



# Seward Marine Industrial Center (SMIC) Water Quality Report

Public Water Supply ID 244159

June 2024

## **Why do we produce this Report?**

The Alaska Department of Environmental Conservation (DEC) and Environmental Protection Agency (EPA) require us to provide to our customers annual water quality reports, also known as consumer confidence reports (CCRs). Seward has two public water sources: the Seward Marine Industrial Center (SMIC) and City water systems. This report is based on testing SMIC water during calendar year 2023 unless otherwise noted.

## **Compliance Record**

We vigilantly safeguard our water supplies, treatment and distribution and are pleased to report that in 2023 SMIC water met DEC and EPA drinking water standards.

## **Where does my water come from?**

The sources of SMIC water are two deep groundwater wells northeast of the prison, fed from the Fourth of July Creek aquifer. This water is minimally treated because of its great natural quality.

## **How is water contaminated?**

Typical sources of water are wells, streams, springs, rivers and lakes. As water travels through the ground or over land, it dissolves naturally-occurring minerals and, in some cases, radioactive materials. It can also pick up substances from animal or human activity. These are often considered to be contaminants:

- **Microorganisms:** Bacteria, protozoa, some fungi and algae, rotifers, and other tiny organisms. Sometimes viruses are also classified as microorganisms.
- **Inorganics:** Minerals, often salts and metals, that can be naturally-occurring or come from stormwater runoff, industrial or domestic discharges, oil and gas production, mining and farming.
- **Organics:** Carbon-containing compounds, such as sewage, stormwater runoff, by-products of industrial processes, and hydrocarbons, including synthetic and volatile organic compounds (SOCs and VOCs).
- **Pesticides and Herbicides:** These may come from fertilized lawns, agriculture, and stormwater runoff.
- **Radionuclides:** Radioactive material can be naturally-occurring or be from oil, gas and mining activities.
- **Lead and Copper:** Elevated levels of lead can cause high blood pressure in adults and delay development in children. Pregnant women and young children are especially vulnerable. Long-term exposure to high levels of copper can cause gastrointestinal distress, potentially leading to liver and kidney damage. These metals are primarily from service lines and home plumbing that are the responsibility of our customers. You can minimize exposure to lead and copper by flushing your tap for 30 to 60 seconds before using water for drinking or cooking.

## **Surveys and Additional Testing**

DEC requires us to demonstrate water quality, proper equipment function and safety. An on-site sanitary survey on October 5, 2022 noted minor deficiencies with equipment that were corrected. The next survey is due in 2025. We provide corrosion protection for our water storage tanks and monitor this regularly. We also spot check for lead and copper at selected service locations every 3 years, most recently in 2023. The next tests will be in 2026. Because of watershed protection and our groundwater's high quality, in December 2021 DEC approved Seward's application for a synthetic organic contaminant monitoring waiver for 2020-2022. Seward has applied for an extension for 2023-2025 and is expecting DEC's approval. More information is available from Public Works at <https://www.cityofseward.us/departments/public-works>. You may wish to have your own water tested. Other information, including testing methods and steps to minimize exposure, is available online at [www.epa.gov/safewater](http://www.epa.gov/safewater).

## **Do I need to take special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer undergoing chemotherapy, with organ transplants, HIV/AIDS or other immune system disorders, some elderly and infants can be at higher risk for infections. These people may want advice from health care providers, Centers for Disease Control (CDC), or the EPA at its Safe Drinking Water Hotline at (800) 426-4791.



Analyte <sup>1</sup>	Sample Date <sup>2</sup>	Violation Y/N	Level Detected	MCLG	MCL	Likely Source of Contamination
Copper	8/28 to 9/25/23	N	ND to 1.2 ppm <sup>3</sup>	1.3 ppm	AL=1.3 ppm	Corrosion of service plumbing; erosion of natural deposits.
Lead	8/28 to 9/25/23	N	ND to 3.4 ppb <sup>3</sup>	0	AL=15 ppb	Corrosion of service plumbing; erosion of natural deposits.
Arsenic	4/14/20	N	ND	0	10 ppb	Erosion of natural deposits.
Barium	4/14/20	N	0.007 ppm <sup>4</sup>	2 ppm	2 ppm	Erosion of natural deposits.
Total Coliform	Regularly in 2023	N	ND	0	1	An indicator naturally present in the environment.
Nitrate/Nitrite	12/21/23	N	0.35 ppm <sup>4</sup>	10 ppm	10 ppm	Fertilizer runoff; septic tank effluent, sewage and manure; erosion of natural deposits.
Total Trihalomethanes	7/26/23	N	4.2 ppb <sup>3</sup>	0	80 ppb	By-product of drinking water disinfection.
Haloacetic Acids	7/26/23	N	5.4 ppb <sup>3</sup>	0	60 ppb	By-product of drinking water disinfection.
Volatile Organic Compounds	12/21/23	N	ND <sup>5</sup>	0	Varies	Hydrocarbon contamination.
Gross Alpha Emitters	12/19/16	N	0.60 pCi/L	0	15 pCi/L	Erosion of natural deposits.
Combined Radium	12/19/16	N	0.06 pCi/L	0	5 pCi/L	Erosion of natural deposits.

Notes: 1) This table lists what DEC and EPA require the City to report; 2) Unless otherwise noted, the data are from testing during 2023, but some testing is less frequent than once per year; 3) From sampling at customer locations, not the treated water sources; 4) Average result from separate samples from Wells A and B.

**Terms and Definitions**

**Action Level (AL):** The concentration of a contaminant which, when exceeded, triggers treatment or other requirements a water system must meet.

**Maximum Contaminant Level (MCL):** The highest level of contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. Addition of a disinfectant reduces and controls microbial contamination.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of disinfectants to control microbial contamination.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**ND:** Not detected

**ppm:** Parts per million, or milligrams per liter

**ppb:** Parts per billion, or micrograms per liter

**pCi/L:** Picocuries per liter.

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