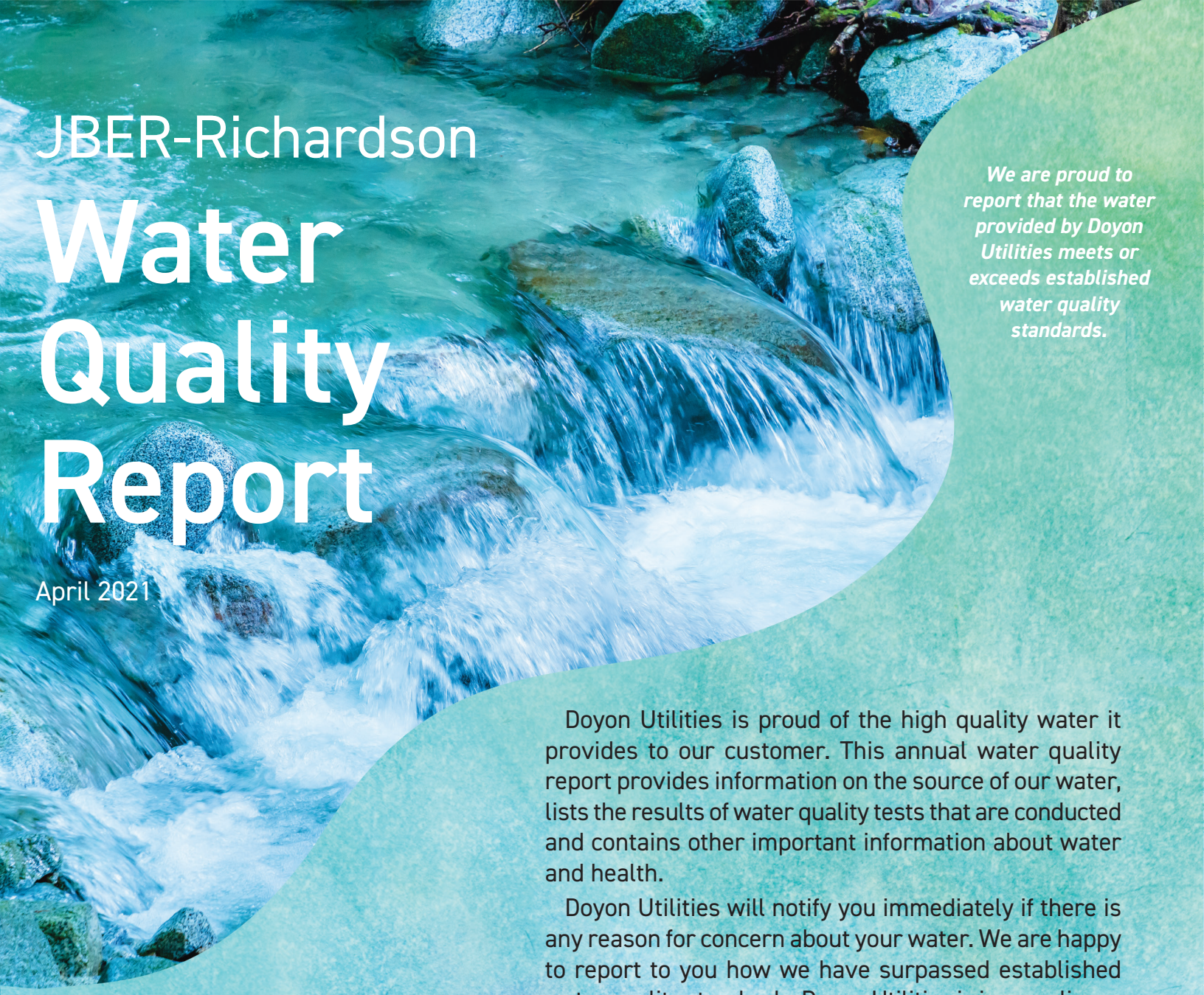


JBER-Richardson

Water Quality Report

April 2021

We are proud to report that the water provided by Doyon Utilities meets or exceeds established water quality standards.

