Water Quality Testing (WQT) Program Assessment Tool

Use this tool to assess your organization's WQT program — or your plans for starting one.

How to use this tool: Work through each section. For each statement, select the option that best describes your program:

- **Yes** = This is fully in place and working well
- **Partial** = This exists but has significant gaps or inconsistencies
- **No** = This is not in place or not functioning

Use the Notes column to add details, examples, or specific gaps. Rate your program at the end of each section using the rating scale provided.

Scoring Guidance:

- Mostly "Yes" responses = Rating 4-5
- Mix of "Yes" and "Partial" responses = Rating 3
- Mostly "Partial" or "No" responses = Rating 1-2

This assessment is meant to drive meaningful improvement — not achieve perfect scores. Use it as a living document and revisit it in six to 12 months to track progress.

For deeper reflection: See Appendix A for guiding questions that can help you think more critically about each section.

PROGRAM INFORMATION

PROGRAM / ORGANIZATION

ASSESSMENT DATE

COMPLETED BY

LOCATION / GEOGRAPHIC AREA

CONTEXT DESCRIPTION (100–150 WORDS): Geographic area and population served,number and types of water systems, staffing, how long the WQT program has been operating,key stakeholders, and major challenges



Section 1: Parameter Selection & Testing Strategy

Key Question: Do you know WHAT to test, WHEN to test, and WHERE to sample based on national regulations, local risks, and system characteristics?

Current Status	Yes	Partial	No	Notes
Written guidance exists for selecting priority parameters based on national regulations and local context	◯	◯	◯	
Testing frequency is differentiated by parameter type (microbial vs. chemical) and water system management model	◯	◯	◯	
Seasonal variations are considered in testing schedules	◯	◯	◯	
Sampling locations are documented and appropriate for parameters being tested	◯	◯	◯	
Critical sampling points are identified (source, post-treatment, distribution, customer taps)	◯	◯	◯	

Rating Scale

1	No systematic approach to parameter selection, testing frequency, or sampling locations; testing is random or reactive	Your rating: ☐
2	Minimal planning; testing very limited parameters with no differentiation by system type or season; poor sampling location documentation	
3	Some strategy exists but incomplete; missing key parameters or inappropriate frequencies; sampling locations partially documented	
4	Good strategy with minor gaps; mostly appropriate parameters, frequencies, and locations aligned with guidance	
5	Comprehensive testing strategy; clear parameter selection aligned with regulations and local risks; appropriate frequency and well-documented sampling locations	

Action Planning

Rationale for your rating:	
One priority action to improve:	
Resources needed:	
Timeline:	
Person responsible:	

Section 2: Sampling & Testing Quality

Key Question: Are your samples collected and tested properly using appropriate procedures,equipment, and laboratories?

Current Status	Yes	Partial	No	Notes
Written standard operating procedures (SOPs) exist for sample collection and are accessible in the field	◯	◯	◯	
Proper sampling materials are consistently available (sterile bottles, preservatives, coolers)	◯	◯	◯	
Sample transport and storage procedures maintain sample integrity	◯	◯	◯	
Clear criteria exist for field testing vs. laboratory analysis for each parameter	◯	◯	◯	
Field equipment is properly calibrated and laboratories are accredited (e.g., International Organization for Standardization [ISO] 17025)	◯	◯	◯	

Rating Scale

1	No standardized procedures; inconsistent sampling methods; poor sample handling; equipment uncalibrated; laboratory accreditation unknown	Your rating: ☐
2	Minimal procedures; verbal guidance only; frequent sampling errors; equipment may be inappropriate; no laboratory quality verification	
3	Some written procedures but not consistently followed; equipment mostly appropriate but quality control gaps exist	
4	Good SOPs and equipment with mostly consistent application; laboratory accreditation verified; minor gaps in quality control	
5	Comprehensive SOPs with photo guides; consistent application; proper equipment and accredited laboratories; complete quality assurance	

Action Planning

Rationale for your rating:	
One priority action to improve:	
Resources needed:	
Timeline:	
Person responsible:	

