

Public Water System Monitoring Plan

# Public Water System Information

|  |  |
| --- | --- |
| Public Water System ID: |  |
| Public Water System Name: |  |
| Effective Date: |  |

# Water System Primary Source Type

**[ ]** Groundwater under the influence of Surface Water (GUI)

[ ]  Surface Water

[ ]  Purchased Water

# Water System Type

**[ ]** Community

**[ ]** Nontransient, Noncommunity (NTNC)

**[ ]** Transient Noncommunity (TNC)

# Introduction

## Purpose of the Monitoring Plan

In according with Title 30 Texas Administrative Code (TAC) §290.121, every public water system must develop a monitoring plan. The plan shows how a system intends to comply with the monitoring requirements of the Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems (30 TAC 290 Subchapter F). The plan is a system specific document which demonstrates that the monitoring performed by the system is representative of the water distributed to consumers and is consistent with regulatory requirements.

## Submission to TCEQ

All surface water (SW) and groundwater under the influence of surface water (GUI) systems must submit a copy of the monitoring plan for review and approval upon development and revision.

**Submit one (1) copy of the complete monitoring plan to via email to** PDWS@tceq.texas.gov **or by mail to:**

Monitoring Plans, MC-155
Drinking Water Special Functions Section
TCEQ
PO Box 13087
Austin, TX 78711-3087

## Monitoring Plan Revisions

SW and GUI systems are required to submit any changes to the monitoring plan to the TCEQ. Revisions may be submitted separately if only one part of the plan is affected by the change

# Texas Drinking Water Watch

The Texas Drinking Water Watch (DWW) database is viewable by the public and has important information to complete the monitoring plan such as contact information, source codes, and sample schedules. Be sure to verify that the information is correct by searching for your water system on DWW at: <https://dww2.tceq.texas.gov/DWW/>

Please contact the TCEQ Inventory Team if you wish to update any data or information on the website: they can be reached via e-mail at PWSINVEN@tceq.texas.gov or over the phone by calling (512) 239-4691.

# General Instructions

A copy of the Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems (30 TAC 290 Subchapter F), can be accessed online TCEQ’s Current Rules and Regulations webpage at: <https://www.tceq.texas.gov/rules/current.html>

There are inherently other documents that complete the monitoring plan and should be included as attachments to any copy of your system’s monitoring plan. These documents should already exist in the system’s files and will vary in size, appearance, and complexity. Examples of necessary attachments are a system’s Revised Total Coliform Rule (RTCR) sample siting plan, plant schematic(s), laboratory approval form, nitrification action plan (NAP), triggered source monitoring plan (TSMP), and any exception letters a system has been granted by the TCEQ.

All systems shall complete the Points of Contact, Sources, Entry Point, and Distribution sections. If the system adds treatment to either raw water or to already treated water, then the Treatment section also needs to be completed.

|  |  |
| --- | --- |
| Type of System | Rules Applicable to System |
| Surface or GUI Water Community / Nontransient Noncommunity | Surface Water Treatment Rule | Inorganics, Organics, and Radionuclides | Revised Total Coliform Rule | Disinfectant Residual Monitoring | Disinfection Byproducts | Lead and Copper Rule | Laboratory Information |
| Surface or GUI Water Transient Noncommunity | Surface Water Treatment Rule | Inorganics, Organics, and Radionuclides | Revised Total Coliform Rule | Disinfectant Residual Monitoring | Laboratory Information |

# Schematics and Maps

Per §290.121(b)(1)(A), the location of each sampling site at a treatment plant or pump station must be designated on a plant schematic. The plant schematic must show all water pumps, flow meters, unit processes, chemical feed points and chemical monitoring points. The plant schematic must also show the origin of any flow stream that is recycled at the treatment plant, any pretreatment that occurs before the recycled stream is returned to the primary treatment process, and the location where the recycled stream is reintroduced to the primary treatment process.

Public water systems are required to provide a process schematic of each contributing water plant in a completed monitoring plan.