Doyon Utilities is proud of the high quality water it provides to our customer. This annual water quality report provides information on the source of our water, lists the results of water quality tests that are conducted and contains other important information about water and health.

Doyon Utilities will notify you immediately if there is any reason for concern about your water. We are happy to report to you how we have surpassed established water quality standards. Doyon Utilities is in compliance with the national primary drinking water regulations and has met all testing and monitoring requirements. The EPA has determined that your water is safe at the tested and monitored levels. We have included a table inside outlining the tests conducted and the results of those tests.

Doyon Utilities Drinking Water Mission

Doyon Utilities has prepared the following report to provide information to you, the consumer, on the quality of our drinking water for 2020. Our mission is to provide reliable utility services to our valued military customers to support them in their mission to protect the security of our nation. This report has been prepared as part of state and federal requirements to inform the consumer as mandated by the Safe Drinking Water Act. However, we welcome this opportunity to inform residents and business owners about our high-water quality and hope that consumers will contact Doyon Utilities' office on JBER-R with any questions or concerns regarding water quality and service.

DOYON UTILITIES LLC
www.doyonutilities.com
Office: 907-338-3600
Public Water System
ID# 2212039

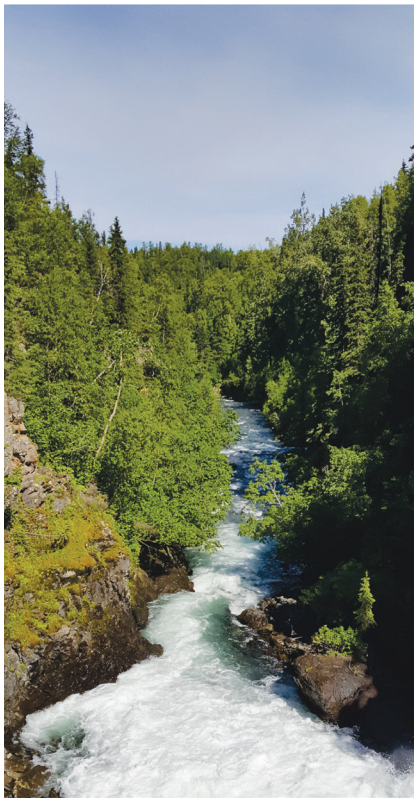
Where does our water come from?

JBER's drinking water is obtained from surface-water drainage and three local wells on JBER.

Large debris is removed from the raw surface-water prior to it entering the treatment plant where it undergoes several conventional water treatment processes.

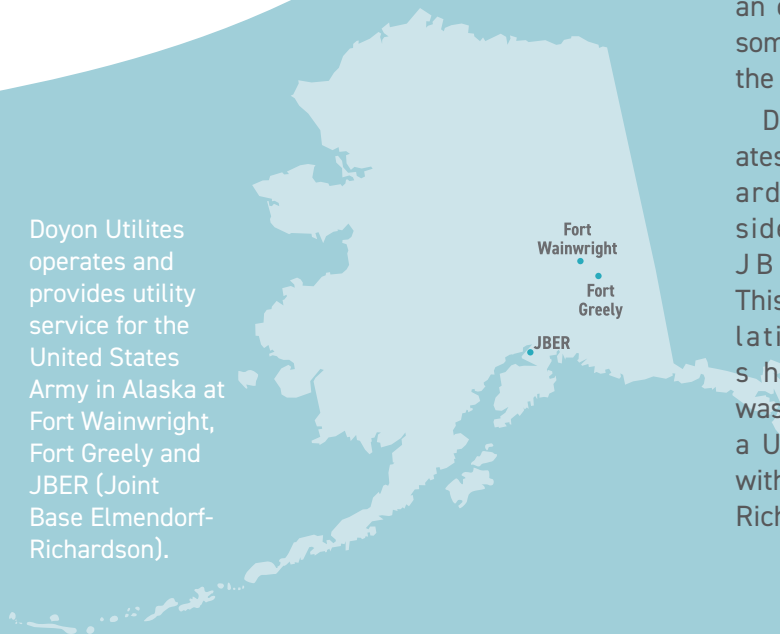
The plant is designed to produce seven million gallons of water per day. During 2020, Doyon Utilities produced over 1 billion gallons of water, making us one of the largest water producers in the state!

