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RG-542

Compliance Notebook for Public Water Systems Using Surface Water or Groundwater Under the Influence of Surface Water

Program Support and Environmental Assistance Division

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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Compliance Notebook for Public Water Systems Using Surface Water or Groundwater Under the Influence of Surface Water

PWS Name _____

Address _____

PWS ID Number _____

Contact Name _____

Contact Information _____

Prepared by
Small Business and Local Government Assistance
Program Support and Environmental Assistance Division

RG-542
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How to Use This Notebook

This compliance notebook is for owners and operators of community public water systems supplying drinking water from **surface water or groundwater under the direct influence of surface water (GUI)** sources.

Use this notebook as a template to organize your system's records and show compliance with requirements. There are log sheets, links to applicable forms, references to regulations, record retention timeframes, and other technical guidance included in each section. The log sheets are suggested templates to help you collect required information. **Place records from your system in their appropriate section to keep them organized.**

If you treat surface water or groundwater under the direct influence of surface water using reverse osmosis or membranes, you may have other monitoring and recordkeeping requirements not covered in this notebook. Add those records to this notebook as needed. The information in this document may be subject to change with policy and rule changes.

Where to Find More Information

- Request records from TCEQ by contacting the **Central Records Section** at 512-239-2900 or cfrreq@tceq.texas.gov.
- Search for TCEQ forms[1] using a keyword, form number, or subject.
- Search Texas Drinking Water Watch[2] for analytical results, schedules, certain violations, information on drinking water quality, and public water system compliance with state and federal regulations.
- Review the following TCEQ publications:
  - *You're a Public Water System…Now What?*[3] (RG-496). Guidance for following PWS rules and regulations.
  - *Managing Small Public Water Systems*[4] (RG-501). Technical guidance for owners and operators of small public water systems.

1. www.tceq.texas.gov/search_forms.html
2. www.tceq.texas.gov/goto/dww-inst
3. www.tceq.texas.gov/goto/rg-496
4. www.tceq.texas.gov/goto/rg-501

Find applicable rules in the following subchapters of Title 30, Texas Administrative Code, Chapter 290 (30 TAC Chapter 290):

- **Chapter 290 Subchapter D:** Rules and Regulations for Public Water Systems
- **Chapter 290 Subchapter F:** Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems
- **Chapter 290 Subchapter H:** Consumer Confidence Reports

This document is a general guide to laws and regulations about public water systems and an aid to minimize potential health risks. It does not replace those laws and regulations, which take priority over any information supplied here.

Local governments and other state and federal agencies may have more rules and requirements. As the owner or operator of the water system, you must ensure compliance with all applicable laws and regulations.

If you receive compensation for water or serve other residential or industrial connections, you may have other requirements not covered in this guide. If you have questions or need more information about public water system requirements, please refer to the Small Business and Local Government Assistance (SBLGA) webpage[5] or call the SBLGA Hotline at 800-447-2827.

5. www.texasenvirohelp.org

Rule Citations

The rules that apply to public water systems are listed below. Rule citations are from 30 TAC[6] Chapter 290 unless otherwise stated.

Definitions
- 290.38
- 290.103

General Provisions
- 290.39

Water Sources
- 290.41

Water Treatment
- 290.42

Water Storage
- 290.43

Water Distribution
- 290.44

Minimum Water System Capacity Requirements
- 290.45

Minimum Acceptable Operating Practices for Public Water Systems (includes Recordkeeping)
- 290.46

Appendix (example forms and guidelines)
- 290.47

Maximum Contaminant Levels, Maximum Residential Disinfectant Levels, Treatment Techniques, and Action Levels
- 290.104

Inorganic Contaminants
- 290.106

Organic Contaminants
- 290.107

Radionuclides Other than Radon
- 290.108

Microbial Contaminants
- 290.109

Disinfectant Residuals
- 290.110

Surface Water Treatment
- 290.111

Total Organic Carbon (TOC)
- 290.112

Disinfection Byproducts
- 290.114 *(Other, Chlorite and Bromate)*
- 290.115 *(Stage 2, TTHM and HAA5)*

Groundwater Corrective Actions and Treatment Levels
- 290.116

Regulation of Lead and Copper
- 290.117

Secondary Constituent Levels
- 290.118

Analytical Procedures
- 290.119

Monitoring Plans
- 290.121

Public Notification
- 290.122

Consumer Confidence Reports
- 290 Subchapter H

Drought Contingency Plans for Municipal Uses
- 30 TAC 288.20

6. www.tceq.texas.gov/goto/view-30tac

Definitions

30 TAC Subsection 290.38(34) [30 TAC 290.38(34)] Groundwater under the direct influence of surface water: Any water beneath the surface of the ground with:

(A) Significant occurrence of insects or other macroorganisms, algae, or large diameter pathogens such as *Giardia lambia* or *Cryptosporidium*;

(B) Significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions; or

(C) Site-specific characteristics including measurements of water quality parameters, well construction details, existing geological attributes, and other features that are similar to groundwater sources that have been identified by the executive director as being under the direct influence of surface water.

30 TAC 290.38(36) Human consumption: Uses by humans in which water can be ingested into or absorbed by the human body. Examples of these include, but are not limited to drinking, cooking, brushing teeth, bathing, washing hands, washing dishes, and preparing foods.

30 TAC 290.38(71) Public Water System: A system for the provision to the public of water for human consumption through pipes or other constructed conveyances, which includes all uses described under the definition for drinking water. Such a system must have at least 15 service connections or serve at least 25 individuals at least 60 days out of the year.

This term includes: any collection, treatment, storage, and distribution facilities under the control of the operator of such system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under the control which are used primarily in connection with such system.

Two or more systems with each having a potential to serve less than 15 connections or less than 25 individuals but owned by the same person, firm, or corporation and located on adjacent land will be considered a public water system when the total potential service connections in the combined systems are 15 or greater or if the total number of individuals served by the combined systems total 25 or greater at least 60 days out of the year.

Without excluding other meanings of the terms “individual” or “served,” an individual is deemed to be served by a water system if he lives in, uses as his place of employment, or works in a place to which drinking water is supplied from the system.

System Information

Include

- Contact information for:
  - Emergency contact
  - Responsible official
  - Accredited laboratory
- List of licensed backflow prevention assembly testers (if applicable)
- System capacities
- Connection and population served

Instructions

Keep personnel and system information up to date.

- Send an email to PWSINVEN@tceq.texas.gov to update TCEQ of changes to points of contact, facilities, and activity.
- See current information in the Texas Drinking Water Watch[7] database.

Attachment

1. *System Information Log Sheet*

7. www.tceq.texas.gov/goto/dww

Notes

System Information Log Sheet

Revision Date:

PWS Name		PWS ID	

Responsible Official

Name		Title	
Phone		Alt Phone	
Mailing Address			

Emergency Contact

Same as Responsible Official? Yes☐ No☐

Name		Title	
Phone		Alt Phone	

Accredited Laboratory

Name			
Phone		Fax	
Mailing Address			

Water Operator Information

Name		License Class	
Phone		License Number	
Name		License Class	
Phone		License Number	
Name		License Class	
Phone		License Number	

Additional water operators should be included in your annual Operator Notice Form.

Number of Connections and Population

Connections		Population	

Refer to 30 TAC 290.38 for definitions of "connection" and "population."

System Capacities

(Include measurement units)

Surface Water Treatment Plant (Normal Rated Design Flow)

Name and Location	Capacity

Raw Water Pumps

Name and Location	Capacity

Sedimentation Basin/Clarifier

Name and Location	Volume

Conventional Filters

Name and Location	Square Feet

Low-Pressure Membrane Filters (Normal Rated Design Flow)

Name and Location	Capacity

Bag and Cartridge Filters (Normal Rated Design Flow)

Name and Location	Capacity

Transfer Pumps

Name and Location	Capacity

Wells

Name and Location	GUI (Y/N)	Capacity

Ground Storage Tanks/Clearwells

Name and Location	Capacity

Elevated Storage Tanks

Name and Location	Capacity

Pressure Tanks

Name and Location	Capacity

Service Pumps

Name and Location	Capacity

Refer to 30 TAC 290.38(79) for the definition of "service pump."

