

2023 Thorne Bay Water Quality Report PWSID# AK2120216

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

The City of Thorne Bay gets its drinking water from a source water intake located in Water Lake.

Source water assessment and its availability

A source water assessment for the City of Thorne Bay surface water source was completed in 2003 and the results of the assessment are:

The Wellhead/Surface Intake Susceptibility is Low.
The Aquifer Susceptibility is N/A.
The overall vulnerability to potential contaminants is:
Bacteria and Viruses is High;
Nitrates/Nitrites is High;
Volatile Organic Chemicals is Very High;
Inorganics/Heavy Metals is Very High;
Synthetic Organic Chemicals is Medium;
Other Organic Chemicals is Medium.

The Drinking Water Source Protection (DWSP) group is no longer completing Source Water Assessment reports for public water system (PWS) sources. However, DWSP continues to delineate drinking water source protection areas for all PWS sources and furthers awareness of these protection areas through outreach efforts. DWSP encourages active protection efforts by promoting the development and implementation of DWSP plans by PWS and communities, as

well as by providing passive protection efforts through reviewing and commenting on proposed permitted activities near PWS sources and ensuring agency loans and grants prioritize water quality improvement projects near PWS sources.

For assistance, please contact the DWSP coordinator at 907-269-7549, or toll free in Alaska at 1-866-956-7656. You can go to the DWSP website for more information at: <https://dec.alaska.gov/eh/dw/dwp>.

Why are there contaminants in my drinking water?

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water 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: microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

Residents are encouraged to participate in decisions that affect drinking water quality and bring any concerns to local City Council meetings. If you have questions about this report please contact the Thorne Bay Utility at the contact information at the end of this report.

Waivers

ADEC has granted us a monitoring waiver for Synthetic Organic Compounds (SOCs) for the 2020-2022 sampling period. We also plan to apply for an SOC waiver for the 2023-2025 compliance period, by September 31, 2024 due date.

Monitoring and reporting of compliance data violations

Lead & Copper Rule

We are required to monitor for Lead & Copper bi-annually. We missed the last monitoring period of 7/1/23 to 12/31/23. We plan to submit additional samples in 2024 and return to compliance. If we submit the next 10 sample set in 2024 and the results are below the Action Level then sampling can return to 5 samples annually and any remaining uncompleted steps in the process of evaluating corrosion control will no longer be required.

Volatile Organic Carbons (VOC)

We are required to monitor for VOC annually. December samples were collected and delivered correctly to the first lab in Alaska, and then froze in transit during shipping to the lower 48 lab due to negative temps in the Pacific Northwest. We submitted follow up samples and returned to compliance on 1/23/24.

Disinfection By-products (DBP) including Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)

We are required to monitor for both TTHM and HAA5 on a quarterly basis. We collected and submitted samples for the 4th quarter of 2023 for both TTHM and HAA5. The samples were received by the lab in Alaska, but froze en route to the lower 48 lab during shipping due to negative temperatures in the Pacific Northwest. We submitted follow up samples and returned to compliance on 1/23/24.

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. City of Thorne Bay 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>.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased

protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	.96	.42	.96	2023	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	4.066	NA	8.1	2023	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	5.38	NA	10.3	2023	No	By-product of drinking water disinfection
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	.101	2023	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: 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.

Important Drinking Water Definitions	
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

TT Violation	Explanation	Length	Health Effects Language	Explanation and Comment
Surface water treatment rule filtration and disinfection violations	Our HAA5 LRAA for the first quarter of 2021 was 97 ppm which is over the MCL of 60 ppm and triggered an MCL violation.	The first quarter HAA5 LRAA was calculated using sample results from the first quarter of 2021 and results from the previous three quarters of 2020. Our 2020 HAA5 results were still high in 2020 and the 2021 results are low.	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	We have upgraded our water plant with a new Nano filtration treatment process in order to come into compliance with our HAA5 and TTHM. During 2021 the final condition of the 8/31/15 Compliance Order by Consent were met when sample results, that followed activation of new treatment, was proven effective at reducing disinfection by-products (TTHM and HAA5) to below Maximum Contaminant Levels for TTHM and HAA5. We returned to compliance on 10/21/21.

For more information please contact:

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