All of our treatment processes are controlled and monitored by an interconnected set of computers.



Upper Ship Creek provides the drinking water for the JBER water system.

Because groundwater is a very high quality source of raw water, the only treatment necessary is disinfection. Each well is equipped with its own in-line chlorination equipment to ensure that water enters the distribution system free from any microbial contamination. The finished water is tested several times a day to ensure that pH, chlorine residuals, and fluoride are at appropriate levels.



Doyon Utilites operates and provides utility service for the United States Army in Alaska at Fort Wainwright, Fort Greely and JBER (Joint Base Elmendorf-Richardson).

Source Water Assessment

A Source Water Assessment has been completed for all of the JBER-Richardson's drinking water sources.

These include the waters of Ship Creek and three ground water wells located on JBER-R. The overall vulnerability for Ship Creek to become contaminated is medium for bacteria and viruses, nitrates and/or nitrites, heavy metals, volatile organic chemicals, synthetic organic chemicals, and other organic chemicals. The overall vulnerability for Wells No. 1, 2 and 3 to become contaminated is medium for synthetic organic chemicals, and low for bacteria, viruses nitrates and/or nitrites, heavy metals, volatile organic chemicals, cyanide, and other organic chemicals.

The assessment of contaminant risks for these water sources can be used as a foundation for local voluntary protection efforts, as well as, a basis for the continuous efforts on the parts of Doyon Utilities and JBER-Richardson to protect public health. It is anticipated that Source Water Assessments will be updated every five years to reflect any change in the vulnerability or susceptibility of these drinking water sources.

DOYON UTILITIES LLC

Who are we

There are two Public Water Systems on JBER, JBER-Richardson and JBER-Elmendorf. This report is for the JBER-Richardson water system only. A report for JBER Elmendorf will be published separately.

This report provides details of water quality but just as importantly, it allows Doyon Utilities an opportunity to let you know some of the work going on behind the scenes.

Doyon Utilities owns and operates utilities located on the Richardson side of JBER. This relationship was initially established through a Utility Privatization Contract with the Army at the former Ft. Richardson and later expanded due to the joint basing action that consolidated Ft. Richardson and Elmendorf AFB to become JBER. As the water purveyor on the Richardson side, Doyon manages the water plant and distribution lines, while conducting a myriad of bacteriological and chemical tests to ensure all quality standards are met.

To ensure long term reliability of the water source, we have conducted assessment studies to determine areas where we need to focus our resources. Our water treatment plant received continuous oversight of the drinking water it produced. The quality of water you drink is superb, and our standards will not be compromised.

> The results from our 2020 water quality tests are included in this report. The results of which indicate that your water meets or exceeds the state and federal drinking water requirements.

continued next page

Who are we continued

Testing results from 2020 are included in this report and from the data, you can be confident that the dedicated staff of highly qualified and state-certified professional water treatment operators will protect the integrity and quality of your drinking water.

We are proud to present this annual Consumer Confidence Report and welcome any suggestions on how to make it more informative in the future. As a side note, we encourage you to use the water you need but don't needlessly use water. Conservation of any resource is important, and we ask you to do your part in this effort.

This Consumer Confidence Report summarizes drinking water quality for the period between January 1, 2020 and December 31, 2020. In order to conserve natural resources and make it more efficient to distribute an electronic copy can be downloaded at www.doyonutilities.com. Hardcopies are also available at Doyon Utilities or by contacting Kathleen Hook at 907-455-1540.

Lead/Copper in Drinking Water

The EPA Safe Drinking Water Act requires public water systems to test water samples from its customers to determine lead and copper levels. If present, elevated levels of lead can cause serious health problems, especially in pregnant women and young children.

Lead and Copper samples were collected at numerous locations on JBER-R during August 2018. During both sampling events the 90th percentiles were below the EPA Action Levels.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. There is nothing in the treatment process that would introduce lead into the water; therefore, the water is tested at the individual service locations. If abnormal levels of lead or copper are detected in the water supply, residents will be notified and JBER will initiate action to correct the problem.

