Capacity Development and Operator Certification 101

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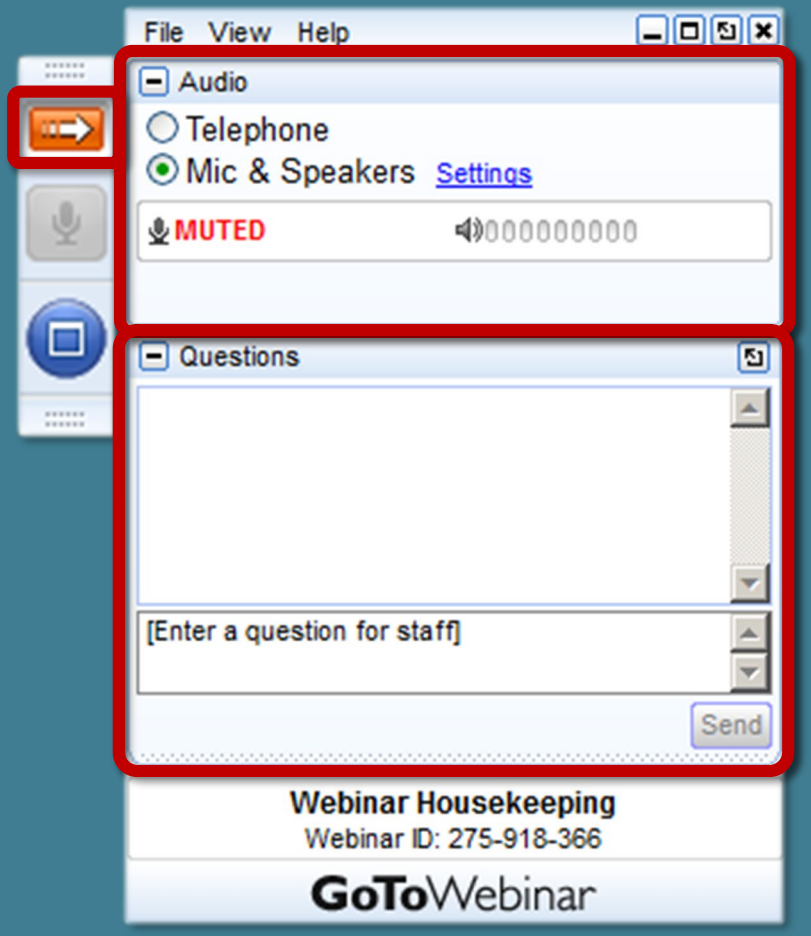

Your Participation

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Safe Water Drinking Act (SDWA)

History of SDWA

SDWA was passed by Congress.

1974

1986

1996

History of SDWA

1974

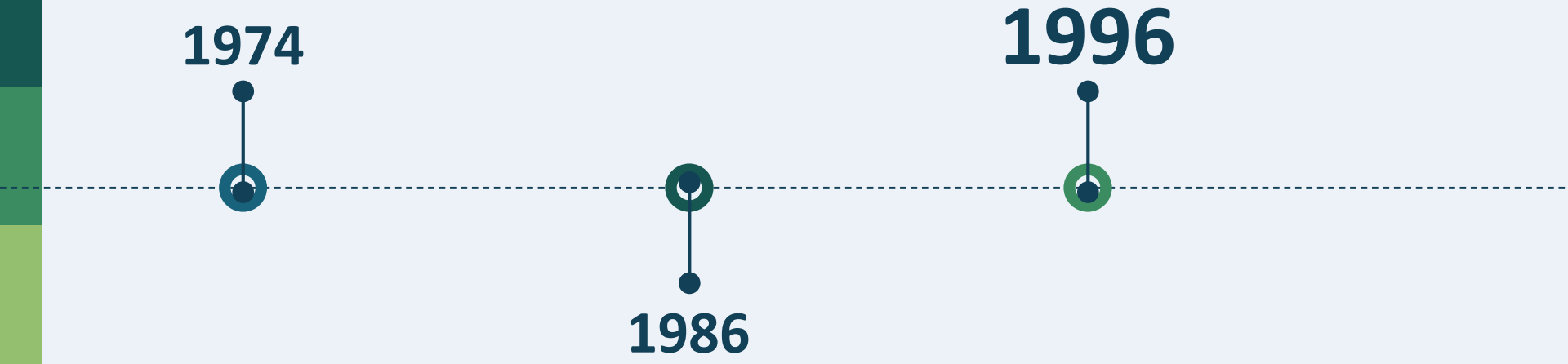
1986

First major amendments passed.

1996

History of SDWA

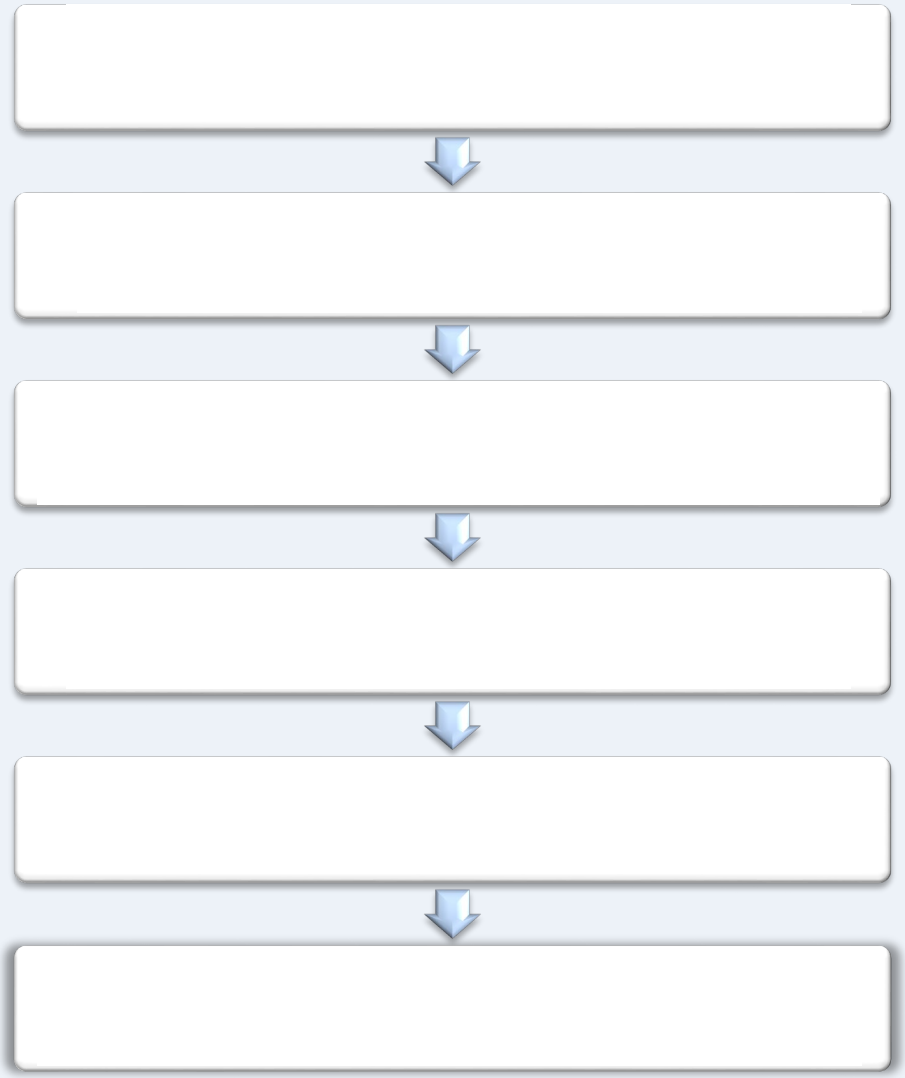
Major amendments passed that brought about substantial changes to the national drinking water program.



- The SDWA Amendments of 1996 emphasized a holistic approach to public health protection by preventing contamination problems through ***multiple barriers of protection, stretching from source to tap, and enhanced water system management***.