Section 3: Training & Quality Control

Key Question: Do your monitors have the skills and systems to produce reliable, consistent data?				
Current Status	**Yes**	**Partial**	**No**	**Notes**
Monitors receive formal initial training that includes hands-on field practice in sampling and testing	◯	◯	◯	
Training includes quality assurance and quality control (QA/QC) procedures (blanks, duplicates, equipment calibration)	◯	◯	◯	
Refresher training is available and used regularly (at least annually)	◯	◯	◯	
Clear criteria exist for field testing vs. laboratory analysis for each parameter	◯	◯	◯	
A supervisor accompanies testers on field visits periodically and provides feedback	◯	◯	◯	

Rating Scale		
1	No formal training; monitors learning on job without guidance; no QA/QC procedures; data quality unknown	Your rating: ☐
2	Basic training but no hands-on practice or QA/QC training; minimal quality control; no ongoing support	
3	Adequate initial training but no refresher training or systematic QA/QC; skills and quality drift over time	
4	Good training program with some QA/QC; minor gaps in ongoing support, refresher training, or quality verification	
5	Comprehensive training with hands-on practice and QA/QC procedures; regular refreshers; systematic quality assurance with multiple verification mechanisms	

Action Planning	
Rationale for your rating:	
One priority action to improve:	
Resources needed:	
Timeline:	
Person responsible:	

Section 4: Human Resources & Data Management

Key Question: Do you have the people and systems to sustain your testing program and manage data effectively?				
Current Status	**Yes**	**Partial**	**No**	**Notes**
Staffing levels are adequate to achieve planned testing frequency	◯	◯	◯	
Roles and responsibilities are clearly defined with backup staff trained	◯	◯	◯	
Testing data is collected in a consistent format that allows for analysis	◯	◯	◯	
A database or data management system exists for compiling and analyzing results	◯	◯	◯	
Historical data is stored securely and can be accessed when needed	◯	◯	◯	

Rating Scale		
1	Insufficient staffing; roles unclear; high turnover; no data management system; results filed away and unusable	Your rating: ☐
2	Minimal staffing with gaps; basic data entry but no analysis tools; difficult to compile or access data	
3	Adequate staffing but some imbalances; some data management but inefficient; limited ability to generate reports	
4	Good staffing and data systems with minor gaps; mostly clear roles; can compile and analyze data with some effort	
5	Optimal staffing with clear roles and retention strategies; robust data management with easy compilation, analysis, and secure storage	

Action Planning	
Rationale for your rating:	
One priority action to improve:	
Resources needed:	
Timeline:	
Person responsible:	

Section 5: Data Use & Communication

Key Question: Does your testing data actually improve water safety through timely response, systematic analysis, decision-making, and stakeholder communication?				
Current Status	**Yes**	**Partial**	**No**	**Notes**
Field staff identify high-risk findings during visits and report urgent issues within 24 hours	◯	◯	◯	
Laboratory results are received and acted upon within expected timelines (two to three days for *E. coli*, one to four weeks for chemicals)	◯	◯	◯	
Follow-up testing protocols exist for when exceedances are found	◯	◯	◯	
Testing results are analyzed systematically to identify trends and high-risk systems	◯	◯	◯	
Exceedances of water quality standards trigger specific corrective actions appropriate to urgency level	◯	◯	◯	
Testing data informs resource allocation and budgeting decisions	◯	◯	◯	
Results are communicated to stakeholders (communities, managers, regulators) in timely and appropriate formats	◯	◯	◯	
Corrective actions are tracked to verify problems are resolved	◯	◯	◯	

Key Question: Does your testing data actually improve water safety through timely response, systematic analysis, decision-making, and stakeholder communication?		
Rating Scale		
1	Testing data not used for decisions; no immediate response protocols; results compiled only for compliance; no impact on water safety	Your rating:
2	Minimal data use; slow response to urgent findings; occasional reaction to severe exceedances but no systematic protocols; infrequent reporting	
3	Some immediate response capability and data analysis but inconsistent; limited follow-up testing; delayed stakeholder communication; corrective actions not systematically tracked	
4	Good response protocols and data use with minor gaps; mostly timely action at all phases; regular analysis and reporting; corrective actions usually tracked	
5	Strong three-phase response system: immediate field action (0-24 hours), short-term follow-up (days-weeks), and strategic planning (months); systematic analysis; comprehensive stakeholder communication; demonstrable water safety improvements	

Action Planning	
Rationale for your rating:	
One priority action to improve:	
Resources needed:	
Timeline:	
Person responsible:	