One method to minimize the risk of lead or copper contamination is to let the tap water run for 30 seconds to two minutes to flush any water that has been sitting for several hours.

It is important to use this approach for drinking water or cooking water. 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.

Discolored Water

Doyon Utilities takes weekly water quality samples as well as additional samples during every line break. Be assured Doyon Utilities make every effort to ensure the water provided to JBER is safe for consumption and the installation is notified should water quality deteriorate.

Some residents may experience brown or rusty water coming from their faucets; more often in older housing. This is usually caused by a higher concentration of minerals in the water. This does not mean that the water is not safe. Any brown or rusty water that does not run clear after running faucets for several minutes should be reported to housing maintenance.

Another common occurrence is white cloudy water. This is due to more oxygen in the water and most often noticed during colder months. Any cloudy water that does not clear up after sitting for a couple minutes should be reported to housing maintenance.

JBER-Richardson Drinking Water Test Results

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water hotline at 1-800-426-4791.

The table lists the Regulated Contaminants required to be monitored by the EPA that were detected in your water. While most monitoring is required annually, some contaminants are sampled less frequently. The Stage 2 Disinfection By-Product Rule requires testing for tri-halomethanes and haloacetic acids at locations in the distribution system that produces the highest concentration of these two categories of compounds.

This sampling was done quarterly in 2020. All the substances found were present in quantities less than the EPA's limits for safe drinking water. If you would like to view a complete listing of test results, please call Kathleen Hook at 907-455-1540.

Substance	Sample Date	Violation Y/N	Detected Results JBER-R PWS 2212039	MCL	MCLG	Potential Source of Contamination
Microbiological Contaminants						
Coliform Bacteria *revised total coliform rule*	Monthly 2020 99% of Samples Negative	N	NA	TT	NA	Naturally present in the environment
Turbidity	Daily 2020	N	Highest single measurement 0.12 NTU 100% of samples <0.3 NTU	TT = 1 NTU TT = 95% of samples <0.3 NTU	NA	Soil Run-off
Inorganic Contaminants						
Fluoride	Daily 2020	N	0.04 - 0.88 ppm	4 ppm	4 ppm	Chemical Additive
Nitrate Bldg 28004 Bldg 35610 (Well 1) Bldg 35620 (Well 2) Bldg 35630 (Well 3)	Annually 1/27/20 1/27/20 1/27/20 1/27/20	N	 0.35 ppm 0.35 ppm 0.35 ppm 0.63 ppm	10 ppm	10 ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Barium Bldg 28004 Bldg 35610 (Well 1) Bldg 35620 (Well 2) Bldg 35630 (Well 3)	Every 9 years 1/27/20 1/27/20 1/27/20 1/27/20	N	 0.0089 ppm 0.0038 ppm 0.0039 ppm 0.0042 ppm	2 ppm	2 ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Free Residual Chlorine	Daily 2020	N	0.20 - 1.80 ppm	MRDL 4 ppm	MRDL 4 ppm	Water additive used to control microbes
Lead[1]	Every 3 years August 2018	N	90th Percentile <1.0 ppb	AL=15ppb	0	Corrosion of household plumbing systems
Copper[1]	Every 3 years August 2018	N	90th Percentile 0.075 ppm	AL=1.3 ppm	1.3 ppm	Corrosion of household plumbing system

[1] Samples were obtained from numerous locations, the 90th percentile for lead and copper were below EPA actions levels (AL). For a complete list of sites contact Kathleen Hook at 907-455-1540.

Continued next page.