**Failure to include a schematic of the treatment plant(s) will classify the monitoring plan as administratively incomplete.**

# Section Glossary

|  |  |
| --- | --- |
| Term | Definition |
| Points of Contact | List any relevant contacts associated with the public water system. |
| Source Details | All sources, including emergency or seasonal, should be included. |
| Treatment Details | Mention any treatment process applied by the system. |
| Entry Point and Distribution Details | Give the specific location for each entry point to the distribution system and general distribution system information. |
| Surface Water Treatment Rule (SWTR) | Sampling performed by systems utilizing a surface water treatment plant to add additional safety measures against surface water or surface water intrusion. |
| Inorganics, Organics, and Radionuclides | Contractor-collected samples required for all systems except raw water wholesalers, though the amount will vary based on system type and number of entry points. |
| Revised Total Coliform Rule (RTCR) | Bacteriological compliance samples to be taken in the distribution system at particular intervals based on population served. |
| Disinfectant Residual Monitoring | Collected in the distribution system at the same time as bacteriological samples and either daily or weekly based on system’s water source, population, and connection count. |
| Disinfection Byproducts Rule (DBP) | Monitors the levels of byproducts in the distribution system that result from the treatment process. |
| Lead and Copper Rule (LCR) | Resident-collected samples for community systems, or by the operator for NTNCs, to assess the amount of these two metals in the public water supply. Also includes the measuring of water quality parameters to determine water corrosivity. |
| Asbestos | Contractor-collected sample in the far reaches of the distribution system to test if asbestos is within the system’s water supply. |
| Laboratory Information | Section for the system to list any laboratory used to perform analysis for compliance samples. Be sure to attach the system’s own lab approval form if personnel on behalf of the system itself performs any analysis not run at an accredited laboratory (chlorine residual, pH, temperature, etc.). |

# Points of Contact Information

### Administrative Contact

The administrative contact is the highest-ranking official such as Mayor, company president or director, etc.

|  |  |
| --- | --- |
| Name |  |
| Mailing Address |  |
| City, State |  |
| Phone & Ext. |  |
| Email |  |

### Owner/Legal Entity Contact

The legal owner is an individual, corporation, partnership, association, state subdivision, or other legal entity.

|  |  |
| --- | --- |
| Name |  |
| Mailing Address |  |
| City, State |  |
| Phone & Ext. |  |
| Email |  |

### Public Water System Contact

The public water system contact should be someone the TCEQ can contact in an emergency or at any time.

|  |  |
| --- | --- |
| Name |  |
| Mailing Address |  |
| City, State |  |
| Phone & Ext. |  |
| Email |  |

# Source Details

| TCEQ Source ID | Source Name | Source Location | Availability |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Treatment Details

Describe the water system’s treatment process(es) below:

|  |
| --- |
|  |

# Entry Point and Distribution Details

| Entry Point ID | Contributing Sources | Sampling Location |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Down below, describe any of the water system’s distribution attributes such as pressure planes, booster disinfecting, or wholesale connections to other public water systems.**

|  |
| --- |
|  |

# Surface Water Treatment Rule (SWTR)

## Disinfection Zones

Systems must monitor the disinfectant residual, pH, temperature, and flow rate at each disinfection zone at least once per day. Be sure to list any disinfection zones identical to the CT Study your system may have (D1, D2, etc.).

|  |  |
| --- | --- |
| **Disinfection Zone(s) measured daily:** |  |

## Turbidity

Systems must monitor the performance of its filtration facilities by monitoring turbidity at the individual filters and the combined filter effluent of all filters in operation.

* Individual Filter Effluent (IFE) must be measured continuously and recorded:
* Every 15 minutes for conventional surface water plants\*
* Every 5 minutes for plants using membrane filtration\*\*
* Combined Filter Effluent (CFE) must be measured continuously and recorded:
* Once per day for systems serving less than 500 people
* Every 4 hours for systems serving at least 500 people

**\***The executive director may allow CFE monitoring in lieu of IFE monitoring if the system serves fewer than 10,000 people, the plant has no more than two filters that were installed prior to October 1, 2000, the filters were never equipped with on-line turbidimeters, and a CFE turbidimeter is located before the clearwell.

**\*\***The executive director may approve monitoring parameters other than turbidity and decrease the frequency to every 15 minutes.