Daily Monitoring Records

Applicable Regulations: 30 TAC 290.46(f)

Record Water and Chemical Use

Record the volume of water treated and distributed at your system. Get this number from your flow measuring devices.

Record the amount of chemical(s) used, such as coagulants, chlorine, or ammonia used to disinfect the water.

Measure Disinfectant Residual Levels

Measure and record the disinfectant residual concentration in the distribution system **daily**.

- Rotate sampling locations to best represent the water throughout your system.

The residual disinfectant concentration in water throughout your distribution system must be at least:

- 0.2 milligrams per liter (mg/L) free chlorine; or
- 0.5 mg/L chloramine (measured as total chlorine) if you distribute chloraminated water

Keep Records

Keep all disinfectant, water use, and chemical use data for **at least 3 years**.

Attachments

1. *Disinfectant Residual, Water Use, and Chemical Use Log Instructions*
2. *Disinfectant Residual, Water Use, and Chemical Use Log Sheet*

Notes

Disinfectant Residual, Water Use, and Chemical Use Log Instructions

Why should I use this log?

Use this log to track your system's water use, chemical use, and disinfectant residual readings and keep them organized.

How do I use it?

Record sampling dates and your:

- Sampling location(s)[8]
- Flow meter readings[9]
- Disinfectant residual readings
- Amount of water and chemical(s) used

When do I use it?

Record this information **daily.**

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 3 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

8. Rotate sampling locations throughout the distribution system.
9. Include the unit of measurement given by your flow meter so you can convert water usage to gallons.

Notes

Disinfectant Residual, Water Use, and Chemical Use Log Sheet

Date	Meter Reading	Water Used (gallons)	Chemical Name	Scale Reading	Amount of Chemical Used	Disinfectant Residual (mg/L)	Disinfectant Residual Sampling Location	Operator Initials

Disinfectant Residual, Water Use, and Chemical Use Log Sheet (continued)

Date	Meter Reading	Water Used (gallons)	Chemical Name	Scale Reading	Amount of Chemical Used	Disinfectant Residual (mg/L)	Disinfectant Residual Sampling Location	Operator Initials

Monthly Monitoring and Operating Records

Include

- Coliform sampling results (see page 21)
- Flushing events records (see page 23)
- Chlorine dioxide monthly operating report (if using chlorine dioxide) (see page 29)
- Bromate test results (if ozone is used) (see page 31)

Instructions

Update these records at least once **every month**. Find more information about each record on the pages listed above.

Notes

Coliform Sampling Results

Applicable Regulations: 30 TAC 290.46(f)(3)(D)(i) and 30 TAC 290.109(d)

Sample for Coliforms

Take *at least* the minimum number of distribution coliform samples routinely required each month and send to a NELAP accredited laboratory for analysis.

- The number of samples is based on the maximum population served on any given day during the month.
  - See the figure in 30 TAC 290.109(d)(2)(A)(iii)[10] for requirements.

Contact your laboratory to get the Microbial Reporting Form (MRF) and coliform sample bottles.

- See TCEQ's list of accredited laboratories.[11]
- See TCEQ's instructions on completing the MRF.[12]
- Samples for microbial contaminants must be analyzed by a National Environmental Laboratory Accreditation Program (NELAP) laboratory approved by TCEQ for the accredited microbial analyses and methods in the drinking water matrix.

Depending on the results of your monthly coliform samples, additional assessments may be required. See the Revised Total Coliform Rule (RTCR) Records section for more information.

Keep Records

Keep copies of these records for **at least 5 years**:

- Completed Microbial Reporting Forms
- Sample results

10. www.tceq.texas.gov/goto/rtcr-samples
11. www.tceq.texas.gov/goto/certified_labs
12. www.tceq.texas.gov/goto/mrfins

Notes

Flushing Events Records

Applicable Regulations: 30 TAC 290.44(f), 30 TAC 290.46(f)(3)(A), and 30 TAC 290.46(l)

Flush Dead-End Mains

Flush physical dead-ends at least once a month. Flush dead-end lines and other mains as needed, such as if you receive water quality complaints from customers or if the disinfectant residual falls below minimum levels.

Other Flush Locations

You should collect data at all flush locations, not only dead-end mains. This will allow you to keep a record of all flushing activities.

You may want to collect other data when flushing, such as:

- Length of flushing
- Volume of water flushed
- Beginning and ending residual

Keep Records

Keep records on flushing data for **at least 2 years**.

Attachments

1. *Flushing Events Log Instructions*
2. *Flushing Events Log Sheet*

Notes

Flushing Events Log Instructions

Why should I use this log?

If your system has physical dead-ends, you must flush mains regularly. Use this log to track these events and show compliance with the rule. We recommend that you also track flushing that does not occur on dead-end mains.

How do I use it?

Record the date and time of flushing events. To help with water loss audits, record the volume of water flushed and disinfectant residual readings at the start and end of each event.

When do I use it?

Monthly for routine flushing of dead-end mains.

As needed if disinfectant residuals fall below minimum levels or if you receive water quality complaints from customers.[13]

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 2 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

13. All flush locations.

Notes

Flushing Events Log Sheet

Location	Reason	Date	Time	Volume	Starting Residual	Ending Residual	Operator Initials

Notes

Chlorine Dioxide Monthly Operating Report

Applicable Regulations: 30 TAC 290.42(e)(3)(G), 30 TAC 290.46(f)(3)(E)(i), 30 TAC 290.110(c)(3), 30 TAC 290.110(e)(3), and 30 TAC 290.114

Monitor Levels of Chlorine Dioxide and Chlorite

If you use chlorine dioxide (ClO_2) as a disinfectant, you must monitor for chlorine dioxide and chlorite **daily**.

Follow these instructions[14] to record the monitoring results on the Chlorine Dioxide Monthly Operating Report (CLO2MOR)[15] and submit each month.

Keep Records

Keep these reports for **at least 10 years**.

14. www.tceq.texas.gov/downloads/drinking-water/operating-reports/form-00690-clo2-mor-instructions.pdf
15. www.tceq.texas.gov/downloads/drinking-water/operating-reports/form-00690-clo2-mor.xlsx

Notes

Ozone

Applicable Regulations: 30 TAC 290.42(e)(3)(G), 290.46(f)(3)(E)(i) and 290.114(b)

Measure Bromate if Ozone is Used

Community and nontransient noncommunity public water systems that use ozone must monitor for bromate. Bromate is a disinfection byproduct that can form when ozone is used to treat water containing bromide.

You must measure the bromate concentration in the water entering the distribution system at least once each month. Samples must be collected when the ozonation system is operating under normal conditions and at locations and intervals specified in your monitoring plan.

Send copies of bromate test results to TCEQ:

TCEQ Water Supply Division
MC-155, Attn: Bromate
P.O. Box 13087
Austin, Texas 78711-3087

Bromate test results must be submitted to TCEQ within 10 days following the month that the results are received by the water system, or the first 10 days following the end of the required monitoring period, whichever occurs first.

- See TCEQ's webpage Public Water Systems Using Chlorine Dioxide or Ozone.[16]
- View the Monitoring, Analyzing, and Reporting Bromate for Public Water Systems Using Ozone (RG-544).[17]

Keep Records

Keep these reports for **at least 10 years**.

16. www.tceq.texas.gov/drinkingwater/chemicals/dbp/dbp_risk.html
17. www.tceq.texas.gov/downloads/drinking-water/operating-reports/rg-544.pdf

Notes

Surface Water Monthly Operating Report (SWMOR)

Applicable Regulations: 30 TAC 290.111 and 30 TAC 290.46(f)(3)(E)(i)

Complete a SWMOR Monthly

You must complete a SWMOR each month using the combined version Form TCEQ-00105. This version replaces the previous versions of the SWMOR and can be customized for all types of TCEQ-approved surface water treatment technologies.

