

Drinking Water Units (Mail Code: 8WD-SDA)
Environmental Protection Agency Region 8
1595 Wynkoop Street
Denver, CO 80202-1129
Business Hours Contact: 1- 800-227-8917
Emergency After-Hours voice mail: 303-312-6327
FAX Number: 1-877-876-9101

Stage 2 Disinfection Byproducts Rule (Stage 2 DBP)

Compliance Monitoring Plan

For

Public Water Supply Systems

EPA Region 8 Version Dated 3/3/2023



This Template is provided by the Environmental Protection Agency in Region 8 (EPA R8) for Public Water Systems to help prepare their Monitoring Plans for the Stage 2 DBPR. This document provides guidance to public water systems. The document is not, however, the actual Environmental Protection Agency regulation, nor is it a regulation itself. The actual regulation can be found in 40 CFR (Code of Federal Regulations) Part 141.622(a)(1)

Introduction

For the Stage 2 DBP, each applicable public water supply system (community and non-transient non-community systems delivering chlorinated water for public consumption) must develop a monitoring plan to be kept on file for Environmental Protection Agency (EPA) and public review (40 CFR §141.622(a)(1)). Thus, we urge all water systems submit a copy of the monitoring plan for our review and approval, so that we can track your sampling location(s) in our data base for compliance determinations. The monitoring plan must show how a system intends to comply with the monitoring requirements of the rule. The monitoring plan serves as a uniquely tailored roadmap for each system to demonstrate that the water quality self-monitoring performed by the system is representative of the water distributed to consumers and is consistent with regulatory requirements.

The Overall Objective of this monitoring form is to:

- Simplify the Format
- Ensure Sampling Location and sample frequency are consistent with the plan, resulting in meaningful data/reports
- Determine the following parameters
 - Identify the highest Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5s) distribution system locations
 - Identify High Temperature Month for sampling per sample point
 - Identify Chlorine levels to support sample point selection, if necessary
 - Identify sample point location(s) in distribution system

This monitoring plan encourages utilizing and maintaining data records to provide a useful comparison of past and on-going water quality parameters to correlate with DBP2 concentrations. Further value from providing data on the monitoring plan form will be to assist with treatment methods as appropriate such as use of non-polymer Coagulants/flocculants, such as Alum, Polyaluminum chloride, FeCl₃, Fe₂(SO₄)₃, NaOH, H₂SO₄, NaOCl, etc. Flushing operations at the sample location should be performed frequently enough to ensure temperature stabilization throughout the distribution system.

Please submit your completed Stage 2 Monitoring Plan by email to:

Email:

R8DWU@epa.gov Subject: PWS No. Stage 2 DBP Monitoring Plan

Fax:

1-(877) 876-9101 Attn: Stage 2 DBPR Rule Manager

Or by mail:

Stage 2 DBP Rule Manager

Mail Code: 8WD-SDB

US EPA Region 8

1595 Wynkoop Street

Denver, CO 80202-1129

**Note: If emailing, please include your PWS Number and "DBP Monitoring Plan" in the subject line.*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917

<http://www.epa.gov/region08>

State of Wyoming and Region 8 Tribal Lands
Stage 2 Disinfection Byproducts Rule
(Stage 2 DBPR)

Compliance Monitoring Plan

A. ADMINISTRATIVE			
PWS No.		Date Submitted	
PWS Name		Prepared By	
		Title	
		Contact Email	
		Contact Phone Number	
A.1 System Population Type:		<input type="checkbox"/> Community <input type="checkbox"/> Non-Transient Non-Community (NTNC)	
<p>Community Water System (CWS): A public water system that supplies water to the same population year-round.</p> <p>Non-Transient Non-Community Water System (NTNCWS): A public water system that regularly supplies water to at least 25 of the same people at least six months per year. Some examples are schools, factories, office buildings, and hospitals which have their own water systems.</p>			
A.2 Source Water Type: (Check all that apply)		<input type="checkbox"/> Surface Water or Groundwater Under the Direct Influence (GWUDI) <input type="checkbox"/> Groundwater <input type="checkbox"/> Consecutive	
A.3 Population Served per day:			
<i>Note: Total Population equals the sum of community and non-transient non-community populations. Include combined system totals, if applicable.</i>		Community (CWS) Population	
		NTNCWS Population	
		Total Population Served	
A.4 Consecutive Systems		Is this system connected to another public water system? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Which public water system(s) does your system <u>purchase water</u> from? If none, please check Not Applicable below. <input type="checkbox"/> Not Applicable	PWS Number	PWS Name	
Which public water system(s) does your system <u>sell water</u> to? If none, please check Not Applicable below. <input type="checkbox"/> Not Applicable	PWS Number	PWS Name	