History of SDWA: 1996 Amendments

In addition to emphasizing comprehensive public health protection, the 1996 amendments also addressed concerns through:



1996 Amendments §1419 and §1420

§ 1419

- Ensure PWSs have operators to perform key compliance functions
- States could:
  - Implement a new program, or
  - Enforce an existing state program

§ 1420

- Strengthen PWS TMF capacities to reliably deliver safe drinking water
- Develop state programs

DWSRF under the 1996 Amendments [§1452]

- Affordable financing to help PWSs achieve and maintain compliance
- Supports states in offsetting the costs of administering water programs

EPA can withhold 20% of the DWSRF capitalization grant funds from states that do not meet the SDWA requirements for operator certification and capacity development.

America's Water Infrastructure Act of 2018 (AWIA)

AWIA Section 2012 amends the SDWA and requires:

- States to amend their capacity development strategy to include a description of how the state will encourage the development of asset management plans. States are expected to submit their revised strategies for approval by **December 31, 2021.**
- States will also need to address asset management promotion in their triennial Governor's reports no later than **September 30, 2023**, and every three years thereafter. If a strategy, however, is revised prior to **September 30, 2020**, asset management promotion must be addressed in the 2020 Report to the Governor.
- EPA to review and update, if appropriate, asset management documents and trainings every five years.

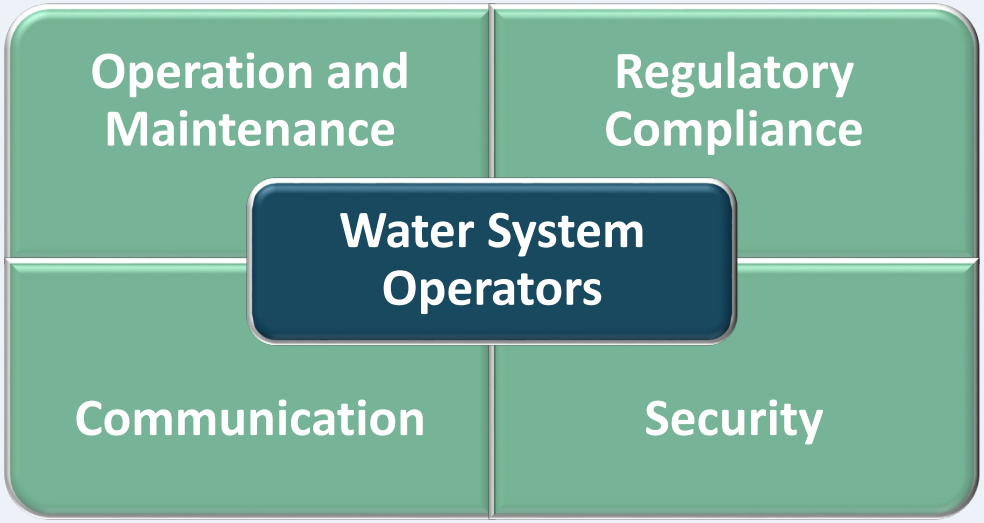
Operator Certification

National Program Priorities and Goals

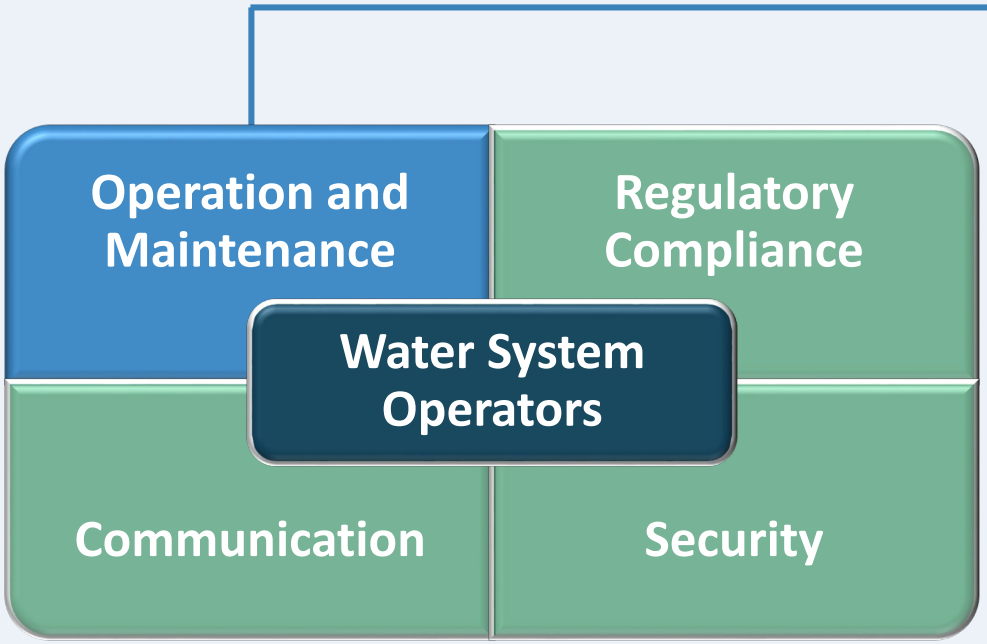
1. Provide financial assistance
2. Strengthen compliance with drinking water standards
3. Continue to protect sources of drinking water from contamination
4. Develop new and revise existing drinking water standards
5. Support states, tribes, and territories in their oversight of PWSs in implementing these standards
6. Support water systems directly through provision of guidance, training, and information

How Does Operator Certification Fit into These Goals?

Water System Operator Duties and Responsibilities



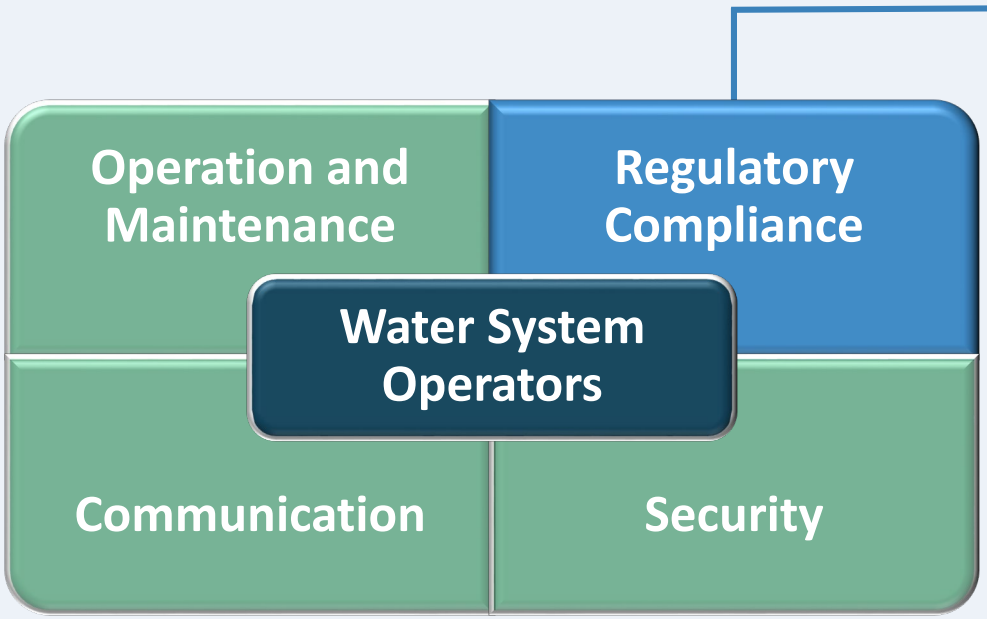
Water System Operator Duties and Responsibilities



System O & M

Water system operators make sure the system functions efficiently and effectively, which includes taking care of the system components (i.e., source, treatment, storage, and distribution).