**Systems using alternative treatment technologies should communicate with the TCEQ before filling out this section.**

| Treatment Plant(s) | IFE Frequency | IFE Location(s) | CFE Frequency | CFE Location(s) |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

Beginning with midnight, please complete the following table with the scheduled times the CFE turbidity will be read and reported in each four-hour period for the day the plant is in operation.

| NTU 1 | NTU 2 | NTU 3 | NTU 4 | NTU 5 | NTU 6 |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

Systems utilizing membrane filtration will generate an acute treatment technique violation if the CFE exceeds 1 NTU while another barrier to pathogen removal is inadequate. Conventional facilities will generate an acute treatment technique violation if the CFE exceeds either 5 NTU or 1 NTU, dependent on TCEQ evaluation. Systems must notify TCEQ within 24 hours and issue a boil water notice (BWN) to customers, regardless of filtration type, if an acute treatment technique violation occurs.

Non-acute treatment technique violations occur when the CFE exceeds 1 NTU while all other barriers to pathogen removal are adequate, or the CFE exceeds 0.3 NTU for 5% of turbidity samples or more in the surface water monthly operating report (SWMOR).

## Entry Point Disinfectant Residual

A treatment technique requirement is to maintain a minimum disinfectant residual of 0.2 mg/L free chlorine or 0.5 mg/L total chlorine at any entry point. Disinfectant residual must be monitored after contact time but before the first connection accordingly\*. Systems serving more than 3,300 people must continually monitor and record the chlorine residual. Systems that serve 3,300 or less must continuously monitor and record the residual or collect grab samples at the following frequency:

|  |  |
| --- | --- |
| Population | Samples Per Day |
| 500 or less | 1 |
| 501 – 1,000 | 2 |
| 1,001 – 2,500 | 3 |
| 2,501 – 3,300 | 4 |

**\*Color wheel chlorine meter (color comparator): only permitted for use with written permission from the state (§290.110(d)(1)).**

| Treatment Plant(s) | Free or Total Chlorine | Sample Frequency |
| --- | --- | --- |
|  |  |  |

## Long Term 2 Source Water Monitoring

Systems are required to conduct periodic E. coli or Cryptosporidium source water monitoring to assess treatment adequacy. The first rounds of monitoring began between October 1, 2006 and April 1, 2010, depending on the system’s schedule. The second rounds of monitoring began between April 1, 2015 and April 1, 2019. New sources subject to this requirement should begin each round of monitoring on a TCEQ approved schedule.

If a system is currently sampling for either constituent, then a sampling plan must be developed and attached to the overall monitoring plan. Otherwise, this sampling may already be complete and a BIN classification should be assigned for each applicable treatment plant based on the results. Check the box(es) below matching any classification appropriate for the system’s plant(s):

|  |  |
| --- | --- |
| [ ]  | **Bin 1** |
| [ ]  | **Bin 2** |
| [ ]  | **Bin 3** |
| [ ]  | **Bin 4** |

**List all treatment plants and the BIN classifications that apply to them if more than one box is checked above.**

|  |
| --- |
|  |

## Total Organic Carbon (TOC)

Public water systems that treat surface water using flocculation, coagulation, sedimentation, and filtration are required to conduct a TOC sample set (raw water alkalinity, raw water TOC, and treated water TOC) at least once per month. TOC compliance is determined based on a removal ratio that compares the actual percent of TOC removed during treatment to the required percent of TOC removed. The running annual average (RAA) of this removal ratio must be 1.0 or higher to achieve compliance. Systems are required to submit the TOC monthly operating report (TOCMOR), which will determine removal ratio, to the TCEQ by the 10th of the following month.

**Step 1 TOC Removal:** Raw alkalinity and raw TOC levels determine the required removal for treated TOC. The TOCMOR will calculate this value and determine the monthly removal ratio. If this ratio is below 1.0 it is recommended that the system look into alternative compliance criteria (ACC) options.

**Alternative Compliance Criteria:** Systems may use one out of the eight ACC to meet TOC removal requirements. By achieving an ACC, a removal ratio of 1.0 will be assigned for that month. Indicate, if any, additional sampling conducted monthly to satisfy ACC requirements.

