

City of Skagway
Water Utility
#2110601



2021 Annual
Water Quality
Report

Prepared By:



2021 Annual Drinking Water Quality Report

This report is provided to inform you about the quality of your drinking water, and how it compares to national drinking water standards.

Please take a moment to review this important information.

Common Drinking Water Impurities

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the land or underground, it can pick up substances or impurities such as microbes, inorganic and organic chemicals, dissolved minerals and radioactive substances. Impurities can result from natural causes or human and animal activity, and can be located some distance from the affected water supply. Impurities that may be present in drinking water include:

Microbial contaminants, such as viruses and bacteria, which may come from wildlife, livestock, or septic systems.

Organic Chemicals, including synthetic and volatile organic chemicals which can originate in petroleum products, industrial byproducts, urban run off and septic systems.

Radioactive contaminants which can be naturally occurring or can result from mining, or oil and gas production.

Pesticides and herbicides, which can come from agricultural activity, residential usage, and urban runoff.

Inorganic impurities, such as salts and metals, which can come from natural sources, mining, farming, wastewater discharges, oil and gas production and urban runoff.

All drinking water, including the best bottled water, may be reasonably expected to contain at least small amounts of some impurities. However, the presence of these impurities does not necessarily indicate the water is a health risk. More information about impurities and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline (800-426-4791).

Water Quality Testing

Because of the numerous potential sources and varieties of impurities, state and federal law mandates the routine testing for all impurities (over 80) known to pose a risk to public health. Some impurities can affect water sources quickly and others are not expected to vary significantly from year to year. Thus, testing schedules also vary from monthly to once every nine years, depending on risk and the impurity tested. Your water system is routinely monitored for all applicable hazardous impurities. However, of those impurities, only those detected in routine testing are listed in the Table of Detected Impurities of this report.

Lead: A Contaminant You Can Control

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. Your water service provider is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When a tap has been unused for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 sec. to 2 min. 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 at www.epa.gov/safewater/lead.

Source Water

Skagway water system is supplied by 4 wells tapping a confined underground aquifer. To ensure Skagway's water supply remains safe and reliable, Skagway water source and distribution system is routinely maintained and tested by the Municipality of Skagway Water Dept. Source waters for Skagway are high quality ground waters and are delivered untreated.

Vulnerable Populations

Some people may be more vulnerable to impurities 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 Safe Drinking Water Hotline (800-426-4791).

Waivers

To eliminate unnecessary testing expense, Skagway Water Utility has applied for and received testing waivers for asbestos (no asbestos piping in system) and pesticides and other organic chemicals (no applicable potential source is found in the collection area). These waivers must be reviewed and renewed periodically at which time any change in impurity sources or new science is applied in the approval process.



Coliform Bacteria

Of all potential impurities, drinking water is most vulnerable to bacteria. The presence of coliform bacteria has been proven to be a reliable indicator of bacterial and viral contamination, and as a result, your water is typically tested for coliform bacteria twice a month.



Synthetic and Other Organic Chemicals

For many years, MOS has operated under a testing waiver for Synthetic and Other Organic Chemicals (SOC) testing due to the lack of known sources of contamination. In 2012, MOS decided SOC testing should be performed to positively demonstrate the appropriateness of operation under the SOC waiver. Tests were performed to measure twenty five different Synthetic and Other Organics, and all twenty five tests indicated non-detectable levels. These test results give MOS great confidence that continued use of the SOC waiver is the appropriate choice.

System Maintenance

Skagway Water Utility water source and distribution system is routinely maintained and tested by the Skagway Department of Public Works.



Filters

Although your water is rigorously tested to assure it's safety, it may have aesthetic qualities you find objectionable such as iron, manganese, calcium, or sulfur smell. If you choose to filter, here are some tips to consider.

Filter Maintenance

Many homes have cartridge style water filters installed either under the kitchen sink or large whole house filters installed where the water enters the house. **These filters can be a source of harmful bacteria if they are not regularly maintained.** As a general rule, filter cartridges should be replaced every 6 months although individual manufacturers specifications may vary. Symptoms of a plugged filter may be dirty water, unpleasant odor, or low pressure.

Filter Selection

Improper media selection can cause poor results.

- For mineral removal such as iron, calcium and manganese, water softening, RO, or green sand filtration is recommended.
- For taste and odor associated with chlorine and sulfur (rotten eggs), use carbon cartridge media.
- For fine particle removal, 5-10 micron cartridge media is best.
- Because of high maintenance costs, 1 micron cartridges are only recommended when contamination from surface runoff is suspected. Skagway's aquifer is adequately protected from surface contamination and 1 micron filters are not advised.