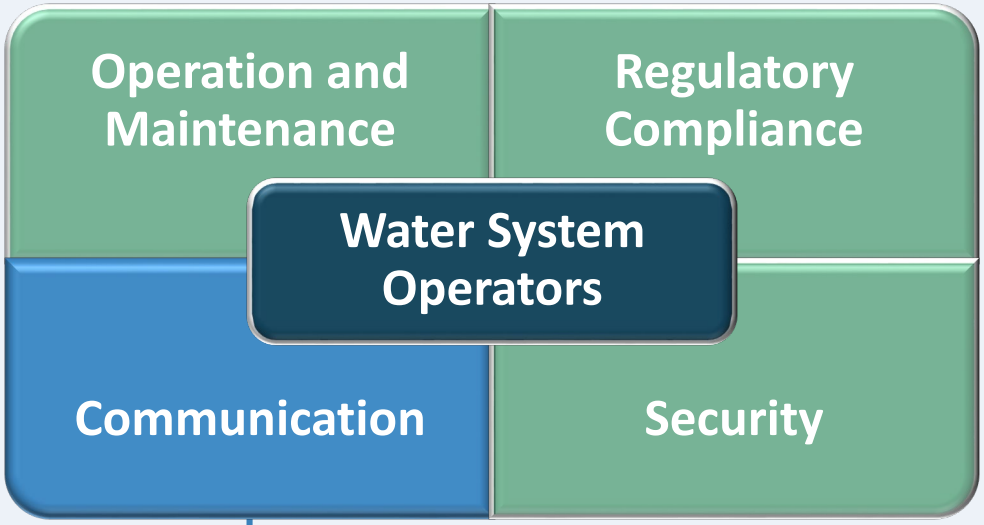
Water System Operator Duties and Responsibilities



Regulatory Compliance

Operators ensure that the system is in compliance with relevant drinking water regulations to protect public health.

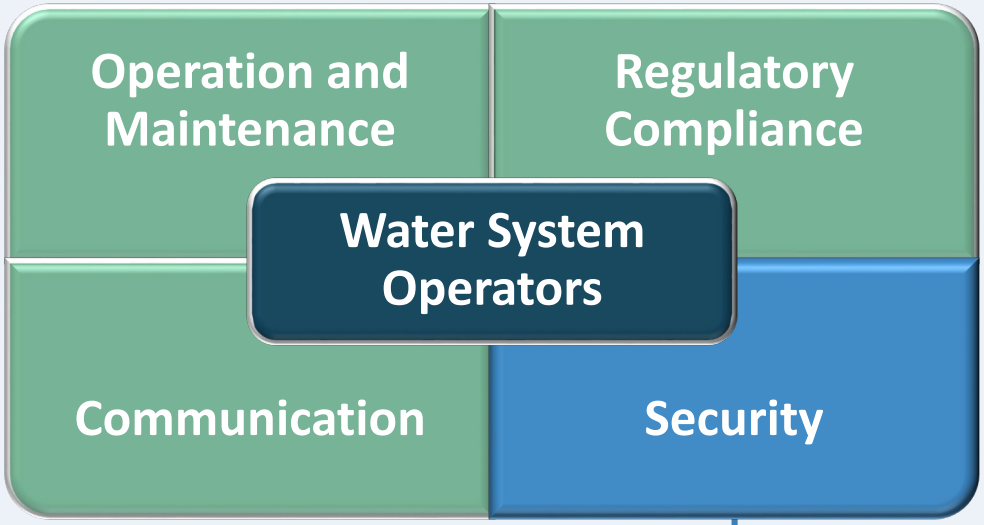
Water System Operator Duties and Responsibilities



Communication

Operators must communicate effectively and maintain a good relationship with customers, system decision makers, and regulators.

Water System Operator Duties and Responsibilities

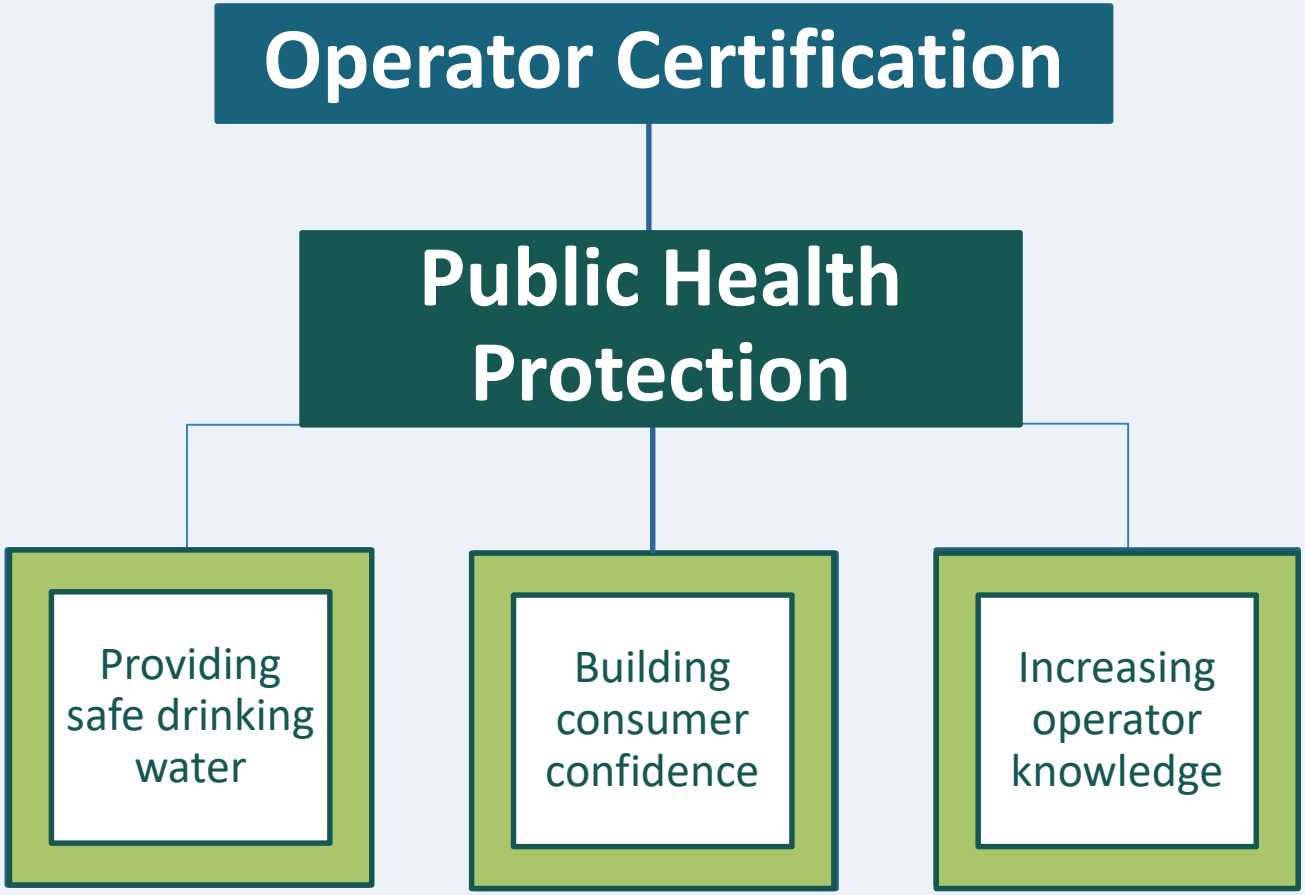


System Security

Operators protect water systems against natural disasters and respond to emergencies. Certification requirements are defined by state and therefore vary by state.

Operator Certification

- Establishes minimum professional standards for the operation and maintenance of PWSs
- Ensures that skilled professionals are overseeing the treatment and distribution of safe drinking water


Operator Certification
Public Health Protection
Providing safe drinking water
Building consumer confidence
Increasing operator knowledge

1996 Amendments: Establishing Programs

- Required states to establish programs
- Required EPA to develop guidelines for programs

State Operator Certification Programs

- Ensure operators are trained to run specific system (size and type)
- Programs vary across states

State Programs: 9 Baseline Standards

Minimum standards that each state must incorporate into Operator Certification Programs

State Programs: 9 Baseline Standards

AUTHORIZATION

Statutory and regulatory citations that authorize the Operator Certification Program and the implementing agency or agencies.

Authorization

1

Authorization

- States must have legal authority to implement Operator Certification Program
- Program authority lies primarily in state agencies focused on public health or environmental/natural resources
- Some states have assigned authority to other agencies, such as licensing agencies or certification boards

State Programs: 9 Baseline Standards

CLASSIFICATION

Description of the method by which the state classifies its water supply systems, such as by system type, complexity of system components, or size.

2

Classification of Systems, Facilities and Operators

- Classification of all CWSs and NTNCWSs based on indicators of potential health risk
- Owners must place direct supervision of their water system under responsible charge of an operator
- All personnel making decisions affecting water quality or quantity must be certified
- Designated certified operator must be available for each operating shift

State Programs: 9 Baseline Standards

OPERATOR QUALIFICATIONS

Qualifications required for certification.