**Step 2 TOC Removal:** If a system fails to meet removal requirements via ACC, jar testing may be conducted to determine a new required removal ratio. This new ratio will be eligible for the quarter the jar test was completed in, and the following quarter.

|  |  |  |
| --- | --- | --- |
| **Does the system conduct monthly TOC monitoring?** | [ ]  Yes | [ ]  No |

#### TOC Sample Set

|  |  |  |
| --- | --- | --- |
|  | Sampling Location | Samples Per Month |
| Raw TOC and Alkalinity |  |  |
| Treated TOC |  |  |

#### Alternative Compliance Criteria (ACC) Sampling

|  |  |
| --- | --- |
| 1. Raw Water TOC | [ ]  |
| 2. Treated Water TOC | [ ]  |
| 3. Raw Water TOC and Alkalinity + TTHM and HAA5 | [ ]  |
| 4. TTHM and HAA5 (chlorine only) | [ ]  |
| 5. Raw Water SUVA | [ ]  |
| 6. Treated Water SUVA | [ ]  |
| 7. Treated Water Alkalinity | [ ]  |
| 8. Magnesium Hardness Removal | [ ]  |

# Inorganic, Organic, and Radionuclides

Many, if not all, analytes and analyte groups listed below are collected by a third-party contractor on behalf of TCEQ. Each public water system is still responsible for the water served to consumers or consecutive water systems, and for paying bills on time to any applicable lab of analysis.

Listed down below are the standard analytes and analyte groups your water system may be tested for. Be sure to make sure sampling frequency and the respective entry point ID(s) in each row review match with TCEQ data by reviewing the Texas Drinking Water Watch (DWW) at: <https://dww2.tceq.texas.gov/DWW/>

## Individual Analytes

| Analyte | Entry Point ID(s) | Frequency | Comments |
| --- | --- | --- | --- |
| Cyanide |  |  |  |
| Nitrate |  |  |  |
| Nitrite |  |  |  |
|  |  |  |  |

## Group Analytes

| Group | Entry Point ID(s) | Frequency | Comments |
| --- | --- | --- | --- |
| Minerals |  |  |  |
| Metals |  |  |  |
| SOC Method 504 |  |  |  |
| SOC Method 515 |  |  |  |
| SOC Method 531 |  |  |  |
| VOC |  |  |  |
| SOC5 |  |  |  |
| RADs |  |  |  |
|  |  |  |  |

Samples collected by TCEQ contractors will be sent to a NELAP accredited compliance laboratory for analysis, either the Department of State Health Services (DSHS) or Lower Colorado River Authority (LCRA).

### MCL Compliance Determination

**Inorganic chemical, organic chemicals, and radionuclides:** Compliance is determined at each entry point for each individual chemical or radionuclide based on a running annual average of quarterly samples. Each entry point is evaluated independently for each chemical or radionuclide.

**Nitrate and nitrite:** Compliance is based on an average of the original sample and the confirmation sample unless a confirmation sample is not taken within the required time frame, in which case it is based only on the original sample. All nitrate and nitrite violations require immediate consultation with TCEQ.

# Revised Total Coliform Rule (RTCR)

Every public water system must identify and maintain sampling sites for their routine as well as their repeat sample locations. The sample siting plan shows where a system intends to complete their repeat requirements in the event of a distribution system positive.

**Be sure to include the system’s sample siting plan as an attachment to the monitoring plan to indicate all routine and repeat sample locations a system may collect a bacteriological sample from.**

|  |  |
| --- | --- |
| **Number of coliform samples taken monthly:** |  |

In the first table of the Laboratory Information section, please note the lab of analysis for all coliform samples.

Compliance with the RTCR is met when no more than one routine/repeat sample is total coliform positive and none of the repeats are E. coli positive for systems collecting less than 40 samples per month. If a system collects 40 or more samples per month, compliance is met when no more than 5% of all routine/repeat samples are total coliform positive and none of the repeats are E. coli positive. There must be no combination of an E. coli positive sample result with a routine/repeat total coliform or E. coli positive sample result.

Any Level 1 or Level 2 Assessment must be conducted and completed, and the assessment form must be submitted to the TCEQ within 30 days of a trigger. Any corrective action(s) associated with sanitary defects identified during an assessment shall be corrected by the time of submission of the assessment form or within a time frame approved by the TCEQ in consultation with the public water system.

