



Protecting PUBLIC HEALTH and the ENVIRONMENT

AWWU protecting public health by providing safe drinking water

The Anchorage Water & Wastewater Utility is committed to safeguarding public health by ensuring that each public drinking water system meets compliance requirements for the Safe Drinking Water Act. Part of that commitment is to ensure federal and state health based standards are met for potential contaminants. The Environmental Protection Agency (EPA) develops regulatory rules that are adopted by authorized states to ensure compliance with the Safe Drinking Water Act. Specific monitoring schedules and state reporting of contaminants are required to demonstrate compliance with regulatory rules to assure that drinking water standards are being met to protect public health. While contaminants in our drinking water are typically well below and routinely meet national health standards, continuous monitoring allows utility managers to take action to prevent or remove the contaminants, and notify consumers.

How drinking water is regulated to protect public health

The EPA is authorized to set national standards to protect public health from natural and man-made contaminants in public drinking water systems. Through drinking water rules, EPA determines which chemicals and unregulated contaminants have a significant health risk and develop regulations to protect public health. Drinking water rules are adopted and implemented through the Environmental Health Division of the Alaska Department of Environmental Conservation (ADEC). Periodically these regulations are revised based on data collected from public water systems.

What are the drinking water requirements for the Municipality of Anchorage?

EPA regulates over 90 drinking water contaminants and enforces Drinking Water Standards. Laboratories must follow federally approved methods, perform routine monitoring, and report drinking water data to the ADEC. Certified results confirms that drinking water results are consistently below the legal and enforceable EPA National Primary Standards to protect human health. EPA regulates drinking water requirements by groups:

Chemical	Microbial	Unregulated (UCMR 4)	Right-To-Know
Arsenic	E.Coli	10 Cyanotoxins	Consumer Confidence
Lead and Copper	Enterococci	2 Metals	Public Notification
Radionuclides	Coliphage	2 Indicator contaminants	
Inorganics	Giardia, Cryptosporidium, viruses, Legionella	8 Pesticides + 1 Manufacture byproduct	
Volatile Organics	Disinfection byproducts	3 Brominated Haloacetic Acids	
Synthetic Organics	Total Coliforms	3 Alcohols	
Nitrates		3 Semivolatiles	

AWWU monitoring programs to comply with the Safe Drinking Water Act

Chemical Contaminants to evaluate concentrations in drinking water

- **Arsenic Rule**

Public health is protected by monitoring naturally occurring concentrations of arsenic entering drinking water supplies from natural deposits associated with ground water.

- **Chemical Contaminant Rules**

Over 65 contaminants (Inorganic Contaminants, Volatile Organic Contaminants, and Synthetic Organic Contaminants) are required to be monitored by the public water system to protect public health from chronic or long-term health risks. Maximum Contaminant Level Goals (MCLG) are established to which there is no adverse health effect and are non-enforceable. Maximum Contaminant Levels (MCL) are enforceable primary standards with a health risk, set as close as possible to the MCLG. The Anchorage Water and Wastewater Utility contaminant data is typically well below Maximum Contaminant Levels.

- **Lead and Copper Rule**

The rule uses a treatment technique that requires systems to monitor drinking water from the consumer's tap. Action Levels are established that require the system to inform the public to protect human health and may result further mitigation action by the Utility.

- **Radionuclides Rule**

Monitoring reduces human health risk from radioactive exposure to all radionuclides. Major sources are a result of natural or man-made deposits.

- **Variance and Exemptions Rule**

The EPA and states have the authority to grant variances and exemptions to assist eligible public water systems to achieve compliance with maximum contaminant levels.

- **Nitrate and Nitrites**

These are the only acute inorganic contaminants monitored in drinking water occurring from organic and inorganic sources.

Microbial Contaminants to identify if potential pathogens may be present

- **Groundwater Rule**

This rule improves the drinking water quality and provides protection from disease causing microorganisms for systems that have ground water sources.

- **Stage1 and Stage 2 Disinfectant/Disinfection Byproducts Rule**

The DBP rule improves public health protection by limiting the exposure to the formation of contaminants using disinfection to control byproducts formed from naturally occurring organics.

- **Surface Water Treatment Rules**

The purpose is to reduce the risk of illness due to pathogens in the drinking water. Surface water systems are required to provide filtration and disinfection that results in public protection from microbial pathogens and minimizes the formation of disinfection byproducts.

- **Total and Revised Total Coliform Rule**

Total Coliform bacteria, while not harmful to human health, are indicators of potential pathogens in drinking water. This monitoring determines the adequacy of treatment and integrity of the distribution system.

Unregulated Contaminants to assess other potential health risks

- **Unregulated contaminant monitoring**

The EPA requires contaminant data to be collected that are suspected to be present in drinking water and do not have health standards. Under the Unregulated Contaminant Rule, the EPA is required to issue up to 30 unregulated contaminants every five years which most public water systems must monitor.

- **Contaminant Candidate List**

The EPA collects information from public water supplies on unregulated chemicals and microbiological contaminants, determines which compounds to regulate, and makes a determination to regulate these compounds based on occurrence and adverse health risks.

Right-to-Know requirements to inform our customers

- **Consumer Confidence Report (CCR)**

Commonly referred to as the Water Quality Report, the EPA requires community water systems to provide annual water quality data to consumers about their drinking water quality. The CCR contains information on drinking water sources and contaminant levels from routine compliance monitoring.

- **Public Notification Rule**

This rule requires public water systems to notify regulatory officials and consumers if there is monitoring data that suggests a public health risk. The rule requires customers to be notified if: drinking water standards are not met, water systems fail to perform required monitoring, or if variances or exemptions are issued to comply with regulations.

Lab testing to safe guard the public health and welfare

AWWU performs weekly testing for microbiological contaminants at established sampling points throughout the Anchorage and Girdwood public water distribution systems. Each year AWWU performs more than 2500 bacterial tests throughout the Anchorage and Girdwood. Each year, AWWU monitors all active water supplies for primary and secondary inorganic contaminants, volatile organic contaminants, and many other contaminants that have the potential to adversely affect the health and aesthetic qualities of finished drinking water. In addition to the routine sampling and testing, there are also thousands of quality measurements made automatically through plant instrumentation and manually in the water treatment plant labs by operations personnel to ensure efficiency and regulatory compliance of the treatment processes and a consistent quality of finished water.

For more information contact:

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Anchorage Water & Wastewater Utility



Clearly Committed