3

Operator Qualifications

- Operators must pass an exam that demonstrates they have the necessary skills, knowledge, ability and judgment
- All exam questions must be validated
- Operators must have as a minimum a high school diploma or GED
- Operators must have a defined minimum amount of on on-the the-job experience
- Grandparenting (no longer permitted)

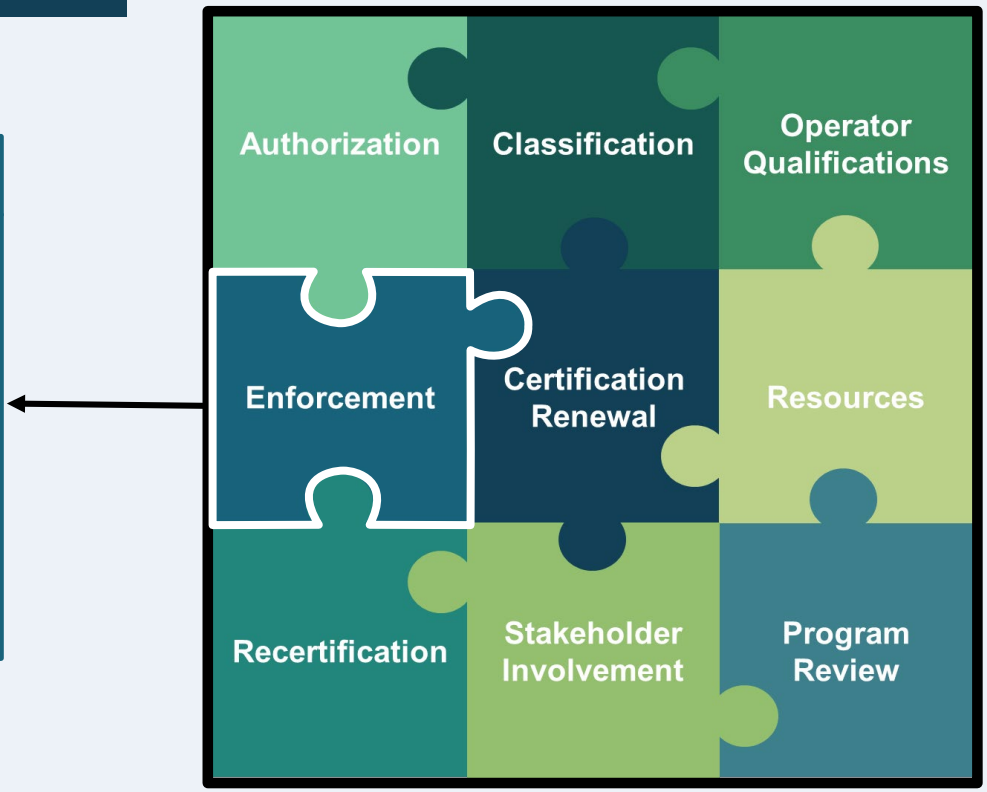
Certified = Qualified

Qualified ≠ Certified

State Programs: 9 Baseline Standards

ENFORCEMENT

Description of the methods used by the state to enforce operator certification requirements and the agency or agencies that carry out enforcement actions.



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Enforcement

- States with PWSS program primacy must have regulations that meet guidelines
- States must have the ability to revoke operator certifications
- States must have the ability to suspend operator certifications, or take other appropriate enforcement action for operator misconduct

State Programs: 9 Baseline Standards

CERTIFICATION RENEWAL

Ongoing requirements that an operator must meet to maintain a certification.

5

Certification Renewal

- States must establish training requirements for renewal
- States must require all operators to acquire state-approved training
- States must have a fixed cycle of renewal
- States must require an individual to recertify if the individual fails to renew or qualify for renewal
- Whether an operator must renew a certificate annually, biannually, or triennially varies by state

State Programs: 9 Baseline Standards

RESOURCES

List of funding sources, including fee based programs, staffing resources, budget, and data management activities.

6

Resources Needed to Implement the Program

- States must provide sufficient resources to adequately fund and sustain the program
- EPA recommended establishing a self-sufficient fund

State Programs: 9 Baseline Standards

RECERTIFICATION

Identification of recertification requirements to renew a certificate, or loss of a certificate due to expiration, revocation or suspension.

7

Recertification

- States must have a process for recertification of individuals
- Recertification process must include review of experience, training, and reexamination
- States can develop more stringent requirements for expired, revoked or suspended certificates

State Programs: 9 Baseline Standards

STAKEHOLDER INVOLVEMENT

Description of stakeholder involvement in Operator Certification Program implementation and review.

Stakeholder Involvement

- States must include ongoing stakeholder involvement the program
- Public comment on rule revisions alone is not adequate
- Recommendation: establish a stakeholder board or advisory committee

State Programs: 9 Baseline Standards

PROGRAM REVIEW

Information on whether there is a regular formal review (internal or external) process for the state's program.

9

Program Review

Program Review

- States must perform reviews of their programs:
  - ✓ Internal reviews every 3 years
  - ✓ External or peer reviews every 5 years

Capacity Development

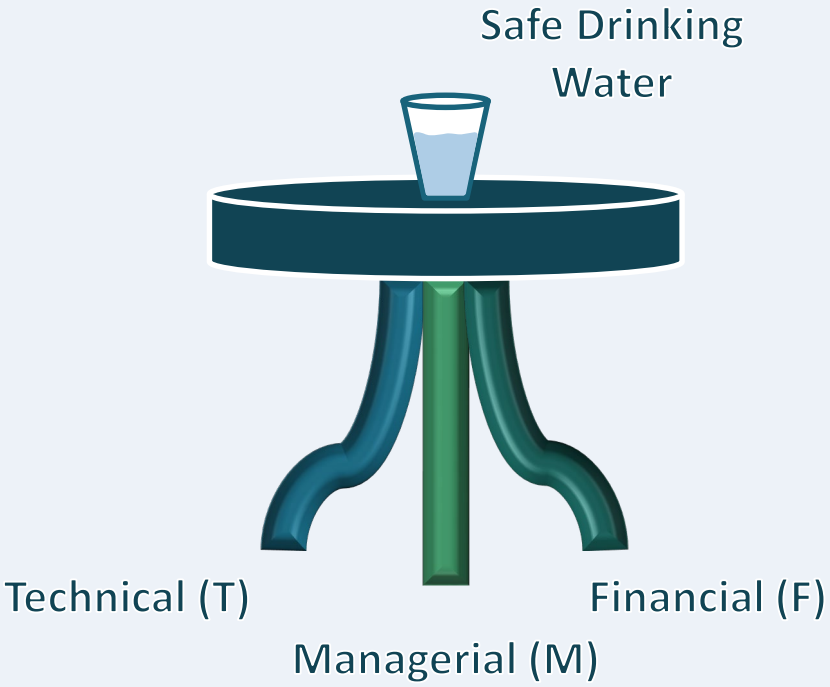
What is Capacity?

The ability to plan for, achieve, and maintain compliance with applicable drinking water standards

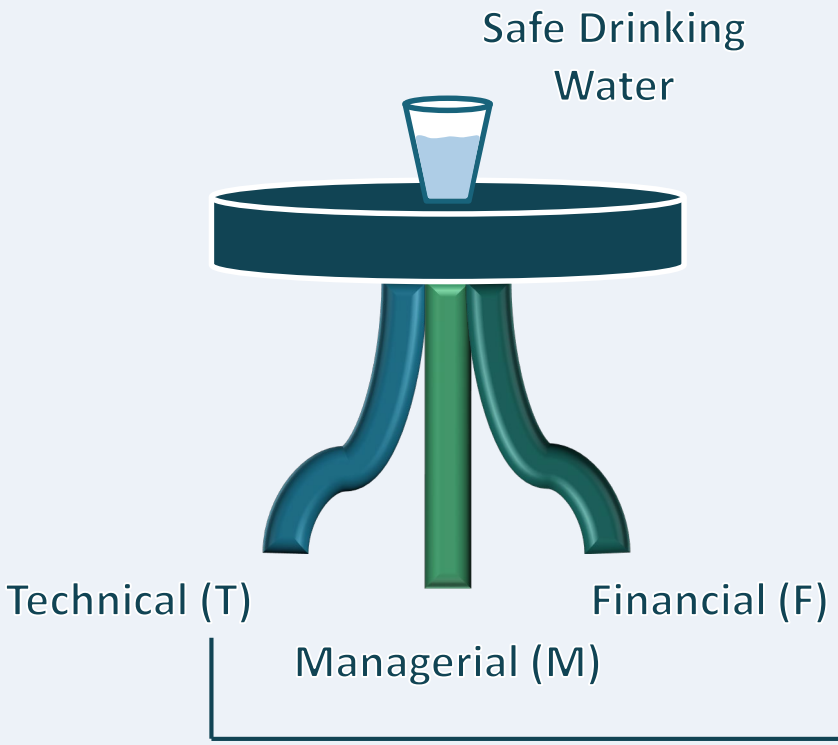
Includes sufficient capabilities in 3 areas

