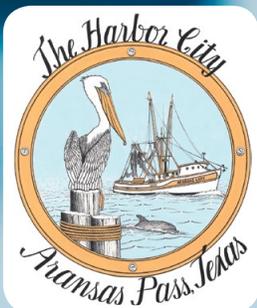


ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2018



Presented By
City of
Aransas Pass

Este informe incluye información importante sobre el agua para tomar. Para asistencia en español, llame por favor al teléfono (361) 758-3111, Ext. 3151.

PWS ID#: TX2050015

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

Source Water Assessment

The TCEQ completed a Source Water Susceptibility Assessment for all drinking water systems that own their sources. The assessment report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. The system from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact Michael Bonner at (361) 758-3111, ext. 3155.



Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. Meetings are held on the third Monday of each month, beginning at 6 p.m., at City Hall, 600 W. Cleveland, Aransas Pass, Texas.

To the Last Drop

The National Oceanic and Atmospheric Administration (NOAA) defines drought as a deficiency in precipitation over an extended period of time, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people. Drought strikes in virtually all climate zones, from very wet to very dry.

There are primarily three types of drought: Meteorological Drought refers to the lack of precipitation, or the degree of dryness and the duration of the dry period. Agricultural Drought refers to the agricultural impact of drought, focusing on precipitation shortages, soil water deficits, and reduced ground water or reservoir levels needed for irrigation. Hydrological Drought pertains to drought that usually occurs following periods of extended precipitation shortfalls that can impact water supply (i.e., stream flow, reservoir and lake levels, groundwater).

Drought is a temporary aberration from normal climatic conditions, so it can vary significantly from one region to another. Although drought occurs normally, human factors, such as water demand, can exacerbate the duration and impact that drought has on a region. By following simple water conservation measures, you can help significantly reduce the lasting effects of extended drought.

Important Health Information

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. These types of problems are not necessarily causes for health concerns.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on the taste, odor, or color of drinking water, please contact our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

“ We remain vigilant in delivering the best-quality drinking water ”

Where Does My Water Come From?

All of the drinking water supplied by the San Patricio Municipal Water District (SPMWD) to local communities comes from a surface water system consisting of Lake Corpus Christi, Choke Canyon Reservoir, and Lake Texana. Water from Choke Canyon and Lake Corpus Christi makes its way down the Nueces River to intake pumps at Callalen, and then by pipeline to the SPMWD facilities. Colorado River water is pumped into Lake Texana via pipeline; water at Lake Texana is then pumped through a 101-mile pipeline to SPMWD. Customers served by systems in Ingleside, Aransas Pass, Portland, Taft, Port Aransas, Rockport, and Fulton receive water treated at the water district's plant near Ingleside.

As water travels over the land's surface and down the river, it dissolves naturally occurring minerals and picks up other contaminants. Untreated water may contain bacteria, viruses, salts, and various organic chemicals and radioactive contaminants that can be naturally occurring or the result of animals and human activity.

Treatment plants purify water through a process of chemical treatment, settling, filtration, and disinfection. Water treatment chemicals are added to remove impurities, kill harmful bacteria, eliminate taste and odors, and help to prevent tooth decay. The same high-quality drinking water is then delivered to all residential, commercial, and industrial customers.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Michael Bonner at (361) 758-3111, Ext. 3155.

Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board during the year covered by this report, our system lost an estimated 209.9 gallons of water per connection per day. If you have any questions about the water loss audit, please call Public Works at (361) 758-3111, ext. 3155.



BY THE NUMBERS

The number of Olympic-sized swimming pools it would take to fill up all of Earth's water.

800
TRILLION

1¢ The average cost for about 5 gallons of water supplied to a home in the U.S.

The amount of Earth's water that is salty or otherwise undrinkable, or locked away and unavailable in ice caps and glaciers.

99%

50
GALLONS The average daily number of gallons of total home water use for each person in the U.S.

The amount of Earth's surface that's covered by water.

71%

330
MILLION The amount of water on Earth in cubic miles.

The amount of Earth's water that is available for all of humanity's needs.

1%

75% The amount of the human brain that contains water.

Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an aeration tank, which allows for oxidation of the high iron levels that are present in the water. The water then goes to a mixing tank where polyaluminum chloride and soda ash are added. The addition of these substances cause small particles (called floc) to adhere to one another, making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, soda ash (to adjust the final pH and alkalinity), fluoride (to prevent tooth decay), and a corrosion inhibitor (to protect distribution system pipes) are added before the water is pumped to sanitized, underground reservoirs, water towers, and into your home or business.

Variations and Exemptions

The City of Aransas Pass is operating under an exemption due to our water system pressure tank capacity as our elevated storage tank collapsed during Hurricane Harvey. An exemption is a state or U.S. EPA permission not to meet an MCL or a treatment technique under certain conditions. The City is in the process of replacing the elevated storage tank. Construction will begin soon but meanwhile the City is able to maintain adequate pressure throughout the water system with its two pump stations and has recently installed permanent backup generators on each pump station.



Lead in Home Plumbing

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. This water supply is responsible for providing high-quality drinking water, but we 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only those substances that were detected in our water. (A complete list of all our analytical results is available upon request.) Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

The percentage of Total Organic Carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2018	2	2	0.129	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2018	[4]	[4]	4.44	3.35–5.35	No	Water additive used to control microbes
Fluoride (ppm)	2018	4	4	0.588	0.07–0.91	No	Erosion of natural deposits; Water additive that promotes strong teeth
Haloacetic Acids [HAAs] (ppb)	2018	60	NA	24	9.9–33.9	No	By-product of drinking water disinfection
Nitrate (ppm)	2018	10	10	0.84	0.84–0.84	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2018	80	NA	32.0	19.4–53	No	By-product of drinking water disinfection
Total Organic Carbon ¹ (ppm)	2018	TT	NA	6.21	5.5–7.35	No	Naturally present in the environment

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2017	1.3	1.3	0.1397	0/20	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (ppb)	2017	15	0	2.7	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2018	50	NA	1.4	NA	No	Leaching from natural deposits

UNREGULATED SUBSTANCES²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2018	7.62	4.9–16.0	By-product of drinking water disinfection
Bromoform (ppb)	2018	7.14	0.5–25	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2018	9.90	1.6–25	By-product of drinking water disinfection
Sulfate (ppm)	2018	41.75	11–62	Naturally occurring; Oil field by-product

¹ The value reported under Amount Detected for TOC is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

² Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of monitoring unregulated contaminants is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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.

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.

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.

MRDLG (Maximum Residual Disinfectant 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.

NA: Not applicable

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

SCL (Secondary Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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