



2002 & 2003 ANNUAL DRINKING WATER QUALITY REPORT

Nome Joint Utility System (NJUS) is pleased to present you with the 2002 and 2003 Annual Drinking Water Quality Report. This report is designed to inform you about the quality of drinking water and services we provide to you every day. It is our constant goal to provide you with a safe and dependable supply of drinking water. We want you to understand the effort we make to continually improve and protect our water resource as well as the water distribution and treatment and wastewater collection systems. We are committed to ensure the quality of your water.

Nome's water is safe. NJUS continues to make system improvements that will insure the water provided will meet or exceed the standards established for water quality.

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| NOME JOINT UTILITY SYSTEM |
| John K. Handeland General Manager/Chief Operating Officer |
| Toby M. Schield Water & Sewer Superintendent |
| State-Certified Water Treatment Operator: Jay H. Wieler |
| Water Treatment Operators enrolled in State Operator in Training Program: Carl O. Merchant Wesley S. Perkins David A. Antonsen-Csiki Toby M. Schield |
| Testing Laboratories: Norton Sound Regional Hospital Analytica, Inc. |
| NOME JOINT UTILITY BOARD: Berda J. Willson, Chair Fred H. Moody, Vice Chair Carl Emmons, Secretary Ronald Parker, Member Jim West, Jr., Member |

OUR WATER SOURCE

Nome has one source of water known as Moonlight Springs. Three artesian wells located north of the Nome-Beltz High School at the base of the southwest face of Anvil Mountain provide water to the community. Our water source is classified as a ground water source. The 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.

WATER TREATMENT

Nome's potable water is chlorinated to kill disease-causing organisms and fluoridated to promote dental health. Inadequately treated water may contain disease causing organisms such as bacteria, viruses, and parasites, that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Our water treatment facility is located to the west of the Nome-Beltz High School Apartment complex. At this location we monitor, disinfect and fluoridate the water before it is distributed to the high school system and the community of Nome.

WATER DISTRIBUTION SYSTEM

NJUS completed the replacement of the utilidor system in 2002 with a new, more reliable direct bury system. This project was made possible with funding assistance from the Alaska Department of Environmental Conservation and the U.S. Department of Agriculture Rural Utility Service. A significant reduction in water use has resulted with the replacement of leaking mains.

NJUS continues to regularly assess the water and sewer systems in the community and have identified system improvements and expansions required to insure the continued reliability and efficiency of the system. The Nome Joint Utility Board has adopted the 2004 Update to the Water & Sewer Master Plan which identifies necessary projects proposed for construction through 2010. (Please refer to the map printed on the back of this report.)

Other projects that will expand water and sewer service and fire protection to areas not served by the distribution system are nearing completion. NJUS entered into an agreement with the FAA which provided funding to install the sewer system to the north side of the airport. Additional funding through ADEC, USDA-RUS and US EDA was secured to install fire protection and water systems to the Port and Airport concurrently with the FAA project. The U.S. Air Force and Chevron/Crowley entered in to a Memorandum of Understanding with ADEC and NJUS to facilitate the construction of these systems adjacent to the old Air Force Tank Farm along Port Road.

NJUS remains committed to maintaining and operating our system as efficiently as possible. By implementing tighter monitoring procedures, making timely repairs and installing new energy saving equipment, water and electrical use have been reduced.

WATER TESTING RESULTS

Our state certified water treatment operators routinely monitor for contaminants in your drinking water in accordance with federal and state drinking water regulations. The State of Alaska and Environmental Protection Agency (EPA) limit the amount of certain contaminants in drinking water provided by public water systems in order to ensure that tap water is safe to drink. When appropriate, drinking water quality tests are performed by the certified water treatment plant operators. Most tests are performed by an independent, A.D.E.C. certified laboratory. The drinking water testing results, contained in this report, are gathered from a five-year period of testing.

All drinking water, including bottled water, may be expected to contain at least small amounts of some contaminants. Water is a universal solvent that naturally picks up material as it falls from the sky as rain or snow, and travels over or through the ground. Some of this water ends up as drinking water.

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in our source water include:

- A) Microbiological contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish for contaminants in bottled water which must provide the same protection for public health.

Inorganic Chemicals include heavy metals, fluoride and nitrate. Our water is no longer tested for asbestos since there is no asbestos water pipe in the distribution system. NJUS currently has A.D.E.C. testing waivers for Arsenic, Barium, Cadmium, Chromium, Mercury, Selenium, Antimony, Beryllium, Cyanide, Nickel, and Thallium.