1. Technical (T)
2. Managerial (M)
3. Financial (F)

TMF Capacity

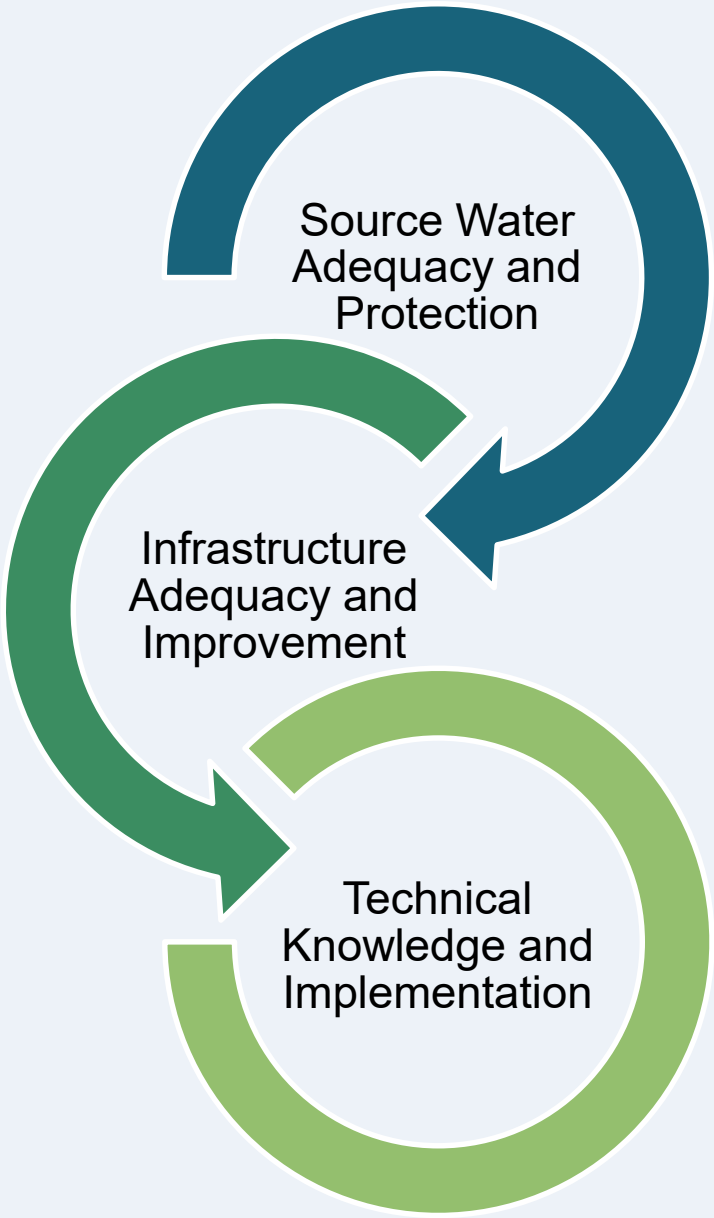


TMF Capacity



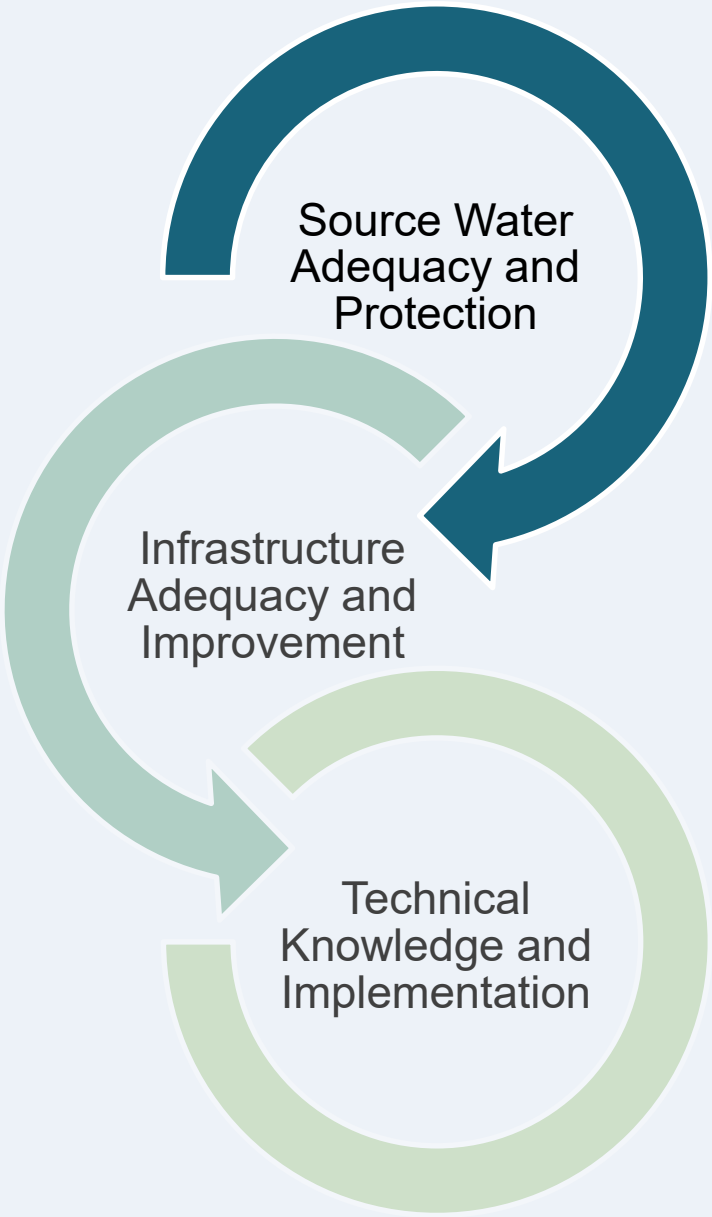
Technical Capacity:
The physical and operational ability of a water system to meet SDWA requirements, including the adequacy of physical infrastructure and the technical knowledge and capability of personnel. Maintaining high quality source water, replacing outdated infrastructure, and ensuring an operator is certified are all examples of technical capacity.