Substance	Sample Date	Violation Y/N	Detected Results JBER-R PWS 2212039	MCL	MCLG	Potential Source of Contamination
Organic Contaminants						
Total Organic Carbon	Monthly 2020	N	Raw Water Range <0.50-2.0 ppm Treated Water Range <0.50-1.14 ppm	TT	TT	Naturally present in the environment
Total Trihalomethanes Bldg 560 (AAFES Gas) Bldg 986	Samples taken Quarterly 2020	N	Average 16.0 ppb Range 4.4 - 20.9 ppb	80 ppm	NA	By-product of drinking water chlorination
Total Haloacetic Acids Bldg 560 (AAFES Gas) Bldg 986	Samples taken Quarterly 2020	N	Average 16.7 ppb Range 6.3 - 22.0 ppb	60 ppm	NA	By-product of drinking water chlorination
Radionuclides						
Gross Alpha Bldg 28004 Bldg 35610 (Well 1) Bldg 35620 (Well 2) Bldg 35630 (Well 3)	Every 9 years 1/22/18 1/22/18 1/22/18 1/22/18	N	Highest reported level 1.3 ± 0.6 pCi/L 1.5 ± 0.7 pCi/L 2.5 ± 0.9 pCi/L 1.2 ± 0.7 pCi/L	15 pCi/L	0	Erosion of natural deposits
Combined radium (226, 228) Bldg 28004 Bldg 35610 (Well 1) Bldg 35620 (Well 2) Bldg 35630 (Well 3)	Every 9 years 1/22/18 1/22/18 1/22/18 1/22/18	N	Highest reported level 2.68 ± 0.67 pCi/L 2.66 ± 0.75 pCi/L 1.50 ± 0.80 pCi/L 3.80 ± 0.81 pCi/L	5 pCi/L	0	Erosion of natural deposits

Terms and Abbreviations Used

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

JBER-R: Joint Base Elmendorf Richardson – Richardson side. Public Water System (PWS) 2212039

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 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 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 contamination.

MFL: Million fibers per liter >10 µm

mrem/yr: Millirems per year.

Nephelometric Turbidity Units (NTU): The unit of measurement for turbidity samples.

Not Applicable (NA): When NA is used in the range column, only one sample was taken, therefore, no range exists.

Not Detectable (ND): The contaminant is below the detectable limits of the testing method.

pCi/L: Picocuries per liter.

ppb: Parts per billion or micrograms per liter.

ppm: Parts per million or milligrams per liter.

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

Water System Conditions & Maintenance

During times of maintenance, the water may appear hazy or have a slight color at the consumer tap. Likewise, earthquakes, rapid changes in water velocity, and firefighting activities may also cause discolored water events. If this condition occurs, run several faucets until the water is clear. Additionally, maintenance activities may result in lower than normal pressure. This usually occurs during fire hydrant flow testing and water main flushing. Larger, more complex system maintenance or repair activities may require the utility to lower all pressure within small areas of the water distribution network. As a result, utilities may issue a boil water notice to the affected area. These notices are usually issued out of an abundance of caution by the water supplier to ensure the public health is protected. It is important for the customer to read and follow the directions within the boil water notice. Contact Doyon Utilities at 907-338-3600 for more information.

Water Testing and Your Health

The sources of drinking water (both tap and bottled) include rivers, lakes, ponds, reservoirs, springs and wells. As water travels over the surface of the land or underground, it can dissolve naturally occurring minerals. In some cases, water can pick up radioactive material, or substances resulting from the presence of animals or human activity.

Although our water supply may contain some of these contaminants, it is important to know that these substances are either removed completely or reduced to a safe level before it arrives at your tap.

Contaminants that may be present in source water include:

- Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment facilities, septic systems, agricultural livestock operations and wildlife.
- Inorganic Contaminants, such as salts and metals, which may naturally occur or result from urban storm water runoff, industrial or domestic wastewater discharge, oil and gas production or farming.
- Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic Contaminants, including synthetic and volatile organic compounds, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff and septic systems.
- Radioactive Contaminants, which may occur naturally or result from oil and gas production and mining activities.

In order to ensure tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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

We're happy to answer any other questions about our water quality. For general information or for water quality questions call Doyon Utilities site management office at 907-338-3600 .

Environmental Protection Agency's Safe Drinking Water Hotline: 1-800-426-4791.

Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

Drinking Water and Wastewater | COVID-19

Doyon Utilities continues to monitor the situation with COVID-19. The following FAQ was developed as of March 2020 from both EPA and CDC information.

Is drinking tap water safe?

