

# 2018 Annual

## Water Quality Report

(Consumer Confidence Report)

CITY OF NEDERLAND

Phone Number: 409-723-1540

Robert Sangster, Water Plant Supervisor

### **SPECIAL NOTICE**

#### **Required language for ALL community public water supplies:**

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

### **Public Participation Opportunities**

**Date:** July 15, 2019

**Time:** 8:15 a.m.

**Location:** 207 N. 12th  
Nederland City Hall

**Phone Number:** 409-723-1503

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

### **OUR DRINKING WATER IS REGULATED**

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

#### **Source of Drinking Water**

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.

Contaminants 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, 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 storm water 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 Storm water runoff; and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

#### **En Español**

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. ( > \_\_\_\_\_ - \_\_\_\_\_ -para hablar con una persona bilingue en español.

## Where do we get our drinking water?

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Robert Sangster 409-723-1540.

## ALL drinking water may contain contaminants

Our drinking water meets federal standards and there may not be any health benefits to purchasing bottled water or point of use devices. 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 EPA's Safe Drinking Water Hotline at (1-800-426-4751).

## Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not cause for health concerns. Therefore, these constituents are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

## Required Additional Health 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. We are 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 or at <http://www.epa.gov/safewater/lead>.

## Abbreviations

- NTU - Nephelometric Turbidity Units
- MFL - million fibers per liter (a measure of asbestos)
- pCi/L - picocuries per liter ( a measure of radioactivity)
- ppm - parts per million, or milligrams per liter (mg/L)
- ppb - parts per billion, or micrograms per liter
- ppt - parts per trillion, or nanograms per liter
- ppq - parts per quadrillion, or picograms per liter

## Definitions

Maximum Contaminant Level Goal or 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 Contaminant Level or 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 residual disinfectant level goal or 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 contaminants.
Maximum residual disinfectant level or 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.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
na:	not applicable.
Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.

## Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow margin of safety.

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over	Units	Violation	Likely Source of Contamination	Violation	Likely Source of Contamination
<b>Copper</b>	2016	1.3	1.3	0.276	0	ppm	N	Erosion of natural deposits; Leaching from wood	N	Erosion of natural deposits; Leaching from wood
<b>Lead</b>	2016	0	15	2.74	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.	N	Corrosion of household plumbing systems; Erosion of natural deposits.

**Nitrate Advisory - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.**

## Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of individual samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Haloacetic Acids (HAA5)*</b>	2018	48.7	12.1- 48.7	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
<b>Total Trihalomethanes (TTHM)</b>	2018	15.1	8-15.1	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Barium</b>	2018	0.0407	0.0407 - 0.0407	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Bromacil</b>	2018	0.27	0.27-0.27	0	0.90	ppb	N	Runoff from Agriculture
<b>Cyanide</b>	2018	140	140-140	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
<b>Nitrate [measured as Nitrogen]</b>	2018	0.09	0.09 - 0.09	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Nitrite</b>	2013	0.25	0.25-0.25	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Combined Radium 226/228</b>	01/20/2011	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.

<b>Turbidity</b>	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
<b>Highest single measurement</b>	1 NTU	0.78 NTU	N	Soil runoff.
<b>Lowest monthly % meeting limit</b>	0.3 NTU	98%	N	Soil runoff.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

**Maximum Residual Disinfectant Level**

Systems must complete disinfection data on the Surface Water Monthly Operations Report (SWMOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels.

Disinfectant Type	Average Level	Min Level	Max Level	MRDL	MRDLG	Unit	Source
Chloramine	3.9	3.1	5.0	4	4	ppm	Disinfectant used to control microbes

**Total Organic Carbon**

Total organic carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2018	Source Water	7.4	4.26	15.6	ppm	Naturally Present in the Environment

**Coliform Bacteria**

Fecal coliform/E. coli. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest number of positive samples	Fecal Coliform or E coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	3	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive	0	N	Naturally present in the environment.

## Violations

### Interim Enhanced SWTR

The Interim Enhanced Surface Water Treatment Rule improves control of microbial contaminants, particularly *Cryptosporidium*, in systems using surface water, or ground water under the direct influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (IESWTR/LT1), MAJOR	05/01/2018	05/31/2018	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, ROUTINE (IESWTR/LT1), MAJOR	06/01/2018	06/30/2018	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

### Surface Water Treatment Rule (SWTR)

The Surface Water Treatment Rule seeks to prevent waterborne diseases caused by viruses, *Legionella*, and *Giardia lamblia*. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of these microbes.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	05/01/2018	05/31/2018	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	06/01/2018	06/30/2018	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

## Water Loss

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2018, our system lost an estimated 166,456,051 gallons of water. If you have any questions about the water loss audit please call Robert Sangster at 409-723-1540.

**Mandatory Language for Monitoring and Reporting  
Violation Failure to Submit a Surface Water Monthly  
Operating Report (SWMOR)  
SURFACE WATER MONITORING, ROUTINE MAJOR**

The **City of Nederland**, PWS ID **TX1230006**, has violated the monitoring and reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Title 30, Texas Administrative Code (30 TAC), Section 290, Subchapter F. Public water systems that treat surface water and/or ground water under the direct influence of surface water are required to submit monthly operating reports with operational data of the treatment, disinfection and quality of the water provided to their customers.

This/These violation(s) occurred in the monitoring period(s) **May and June 2018**

Results of regular monitoring are an indicator of whether or not your drinking water is safe. We did not complete all monitoring and/or reporting for surface water constituents, and therefore TCEQ cannot be sure of the safety of your drinking water during that time.

We are taking the following actions to correct this issue: **The TCEQ received our SWMOR's for May and June 2018 late. Steps have been taken to make sure the SWMOR's get to the TCEQ on time.**

Please share this information with all people who drink this water, especially those who may not have received this notice directly (i.e., people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

If you have questions regarding this matter, you may contact **Robert Sangster** at **409-723-1540**.

Posted /Delivered on: \_\_\_\_\_