ELEMENTS OF TECHNICAL CAPACITY



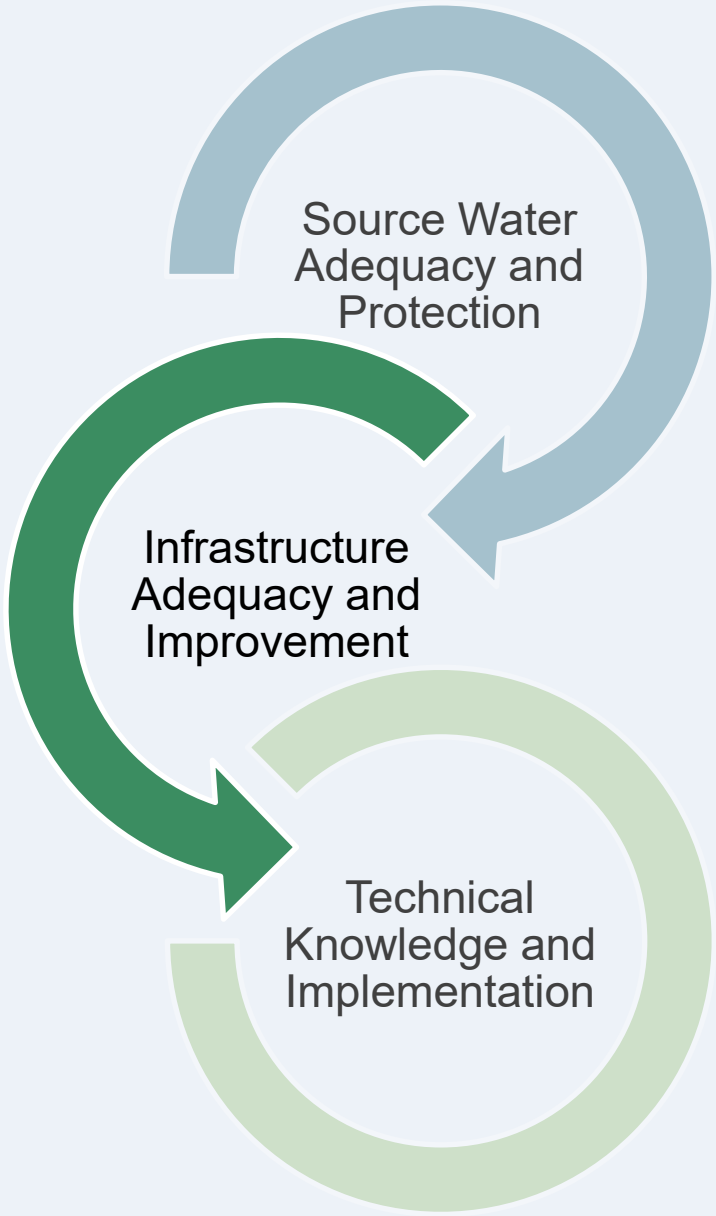
Source Water Adequacy and Protection

- Source water adequacy means:
  - Reliable source of drinking water
  - High quality and adequately protected
  - Safe yield to meet current and future demands
- "Best" source of supply



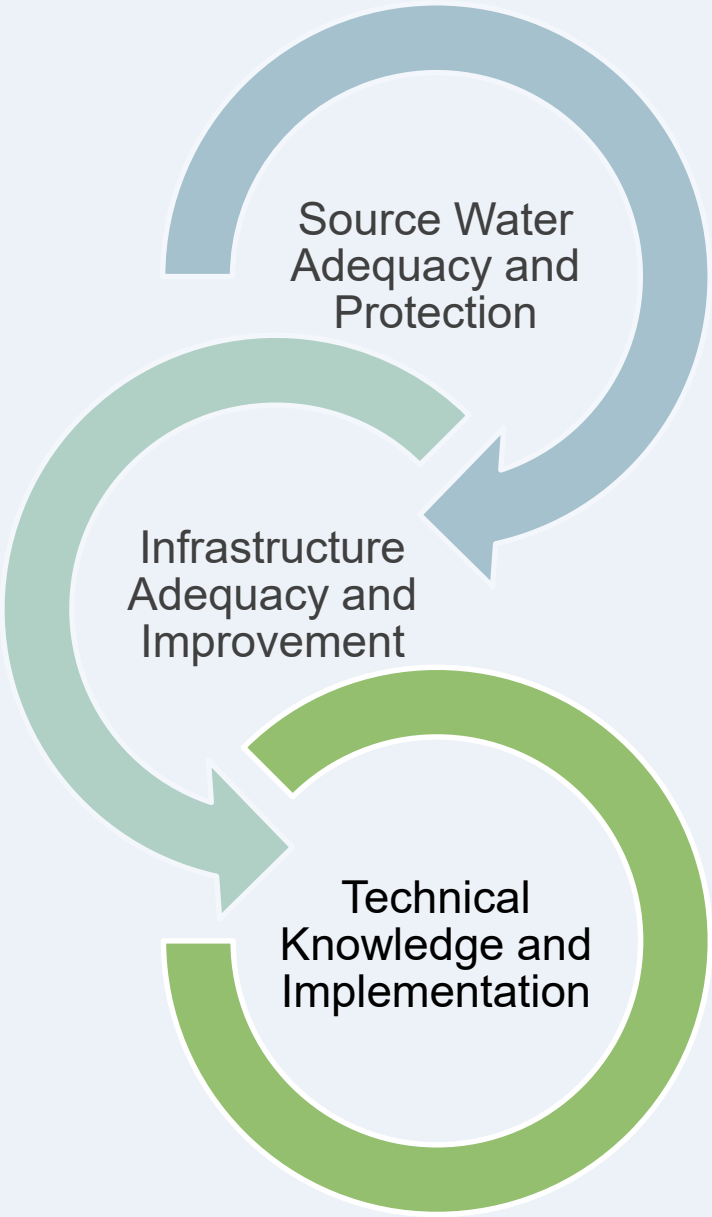
Infrastructure Adequacy and Improvement

- Water meets SDWA standards
- Adequate infrastructure from source of supply to distribution
- Adequate planning to ensure timely repair and replacement

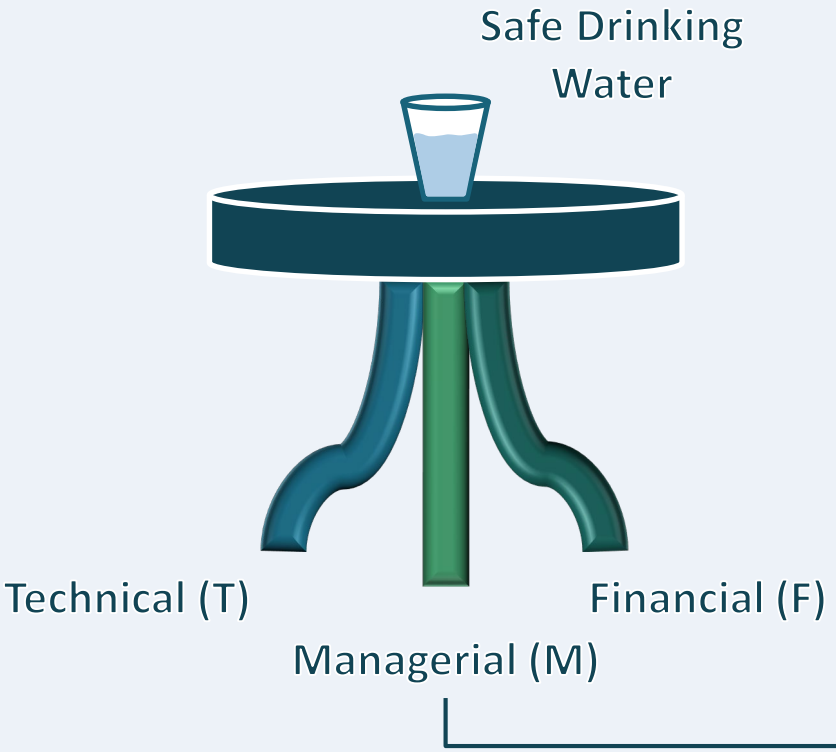


Technical Knowledge and Implementation

- Operators have:
  - Appropriate certification
  - Sufficient technical knowledge and the ability to implement knowledge
  - Understanding of system's technical and operational characteristics
- System has effective O&M program



TMF Capacity



Managerial Capacity:
The ability of a water system to conduct its affairs in a manner enabling the system to achieve and maintain compliance with SDWA requirements, including institutional and administrative capabilities. Identifying system ownership, staffing the appropriate personnel, and communicating regularly with customers are all examples of managerial capacity.

ELEMENTS OF MANAGERIAL CAPACITY

Ownership Accountability

- Clear identification of system operators and managers
- Key attributes include governing body transparency and accountability clear and well-communicated policies

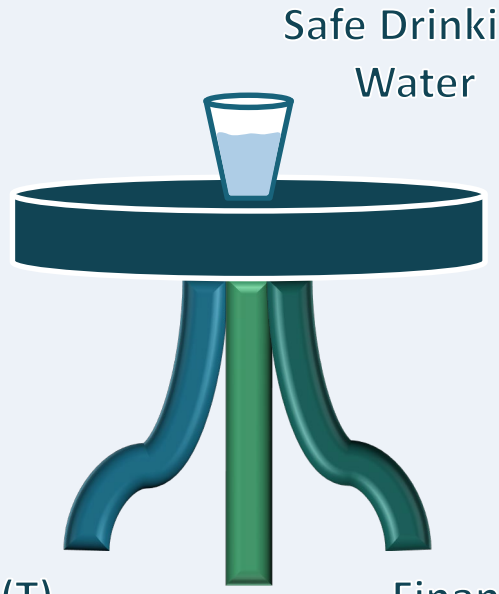
Staffing and Organization

- Proper organization and staff with adequate expertise
  - Understand regulatory requirements
  - Obtain appropriate licenses and certifications
- Key attributes include training and monitoring