See TCEQ's SWMOR website[18] for a copy of the form, additional information, and instructions.

When do I use it?

Everyday your plant produces drinking water.

Do I send it to TCEQ?

Yes, the SWMOR must be submitted to TCEQ monthly.

Keep Records

Keep copies of SWMORs and any supporting documentation including turbidity monitoring results of the combined filter effluent for **at least 10 years**.

18. www.tceq.texas.gov/drinkingwater/swmor/swmor/swmor-forms-and-instructions

Filter Profile Report

Applicable Regulations: 30 TAC 290.46(f)(3)(C)(iv), 30 TAC 290.111(e)(4)(A)(i), 30 TAC 290.111(e)(4)(B)(i), and 30 TAC 290.111(h)(3)

Submit a Filter Profile Report

Submit a Filter Profile Report (FPR) with your SWMOR when one or more individual filters produces water with elevated turbidity levels.

You must complete the report if **either**:

- The individual filter effluent (IFE) turbidity level exceeds 1.0 NTU in two consecutive 15-minute readings at any time during the filter run.
- Your plant serves at least 10,000 people and the IFE turbidity level exceeds 0.5 NTU in two 15-minute readings at the end of the first four hours of continuous filter operation after a backwash or shutdown.

Each time an IFE turbidity level exceeds one of the above triggers, you will need to identify the filter, report when the event occurred, and summarize the severity and duration of the episode.

If you cannot identify any obvious reason for the abnormal filter performance, you must produce a filter profile within seven days of the IFE exceedance. A filter profile is a graphical representation of individual filter performance based on turbidity readings recorded at one-minute intervals for an entire filter run, from start-up to backwash.

See the Filter Reports for Individual Filters[19] webpage for FPR form TCEQ-10276, examples, and more instructions.

Keep Records

Keep these reports for **at least 5 years** after they are no longer in effect.

19. www.tceq.texas.gov/drinkingwater/swmor/swmor/fpr

Notes

Filter Assessment Report

Applicable Regulations: 30 TAC 290.46(f)(3)(C)(iv), 30 TAC 290.111(e)(4)(A)(ii), 30 TAC 290.111(e)(4)(B)(ii), and 30 TAC 290.111(h)(4)

Submit a Filter Assessment Report

Submit a Filter Assessment Report (FAR) with your SWMOR when an individual filter has effluent turbidity readings above 1.0 NTU on three separate occasions over the past 3 months. The SWMOR spreadsheet automatically determines if a FAR is needed.

See the Filter Reports for Individual Filters[20] webpage for FAR form TCEQ-10277, examples, and more instructions.

Keep Records

- Keep turbidity monitoring results for individual filters, filter profile reports, and filter assessment reports for **at least 5 years**.
- Keep the results of all surface water treatment monitoring that are used to demonstrate log inactivation or removal for **at least 3 years**.

20. www.tceq.texas.gov/drinkingwater/swmor/swmor/fpr

Notes

Total Organic Carbon (TOC)

Applicable Regulations: 30 TAC 290.46(f)(3)(E)(i), 30 TAC 290.46(f)(3)(E)(ii), and 30 TAC 290.112

Remove TOC

You must follow TOC removal requirements if your water treatment plant:

- serves a community or nontransient, noncommunity public water system, and
- uses conventional treatment (i.e., coagulation, flocculation, and filtration as part of the overall treatment protocol).

The TOC reporting requirements are incorporated into the SWMOR.

Notes

Annual Operating Records

Include

- Tank inspection records (see page 42)
- Copies of water operator notice forms (see page 48)

Instructions

Update records in this section at least once **each year**. Find more information about each record on the pages listed above.

Notes

Tank Inspection Records

Applicable Regulations: 30 TAC 290.46(f)(3)(D) and 30 TAC 290.46(m)(1)

Inspect Your Tanks

Inspect each of your ground, elevated, and pressure tanks annually. You can have water system personnel check the tanks or hire a contracted inspection service.

Ground and elevated storage tank inspections must make sure:

- The tank is watertight.
- Roof hatches are closed and locked.
- Vents are in place and properly screened.
- Interior and exterior coating systems continue to protect all metal surfaces.
- Flap valves and gasketing protect against insects, rodents, and other vermin.

Pressure tank inspections must make sure:

- The tank is watertight.
- The air to water ratio is kept at the proper level.
- The pressure release device and pressure gauge work properly.
- Exterior coating systems continue to protect all metal surfaces.

Check the interior surface of pressure tanks with an inspection port every five years.

Keep Records

Keep tank inspection logs for **at least 5 years**.

Attachments

1. *Water Tank Inspection Log Instructions*
2. *Water Tank Inspection Log Sheet*

Notes

Water Tank Inspection Log Instructions

Why should I use this log?

You must examine your ground, elevated, and pressure storage tanks at least once every year to make sure they are in good working condition. Use this log to track inspections and show compliance with the rule.

How do I use it?

Record:

- Date of inspection
- Name of inspector
- Location of the tank
- Description of the tank
- Date of last interior pressure tank inspection
- Tank exterior and interior conditions, noting any problems
- Exterior and interior coating materials and the date they were applied

When do I use it?

At least once each year, within a year of the last examination.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 5 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

Notes

Water Storage Tank Inspection Log Sheet

Location:	
Description:	
Exterior Coating Date and Material:	
Interior Coating Date and Material:	

Tank Exterior

Feature	Check For	OK	Problem	N/A
Foundation	Settling, cracks, deterioration			
Protective coating	Rust, pitting, corrosion, leaks			
Water level indicator	Working, cable access, opening is protected			
Overflow pipe	Working, sealed, flap valve cover is accessible			
Access ladder	Loose bolts or rungs			
Roof	Rust, holes along seams, ponding water			
Roof hatch	Proper design, locked, hinge bolts secured, gasket in good condition			
Air vents	Proper design, screened, sealed edges and seams			
Cathodic protection anode plates	Secured and sealed			
Pressure tank status	Pressure release device, pressure gauge, air to water volume device			

Tank Interior

Feature	Check For	OK	Problem	N/A
Water quality	Insects, floating debris, sediment on bottom			
Protective coating	Rust, pitting, corrosion, scaling			

Date Pressure Tank Interior Last Inspected:

Comments

Name of Inspector:	
Date of Inspection:	

Notes

Operator Notice Form

Applicable Regulations: 30 TAC 290.46(p)(2)

Update Operator Information

Provide a list of water operators and operating companies associated with your system **each year**.

Submit the Operator Notice form[21] by:

- Email to PWSInven@tceq.texas.gov.
- Fax to 512-239-6050.
- Mail to:
  Water Supply Division, MC-155
  Texas Commission on Environmental Quality (TCEQ)
  P.O. Box 13087
  Austin, TX 78711-3087

Keep Records

Keep a copy for your records and update it each year.

21. www.tceq.texas.gov/goto/20913

Notes

Lab Equipment Calibration Records

Include

- pH Meter records (see page 55)
- Turbidimeter records (see page 58)
- Disinfectant Residual Analyzer records (see page 65)
- Monochloramine and Free Ammonia records (see page 71)
- Well Meter Calibration records (see page 75)
- Additional Equipment Calibration records (see page 77)

Instructions

Update records in this section according to each requirement. Find more information about each record on the pages listed above. A summary of this equipment and the frequencies at which they should be calibrated is also included in Table 1.

For additional information on calibration requirements and procedures, see Appendix G of Surface Water Treatment Plant Requirements for Monthly Reporting and Public Notification (RG-211)[22].

