

Appendix X

Water Quality Sampling Procedures and Program



instructions regarding replicate samples (multiple field samples collected under identical circumstances). Please note that some kits may have containers that are already filled—these are field blanks used by the laboratory for quality control.



STEP TEN

Many laboratories require that “chain-of-custody” procedures be followed for compliance monitoring samples. The typical “chain-of-custody” form establishes the whereabouts of, and person responsible for, the sample at any point in time. This form is to be completed by field personnel at the time that the samples are collected. The information on the “chain-of-custody” form must match the information on the container label. Print or write legibly.

STEP ELEVEN

Pack and transport the samples. Pack the containers in the same manner that they were received to avoid breakage. Samples must be kept at or below the required temperature (but not allowed to freeze). If they need to be refrigerated, cool them with sufficient ice, or pre-frozen chemical cold packs (blue ice), to keep them below the proper temperature (4°C or 39°F). To protect samples from breakage or freezing, packing materials (such as bottle holders, cardboard, and polystyrene foam) should be used. Ice should not be used as a packing material, since it will melt and leave space, leading to breakage of the bottles during shipping (the melted water may also contaminate the samples). If the samples are collected within a reasonable driving distance of the laboratory, and refrigeration is required, a cooler may be used as a sample carrying case. Samples shipped by commercial carrier must be cooled to the proper temperature, in addition to being protected against breakage or spillage by a suitable shipping case.

STEP TWELVE

Pack and transport samples to the laboratory (or have them picked up) the same day or by overnight courier. The temperature of most samples must be kept at or below 4°C or 39°F during shipping and before analysis. Make sure you include the laboratory sample and “chain-of-custody” forms with the samples.

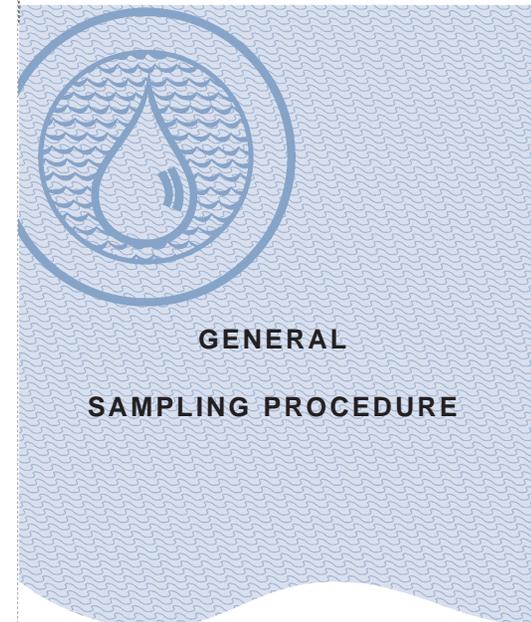
If you have questions about sampling collection procedures, contact your regional office:

SW Regional Office
(360) 236-3030

NW Regional Office
(253) 395-6750

Eastern Regional Office
(509) 329-2100

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GENERAL SAMPLING PROCEDURE

The provisions of the federal Safe Drinking Water Act requires public water supplies to collect microbiological and chemical samples at various frequencies. This sample collection frequency is determined by each source's water quality history, compliance with previous monitoring requirements, and waiver status. To assist water systems on when to sample and what types of samples to collect, the Division of Drinking Water sends out an annual Water Quality Monitoring Report to Group A systems.

This brochure provides general information on how to collect a water sample. Steps and procedures can vary depending on the laboratory that is used so you should follow the instructions that are provided by the laboratory you are using.



The general sampling procedure for water sample collection is as follows:

STEP ONE

Inspect the sampling kit and read the laboratory instructions carefully.

STEP TWO

Sampling containers may contain a preservative. Do not rinse them prior to sample collection. Do not add preservatives to the sample unless specifically instructed to do so by the laboratory. If cold packs will be used, freeze them prior to sample collection.

STEP THREE

Carefully choose the sampling point. In most cases locate a sampling tap that is after treatment (if present), but prior to entry to the distribution system.

STEP FOUR

Do not fill sample bottles near gasoline cans, gasoline-powered motors, paint cans, lighter fluid, paint strippers, pesticide bottles, exhaust fumes from running engines or recently painted faucets. Fumes and vapors may contaminate the samples.