Effective External Linkages

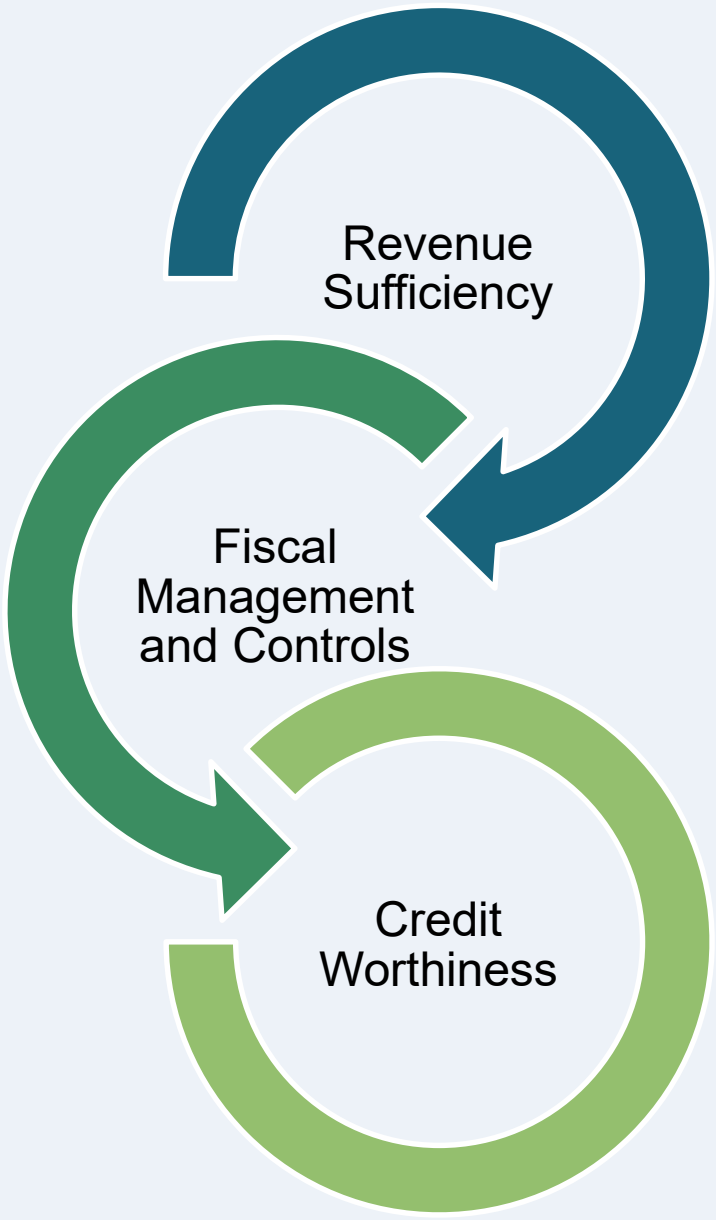
- Effective interaction with key stakeholders
- Awareness of available external resources
- Key attributes include customer engagement, planning, asset management, compliance, and water loss

TMF Capacity



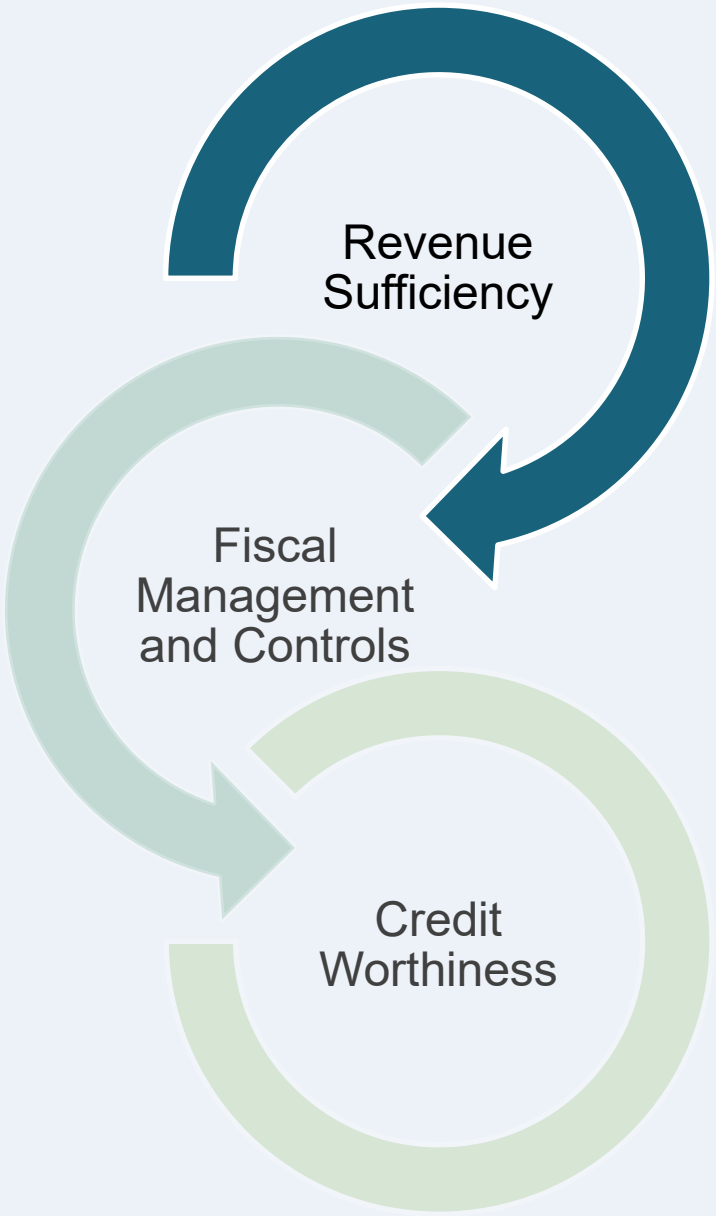
Financial Capacity:
The ability of a water system to acquire and manage sufficient financial resources to allow the system to achieve and maintain compliance with SDWA requirements. Ensuring revenues exceed costs, maintaining financial records, and establishing good credit are all examples of financial capacity.

ELEMENTS OF FINANCIAL CAPACITY



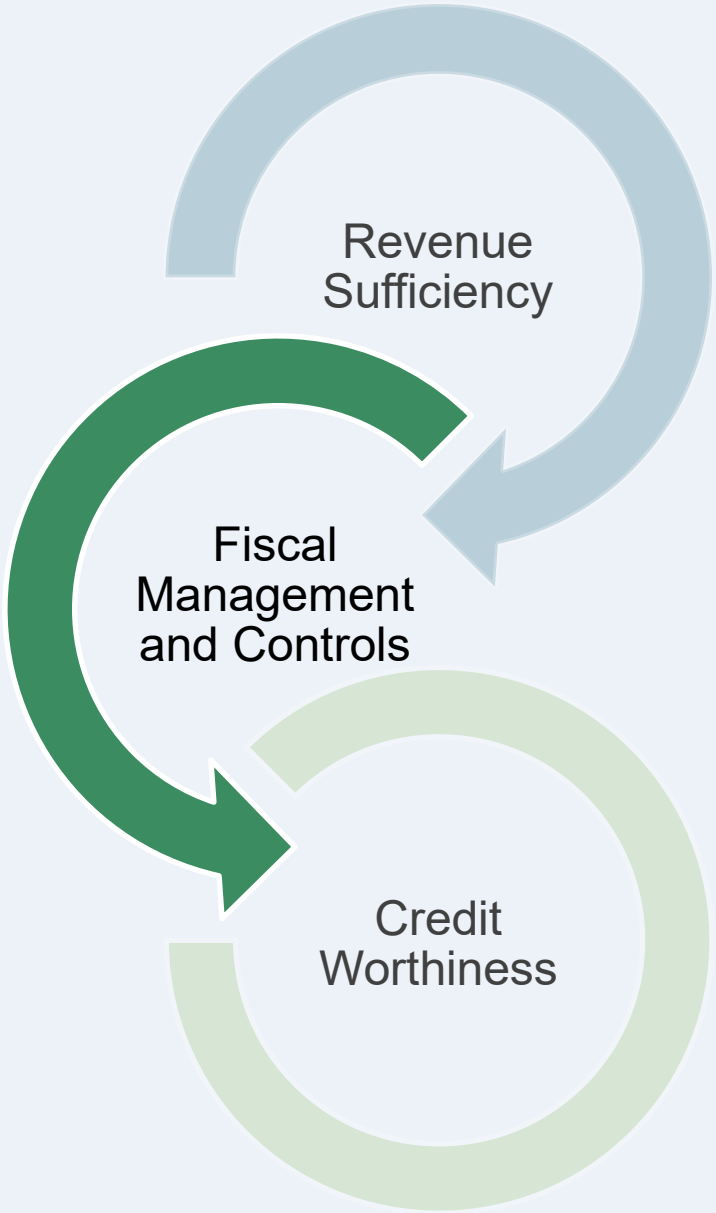
Revenue Sufficiency

- Known/measurable costs and revenues
  - Revenue from water sales, fees, and subsidies
  - Costs from salaries, materials, and debt interest
- Assets properly valued and reflected in rates
- Revenues from rates and charges cover system costs