# Disinfectant Residual Monitoring in the Distribution System

The disinfectant residual must be measured at the same time and location as each total coliform sample in addition to the system’s regular schedule. Disinfectant residual measurements must be indicated on each total coliform monitoring form submitting to the lab.

#### Disinfectant used:

|  |  |
| --- | --- |
| [ ]  | Chlorine (residual must be measured as free chlorine ≥ 0.2 mg/L) |
| [ ]  | Chloramines (residual must be measured as total chlorine ≥ 0.5 mg/L) |

#### Residual monitored:

|  |  |
| --- | --- |
| [ ]  | Every seven days (GW or Purchase systems with less than 250 connections and 750 population) |
| [ ]  | Daily |

Disinfectant residual sample locations are inherently the same as bacteriological locations since a residual must be collected at the same time. However, a system may have additional locations used for residual monitoring either to represent the distribution system further or due to taking more residual samples than bacteriological. If the system has any additional locations used for residual compliance sampling, list them below:

| Sampling Location | Sampling Frequency |
| --- | --- |
|  |  |

**Note:** Chlorine analyzers shall use an EPA approved analytical method. The analyzer must adhere to quality control procedures that demonstrate accuracy (§290.46(s)(2)(C)). The accuracy of manual analyzers shall be verified at least once every 90 days using chlorine solutions of known concentrations. Online analyzers shall be checked at least once every seven days with a chlorine solution of known concentration or by comparing the results with the result of an approved bench top method. Online chlorine analyzers that do not use an approved EPA method must be approved by TCEQ using EPA method 334.0 form (Initial Demonstration of Capability).

Public water systems must maintain a minimum 0.2 mg/L of free chlorine or 0.5 mg/L total chlorine at all times. Systems must also be in compliance with the running annual average for the maximum residual disinfectant level (MRDL) of 4.0 mg/L for disinfectant used throughout the distribution system.

### Alternative Disinfection Monitoring

Systems with chloramines within their distribution system at any point must include a copy of their Nitrification Action Plan (NAP) to their overall monitoring plan.

Systems utilizing chlorine dioxide or ozone as part of their overall treatment process must include the appropriate information under the Disinfection Byproducts section.

# Disinfection Byproducts

Disinfection byproducts (DBPs) are chemicals that form during drinking water treatment and in the distribution when naturally occurring organic matter reacts with chlorine or other disinfectants used to kill pathogenic organisms. Of all the DBPs, four types of DBPs are regulated due to the health effects caused by them: Chlorite, Bromate, Total Trihalomethanes (TTHM), and Total haloacetic acids (HAA5). Alternative disinfectants like chlorine dioxide or ozone can form chlorite or bromate, respectively, while free chlorine and chloramine can form TTHMs and/or HAA5s. TTHM and HAA5 are collected by a contracted third-party sample collector on behalf of TCEQ, then sent to one of two labs, the Department of State Health Services (DSHS) or Lower Colorado River Authority (LCRA). Even though water systems are not collecting the samples, the sample locations are still determined by the water system. The TTHM and HAA5 samples sites need to be in the distribution and represent a population that’s in an area with the highest potential of DBP formation.

|  |  |
| --- | --- |
| **Monitoring Frequency Required:** |  |

#### Disinfection Byproducts Samples Site Locations:

| Site ID | Sample Location | TTHM, HAA5, or Both |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

For both TTHM and HAA5, compliance is based on a locational running annual average (LRAA) of quarterly sampling. The running annual average is computed for each sampling location independently. If the LRAA is above the MCL of 0.080 mg/L for TTHM or 0.060 mg/L for HAA5 at any location, this is considered an MCL violation.

Any system monitoring less than quarterly must begin quarterly monitoring if any TTHM or HAA5 results are above the MCL at any sampling location. The system will begin quarterly monitoring for both TTHM and HAA5 beginning the next calendar quarter at all sample locations.