22. www.tceq.texas.gov/drinkingwater/swmor/swmor/rg-211.html

Table 1. Lab equipment calibration and frequencies

Type of Equipment	Frequency	Standards
pH Meters		
Benchtop	Calibrate daily. Check calibration each time you test a series of samples.	Calibrate using manufacturer specifications. Check calibration using at least one buffer.
On-line	Calibrate at least every 30 days. Check calibration weekly.	Calibrate using manufacturer specifications. Check calibration using a primary standard or by comparing the results to the results from a properly calibrated benchtop pH meter.
Turbidimeters		
Benchtop	Calibrate at least every 90 days. Check calibration each time you test a series of samples.	Calibrate using primary standards. Check calibration using secondary standards. Standardize your secondary standards after calibrating the turbidimeter with primary standards.
On-line	Calibrate at least every 90 days. Check calibration weekly.	Calibrate using primary standards. Check calibration using: • Primary standard • Secondary standard • Manufacturer's calibration confirmation device • Compare results from the on-line turbidimeter to the results from a properly calibrated benchtop turbidimeter.

Type of Equipment	Frequency	Standards
Chemical Disinfectant Residual Analyzer		
Manual	Calibrate every 90 days.	Calibrate using chlorine solutions of known concentrations. If the result is outside the manufacturer's allowable range, contact the manufacturer for recalibration instructions.
Continuous analyzers	Calibrate every 7 days.	Calibrate using chlorine solutions of known concentrations or compare results to approved benchtop method. If the result is outside the manufacturer's allowable range, contact the manufacturer for recalibration instructions.
Analyzer		
All for: Monochloramine Ammonia Nitrite Nitrate	Calibrate every 90 days.	Calibrate using the manufacturer recommendations.
Ultraviolet (UV) Light Disinfection Analyzer		
UV sensor	Calibrate monthly.	Calibrate according to the manufacturer specifications.
Reference UV sensor	Calibrate yearly or as needed.	Calibrate through your UV sensor manufacturer.
UV Transmitter	Calibrate weekly.	Calibrate according to the manufacturer specifications.

Type of Equipment	Frequency	Standards
Conductivity Monitors or Pressure Instruments		
Monitors and pressure instruments (reverse osmosis and nanofiltration membrane systems)	Calibrate at least every 12 months.	Calibrate according to the manufacturer's specifications.
Pressure instruments (low-pressure membrane systems)	Calibrate at least every 12 months.	Calibrate according to the manufacturer's specifications.
Temperature Monitoring Devices		
For RO and nanofiltration	Check and calibrate as indicated.	Calibrate according to the manufacturer's specifications.
Flow-Measuring Devices		
Flow measuring devices and rate of flow controllers	Calibrate once every 12 months.	Calibrate according to the manufacturer's specifications.
Well Meters		
All	Calibrate once every 3 years.	Calibrate according to the manufacturer's specifications.

Notes

pH Meter Calibration and Check Log Instructions

Applicable Regulations: 30 TAC 290.46(f)(3)(B)(iv) and 30 TAC 290.46(s)(2)(A)(i)-(iv)

Why should I use this log?

Use this log to track and organize your pH meter calibrations and checks.

How do I use it?

Record the:

- Date and time you verified the meter's calibration
- Results of buffers 4, 7, and 10
- Slope reading from the instrument
- Temperature reading from the instrument
- Purpose of the test
- Whether it passed or failed the calibration or check
- Operator's initials

When do I use it?

Calibrate benchtop pH meters **at least once each day** according to manufacturer's specifications.

- Check with at least one buffer each time you run series of samples. If necessary, recalibrate according to manufacturer specifications.

Calibrate on-line pH meters **at least once every 30 days** according to manufacturer's specifications.

- Check at least once each week with a primary standard or by comparing the results from the on-line unit with results from a properly calibrated benchtop unit. If necessary, recalibrate with primary standards.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 3 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

pH Meter Calibration and Check Log Sheet

Date	Time	Calibration or Check	Buffer (4, 7, 10)	Slope (Calibration Only)	Temp (°C)	Pass/Fail	Operator Initials

Notes

Turbidimeter Calibration Log Instructions

Applicable Regulations: 30 TAC 290.46(f)(3)(B)(iv) and 30 TAC 290.46(s)(2)(B)(i)-(iv)

Why should I use this log?

Use this log to track and organize your turbidimeter calibrations.

How do I use it?

Record the:

- Date and time you verified the turbidimeter's calibration
- List of turbidity calibration standards used (Example: 20 NTU, 100 NTU, 800 NTU)
- List of verification standards used (Example: <0.1 NTU)
- Results of verification standards used to confirm the calibration
- If the calibration was accepted by the instrument
- Operator's initials

When do I use it?

Once every 90 days for a primary calibration or if the turbidimeter is producing results outside of the acceptable range.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 3 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

Turbidimeter Calibration Log Sheet

Date	Time	Calibration Standards	Verification Standards	Results of Verification Standards	Calibration Accepted (Y/N)	Operator Initials

Turbidimeter Check Log Instructions

Why should I use this log?

Use this log to track your turbidimeter calibration checks.

How do I use it?

Record the:

- Date and time you verified the turbidimeter's calibration
- Results of standards 1, 2, 3, and 4
- Results of the accuracy check (i.e., pass or fail)
- Instrument recalibration as necessary
- Operator's initials

Standardize your secondary standards each time you calibrate your turbidimeter with primary standards.

When do I use it?

For benchtop turbidimeters, check the calibration **each time a series of samples is run**. Recalibrate according to the manufacturer specifications if the readings are outside of the acceptable range.

For online turbidimeters, check the calibration **at least once each week** by using a primary or secondary standard, using a calibration confirmation device from the manufacturer, or by comparing the results to a calibrated benchtop turbidimeter.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 3 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

Turbidimeter Check Log Sheet

Date	Time	Standard 1	Standard 2	Standard 3	Standard 4	Pass/Fail	Recalibrated (Y/N)	Operator Initials

Turbidimeter Secondary Standards Log Instructions

Why should I use this log?

Use this log to track when you standardize your secondary standards. You must standardize your secondary standards every time you calibrate your benchtop turbidimeter with primary standards.

How do I use it?

Record the:

- Date and time that you standardize the secondary standards
- Results of standards 1, 2, 3, and 4
- Operator's initials

The date on this log should correspond with the date the primary calibration occurred.

When do I use it?

Each time you calibrate the benchtop turbidimeter with primary standards.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 3 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

Turbidimeter Secondary Standards Log Sheet

Date	Time	Standard 1	Standard 2	Standard 3	Standard 4	Operator Initials

Notes

Disinfectant Residual Analyzer Verification Log Instructions

Applicable Regulations: 30 TAC 290.46(f)(3)(B)(iv) and 30 TAC 290.46(s)(2)(C)(i)-(iii)

Why should I use this log?

You must check that your disinfectant residual analyzer is properly calibrated using chlorine solutions of known concentrations at least:

- Once every 90 days for manual disinfectant residual analyzers.
- Once every 7 days for continuous disinfectant residual analyzers.

Use this log to track these verifications and show compliance. If your analyzer is not properly calibrated, contact the manufacturer for instructions.

How do I use it?

On the data sheet, include information about your analyzer equipment and standards, including the date your standards expire. There are several tables for entering new standard information when old ones expire.

In the log sheet, record:

- Date you verified the analyzer's calibration
- Known standard concentrations
- Allowable range for each standard
- Concentration measured by the analyzer
- Whether it passed or failed verification

If the analyzer fails one or more measurements, try to find out why. Contact the manufacturer for help.

When do I use it?