Section 6: Integration with Sanitary Inspections

Key Question: Are water quality testing and sanitary inspections working together to provide comprehensive water safety assessment?				
Current Status	**Yes**	**Partial**	**No**	**Notes**
Sanitary inspections and water quality testing are conducted on the same water systems	◯	◯	◯	
Testing and inspection schedules are coordinated	◯	◯	◯	
Data from both sources is analyzed together to understand water safety risks	◯	◯	◯	
High sanitary inspection risk scores trigger increased testing frequency	◯	◯	◯	
Combined findings inform prioritization of corrective actions	◯	◯	◯	

Rating Scale		
1	No integration; testing and inspections operate as separate programs with no coordination or data sharing	Your rating: ☐
2	Minimal integration; occasional coordination but data not systematically combined; programs operate in silos	
3	Some integration but inconsistent; limited use of combined information for decision-making	
4	Good integration with minor gaps in coordination or joint data analysis; mostly coordinated approach	
5	Complete integration; coordinated schedules; combined analysis; integrated decision-making and action planning	

Action Planning	
Rationale for your rating:	
One priority action to improve:	
Resources needed:	
Timeline:	
Person responsible:	

Overall Program Assessment

Overall Rating Scale:			
Rating	**Description**	**Select**	**Primary Reason for Your Overall Rating**
1	Minimal WQT program; major gaps across most areas; limited impact on water safety	☐	
2	Basic WQT program functioning but with significant weaknesses; inconsistent data quality	☐	
3	Adequate WQT program with clear strengths and gaps; moderate impact	☐	
4	Strong WQT program with minor gaps; good consistency and data use; clear impact	☐	
5	Excellent WQT program; complete systems; high quality; strong impact on water safety	☐	

Program Strengths and Critical Gaps

Strengths — what is working well in your program and why

Strength 1: _____

Strength 2: _____

Critical Gaps — what is missing and what is the impact

Critical Gap 1: _____

Critical Gap 2: _____

Critical Gap 3: _____

Top Three Priority Actions

Priority Action 1	
Action:	
Section(s) addressed:	
Why this is Priority 1:	
Quick win or long-term investment:	
Expected impact:	
Resources needed:	
Who must approve or support:	
Timeline:	
Success indicators:	

Priority Action 2	
Action:	
Section(s) addressed:	
Why this is Priority 2:	
Relationship to Priority 1:	
Quick win or long-term investment:	
Expected impact:	
Resources needed:	
Who must approve or support:	
Timeline:	
Success indicators:	

Priority Action 3	
Action:	
Section(s) addressed:	
Why this is Priority 3:	
How this complements Actions 1 and 2:	
Quick win or long-term investment:	
Expected impact:	
Resources needed:	
Who must approve or support:	
Timeline:	
Success indicators:	

Implementation Planning and Reflection

Strategic Sequence

Should these actions be implemented at the same time or in a specific order? Why?

If you could only do ONE action this year, which would it be and why?

Challenges and Mitigation

Biggest anticipated challenge:

Mitigation strategy:

Primary resource constraint:

Creative solutions:

Reflection

Biggest surprise from this assessment:

Most important insight:

How will you use this assessment?

Optional: Team Meeting

Team meeting date: _____

Attendees:

Additional Resources

World Health Organization (WHO) Guidance: WHO Guidelines for Drinking Water Quality — https://www.who.int/publications/i/item/9789241549950

Implementation Guidance: Water Safety Planning for Small Community Water Supplies — https://www.who.int/publications/i/item/9789241548427

Testing Standards: WHO/United Nations Children's Fund (UNICEF)/Centre for Affordable Water and Sanitation Technology (CAWST) resources on water quality testing equipment selection

Global Water Center Training Resources | Risk Based Approach to Water Quality Monitoring and Management

Use these questions for deeper program reflection. They can help you think more critically about each section before rating your program.

Section 1: Parameter Selection & Testing Strategy

Consider these questions:

- Can you list your national drinking water standards and explain how they guide your parameter selection?
- Have you identified local contamination risks (geology, agriculture, industry, sanitation) that require specific parameters?
- If a new water system comes online tomorrow, does your team know which parameters to test first?
- Can your team explain why microbial parameters need more frequent testing than most chemical parameters?
- Do you test household-managed systems at the same frequency as professionally managed systems? Should you?
- How do you account for seasonal risks (rainy season flooding, dry season source contamination)?
- If you picked up a completed sampling form, could you find that exact location again six months later?
- Are you sampling at points that actually tell you about water quality risks (e.g., tap water, not just source)?
- Have you identified the highest-risk sampling points that need more frequent attention?