## Other Disinfection Byproducts

#### Chlorine Dioxide

For systems using chlorine dioxide (ClO2) treatment, chlorite must be measured at the entry point at least daily. Three distribution samples, called a three-sample set, must be additionally collected at least once a month for each plant using chlorine dioxide. In the table below, list any applicable entry point where ClO2 is used and chlorite measured at least once a day, and the appropriate sample locations with the distribution sites listed in order of nearest to farthest.

|  |  |  |
| --- | --- | --- |
| Entry Point | Entry Point Sample Location | Distribution System Three-Sample Set |
|  |  |  |

If the chlorite residual at the entry point exceeds 1.0 mg/L, the system must collect a three-sample set in the distribution system within 24 hours. The locations must be the same as the routine distribution system monitoring.

Compliance is based on the average of the three-sample set collected from the distribution system. If the average is above the MCL, this is considered an MCL violation.

#### Ozone

Each plant using ozone must measure the bromate concentration at the entry point at least once a month.

|  |  |
| --- | --- |
| **Entry point location sampled monthly for bromate:** |  |

Bromate levels must be maintained at less than the MCL of 0.010 mg/L. Compliance is based on a running annual average of quarterly sampling. The running annual average is computed for each sampling location independently. If the average is above the MCL at any location, this is considered an MCL violation.

# Lead and Copper Rule

The Lead and Copper Rule (LCR) applies to all community and NTNC water systems in the state. These systems are responsible for collecting tap samples from homes and buildings that are at highest risk of lead and copper contamination and submitting these samples for analysis at a NELAP accredited lab. The number of tap samples required is dependent on the size of the system and circumstances for monitoring. The sites used for lead and copper tap sampling must be selected by the water system and submitted to the TCEQ for review and approval. Water systems are required to meet designated lead and copper levels and control the levels of lead and copper in drinking water by controlling the corrosivity of water. Lead and copper enter drinking water primarily through the corrosion of service lines and internal plumbing materials, and cause health problems ranging from stomach distress to brain damage, depending on age and length of exposure among other factors.

|  |  |
| --- | --- |
| **Monitoring Frequency Required:** |  |

**Sample Site Selection:** Water systems must have a sampling pool, which requires the system to specify a **total number of sites equal to their initial monitoring** (double the amount of reduced sample sites except for systems serving 100 people or less). The system must utilize as many Tier 1 sites as allowable, before using Tier 2 and/or Tier 3. If there are insufficient Tier 1, 2, or 3 sites, the sampling pool may be completed using non-tier sites. If it is not known whether lead is present in the plumbing, the site should be designated as a non-tier site.

|  |  |
| --- | --- |
| **Tier 1** | For community water systems, it is a single-family structure that contains lead pipes or copper pipes with lead solder and/or is served by lead service lines installed after 1982.For NTNC systems, it is buildings that contain copper pipes with lead solder installed after 1982 and/or served by lead service lines. |
| **Tier 2** | For community systems, it is a building or multiple-family residence that contain lead pipes or copper pipes with lead solder installed after 1982, and/or is served by lead service lines.For NTNC systems, it is a building that contains copper pipes with lead solder installed before 1983. |
| **Tier 3** | Applies to community systems only. Single-family structures that contain copper pipes with lead solder installed before 1983. |
| **Other** | Sites not defined by Tiers 1, 2, or 3. |

#### Lead and Copper Sample Site Locations:

| Site ID | Sample Site Address | Tier Level |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Lead and copper tap samples for community water systems are typically collected by non-water system personnel (instead of by a certified operator). Water systems get to choose the laboratory that performs the analysis of their compliance samples, so long as the laboratory has the appropriate accreditation. Include the name of any laboratory used, or multiple if the system rotates, in the **Laboratory Information** section of the monitoring plan.

If more than 10% of the monitoring samples are greater than the action level (i.e., if the 90th percentile level is greater than the action level), the system has exceeded the action level. This is not a violation but requires further action. The respective action levels are 0.015 mg/L for lead and 1.3 mg/L for copper.