At least once every 90 days for manual analyzers or once every 7 days for continuous analyzers.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 3 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

Notes

Disinfectant Residual Analyzer Data Sheet

Analyzer Information

Manufacturer	
Model	
Serial Number	

Standard Information

Lot Number	
Serial Number	
Expiration Date	

Lot Number	
Serial Number	
Expiration Date	

Lot Number	
Serial Number	
Expiration Date	

Lot Number	
Serial Number	
Expiration Date	

Lot Number	
Serial Number	
Expiration Date	

Lot Number	
Serial Number	
Expiration Date	

Notes

Disinfectant Residual Analyzer Verification Log Sheet

Date:			Operator Initials:	
Standard	**Known Concentration (mg/L)**	**Allowable Range (see manufacturer's certificate)**	**Measured Concentration (mg/L)**	**Status**
Blank				Pass / Fail
Std 1				Pass / Fail
Std 2				Pass / Fail
Std 3				Pass / Fail

Date:			Operator Initials:	
Standard	**Known Concentration (mg/L)**	**Allowable Range (see manufacturer's certificate)**	**Measured Concentration (mg/L)**	**Status**
Blank				Pass / Fail
Std 1				Pass / Fail
Std 2				Pass / Fail
Std 3				Pass / Fail

Date:			Operator Initials:	
Standard	**Known Concentration (mg/L)**	**Allowable Range (see manufacturer's certificate)**	**Measured Concentration (mg/L)**	**Status**
Blank				Pass / Fail
Std 1				Pass / Fail
Std 2				Pass / Fail
Std 3				Pass / Fail

Notes

Monochloramine & Free Ammonia Verification Log Instructions

Applicable regulations: 30 TAC 290.46(f)(B)(iv) and 30 TAC 290.46(s)(2)(D)

Why should I use this log?

You must check that your monochloramine and free ammonia analyzers are properly calibrated **at least once every 90 days**. Use this log to track these verifications and show compliance. If your analyzer is not properly calibrated, contact the manufacturer for instructions.

How do I use it?

On the log sheet, include information about your analyzer equipment and standards, including the date your standards expire. There are several tables for entering new standard information when old ones expire.

Record:

- Date you verified the analyzer's calibration
- Known standard concentrations
- Allowable range for each standard
- Concentration measured by the analyzer
- Whether it passed or failed verification

If the analyzer fails one or more measurements, try to find out why. Contact the manufacturer for help.

When do I use it?

At least once every 90 days.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 3 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

Notes

Monochloramine & Free Ammonia Analyzer Verification Log Sheet

Date:		**Equipment Name:**		**Operator Initials:**	
Standard	**Expiration Date**	**Known Concentration (mg/L)**	**Allowable Range (see manufacturer's certificate)**	**Measured Concentration (mg/L)**	**Status**
Blank					Pass / Fail
Std 1					Pass / Fail
Std 2					Pass / Fail
Std 3					Pass / Fail
Date:		**Equipment Name:**		**Operator Initials:**	
Standard	**Expiration Date**	**Known Concentration (mg/L)**	**Allowable Range (see manufacturer's certificate)**	**Measured Concentration (mg/L)**	**Status**
Blank					Pass / Fail
Std 1					Pass / Fail
Std 2					Pass / Fail
Std 3					Pass / Fail
Date:		**Equipment Name:**		**Operator Initials:**	
Standard	**Expiration Date**	**Known Concentration (mg/L)**	**Allowable Range (see manufacturer's certificate)**	**Measured Concentration (mg/L)**	**Status**
Blank					Pass / Fail
Std 1					Pass / Fail
Std 2					Pass / Fail
Std 3					Pass / Fail

Notes

Well Meter Calibration

Applicable Regulations: 30 TAC 290.46(f)(3)(B)(iv) and 30 TAC 290.46(s)(1)

Verify Well Meter Accuracy

Verify that well meters are properly calibrated at least once every 3 years. If they are not, contact the manufacturer for help.

Keep Records

Keep verification and calibration records for **at least 3 years**.

Notes

Additional Equipment Calibration Records

Applicable Regulations: 30 TAC 290.46(f)(3)(B)(iv) and 30 TAC 290.46(s)

Calibrate Additional Testing Equipment

Verify additional equipment and other analyzers are properly calibrated at the frequencies specified below. Calibrate this equipment according to the manufacturer's specifications. Depending on your treatment plant, this may include the following equipment:

- Ultraviolet (UV) Light Disinfection Analyzers
    - Calibrate UV sensors monthly.
    - Calibrate reference UV sensors annually or as needed.
    - Calibrate UV transmitters weekly.
- Conductivity Monitors or Pressure Instruments
    - Calibrate pressure instruments for reverse osmosis, nanofiltration, and low-pressure membrane systems at least every 12 months.
- Temperature Monitoring Devices
    - Calibrate temperature monitoring instruments for reverse osmosis and nanofiltration systems at the frequency specified by the manufacturer.
- Flow-measuring Devices and Rate-of-flow Controllers
    - Calibrate every 12 months.

Keep Records

Keep equipment calibration records for **at least 3 years**.

Notes

Consumer Confidence Reports (CCRs)

Applicable Regulations: 30 TAC 290 Subchapter H and 30 TAC 290.46(f)(3)(C)

Generate and Complete CCRs

CCRs, also known as "annual water quality reports" or "drinking water quality reports," summarize information about your water system from the previous calendar year.

Yours must include:

- Source(s) of water used
- Educational health information
- Public participation opportunities
- Water system's contact information
- Compliance with drinking water rules
- Chemical and bacteriological contaminants

You must generate a CCR and make it available to your customers by July 1 every year.

- Find more information about CCRs[23], including how to generate and complete them, on our website.
- Contact other community public water systems to request a copy of their CCR if you would like an example.

Keep Records

Keep copies of your CCRs and Certificates of Delivery sent to TCEQ for **at least 5 years**.

23. www.tceq.texas.gov/goto/ccr

Notes

Lead and Copper Records

Applicable Regulations: 30 TAC 290.46(f)(3)(F) and 30 TAC 290.117

Monitor and Report Lead and Copper

All community and nontransient, noncommunity water systems are subject to Lead and Copper Rule monitoring requirements.

Find more information about the lead and copper program[24] on our website, including:

- System schedules for current and upcoming monitoring periods
- Sampling instructions and guidance
- Number of samples required
- Lead and copper forms
- Laboratory information
- Comprehensive service line inventory

Keep Records

Keep copies of:

- Lead consumer notices (Form TCEQ-20680)
- Lead and copper rule chain of custody forms (Form TCEQ-20683)
- Material survey[25] and sample site selection form (Form TCEQ-20467)
- Comprehensive service line inventory (Form TCEQ-20943)
- Certification you informed the resident of proper sampling procedures
- Designation of any substitute site not used in previous monitoring periods
- Tap water monitoring results with the location of each site and date of collection

Keep all records for **at least 12 years**.

24. www.tceq.texas.gov/goto/lead-copper
25. Keep a copy of your material survey with your monitoring plan.

Notes

Chemical Analysis Results

Applicable Regulations: 30 TAC 290.46(f)(3)(E) and 30 TAC 290 Subchapter F

Sample for Other Contaminants

You do not take these samples yourself. A TCEQ contractor collects samples based on a sampling schedule set by TCEQ. You work with the sampler and pay for the lab analysis.

- Find out how to get your sample schedules[26] on our website.

Keep Records

Know your schedule and keep copies of all chemical analysis results for **at least 10 years**.

Notes

Find inorganic contaminants[27] and their maximum contaminant levels (MCLs) in 30 TAC 290.106.

Find organic contaminants and their MCLs in 30 TAC 290.107.

- Synthetic organic chemical contaminants[28]
- Volatile organic chemical contaminants[29]

Find radionuclides[30] and their detection limits in 30 TAC 290.108

Find disinfection byproducts[31] and their MCLs in 30 TAC 290.115.

Find secondary constituents[32] and their MCLs in 30 TAC 290.118.