Yes –EPA recommends that Americans continue to use and drink tap water as usual. The World Health Organization (WHO) has stated that the, "presence of the COVID-19 virus has not been detected in drinking-water supplies and based on current evidence the risk to water supplies is low." Additionally, according to the Centers for Disease Control and Prevention (CDC), COVID-19 is mainly thought to spread between people who are in close contact with one another. Further, EPA's drinking water regulations require treatment at public water systems to remove or kill pathogens, including viruses.

Do I need to boil my drinking water?

Boiling your water is not required as a precaution against COVID-19.

Is tap water safe to use for hand washing?

EPA recommends that Americans continue to use and drink tap water as usual. According to the CDC, washing your hands often with soap and water for at least 20 seconds helps prevent the spread of COVID-19. Follow CDC's handwashing guidance at www.cdc.gov/handwashing/index.html.

What should I do if I'm concerned about my drinking water?

Homeowners that receive their water from a public water utility may contact their provider to learn more about treatments being used. Treatments could include filtration and disinfectants such as chlorine that remove or kill pathogens before they reach the tap.

Homeowners with private wells who are concerned about pathogens such as viruses in drinking water may consider approaches that remove bacteria, viruses, and other pathogens, including certified home treatment devices.

For more information on COVID-19 and Drinking Water, visit the US EPA COVID-19 website at www.epa.gov/coronavirus.

JBER-Richardson Drinking Water:
Important Information About Your Water Violations and Exceedances

Revised Total Coliform Rule Assessments

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, poten¬tially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. Doyon Utilities conducts regular water monitoring to detect these bacteria. When detected, we conduct an assessment to identify and correct any problems that were found.

During the past year we detected coliform in two samples, requiring us to assess and take corrective actions. Both samples came from the same fixture at the same facility. Samples taken from the distribution system confirmed the water throughout the rest of the water system was unaffected. DU worked with the facility manager to sanitize the water system throughout the entire facility, including replacement of fixture components.

During the course of our testing, we collected an additional sample at a groundwater well that was in operation during the time period of the sampling event in order to verify the well was not the source of contamination. When we collected the sample, our technician took the sample from the incorrect tap within the well building. When the error was discovered, another sample was immediately collected from the proper sample tap. Results from both samples returned negative results. At no time was the groundwater from this well a source for the positive sample, but this procedural error resulted in a violation of the U.S. EPA and ADEC Groundwater Rule. Even though this did not result in an emergency situation, and did not create an unsafe or unsanitary condition, as our consumers you have a right to know what happened and what we did to correct the situation.

Water System Upgrade

In 2018, Doyon Utilities, in conjunction with Joint Base Elmendorf-Richardson's 673rd Air Base Wing, began a substantial renovation and upgrade of the installation's water treatment and storage system. As a result of this project, the Arctic Valley water treatment plant has received an infrastructure upgrade to increase the base's water storage capability. The addition of two water storage tanks, known as clearwells, was completed in summer of 2020. The new clearwells add three million gallons of treated water storage for the installation.

The water treatment plant was originally constructed in 1952 and is the primary source of treated water for JBER. Water from the reservoir behind a dam on Ship Creek is piped to the plant, where it is treated before being distributed throughout the joint base. As Doyon Utilities' engineers and water treatment specialists prepared for the upgrade, sampling of paint and materials to be disturbed during construction process was conducted. This survey revealed polychlorinated biphenyls, commonly known as PCBs, in paint throughout the building.

During calendar year 2020, DU collected weekly samples of the water produced at the treatment plant. All samples returned no detectable concentration of PCB compounds. These weekly tests support historical sampling data that also showed no trace of PCBs in JBER's drinking water. DU is working with both the Alaska Department of Environmental Conservation and the United States Environmental Protection Agency to ensure this issue is appropriately addressed. To date, all drinking water samples collected specifically for PCB contamination have returned negative or non-detect for PCBs.

To fully address the PCB contamination, DU and the 673rd have moved toward a replacement plan for the entire water treatment plant. Currently, DU is testing different technologies to determine the best method of treatment for the Ship Creek source water. Once a technology is chosen, construction and engineering activities of the new water treatment plant will begin. The new water treatment plant is scheduled to be fully operational by October 2023.