STEP FIVE

Collect the samples immediately prior to shipment to the laboratory.

STEP SIX

Remove any attachment such as a hose, filter, screen, or aerator from the tap.

STEP SEVEN

Flush the tap for more than 10 minutes or until the water temperature becomes stable. This helps ensure a representative water sample.

STEP EIGHT

While the water is running and before collecting the sample, fill out COMPLETELY the laboratory form (often called the "Water Sample Information Form") and sample label. Laboratory forms vary but the following information is very important to complete:

- Water System ID number
- Water System name
- DOH source number (i.e., SO1)
- Sample type and sample purpose (usually "RC" for routine compliance)

- Collection date and time the sample was taken
- Sample location (specific location where the samples were collected, for example "pumphouse tap")
- System type (i.e., Group A or B)
- Sample type (i.e., pre-treatment/ raw or post-treatment/finished)

STEP NINE

Carefully follow the instructions for filling the sample container -- different types of samples have different requirements for the actual collection of the sample. Do not touch the inside of the cap, and do not over-tighten. If your sample kit contains additional empty bottles, follow the laboratory



Water Quality Monitoring Schedule

System: CHENEY CITY OF
Contact: Clinton R Thompson

PWS ID: 12400 N
Group: A - Comm

Region: EASTERN
County: SPOKANE

NOTE: To receive credit for compliance samples, you must fill out laboratory and sample paperwork completely, send your samples to a laboratory accredited by Washington State to conduct the analyses, AND ensure the results are submitted to DOH Office of Drinking Water. There is often a lag time between when you collect your sample, when we credit your system with meeting the monitoring requirement, and when we generate the new monitoring requirement.

Coliform Monitoring Requirements

	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019
Coliform Monitoring Population	17569	17569	17569	17569	17569	17569	17569	10891	10891	10891	17569	17569
Number of Routine Samples Required	20	20	20	20	20	20	20	10	10	10	20	20

- Collect samples from representative points throughout the distribution system.
- Collect required repeat samples following an unsatisfactory sample. In addition, collect a sample from each operating groundwater source.
- For systems that chlorinate, record chlorine residual (measured when the coliform sample is collected) on the coliform lab slip.

Chemical Monitoring Requirements

Distribution Monitoring

<u>Test Panel/Analyte</u>	<u># Samples Required</u>	<u>Compliance Period</u>	<u>Frequency</u>	<u>Last Sample Date</u>	<u>Next Sample Due</u>
Lead and Copper	30	Jan 2016 - Dec 2018	standard - 3 year		
Asbestos	0	Jan 2011 - Dec 2019	waiver - 9 year		
Total Trihalomethane (THM)	2	Jan 2018 - Dec 2018	reduced - 1 year	08/21/2018	
Halo-Acetic Acids (HAA5)	2	Jan 2018 - Dec 2018	reduced - 1 year	08/21/2018	



Water Quality Monitoring Schedule

Notes on Distribution System Chemical Monitoring

- For *Lead and Copper*:
- Collect samples from the COLD WATER side of a KITCHEN or BATHROOM faucet that is used daily.
 - Before sampling, make sure the water has sat unused in the pipes for at least 6 hours, but no more than 12 hours (e.g. overnight).
 - If you are sampling from a faucet that has hot water, make sure cold water is the last water to run through the faucet before it sits overnight.
 - If your sampling frequency is annual or every 3 years, collect samples between June 1 and September 30.

For *Asbestos*: Collect the sample from one of your routine coliform sampling sites in an area of your distribution system that has asbestos concrete pipe.

For *Disinfection Byproducts (HAA5 and THM)*: Collect the samples at the locations identified in your Disinfection Byproducts (DBP) monitoring plan.

Source Monitoring

- Collect 'source' chemical monitoring samples from a tap after all treatment (if any), but before entering the distribution system.
- Washington State grants monitoring waivers for various test panels /analytes. Please note that we may require some monitoring as a condition of some waivers. We have granted complete waivers for dioxin, endothal, glyphosate, diquat, and insecticides.
- Nitrate, arsenic, iron, and other individual inorganics are included as part of a Complete Inorganic (IOC) analysis when it is collected.