26. www.tceq.texas.gov/goto/dwwins
27. www.tceq.texas.gov/goto/pws-ioc
28. www.tceq.texas.gov/goto/pws-soc
29. www.tceq.texas.gov/goto/pws-voc
30. www.tceq.texas.gov/goto/pws-rad
31. www.tceq.texas.gov/drinkingwater/chemicals/dbp
32. www.tceq.texas.gov/goto/pws-secondaries

Notes

Public Notice Records

Applicable Regulations: 30 TAC 290.46(f)(3)(B), 30 TAC 290.46(q), and 30 TAC 290.122

Provide Boil Water and Public Notices

Some violations require you to give public notice, such as monitoring, reporting, treatment technique, or maximum contaminant level violations. For violations that cause an acute health threat to customers or if conditions exist that may compromise public health, a boil water notice must be issued immediately.

- Find public notice templates and certificate of delivery forms[33] on our website. Each template includes instructions for use.

Enact a **boil water notice** (BWN) if you have:

- Water outages
- Failure to keep adequate disinfectant residuals
- An *Escherichia coli* (*E. coli*) exceedance
- Low distribution pressure (below 20 pounds per square inch [psi])
- Other conditions that may have compromised the drinking water supply

Issue a BWN as soon as possible, but no later than 24 hours after the violation or condition occurs. You can learn more about where and how to post Boil Water Notices[34] on our website.

Use the special precautions flowchart[35] in 30 TAC 290.47(e) to decide what to do if you lose distribution pressure.

Keep Records

Keep all notice records for **at least 3 years**.

33. www.tceq.texas.gov/goto/pws/notices/index.html
34. www.tceq.texas.gov/agency/subjects-of-interest/drinking-water/boil-water-notices
35. www.tceq.texas.gov/goto/pws-bwn-flowchart

Notes

Maintenance Records

Applicable Regulations: 30 TAC 290.46(f)(3)(A)(v), 30 TAC 290.46(f)(3)(A)(vi), and 30 TAC 290.46(m)

Maintain Your System

You must maintain your facilities and equipment, so they stay in good working condition and keep a neat appearance.

Keep Records

Include:

- Maintenance records for equipment and facilities.
- Dates you cleaned storage tanks and other facilities.

Keep these records for **at least 2 years**.

Attachments

1. *Facility Cleaning Log Instructions*
2. *Facility Cleaning Log Sheet*

Notes

Facility Cleaning Log Instructions

Why should I use this log?

You must keep your water system facilities and equipment in good working condition. Use this log to track cleaning activities and show compliance with the rules.

How do I use it?

Write the name or description of the equipment and the date it was cleaned. Include any comments or concerns you may need to address in the future.

When do I use it?

When you clean any facilities or equipment.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 2 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

Notes

Facility Cleaning Log Sheet

Date	Facility Description	Comments

Notes

Distribution Map

Applicable Regulations: 30 TAC 290.46(n)(2) and 30 TAC 290.109(d)(6)(C)

Map Your Distribution System

Keep an accurate and up-to-date map of your distribution system that shows valves and mains. Make sure it is easy to find during emergencies and inspections.

- Include a copy with the system's Sample Siting Plan.

Keep Records

Update your map as necessary and keep **permanently**.

Notes

Plant Operations Manual

Applicable Regulations: 30 TAC 290.42(l)

Develop a Plant Operations Manual

Create a plant operation manual and keep it up to date for review and reference. Include:

- Routine maintenance and repair procedures
- Manufacturer's manuals for all equipment, if available
- Protocols to use if a natural or manufactured catastrophe occurs
- Telephone numbers to contact in an emergency:
  - Water system personnel
  - System officials
  - Local, state, and federal agencies

Find a plant operations manual template[36] on our website.

Keep Records

Update your manual as necessary and keep **permanently**.

36. www.tceq.texas.gov/goto/dwopmanual

Notes

Monitoring Plans

Include

- Monitoring plan (see page 99)
- Sample siting plan (see page 101)
- Raw Water Monitoring Plan (LT2 Sampling) (see page 103)
- Nitrification action plan and chloramine effectiveness sampling (see page 105)
- Lab approval form (see page 107)

Instructions

Update records in this section as needed. Find more information about each record on the pages listed above.

Notes

Monitoring Plan

Applicable Regulations: 30 TAC 290.121

Develop a Monitoring Plan

Create a chemical and microbiological monitoring plan and keep it updated. It must:

- Identify all sampling locations.
- Describe the sampling frequency.
- Specify the analytical procedures and laboratories you will use for compliance.

Our How to Develop a Monitoring Plan for a PWS[37] guide can help you create one. Find a monitoring plan template[38] on our website.

Submit any changes to your Monitoring Plan to TCEQ within thirty (30) calendar days of the change. If only one part of the plan changed, you can submit revisions separately.

Keep Records

Update your plan as necessary and keep **permanently**.

37. www.tceq.texas.gov/goto/rg-384
38. www.tceq.texas.gov/drinkingwater/monitoring_plans

Notes

Sample Siting Plan

Applicable Regulations: 30 TAC 290.109(d)(6)

Create a Sample Siting Plan

List the locations you will collect distribution coliform samples in your sample siting plan. It must include:

- All routine and repeat microbial (coliform) sampling sites
- Your sample collection schedule
- Copy of distribution system map (or series of maps) that shows the locations of all:
  - Distribution system valves and mains
  - Routine microbial sample sites
  - Water main sizes
  - Entry point source locations
  - Water storage facilities
  - Pressure plane boundaries

Find a sample siting plan template[39] on our website. Sampling must represent water throughout the distribution system.

Keep Records

Update your plan as necessary and keep **permanently**.

39. www.tceq.texas.gov/goto/rtcr-siting-plan

Notes

Raw Water Monitoring (LT2 Sampling)

Applicable Regulations: 30 TAC 290.46(f)(3)(B)(vi), 30 TAC 290.111(b), and 30 TAC 290.121(b)(9)

Sample Your Source Water

You must conduct at least two rounds of special raw surface water monitoring under the Long Term 2 (LT2) Surface Water Treatment Rule. This sampling is done to determine minimum treatment technique requirements for *Cryptosporidium* and other pathogens.

After completing each round of special raw water monitoring, TCEQ will evaluate your sample results and issue a Bin classification letter that corresponds to your source water.

Find more information about LT2 Sampling[40] on our website, including:

- Sampling instructions and guidance
- Sampling Location Worksheets
- Sampling Schedule Forms
- Approved laboratory methods for *Cryptosporidium* and *E. coli*

Keep Records

Keep your sampling plan, copies of lab results, and bin classification letters for **at least 3 years** after bin classification. We recommend keeping them **permanently**.

40. www.tceq.texas.gov/drinkingwater/trot/lt2schedule4.html

Notes

Nitrification Action Plan and Chloramine Effectiveness Sampling

Applicable Regulations: 30 TAC 290.46(f)(3)(B)(ix), 30 TAC 290.46(z), and 30 TAC 290.110(c)(5)

Create a Nitrification Action Plan (if applicable)

If you use chloramines (chlorine and ammonia) as a disinfectant or buy water that is chloraminated, you must have a nitrification action plan (NAP) and conduct chloramine effectiveness sampling. Learn more about controlling nitrification[41] on our website.

Perform Chloramine Effectiveness Sampling

Your NAP must document the sample sites and procedures used to ensure that an adequate disinfectant residual is being maintained and that nitrification is not occurring.

- *In your source water*, measure the free ammonia (as nitrogen) and nitrite and nitrate (as nitrogen) **at least once.**
- *Prior to entering the distribution system*, measure total chlorine, monochloramine and free ammonia (as nitrogen) **at least weekly**.
- *Upstream or downstream of any chlorine or ammonia injection points,* measure total chlorine, monochloramine, and free ammonia (as nitrogen) **weekly and before and after adjusting the chlorine or ammonia feed rate.**
- *In the distribution system,* measure total chlorine*, monochloramine, and free ammonia (as nitrogen) **at least weekly**.

  *Total chlorine must be measured **daily or weekly** based on your system size and at locations representative of the entire distributions system. The free ammonia and monochloramine samples should be measured at the same time as your routine total chlorine samples.