Combined System. Does this monitoring plan cover any consecutive system DBP monitoring? If none, please check Not Applicable below. <input type="checkbox"/> Not Applicable	PWS Number	PWS Name

B. BASIC DBP SYSTEM REQUIREMENTS

B.1 Minimum Regulatory Requirements:

Surface Water or Groundwater Under the Direct Influence (GWUDI)

<i>Population Size</i>	<i>Monitoring Frequency</i>	<i>Minimum Number of Monitoring Locations</i>
<i>Less than 500</i>	<i>Per Year</i>	<i>2*</i>
<i>500 – 3,300</i>	<i>Per Quarter</i>	<i>2*</i>
<i>3,301 – 9,999</i>	<i>Per Quarter</i>	<i>2</i>
<i>10,000 – 49,999</i>	<i>Per Quarter</i>	<i>4</i>
<i>50,000 – 249,999</i>	<i>Per Quarter</i>	<i>8</i>

Groundwater

<i>Population Size</i>	<i>Monitoring Frequency</i>	<i>Minimum Number of Monitoring Locations</i>
<i>Less than 500</i>	<i>Per Year</i>	<i>2*</i>
<i>500 – 9,999</i>	<i>Per Year</i>	<i>2</i>
<i>10,000 – 99,999</i>	<i>Per Quarter</i>	<i>4</i>
<i>100,000 – 499,999</i>	<i>Per Quarter</i>	<i>6</i>
<i>Greater than 500,000</i>	<i>Per Quarter</i>	<i>8</i>

*Note: Systems on **quarterly monitoring** must take dual sample sets every 90 days at each monitoring location, except for subpart H systems serving 500-3,300. **Ground water systems serving 500-9,999** on annual monitoring must take dual sample sets at each monitoring location. All other systems on **annual monitoring and subpart H systems serving 500-3,300** are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. **For systems serving fewer than 500 people**, only one location with a dual sample set per monitoring period is needed if the highest TTHM and HAA5 concentrations occur at the same location and month.

B.2: System Monitoring Requirements

Based on the source water type in Section A.2 and the total population served in Section A.3, answer the following questions:

What is the required monitoring frequency for your system?	<input type="checkbox"/> Per Year	<input type="checkbox"/> Per Quarter
What is the total number of required monitoring locations?		

C. Water System Operations

C.1: Treatment Operations

What is your secondary disinfection treatment type? <i>Note: Secondary Disinfection is the disinfection type used to maintain a disinfectant residual in the distribution system.</i>	<input type="checkbox"/> Free Chlorine											
	<input type="checkbox"/> Chloramines											
<input type="checkbox"/> Other. If so, please describe:												
What is the number of water sources with disinfection chemicals added? <i>Note: These are the number of surface water intakes, springs, and well(s).</i>	Surface Water									<input type="checkbox"/> N/A		
	GWUDI									<input type="checkbox"/> N/A		
	Ground Water									<input type="checkbox"/> N/A		
	Purchased									<input type="checkbox"/> N/A		
	Other									<input type="checkbox"/> N/A		
If your system purchases water from another public water system, do you provide additional treatment? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable												
<i>If yes above, please describe treatment:</i>												
Does your system alter the chlorine dosage feed throughout the year?										<input type="checkbox"/> Yes <input type="checkbox"/> No		
<i>If yes, which month requires the largest dosage of disinfectant?</i>												
Does your system have water temperature records for each month?										<input type="checkbox"/> Yes <input type="checkbox"/> No		
<i>If yes, please fill out the highest water temperature for each month in your system.</i>												
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Does your system have Total Organic Carbon (TOC) samples results available?										<input type="checkbox"/> Yes <input type="checkbox"/> No		
<i>If yes, please enter the highest TOC results (mg/L) for each month. Please indicate <input type="checkbox"/> Raw <input type="checkbox"/> Finished.</i>												
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	