Source S05	Well #5 - ABR151	Well	Use - Permanent	Susceptibility - Low		
<u>Test Panel/Analyte</u>	<u># Samples Required</u>	<u>Compliance Period</u>	<u>Frequency</u>	<u>Last Sample Date</u>	<u>Next Sample Due</u>	
Nitrate	1	Jan 2018 - Dec 2018	standard - 1 year	09/12/2018		
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	waiver - 9 year	04/10/2013		
Iron	1	Jan 2017 - Dec 2019	standard - 3 year	09/12/2018		
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	04/26/2018		
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	03/24/2015		
Pesticides	1	Jan 2014 - Dec 2022	waiver - 9 year	03/24/2015		
Soil Fumigants	0	Jan 2017 - Dec 2019	waiver - 3 year			
Gross Alpha	1	Jan 2014 - Dec 2019	standard - 6 year	07/29/2015		
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	07/29/2015		

Source S06	WF A/S01,2	Well Field	Use - Permanent	Susceptibility - High		
<u>Test Panel/Analyte</u>	<u># Samples Required</u>	<u>Compliance Period</u>	<u>Frequency</u>	<u>Last Sample Date</u>	<u>Next Sample Due</u>	
Nitrate	1	Jan 2018 - Dec 2018	standard - 1 year	09/12/2018		
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	waiver - 9 year	07/22/2009	Jul 2018	

Water Quality Monitoring Schedule

Source Monitoring

- Collect 'source' chemical monitoring samples from a tap after all treatment (if any), but before entering the distribution system.
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- Nitrate, arsenic, iron, and other individual inorganics are included as part of a Complete Inorganic (IOC) analysis when it is collected.

Source S06	WF A/S01,2	Well Field	Use - Permanent	Susceptibility - High		
<u>Test Panel/Analyte</u>	<u># Samples Required</u>	<u>Compliance Period</u>	<u>Frequency</u>	<u>Last Sample Date</u>	<u>Next Sample Due</u>	
Manganese	1	Jan 2017 - Dec 2019	standard - 3 year	07/22/2009	Feb 2019	
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	05/24/2016		
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/21/2009	Jul 2018	
Pesticides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/21/2009	Jul 2018	
Soil Fumigants	0	Jan 2017 - Dec 2019	waiver - 3 year	08/13/2003		
Gross Alpha	1	Jan 2014 - Dec 2019	standard - 6 year	05/24/2016		
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	05/24/2016		

Source S08	Well #6 - AHC155	Well	Use - Permanent	Susceptibility - Low		
<u>Test Panel/Analyte</u>	<u># Samples Required</u>	<u>Compliance Period</u>	<u>Frequency</u>	<u>Last Sample Date</u>	<u>Next Sample Due</u>	
Nitrate	1	Jan 2018 - Dec 2018	standard - 1 year	09/12/2018		
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	waiver - 9 year	05/20/2010	May 2019	
Iron	1	Jan 2017 - Dec 2019	standard - 3 year	09/12/2018		
Manganese	1	Jan 2017 - Dec 2019	standard - 3 year	09/12/2018		
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	07/13/2018		
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	05/10/2013	May 2022	
Pesticides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/21/2009	Jul 2018	
Soil Fumigants	0	Jan 2017 - Dec 2019	waiver - 3 year			
Gross Alpha	1	Jan 2014 - Dec 2019	standard - 6 year	07/29/2015		
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	07/29/2015		

Water Quality Monitoring Schedule

Source Monitoring

- Collect 'source' chemical monitoring samples from a tap after all treatment (if any), but before entering the distribution system.
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- Nitrate, arsenic, iron, and other individual inorganics are included as part of a Complete Inorganic (IOC) analysis when it is collected.