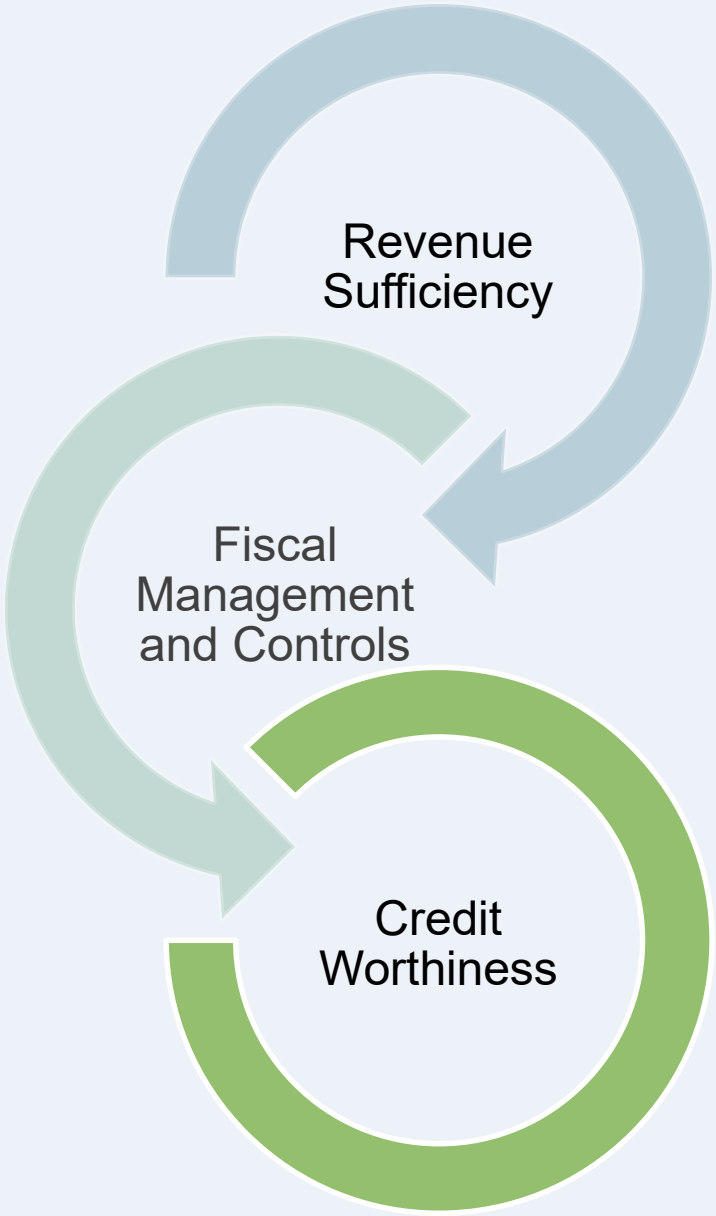
Fiscal Management and Controls

- Sound financial management:
  - Books and records maintained
  - Budgeting, accounting, and financial planning
  - Revenue management



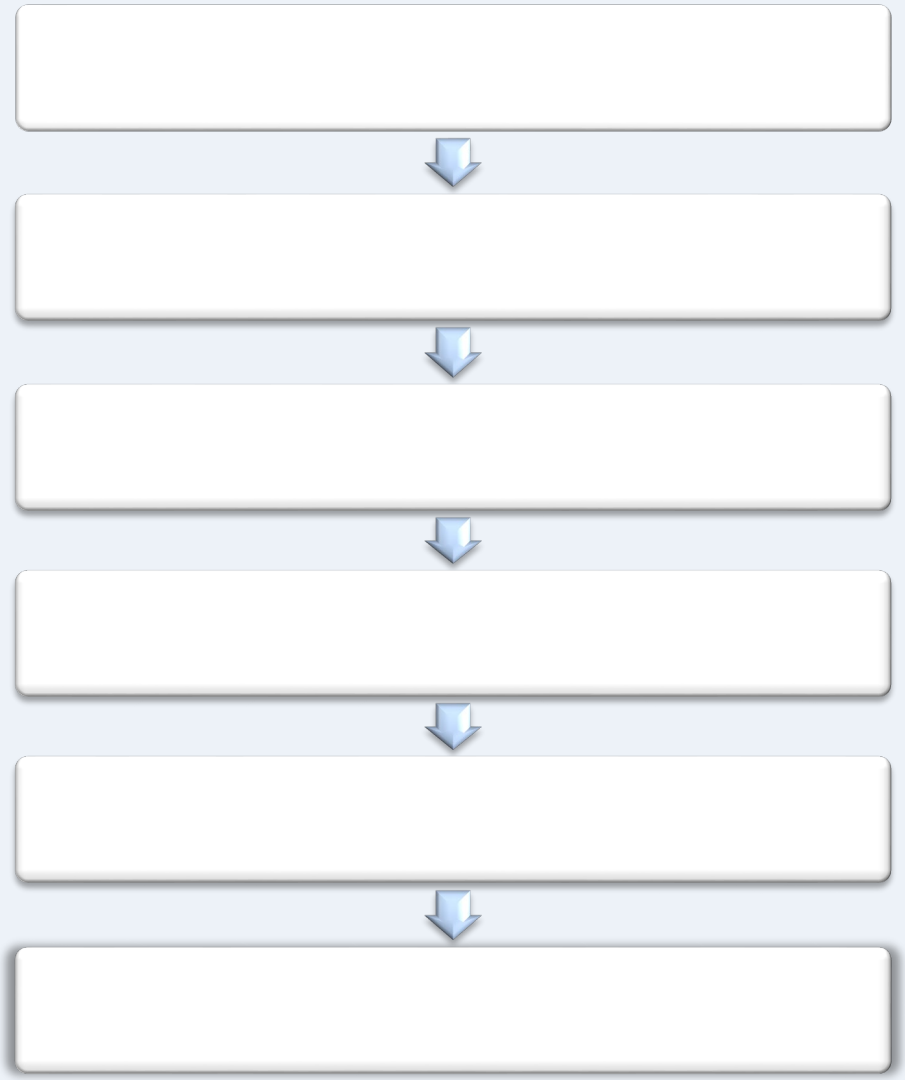
Credit Worthiness

- Financial health (measured through indicators, ratios, and ratings)
- Credit record and access to capital
- Assurance of repayment



Why Build Capacity?

To manage challenges systems face, including:

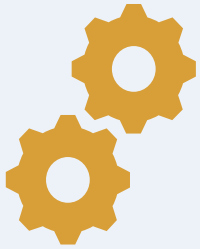


How does Asset Management support Capacity Development goals?

An Asset Management program can help document a water system's capability to provide safe drinking water. This includes knowledge of a system's:

- assets,
- how they need to be maintained,
- how much it's going to cost to repair, rehab, and replace them in the future

Benefits for Capacity Development



Decreased Need For Direct Technical Assistance

Improved Compliance

Better Prepared And Positioned To Respond To New Regulations And Any Type Of Emergency

Promoting Asset Management through Capacity Development

- Add asset management related questions to your capacity assessment forms
- Include asset management related questions in your sanitary surveys
- Become familiar with what's typically in an asset management plan
- Encourage third party technical assistance providers to provide training and/or assistance to systems

Thanks for attending today's presentation

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