Find NAP guidance[42] and a NAP template spreadsheet[43] on our website. Your NAP must be included with your system's Monitoring Plan.

Keep Records

Update your NAP as necessary and keep **permanently**.

Keep records of chloramine effectiveness sampling for **at least 3 years**.

41. www.tceq.texas.gov/drinkingwater/disinfection/nitrification.html
42. www.tceq.texas.gov/goto/napguide
43. www.tceq.texas.gov/goto/20918

Notes

Lab Approval Form

Applicable Regulations: 30 TAC 290.119(a)

Get Your Onsite Lab Approved (if applicable)

You must get TCEQ approval to analyze the following onsite:

- Turbidity
- pH
- Temperature
- Total organic carbon (TOC)
- Ultraviolet Light Absorbance at 254 nanometers (UV254)
- Alkalinity
- Disinfectant Residual (Free or Total Chlorine)
- Chlorine Dioxide
- Conductivity
- Hardness (as CaCO3)
- Silica
- Chlorite (at entry point)
- Calcium
- Orthophosphate

Find the lab approval form[44] on our website.

Keep Records

Keep a copy of your lab approval **permanently**.

44. www.tceq.texas.gov/goto/10450

Notes

Plans and Specifications

Include

- Engineering reports, plans and specs, and approval letters (see page 111)
- Letters granting exceptions to rule and supporting data (see page 113)
- Concentration-Time (CT) studies (see page 115)
- Recycling practices report (see page 117)
- Well completion data (see page 119)

Instructions

Update records in this section as needed and include any additional supporting documentation.

Notes

Engineering Reports and Plan Approval Letters

Applicable Regulations: 30 TAC 290.39(d)-(e) and 30 TAC 290.46(n)

Get Your System Approved

Your water source, distribution, storage, and treatment facilities need TCEQ approval before you install or use them. A Texas-licensed professional engineer (PE) must prepare a report and submit plans and specifications for your system.

Any significant changes to your system also need approval, for example, drilling a new well or installing a new ground storage tank.

Find forms and checklists for submitting plans and specifications[45] on our website.

Send plans and specifications by:

- Email to PTRS@tceq.texas.gov
- Mail to:

  Water Supply Division, MC-159
  Plan Review Team, Plan and Technical Review Section
  Texas Commission on Environmental Quality
  P.O. Box 13087
  Austin, Texas 78711-3087

Keep Records

Keep copies of any engineering reports, plans and specifications, and plan approval letters **permanently**.

45. www.tceq.texas.gov/goto/pwsplans

Notes

Letters Granting Exceptions to Rule

Applicable Regulations: 30 TAC 290.39(l)

Exception Request Instructions

We consider requests for exceptions to rule on an individual basis. You must show the exception will not compromise public health or cause a loss of service or water quality.

Send exception request forms[46] (TCEQ-20659) with supporting documentation by:

- Email to PTRS@tceq.texas.gov
- Mail to:

  Water Supply Division, MC-159
  Technical Review and Oversight Team, Plan and Technical Review Section
  Texas Commission on Environmental Quality
  P.O. Box 13087
  Austin, Texas 78711-3087

Keep Records

Include copies of:

- Any letters granting exception to rule.
- Results of any monitoring or special studies required by a granted exception.

Keep all records **permanently**.

46. www.tceq.texas.gov/goto/20659

Notes

Concentration Time (CT) Study

Applicable Regulations: 30 TAC 290.111(d)(2)

Assess Your Treatment Plant's Disinfection

Your water treatment plant's disinfection process must be approved by TCEQ. This assessment considers the concentration (C) of your disinfectant and the theoretical contact time (T) of the disinfectant during treatment. A CT study must be submitted for approval when:

- Significant changes to the disinfection process occur.
- A new plant is approximately 3 months away from initially operating.
- Required as a condition of a granted exception request.

Visit our Concentration-Time Study webpage[47] to find:

- Surface Water CT Template (Excel workbook)
- CT Template Instruction Manual
- Guidance for preparing a CT Study

Keep Records

Keep a copy of your most recent approval letter **permanently**.

47. www.tceq.texas.gov/drinkingwater/swmor/swmor/ct_info

Notes

Recycling Practices Report

Applicable Regulations: 30 TAC 290.42(c)(6), 30 TAC 290.42(d)(3), and 30 TAC 290.46(f)(3)(C)(iii)

Submit a Recycling Practices Report

Submit a Recycling Practices Report Form and treatment plant schematic (even if the plant does not recycle filter backwash). This ensures that recycled streams are adequately controlled by minimizing interference with the treatment process.

See TCEQ's Submitting a Water Treatment Plant Recycling Practices Report Form[48] for more information.

Send completed Recycling Practices Reports by:

- Email to PTRS@tceq.texas.gov
- Mail to:

  Water Supply Division, MC-159
  Technical Review and Oversight Team
  Texas Commission on Environmental Quality
  P.O. Box 13087
  Austin, TX 78711-3087

Keep Records

Keep these reports for **at least 5 years** after they are no longer in effect.

48. www.tceq.texas.gov/drinkingwater/swmor/swmor/WTP_recycle_report

Notes

Well Completion Data

Applicable Regulations: 30 TAC 290.39(d)-(e) and 30 TAC 290.46(n)

Gather Data on Your Well

Before placing a well into service, send well completion data to TCEQ for review and approval. Documentation includes:

- Well driller's log
- Recorded deed(s)
- Chemical analysis
- Well location map
- 36-hour pump test
- Cementing certificate
- Microbiological test results
- Sanitary Control easement(s)
- Well material characterization
- Plugging reports for any abandoned wells
- USGS 7.5-minute topographical quadrangle map

See Well Completion Data Checklist for Approval to Use (Step 2)[49] for a detailed list of required items on our website.

Send well completion data by:

- Email to PTRS@tceq.texas.gov
- Mail to:

  Water Supply Division, MC-159
  Plan Review Team
  Texas Commission on Environmental Quality
  P.O. Box 13087
  Austin, Texas 78711-3087

Keep Records

Keep copies of any records listed above **permanently**.

49. www.tceq.texas.gov/downloads/drinking-water/plan-technical-review/forms/checklist-well-completion-data.pdf

Notes

National Sanitation Foundation (NSF) Certifications

Applicable Regulations: 30 TAC 290.39(e)(6)(E) and 30 TAC 290.42(j)

Check Chemical and Media Standards

All chemicals and process media used to treat water at your system must conform to:

- ANSI/NSF Standard 60 for Drinking Water Treatment Chemicals
- ANSI/NSF Standard 61 for Drinking Water System Components

Search for NSF-certified treatment chemicals and system parts on the NSF website.

- NSF-certified treatment chemical search[50]
- NSF-certified system parts search[51]

Keep Records

Keep certifications for as long as you use the chemical or media at your system.

50. info.nsf.org/Certified/PwsChemicals/
51. info.nsf.org/Certified/PwsComponents/index.asp?standard=061

Notes

Plumbing Ordinance and Service Agreements

Applicable Regulations: 30 TAC 290.46(i)

Adopt an Ordinance or Service Agreement

You must adopt one of the following:

- A plumbing ordinance
- Plumbing regulations
- Service agreements

These give you the authority to implement a cross-connection control program. Whichever you choose, it must include enforcement actions to prevent cross-connections and other unacceptable plumbing practices.

A plumbing ordinance is a formal enactment by a local government, adopted by the governing body of that government (for example, city council).

- View a sample plumbing ordinance in Appendix I of *Establishing and Managing an Effective Cross-Connection Control Program*[52] (RG-478).

Service agreements are agreements between public water systems and their customers.

- View a sample service agreement[53] in 30 TAC 290.47(b).

Keep Records

Keep copies of any active plumbing ordinance or service agreements **permanently**.