Fluoride occurs naturally in Nome's water at about 0.2 mg/l. Additional fluoride is added to promote dental health. Less than 1 mg/l of Nitrate (as nitrogen) occurs naturally in Nome's water and is not a concern at this low level.

Lead and copper are from the corrosion of copper pipes, fittings, and old lead/tin solder inside houses and service lines. The Lead and Copper rule is based on 90% of the results being less than or equal to the action level which, if exceeded, would require additional water treatment or the addition of corrosion inhibiting chemicals to our water. Nome is currently under a reduced monitoring requirement for lead and copper because historically our test result sites have been 90% less than the maximum contaminant level (MCL). Compliance testing is scheduled once every three years, and was last completed in 1999 with 90% of the samples under the MCL for both lead and copper.

Volatile Organic Chemicals (VOC) are either disinfections residual byproducts such as total Trihalomethane (TTHM) that are formed when naturally occurring organics in the water are chlorinated or from contamination by petroleum and other products. Of the over 80 VOC's tested, TTHMs were the only VOC detected and were at levels much lower than the maximum contaminant level (MCL). They are not considered a health risk at these very low levels.

Synthetic/Other Organic Chemicals include pesticides and herbicides. Nome is a non-agricultural area and these chemicals are not used. As a result A.D.E.C. has granted Nome a testing waiver. This testing waiver saves Nome about \$6,000 annually in laboratory testing fees.

Radioactive Contaminates have never been detected in Nome's water.

VULNERABILITY

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as people 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 individuals should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate methods to lessen the risk of infection by Cryptosporidium are available from the EPA Safe Drinking Water Hotline (800-426-4791).

HOW TO READ THE TABLE

This report is based on tests conducted during 1996 through 2003 by NJUS. Terms used in the Water Quality Table and in other parts of this report are defined here.

Maximum Contaminant Level (MCL): 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 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; Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow; NTU=Nephelometric Turbidity Units; ppm=parts per million, or milligrams per liter (mg/L); ppb=parts per billion, or micrograms per liter (µg/L); TT=Treatment technique: a required process intended to reduce the level of a contaminant in drinking water

| NOME JOINT UTILITY SYSTEM Public Water SYSTEM ID #AK2340010 | | | | | | | |
|--|--------------------|------|--------|------|----------------|--|-----------|
| Contaminant | Date Tested | Unit | MCL | MCLG | Detected Level | Major Sources | Violation |
| Inorganic Barium | 3/7/02 | ppm | 2.0 | 0 | 0.013 | Erosion of natural deposits | NO |
| Lead – 2 | 10/25/02 | ppb | AL=15 | 0 | 15.0 | Corrosion of household plumbing systems and lead solder joints | NO |
| Nitrate–N | 3/7/02 9/22/03 | ppm | 10 | 10 | 0.13 0.00 | Erosion of natural deposits and decaying vegetation or Tundra | NO |
| Copper – 3 | 10/25/02 | ppm | AL=1.3 | 1.3 | 0.1345 | Corrosion of household plumbing and copper tubing | NO |
| Fluoride | 12/31/02 | ppm | 4.0 | 4.0 | 1.10 | Water additive which promotes strong teeth | NO |
| Volatile Organic Chemicals TTHMs | 6/10/02 9/22/03 | ppb | 100 | 0 | 1.93 0.00 | By-product of drinking water chlorination | NO |

EXPLANATION OF VIOLATIONS

NJUS chlorinates the water system in accordance with drinking water regulations and local ordinance. With the elimination of the utilidor system where water and sewer pipes were in close proximity to each other, it is highly unlikely that any cross-contamination can now occur. Chlorine disinfection levels dropped below the state standard on three occasions in 2002 and four times in 2003 as a result of equipment failure. As chlorine levels dropped below specified standards, these incidents are considered violations.

NJUS has automated alarm systems which immediately notify operators if chlorine levels drop below optimum levels. If the chlorine level drops below specifications (0.2mg/l), standard operating procedure is to collect water samples from the water distribution system to check for Total Coliform Bacteria. On each occurrence a sample was collected. All samples results confirmed the water was free of bacteria and the chlorine was restored to its optimum level in accordance with regulations.

A Consumer Confidence Report (CCR) was not distributed for 2002, which is considered a violation. Rather than publishing a 2002 report separately, ADEC approved the inclusion of 2002 testing data with this 2003 report. Previously published CCRs are available from NJUS and are also posted on the web.

QUESTIONS?