C.2: Distribution System

What is the number of water source entry point(s) into your distribution system?											
What is the number of storage tanks in your system?											
Does your system have a routine flushing program?										<input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, does your system flush only one portion of the system?										<input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, does your system perform directional flushing by isolating valves?										<input type="checkbox"/> Yes <input type="checkbox"/> No	
Does your system have booster chlorination systems?										<input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>If yes, how many booster stations does your system have?</i>											
What is the average air temperature for each month at your location?											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

C.3: Public Water Supply System Exhibit

On the following page or attached as a separate document, please provide an exhibit of your water system. Please ensure the exhibit provides the following information:

Does the exhibit show the layout of the distribution system? Yes No

Does the exhibit show all water source(s) and the points of entry? Yes No

Please list each water source and max flow rates for each source.

Source or Entry Point Name	Source Type (GWUDI = SW)	Max Flow Rate	Units	Avg. or Typical Cl ₂ Residual	Units	Full-Time, Seasonal or Emergency?
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	
	<input type="checkbox"/> SW <input type="checkbox"/> GW				mg/L	

Does the exhibit show the limits of the water distribution system service area? Yes No

Does the exhibit show all water storage facility location(s)? Yes No N/A

Does the exhibit show all connection(s) with other public water systems? Yes No N/A

Does the exhibit show all chlorine booster system(s)? Yes No N/A

Does the exhibit locate the **oldest** water age in the system?
If more than one location is suspected, provide chlorine residual(s) at each suspected location. The oldest age will have the lowest chlorine residual. Yes No

Does the exhibit locate the **average** water age in the system?
If more than one location is suspected, provide chlorine residual(s) at each suspected location and the point of entry. Yes No

Does the exhibit show the proposed DBP sampling locations from Section D? Yes No

A map or exhibit of the public water system is required:

Check if exhibit is attached as separate document.

Label the water source points of entry, distribution system boundaries, storage tanks, consecutive system connections, chlorine booster tanks, and proposed sample location(s) with measured chlorine residual(s).

D. Proposed Monitoring Plan

D.1 Special Total Trihalomethanes (TTHMs) / Haloacetic Acids (HAA5s) Samples

Based on Section C, are the oldest and average water location(s) obvious?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
If no, special Total Trihalomethanes (TTHMs)/Haloacetic Acids (HAA5s) samples may be required. If collected, enter information below.				<input type="checkbox"/> N/A	
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L

D.2 Additional Information

Does this system serve less than 500 people?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>Note: If yes, the system is allowed to collect individual samples at each of the monitoring location(s). Thus, one location will be a TTHM site, and the other will be a HAA5 site.</i>					
If yes, does it appear that the highest TTHMs and HAA5s occur at the same location?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<i>Note: If yes, then your system is allowed to collect both individual samples at the same location. Thus, you may collect a dual sample set at only one location.</i>					
Is this system a surface water system serving 500 – 3,300 people?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>If yes, the system is allowed to collect individual samples at each of the monitoring location(s). Thus, one location will be a TTHM site, and the other will be a HAA5 site.</i>					

D.3 Proposed Monitoring Location(s)

The TTHM location(s) should be at the oldest water age location(s). The HAA5 location(s) should be near the average water age location(s).			
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Justification
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Justification
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Justification
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Justification
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Justification
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Justification
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Justification
Sample Location	<input type="checkbox"/> TTHM	<input type="checkbox"/> HAA5	Justification

E. Approved Monitoring Plan (For Official Use Only)		
E.1 Routine Monitoring Frequency		
What frequency is this system required to monitor?		<input type="checkbox"/> Quarterly <input type="checkbox"/> Annual
What is the peak month for this system?		
Were all of the proposed monitoring locations in Section D.3 approved without changes? <i>(If no, please make revisions below).</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification
<i>Sample Location</i>	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	Justification

I certify that the information in this entire report, including any attachments, is true and accurate to the best of my knowledge. I acknowledge that any knowingly false or misleading information may be punishable under 18 USC § 1001 and other applicable laws.

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Email: R8DWU@epa.gov

**Note: If emailing, please include your PWS Number and "DBP Monitoring Plan" in the subject line.*

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