Source S09	Well #7 - AHC156	Well	Use - Permanent	Susceptibility - Low		
<u>Test Panel/Analyte</u>	<u># Samples Required</u>	<u>Compliance Period</u>	<u>Frequency</u>	<u>Last Sample Date</u>	<u>Next Sample Due</u>	
Nitrate	1	Jan 2018 - Dec 2018	standard - 1 year	09/12/2018		
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	waiver - 9 year	06/12/2012		
Iron	1	Jan 2017 - Dec 2019	standard - 3 year	09/12/2018		
Manganese	1	Jan 2017 - Dec 2019	standard - 3 year	06/10/2015	Feb 2019	
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	07/29/2015		
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/21/2009	Jul 2018	
Pesticides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/21/2009	Jul 2018	
Soil Fumigants	0	Jan 2017 - Dec 2019	waiver - 3 year			
Gross Alpha	1	Jan 2014 - Dec 2019	standard - 6 year	07/21/2016		
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	07/21/2016		

Source S10	Well #8 - ALF730	Well	Use - Permanent	Susceptibility - Low		
<u>Test Panel/Analyte</u>	<u># Samples Required</u>	<u>Compliance Period</u>	<u>Frequency</u>	<u>Last Sample Date</u>	<u>Next Sample Due</u>	
Nitrate	1	Jan 2018 - Dec 2018	standard - 1 year	09/12/2018		
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	waiver - 9 year	10/20/2016		
Iron	1	Jan 2017 - Dec 2019	standard - 3 year	09/12/2018		
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	05/30/2018		
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	11/30/2017		
Pesticides	1	Jan 2014 - Dec 2022	waiver - 9 year	05/05/2010	May 2019	
Soil Fumigants	0	Jan 2017 - Dec 2019	waiver - 3 year			
Gross Alpha	1	Jan 2014 - Dec 2019	standard - 6 year	06/27/2017		



Water Quality Monitoring Schedule

Source Monitoring

- Collect 'source' chemical monitoring samples from a tap after all treatment (if any), but before entering the distribution system.
- Washington State grants monitoring waivers for various test panels /analytes. Please note that we may require some monitoring as a condition of some waivers. We have granted complete waivers for dioxin, endothal, glyphosate, diquat, and insecticides.
- Nitrate, arsenic, iron, and other individual inorganics are included as part of a Complete Inorganic (IOC) analysis when it is collected.

<i>Source S10</i>	<i>Well #8 - ALF730</i>	<i>Well</i>	<i>Use - Permanent</i>	<i>Susceptibility - Low</i>		
<u><i>Test Panel/Analyte</i></u>	<u><i># Samples Required</i></u>	<u><i>Compliance Period</i></u>	<u><i>Frequency</i></u>		<u><i>Last Sample Date</i></u>	<u><i>Next Sample Due</i></u>
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year		06/27/2017	



Water Quality Monitoring Schedule

Other Information

Other Reporting Schedules	Due Date
Measure chlorine residuals and submit monthly reports if your system uses continuous chlorination:	monthly
Submit Consumer Confidence Report (CCR) to customers and ODW (Community systems only):	07/01/2018
Submit CCR certification form to ODW (Community systems only):	10/01/2018
Submit Water Use Efficiency report online to ODW and to customers (Community and other municipal water systems only):	07/01/2018
Send notices of lead and copper sample results to the customers sampled:	30 days after you receive the laboratory results
Submit Certification of customer notification of lead and copper results to ODW:	90 days after you notify customers

Special Notes

None

Eastern Regional Water Quality Monitoring Contacts

- For questions regarding chemical monitoring: Stan Hoffman: (509) 329-2132: or Stan.Hoffman@doh.wa.gov
- For questions regarding DBPs: Stan Hoffman: (509) 329-2132 or Stan.Hoffman@doh.wa.gov
- For questions regarding coliform bacteria and microbial issues: Joseph Perkins: (509) 329-2134 or Joseph.Perkins@doh.wa.gov

Additional Notes

The information on this monitoring schedule is valid as of the date in the upper left corner on the first page. However, the information may change with subsequent updates in our water quality monitoring database as we receive new data or revise monitoring schedules. There is often a lag time between when you collect your sample and when we credit your system with meeting the monitoring requirement.

We have not designed this monitoring schedule to display all compliance requirements. The purpose of this schedule is to assist water systems with planning for most water quality monitoring, and to allow systems to compare their records with DOH ODW records. Please be aware that this monitoring schedule does not include constituents that require a special monitoring frequency, such as monitoring affiliated with treatment.

Any inaccuracies on this schedule will not relieve the water system owner and operator of the requirement to comply with applicable regulations.

If you have any questions about your monitoring requirements, please contact the regional office staff listed above.