Section 2: Sampling & Testing Quality

Consider these questions:

- If two monitors sample the same tap on the same day, would they follow the exact same procedure?
- Do your monitors carry written standard operating procedures (SOPs) in the field, or are they working from memory?
- Can you trace any sample result back to exactly when, where, and how it was collected?
- How often do samples arrive at the laboratory contaminated or with inadequate documentation?
- What's your process if a monitor realizes they made a mistake during sample collection?
- Can you explain why you test certain parameters in the field vs. sending them to a laboratory?
- Do you know if your laboratory is accredited? What does that accreditation actually mean for data quality?
- When was the last time your field testing equipment was calibrated?
- What happens if your primary laboratory is unavailable? Do you have a backup plan?

Section 3: Training & Quality Control

Consider these questions:

- Could your newest monitor explain the difference between a sample contaminated during collection vs. actual water contamination?
- Do your monitors practice sampling techniques in the field during training, or only in a classroom?
- When was the last time your most experienced monitor received refresher training?
- How would you onboard a new monitor if your most experienced person left tomorrow?
- Do your monitors understand why QA/QC procedures matter, or do they see them as bureaucratic requirements?

- If you found contamination in a sample, how confident are you that it's real contamination and not a sampling error?
- When was the last time you collected a field blank? What did it tell you about your sampling procedures?
- Do you know which monitor has the most consistent results? Which one shows the most variation? How do you know?
- How often do QA/QC checks reveal problems? What do you do when they do?

Section 4: Human Resources & Data Management

Consider these questions:

- If you listed all the water systems you're supposed to test, could your current staff actually achieve that workload?
- What happens when your most experienced monitor is sick or on leave? Does the program stop?
- Why do monitors leave your program? What would make them stay?
- If someone asked you right now which water systems had *E. coli* detections in the last six months, how long would it take to answer?
- Are your testing results in a format that allows analysis, or are they just filed in folders?
- Can you show a graph of how water quality has changed over time at a specific system?
- How much manual work is required to compile a monthly or annual report?
- If a monitor makes a data entry error, would you catch it? How?
- Can you access testing results from two years ago? Five years ago?

Section 5: Data Use & Communication

Consider these questions:

- Can you point to a specific decision that was made differently because of water quality testing data?
- When field staff find visible contamination or system failures during a visit, what happens? Is the community notified immediately?
- How quickly do urgent findings reach decision-makers? Within hours or days?
- When you find a water quality exceedance, what happens next? Is there a clear process with timelines?
- What's your actual laboratory turnaround time? Does it meet the standard (two to three days for *E. coli,* one to four weeks for chemicals)?
- Do you have protocols for follow-up testing after exceedances? When is retesting required?
- Do you know which water systems are your highest priority for intervention right now? How did you determine that?
- How does testing data influence your annual budget planning and infrastructure investments?
- Do you track whether corrective actions actually solved the problems identified by testing?
- If you asked a community member about their water quality, would they know? How would they know?
- How long after testing does it take for results to reach the people who need them?
- Would a community leader without technical training understand your testing report?
- Do your reports tell stakeholders what to DO with the information, or just present numbers?
- Can you show examples of how the three phases of response (immediate, short-term, strategic) work in your program?

Section 6: Integration with Sanitary Inspections

Consider these questions:

- If a water system has high sanitary inspection risk scores, does that trigger different testing protocols?
- When you find poor water quality results, do you go back and check the sanitary inspection findings? What do they tell you?
- Do your testing and inspection teams talk to each other, or do they operate in silos?
- Can you name a water system where integrating both data sources helped you understand a problem better than either alone?
- If you had to choose between testing or inspecting a water system (but not both), how would you decide?
- Do your corrective action plans consider both testing results AND inspection findings?
- Are there systems you're testing but never inspecting, or vice versa? Why?



This assessment is meant to drive meaningful improvement, not achieve perfect scores. Even well-established programs will have gaps. The goal is honest assessment that leads to actionable change. Revisit this document in six to 12 months to track progress.