52. www.tceq.texas.gov/assistance/goto/rg-478
53. www.tceq.texas.gov/assistance/goto/serviceagreement

Notes

Backflow Prevention Assembly Records

Applicable Regulations: 30 TAC 290.44(h), 30 TAC 290.46(f)(3)(B), and 30 TAC 290.47(f)

Test Backflow Prevention Assemblies

Test all *required* backflow prevention assemblies **when installed**. Test those installed to protect against health hazards **annually**.

- Make sure a **licensed** backflow prevention assembly tester performs the tests.
- Use our licensing search[54] to find a licensed tester.

Find more information about cross-connection control and backflow prevention[55] on our website.

Keep Records

Keep original copies of completed backflow prevention assembly test and maintenance reports[56] (Form TCEQ-20700) for **at least 3 years**.

54. www.tceq.texas.gov/goto/lic_reg_search
55. www.tceq.texas.gov/goto/cc
56. www.tceq.texas.gov/goto/20700

Notes

Customer Service Inspection Reports

Applicable Regulations: 30 TAC 290.46(f)(3)(E) and 30 TAC 290.46(j)

Inspect Your System

Customer service inspections examine water distribution facilities to find and prevent:

- Cross-connections
- Potential contaminant hazards
- Illegal lead materials

They are not plumbing inspections as defined and regulated by the Texas State Board of Plumbing Examiners (TSBPE).

Conduct customer service inspections (CSIs):

- before supplying continuous water service to new construction, or
- on existing service areas:
  - when you have reason to believe that cross-connections or other potential contaminant hazards exist.
  - after any material improvement, correction, or addition to water distribution facilities.

Only licensed customer service inspectors, plumbing inspectors, or water supply protection specialists may complete customer service inspection certifications.

- Use our licensing search[57] to find a licensed customer service inspector.

Keep Records

Keep copies of completed customer service inspection reports[58] (TCEQ-20699) for at least 10 years. We recommend keeping them **permanently**.

- You may need a new CSI if you cannot show you had one at a connection before supplying continuous water service or that adequate protection is in place.

57. www.tceq.texas.gov/goto/lic_reg_search
58. www.tceq.texas.gov/goto/20699

Notes

Purchase Water Contract(s)

Applicable Regulations: 30 TAC 290.45(f)

Instructions

You must have purchase water contracts if your system buys treated water from another PWS to meet all or part of your production, storage, service pump, or pressure maintenance capacity requirements.

Keep Records

Keep copies of any purchase water contracts **permanently**.

Notes

Notices of Violation and Corrective Actions Taken

Applicable Regulations: 30 TAC 290.46(f)(3)(B)

Instructions

Keep copies of any notices of violation issued by TCEQ and documents showing corrective actions taken for **at least 3 years**.

Notes

Sanitary Survey Compliance Records

Comprehensive Compliance Investigations (CCIs)

Applicable Regulations: 30 TAC 290.46(f)(3)(E)

Instructions

TCEQ will conduct regular sanitary surveys of your system. We may also call them "comprehensive compliance investigations" or "CCIs."

Keep any written reports, summaries, or communications about your system's sanitary surveys for **at least 10 years**.

Notes

Revised Total Coliform Rule (RTCR) Records

Applicable Regulations: 30 TAC 290.46(f)(3)(D) and 30 TAC 290.109

Assess Your System

You must collect monthly routine coliform samples to monitor for the presence of total coliform and *E. coli* in the distribution system. Document the sampling locations and procedures in your Sample Siting Plan. Based on the results of your coliform sampling results, a Level 1 or Level 2 assessment may be required.

Perform a Level 1 Assessment

A Level 1 Assessment is required when any of the following occur:

- A PWS collecting 40 or more routine coliform samples per month exceeds 5.0% total coliform positive samples in one month.
- A PWS collecting less than 40 routine coliform samples per month has two or more total coliform positive samples in one month.
- A PWS does not collect every required repeat sample after a total coliform-positive result.

Perform a Level 2 Assessment

A Level 2 Assessment is required when any of the following occur:

- An *E. coli* maximum contaminant level (EMCL) violation occurs.
- A second Level 1 Assessment trigger occurs within a rolling 12-month period.

How do I complete a Level 1 or Level 2 assessment?

Use the Level 1 Assessment Form (TCEQ-20901) and Level 2 Assessment Form (TCEQ-20769) from the Revised Total Coliform Rule webpage[59] to complete the assessments.

Do I send this to TCEQ?

Yes. Send the completed assessment to TCEQ within 30 days from the date of triggering the assessment.

Keep Records

Keep copies of completed assessment forms and corrective action documentation for **at least 5 years**.

59. www.tceq.texas.gov/drinkingwater/revised-total-coliform-rule

Notes

Drought Contingency Plan

Applicable Regulations: 30 TAC 288.20

Develop a Drought Contingency Plan (DCP)

Municipal retail public water suppliers must develop and implement updated DCPs every five years. We may request to review it during an inspection.

- If you have 3,300 or more connections, send a copy of your plan to TCEQ.

Find more information about drought contingency plans[60] on our website.

Keep Records

Keep a copy of your DCP **permanently** and **update it every 5 years**.

60. www.tceq.texas.gov/goto/drought_plan

Notes

Emergency Preparedness Plan (EPP)

Applicable Regulations: 30 TAC 290.39(c)(4), 30 TAC 290.46(f)(5), 30 TAC 290.47(g), and Texas Water Code Subsection 13.1394(a)

Develop an EPP (if applicable)

Water systems that are "affected utilities" must have an approved EPP. If you are:

- a new system, you must have an approved EPP before serving water to customers.
- an existing water system, submit an EPP for TCEQ's review within 90 days of receiving notice that you are an affected utility.

An affected utility is a retail public utility, exempt utility, or provider or conveyor of potable or raw water service that services more than one customer.[61]

- For affected utilities in **Harris and Fort Bend Counties**, use TCEQ Form 20536A[62].
- For affected utilities in **all other counties**, use TCEQ Form 20536B[63].

Send EPPs by:

- Email to: PDWEPP@tceq.texas.gov
- Mail to:

  Drinking Water Special Functions Section, MC-155
  Texas Commission on Environmental Quality
  P.O. Box 13087
  Austin, Texas 78711-3087

Find more information on emergency preparedness plans[64] on our website.

Keep Records

Keep a copy of your approved EPP **permanently**.

61. 30 TAC 290.38(1)
62. www.tceq.texas.gov/downloads/drinking-water/emergency-preparedness/form-20536a.docx
63. www.tceq.texas.gov/downloads/drinking-water/emergency-preparedness/form-20536b-sb3-epp.docx
64. www.tceq.texas.gov/drinkingwater/homeland_security/disasterprep/epp

Notes

Complaints

Applicable Regulations: 30 TAC 290.46(f)(3)(A)

Track Complaints

Include:

- Logs with the date, location, and nature of water quality, pressure, or outage complaints you receive
- Results of any following investigation and corrective action

Keep Records

Keep all records for **at least 2 years**.

Attachments

1. *Complaint Log Instructions*
2. *Complaint Log Sheet*

Notes

Complaint Log Instructions

Applicable Regulations: 30 TAC 290.46(f)(3)(A)

Why should I use this log?

Use this log to track customer complaints and your responses to show compliance with the rules.

How do I use it?

Write the date, location, and customer's complaint. Include any results from the complaint investigation.

When do I use it?

When you receive complaints from customers.

Do I send it to TCEQ?

No, you do not need to send this to TCEQ. Keep it with your records for inspections.

How long should I keep it?

Keep completed logs in your records for **at least 2 years**.

What if I need help?

If you have questions about how to fill out the log or the public water system program, please contact Small Business and Local Government Assistance by phone at 800-447-2827 or by email at TexasEnviroHelp@tceq.texas.gov.

Notes

Complaint Log Sheet

Date:		**Location:**	
Complaint:			
Investigation Results:			

Date:		**Location:**	
Complaint:			
Investigation Results:			

Date:		**Location:**	
Complaint:			
Investigation Results:			

Notes