

Nome Joint Utility System is pleased to present to you this year's Annual Water Quality Report. It is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Our water source is the Moonlight Springs aquifer which is classified as a ground water source. Water to the community is provided by three artesian wells located north of the Nome-Beltz High School at the base of Anvil Mountain. These wells are capable of adequately supplying Nome's year-round water needs. The infiltration gallery previously used is no longer connected to our distribution system; however, this could be reactivated in the event of an emergency and is available to provide an additional source of fire fighting water to the facilities in the vicinity of the high school.

### THIS REPORT SHOWS OUR WATER QUALITY AND WHAT IT MEANS.

Nome Joint Utility System routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period January 1 to December 31, 2011. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk.

TEST RESULTS							
Contaminant	Violation Y/N	Level Detected	Unit of Measurement	MCLG	MCL	Year Tested	Likely source of contamination
<b>Inorganic Chemicals</b>							
Arsenic	N	0.4300	ppb	0	10	2008	Erosion of natural deposits; runoff from production wastes
Copper	N	120	ppb	1300	AL=1300	2011	Corrosion of household plumbing systems; erosion of natural deposits
Lead	N	4.53	ppb	0	AL=15	2011	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate [measured as Nitrogen]	N	.201	ppm	10	10	2011	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Radionuclides</b>							
Alpha Particles	N	1.7	pCi/L	N/A	15	2007	Erosion of natural deposits
Combined Uranium	N	0.4	ppb	N/A	30	2007	Erosion of natural deposits
Radium 226	N	0.18	pCi/L	N/A	5	2007	Erosion of natural deposits
Radium 228	N	0.7	pCi/L	N/A	5	2007	Erosion of natural deposits
<b>Disinfection Byproducts</b>							
TTHM	N	<MRL	ppb	N/A	80	2011	Disinfection Byproducts
HAA5	N	0.00	ppb	N/A	60	2011	Disinfection Byproducts

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

#### DEFINITIONS:

**Non-Detects (ND)** - laboratory analysis indicates that the constituent is not present.

**Parts per million (ppm)** or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (ppb)** or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.

**Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

**Maximum Contaminant Level (MCL)** - The 'Maximum Allowed' (MCL) is the highest level of a contaminant that is 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 'Goal' (MCLG) is 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 a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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

**Method Reporting Limits (MRL)**- the lowest concentration that can be reliably reported under current laboratory operating conditions.

### **SOURCE WATER ASSESSMENT AND ITS AVAILABILITY:**

Source water assessments have been completed by the ADEC as a first step toward voluntary local source water protection efforts. Vulnerability rankings are assigned based on the susceptibility of the drinking water source, recent sampling results and the presence of potential contaminant sources — they do not necessarily indicate these contaminants will reach your source of water. Nome Water System has received the following vulnerability rankings: "low" and the aquifer received a susceptibility rating of "medium". Combining these scores produces a natural susceptibility of "low" for the source. In addition, this water system has received a vulnerability rating of "low" for bacteria/viruses, "medium" for nitrates/nitrites, "medium" for volatile organic chemicals, "low" for heavy metals, "low" for other organic chemicals, and "low" for synthetic organic chemicals. Completed source water assessments are available at ADEC's Drinking Water Protection Program, 555 Cordova St, Anchorage, AK; or the Alaska Resources Library and Information Services, 3150 C St, Anchorage, AK. For more information, call the Drinking Water Protection Program at 907-269-7521.

### **HEALTH EFFECTS:**

\*\*\*\*NONE\*\*\*\*

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the EPA's Safe Drinking Water Hotline (800-426-4791). The Hotline can also provide more information about contaminants and potential health effects.

#### Additional Information for Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Fox Watering Point is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### **VIOLATIONS:**

**Violation 1.** *NJUS is required to perform a Sanitary Survey every three years. NJUS is a member of the Alaska Rural Water Association, and among other assistance to its membership, ARWA performs sanitary surveys. Due to scheduling conflicts with the ARWA surveyor, the survey was not done in 2011. The survey was subsequently completed and compliance achieved in June 2012.*

**Violations 2 and 3.** *NJUS received two violations for failing to take required TCB and chlorine residual samples in February 2011. A blizzard and related safety hazard kept department personnel from accessing the sample site at the time. NJUS regularly samples the community's water to insure it is safe; prior and subsequent samples submitted confirmed our water quality.*

### **QUESTIONS:**

Please call our office if you have questions. We at Nome Joint Utility System work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water source, which is the heart of our community, our way of life and our children's future.

### **CONTACT INFORMATION:**

If you have any questions about this report or concerning your water utility, please contact Toby Schield, Superintendent of Field Operations (907-443-6330) or NJUS General Manager, John Handeland (907-443-6587).

We want our valued customers to be informed about their water utility. If you want to learn more, you may also attend any of the regularly scheduled Nome Joint Utility System Board meetings.

**Meeting Location:** Nome City Council Chambers  
**Meeting Time:** Third Tuesday of every month, 7:30 PM

***Providing reliable utility services to system rate payers efficiently and economically by prudently operating and maintaining system assets in a fiscally responsible manner***