## Water Quality Parameter Tap Monitoring

Community water systems and NTNC water systems that are new or monitoring for the first time, have a population over 50,000 served, report an action level exceedance for either lead or copper, or install a new treatment process or well are required to collect water quality parameter (WQP) samples and report analysis to the state. These samples need to be collected at locations within the distribution system, and at each active entry point. The WQP samples require prior approval before collection, and the equipment for analyzing pH and temperature must be registered with the state.

|  |  |  |
| --- | --- | --- |
| **Does the system collect water quality parameter samples?** | [ ]  Yes | [ ]  No |

|  |  |
| --- | --- |
| **Monitoring Frequency Required:** |  |

|  |  |
| --- | --- |
| **Number of Distribution Sites Required:** |  |

To fully satisfy the requirements of any compliance period, two samples per location are required within the respective time frame. It is also beneficial to sample the same location at different ends of the compliance period to get a better understanding of your water at variable temperatures, as opposed to taking both required samples back-to-back. In the following table, list all entry point and distribution system sample locations used for WQP monitoring. It is recommended to indicate any entry point and its respective sample location before listing the distribution system locations.

| Location (EP#, DS) | Sample Site Address |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# Asbestos

An inorganic contaminant typically monitored at the far reaches of the distribution system. Like any inorganic contaminant measured at an entry point, these samples are collected by a contractor on TCEQ’s behalf. Water systems will never be responsible for physically collecting an asbestos sample but will be responsible for coming up with the compliance location used for this sampling and paying any outstanding bill.

|  |  |
| --- | --- |
| **Monitoring Frequency Required:** |  |

#### Asbestos Sample Site Locations:

|  |  |
| --- | --- |
| Site ID | Sample Location |
|  |  |

The contractor sent on behalf of TCEQ will collect and send the sample off to an accredited lab. Water systems are responsible for paying any bill in a timely manner.

If any sample result is above the MCL of 7 million fibers per liter (longer than 10 µm), the system is out of compliance and will begin quarterly monitoring beginning the next calendar quarter.

# Laboratory Information

All public water systems who sample treated potable water must include a completed Laboratory Approval Form (TCEQ-10450) as an attachment to their overall monitoring plan.

## Approved Laboratory

Public water systems may monitor and analyze disinfectant residual, turbidity, pH, temperature, total organic carbon (TOC), UV, alkalinity, silica, conductivity, chlorite, chlorine dioxide, calcium, hardness as calcium carbonate, and phosphate samples at an on-site laboratory. These on-site labs must be approved via the Drinking Water Laboratory Approval Form. Off-site labs or third-party organizations that conduct these analyses must also be approved by TCEQ.

For questions related to laboratory approval, contact the TCEQ laboratory approval coordinator at (512)239-4691 or PDWS@tceq.texas.gov.

## Accredited Laboratory

Public water systems must have certain analyses performed by a laboratory accredited (certified) by the TCEQ. A list of TCEQ laboratories that are accredited under the National Environmental Laboratory Accreditation Program (NELAP) can be found on the TCEQ’s Environmental Laboratory (NELAP) Accreditation webpage at: <https://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html>

#### Coliform Laboratory:

|  |  |
| --- | --- |
| Laboratory Name: |  |
| City, State, Zip |  |
| Phone & Ext. |  |
| Fax: |  |

#### Lead and Copper Laboratory:

|  |  |
| --- | --- |
| Laboratory Name: |  |
| City, State, Zip |  |
| Phone & Ext. |  |
| Fax: |  |

#### Other Laboratory (Specify):

|  |  |
| --- | --- |
| Laboratory Name: |  |
| City, State, Zip |  |
| Phone & Ext. |  |
| Fax: |  |

As mentioned in the inorganics, organics, and radionuclides section, samples collected by TCEQ contractors will be sent to a NELAP accredited compliance laboratory. The samples will be sent to either the Department of State Health Services (DSHS) or Lower Colorado River Authority (LCRA) for analysis, except for asbestos samples which are sent to Crisp Analytical. Information for these laboratories can be found below.

|  |  |  |
| --- | --- | --- |
| Department of State Health Services | Lower Colorado River Authority | Crisp Analytical |
| Laboratory Services Section, MC 19471100 W. 49th StreetAustin, TX 78756-3199 | Environmental Lab Services3505 Montopolis DriveAustin, TX 78744 | 1929 Old Denton RoadCarrollton, TX 75007 |
| Phone: (512)776-7318Fax: (512)776-7294 | Phone: (512)730-6022 | Phone: (972)242-2754Fax: (972)242-2798 |