CAUTION: If a filter, including softeners, is not in use, it should be bypassed to prevent bacterial growth from contaminating your drinking water.

System Protection

Although Skagway Water Utility personnel strive to adequately protect your water source and distribution system, you, the customer, also play a vital role in system protection.:

- Properly dispose of hazardous waste.
- Support environmentally sound programs in our community and state.
- Report suspicious activity around your drinking water system installations.

Lead and Copper

The Lead and Copper rule requires water to be tested for its ability to cause lead and copper to leach from your home's plumbing. To be in compliance with the Lead and Copper Rule, 90% of the results must be less than or equal to the action level. The testing sites were chosen as the most likely to show impurities based on the age of their plumbing.



Did You Know?

Each Year, Skagway's Water Utility spends thousands of dollars on water testing to ensure your water is safe to drink. Only the impurities that are detected are reported in this report but hundreds of other potential contaminants are routinely tested for and remain undetected. Skagway's Water Utility is committed to providing the purest water possible.

Questions or Emergencies?

If you have any questions, need to report an emergency, the department management is pleased to assist you.



Office hours are 7:00-4:00 Mon-Fri. Tel: (907)-983-2071
24 Hour Emergency response is available at (907)-612-0045 or (907)-612-0051.

Definitions and Terms

MCLG (Maximum Contaminant Level Goal) The level of contamination below which there is no known or expected health risk.

MCL (Maximum Contaminant Level) The highest level of contamination allowable in drinking water.

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

ppb (Parts Per Billion) This measure corresponds to one penny in \$10,000,000 or one minute in 2000 years.

pCi/L (Picocuries Per Liter) This is a measurement of radiation per liter of water. To get a sense of scale, a standard sized banana contains around 520 picocuries of radiation.

Total Coliform Violations

Positive Coliform samples were taken in June. Low usage due to lack of seasonal employees is the suspected cause.

Positive Coliform samples were also taken in October. The disinfection schedule for one of the redwood storage tanks was found to be the culprit.

Regular flushing of lines, more frequent disinfection of the water storage tanks, as well as investigating the installation of a liner on the wooden storage tanks will be completed to prevent further positive samples.

In addition to the positive samples, the system was required to take an additional 8 total coliform samples per month during the months of July, August and September 2021 due to an increase in population from cruise ships. These extra samples were not required in 2020 and at the start of 2021 due to COVID-19 restrictions preventing cruise ships from operating. However the increased sampling was not resumed after the restrictions were lifted and cruise ships began docking again in July of 2021. The system has since returned to compliance and will ensure the proper sampling schedule is maintained in 2022.

TABLE OF DETECTED IMPURITIES

| Impurity | Sample Date | Level Detected | MCL | MCLG | Likely Source | Violation |
|--------------------------------|--------------|-------------------------------------|-------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Total Coliform | June 2021 | 3 Positive Samples | 1 Positive Sample | 0 Positive Samples | Coliforms are naturally present in the environment; as well as feces; fecal coliforms and <i>E. coli</i> only come from human and animal fecal waste. | Y |
| Total Coliform | October 2021 | 4 Positive Samples | 1 Positive Sample | 0 Positive Samples | Coliforms are naturally present in the environment; as well as feces; fecal coliforms and <i>E. coli</i> only come from human and animal fecal waste. | Y |
| Barium (Well #4 only) | 2019 | 61.0 ppb | 2000 ppb | 2000 ppb | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits | N |
| Fluoride (Well #4 only) | 2019 | 340 ppb | 4000 ppb | 4000 ppb | Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories | N |
| Nitrate | 2021 | Avg: 385 ppb Range: 340 - 430ppb | 10,000 ppb | 10,000 ppb | Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits. | N |
| Lead | 2020 | 1.7 ppb | AL=15 ppb | 0 | Corrosion of household plumbing, erosion of natural deposits. | N |
| Copper | 2020 | 400 ppb | AL=1300 ppb | 1300 ppb | Corrosion of household plumbing, erosion of natural deposits. | N |
| Alpha Emitters (Well #4 only) | 2018 | Avg: 1.6 pCi/L Range: 0.0 - 3.4 | 15 pCi/L | 0 pCi/L | Erosion of natural deposits | N |
| Combined Radium (Well #4 only) | 2018 | Avg: 0.4 pCi/L Range: 0.0 - 1.6 | 5 pCi/L | 0 pCi/L | Erosion of natural deposits | N |