If you have any questions about this report or are interested in learning more about the drinking water system in Nome, you may contact the Water & Sewer Superintendent – 443-6330 or the Utility Manager’s Office – 443-NJUS. The Utility Board holds regularly scheduled meetings the third Tuesday of each month. The public is invited to direct any concerns not addressed by management to the Board. You may also call the Alaska Department of Environmental Conservation – Drinking Water Division in Fairbanks, AK (907-451-2179).

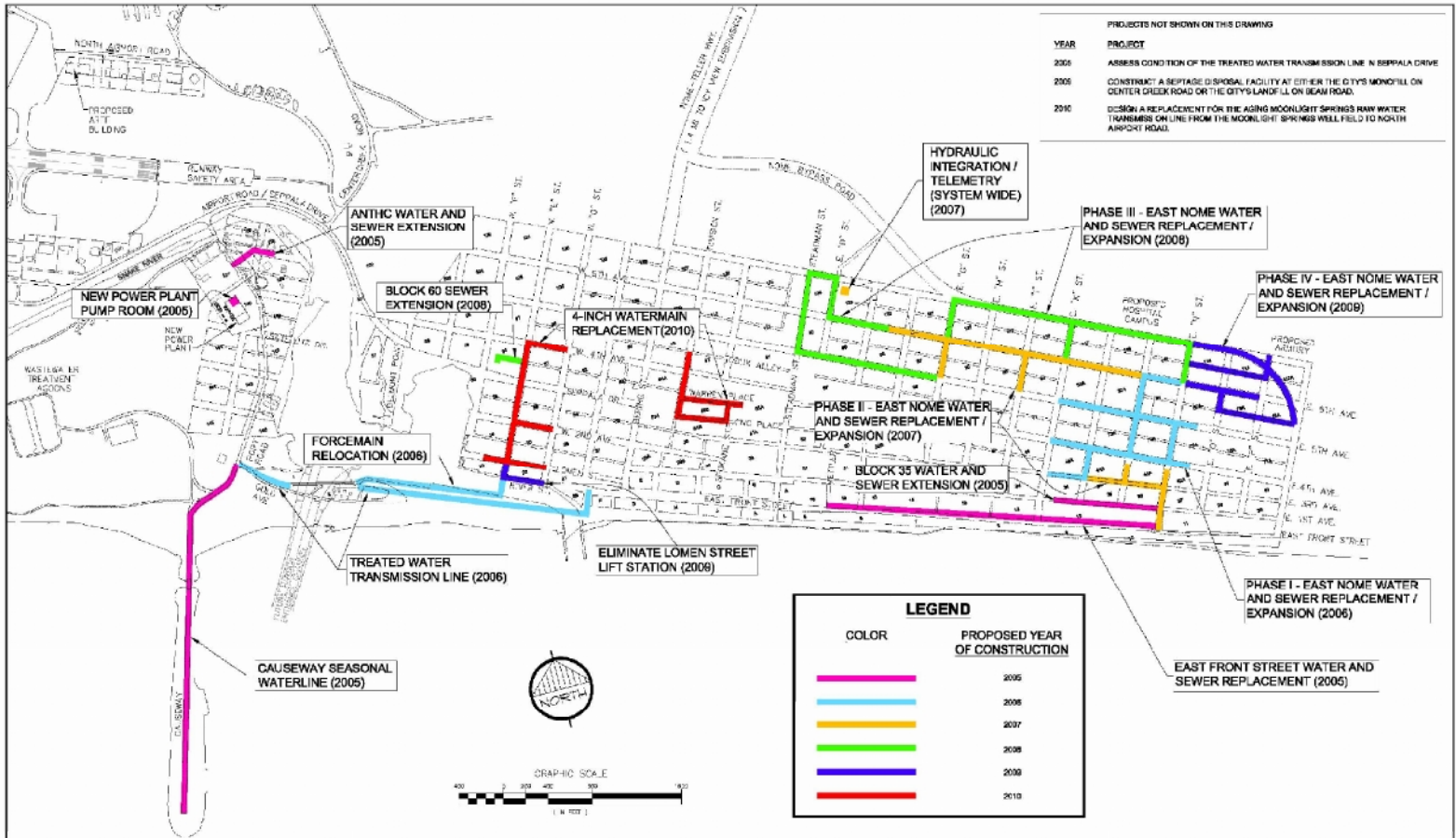
Providing reliable utility services to system rate payers efficiently and economically by prudently operating and maintaining system assets in a fiscally responsible manner

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2002 & 2003 Annual
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PROPOSED CAPITAL CONSTRUCTION PROJECTS BY YEAR
NOME 2004 WATER AND SEWER MASTER PLAN UPDATE

NOME, ALASKA

FIG. 1