



We work with others to protect the health of the people of Washington State by ensuring safe and reliable drinking water.



LEAD AND COPPER IMPLEMENTATION

Washington State Department of Health
Office of Drinking Water

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Overview of Implementation Changes

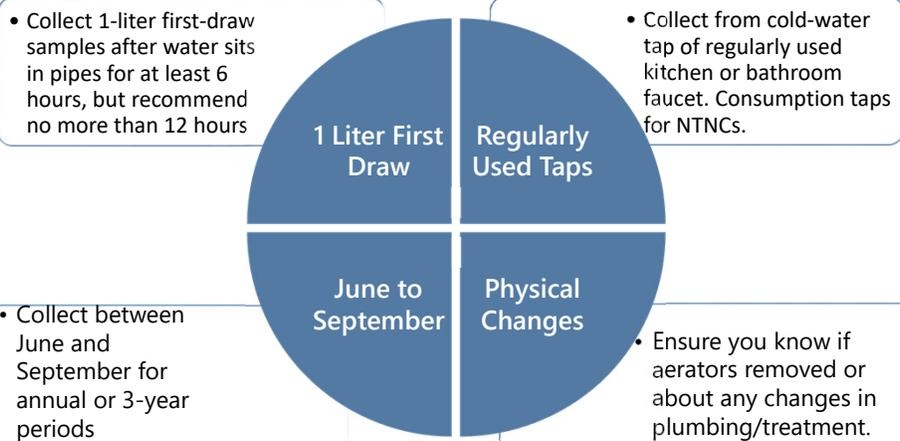
- Sampling Collection—Compliance Period
- Treatment Monitoring
- New or Changes in Source and Treatment

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Sample Collection



Lead and Copper Sample Collection



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Suggested Directions for Homeowner Tap Sample Collection Procedures (Revised 9/2006)

Samples are being collected to determine the lead and copper levels in your tap water. This sampling is required by the U.S. Environmental Protection Agency and your State, and is being accomplished with the cooperation of homeowners and residents.

Get samples from a tap that has not been used for a minimum of 6 hours. Because of this requirement, the best time to collect samples is either early in the morning or in the evening upon returning from work. Do not use taps that have been in general use by your household for the past few months. The collection procedure is described in more detail below.

Prior arrangements will be made with the customer to coordinate the sample collection event. Do not be late for sample kit delivery and pick-up by water department staff.

There must be a minimum of 6 hours during which there is no water used from the tap the sample is taken from and any taps adjacent or close to that tap. The water department recommends that eat early mornings or evenings upon returning home are the best sampling times to ensure that the necessary stagnant water conditions exist.

A kitchen or bathroom cold-water faucet is to be used for sampling. If you have water softeners on your kitchen taps, collect your sample from the bathroom tap that is not attached to a water softener if possible. Do not remove the aerator prior to sampling. Place the opened sample bottle below the faucet and gently open the cold water tap. Fill the sample bottle to the line marked "1000-mL" and turn off the water.

Tightly cap the sample bottle and place in the sample kit provided. Please review the sample kit label at this time to ensure that all information contained on the label is correct.

IF ANY PLUMBING REPAIRS OR REPLACEMENT HAS BEEN DONE IN THE HOME SINCE THE PREVIOUS SAMPLING EVENT, NOTE THIS INFORMATION ON THE LABEL AS PROVIDED. ALSO IF YOUR SAMPLE WAS COLLECTED FROM A TAP WITH A WATER SOFTENER, NOTE THIS AS WELL.

Place the sample kit outside of the residence in the location of the kit's delivery so that department staff may pick up the sample kit.

Results from this monitoring effort will be provided to participating customers when reports are generated for the State. However, if excessive lead and/or copper levels are found, immediate notification will be provided (usually 10 working days from the time of sample collection).

_____ at _____ if you have any questions regarding these instructions

TO BE COMPLETED BY RESIDENT

Tap was last used: Time _____ Date _____

Sample was collected: Time _____ Date _____

I have read the above directions and have taken a tap sample in accordance with these directions.

Signature _____ Date _____

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From Lead and Copper Rule Guidance

Asks

- Used regular kitchen/BR?
- Stagnation time?
- Plumbing repairs done?
- Water softeners used?
- Gives you the information you need to not submit.

Really—June to September

- Warmer water is more corrosive
- We've been telling water systems to collect in the correct time for years
- Systems will need to sample at right time
 - Violations
 - Required in the following year
- Recommend sampling June to August for flexibility

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Treatment Monitoring



Monitoring After Treatment Installed

➔ Lead and Copper Tap Samples

Must meet action level in two consecutive six-month sets

➔ Water Quality Parameters

Entry Points (At least every two weeks)

pH; Alkalinity (if adjusted); Inhibitor concentration (if used); Chemical Dosage (if used)

Distribution Sites (Quarterly)

pH; Alkalinity; Inhibitor concentration (if used)

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Optimal Water Quality Parameters (OWQPs)

ODW has to set OWQPs

- Set pH minimum or range at **each** entry
- Set minimum distribution pH. Must be ≥ 7.0
- Set alkalinity minimum or range of concentrations at each entry and in distribution, if adjusted
- Set minimum or range of concentrations for the inhibitor at entry and in distribution, if adjusted

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How Do We Set Them?

- Use water quality data collected at the same time as lead and copper tap samples
- Water system submits recommendation for OWQPs
- Base on targets from the design



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What is Done With OWQPs?

- Water systems are required to maintain corrosion control treatment
- Large systems (>50,000) or small and medium systems that exceed an action level and have treatment must collect WQPs (entry and distribution)
- If the system does not meet the OWQPs for more than nine days in any six-month period, it's TTV

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Nine Days?

- You must meet your OWQPs 95 percent of the time (or have no more than nine excursions within a six-month period)
- You have an excursion if from the time you collect the sample that doesn't meet the OWQPs and the next sample day

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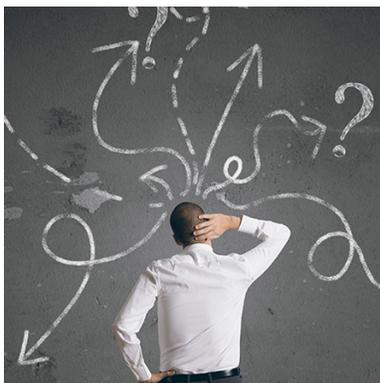
Example

- Entry Point—OWQPs minimum pH 7.3

Date	pH
1/1/2019	7.3
1/14/2019	7.2
1/15/2019	7.1
1/16/2019	7.3
1/20/2019	7.1
1/24/2019	7.2
1/30/2019	7.3

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What Else Should I Know



Any New or Change in Source or Treatment

- Systems required to notify us ahead of time
- Evaluate the potential for increased lead and copper at customer's taps

Project Reports Must Include Evaluations

➔ Base Line WQP

Know entry point and distribution system

- pH
- Alkalinity
- ORP
- Chlorine Residual
- Inorganics (Fe, Mn, Al, Cl, SO₄)

➔ How does it affect?

New Source

- Compare to new sources WQP to the base line

New or Change in Treatment

- How does the treatment affect WQP—decrease in pH, ORP
- Change in coagulant—look at CSMR

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Evaluations and Recommendations

No action or monitoring

Install CCT

Move up Annual Sampling

Assigned back to standard monitoring

Collect WQP

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Questions?

