperatures
 - ▣ Reduction in aquifer recharge
 - ▣ Reduction in streamflow
 - ▣ Less snowpack and earlier snowmelt
 - ▣ Increase in droughts
 - ▣ Increased fires, floods and erosion





Measuring Water Source Resiliency

Does your public water system?

- ▣ have multiple water sources
- ▣ monitor water supply
- ▣ sharing agreements for emergencies
- ▣ emergency interconnections with neighboring systems
- ▣ have an emergency plan that includes an emergency supply of water



Measuring Resiliency in Infrastructure

- Aging Infrastructure-
 - Is your system able to maintain and/or replace your infrastructure?

- Storage Capacity
 - How many days of storage capacity does your system have?

- Power
 - Is your system vulnerable to power outages?
 - Do your system have back up power?



Watershed/Land

- **Soil Conditions**
 - ▣ Vulnerable to erosion?
- **Fires**
 - ▣ Infrastructure vulnerability
- **Floods**
 - ▣ Infrastructure vulnerability
- **Surface Water-**
 - ▣ low flow in the river
 - ▣ Susceptibility to post fire debris





People

- **Water System Management**
 - Does my system have a succession plan for water system administration?
 - Volunteer run systems –is it harder to get volunteers to serve on the board.
 - Aging Board Members

- **Water System Operators**
 - Lack of Certified Operators
 - Aging Operators





Malevolent Acts

- A Malevolent Act is a physical assault on a utility
- Security-Is your system secure against:
 - Intentional Contamination of Finished Water
 - Theft or diversion
 - Cyberattack
 - Physical Sabotage
 - Intentional Contamination of Source Water



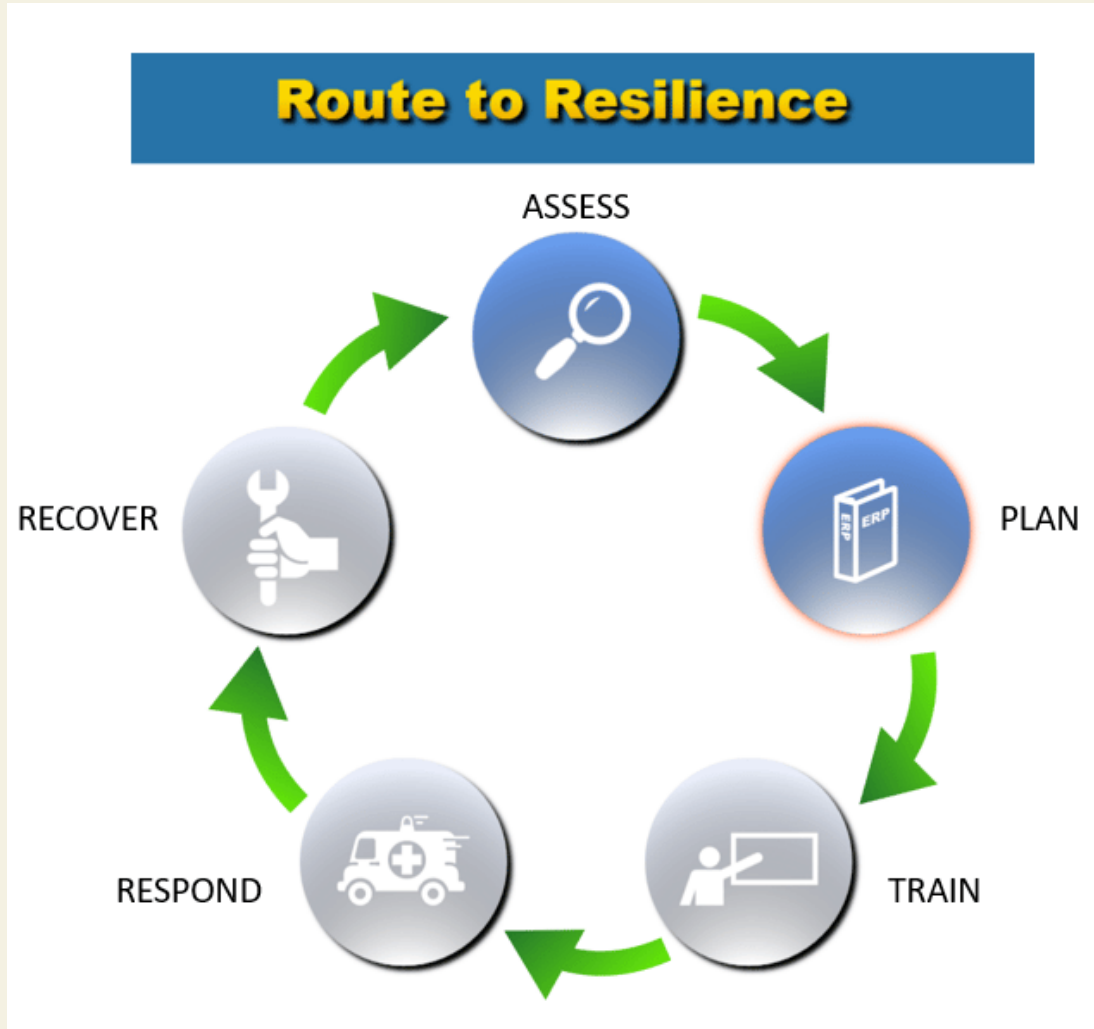
Risk and Resiliency

- Risk to critical infrastructure for water systems, is a function of;
 - ▣ threat likelihood,
 - ▣ vulnerability,
 - ▣ and consequence.

- Resilience is the capability of a water system to maintain operations or recover when a malevolent act or a natural hazard occurs.



Environmental Protection Agency





Group Discussion

- How many sources of water does your system have?
- Are your source(s) of water producing at anticipated rates?
- Do you monitor your well depth or stream flow regularly?
- How many days of storage capacity does your current water system have?
- Does your system have an agreement and necessary piping to receive an alternative water supply in an emergency?
- Does your system have an emergency reserve account?
- What does resilient mean to you?
- Do you feel like your water system is resilient?
- Do you know if your Emergency Response Plan addresses water outages?



Pathways to Resiliency Regionalization???

- Working within your community to build resiliency and sustainability
- Working with your neighboring communities to build resiliency and sustainability
- Working with other government entities to build resiliency and sustainability
- Working with non-governmental organizations to build resiliency and sustainability



Thank You and Questions

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