

# 2020 Annual Drinking Water Quality Report

(Consumer Confidence Report)

City of Nassau Bay

Phone Number: 281-333-4211

**Reporting Period: January 1, 2020 through December 31, 2020**

## Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Standards

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

## Sources 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.

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 (800) 426-4791.

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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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

taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immune-compromised persons such as those undergoing chemotherapy for cancer; persons 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 providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

## Our Water Sources

Our drinking water is obtained primarily from the City of Houston Southeast Purification Plant (Trinity River) and secondarily from the Gulf Coast Aquifers (Ground 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 detection of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact us.

## Water Loss

A water loss audit was submitted to the Texas Water Development Board. Our system loss was an estimated 7.55% of water for the time period of January to December 2020.

## Public Participation Opportunities

The City of Nassau Bay Council meets on the second Monday of each month at 7:00 P.M. Questions or concerns regarding our drinking water may be raised at the regularly scheduled council meetings or by calling Nassau Bay City Hall at 281-333-4211.

## En Español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. 281-333-4211 para hablar con una persona bilingüe en español.

### Definitions

**Avg:** Regulatory compliance with some MCLs is based on running annual average of monthly samples.

**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 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 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.

**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.

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

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

### Abbreviations

**MFL:** million fibers per liter (a measure of asbestos)

**na:** not applicable.

**NTU:** nephelometric turbidity units (a measure of turbidity)

**pCi/L:** picocuries per liter (a measure of radioactivity)

**ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

**ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

**ppt:** parts per trillion, or nanograms per liter (ng/L)

**ppq:** parts per quadrillion, or picograms per liter (pg/L)

### Inorganic Contaminants

| Year | Contaminant             | Highest Level Detected | Range of Levels Detected | MCL | MCLG | Units of Measure | Violation | Likely Source of Contamination   |
|------|-------------------------|------------------------|--------------------------|-----|------|------------------|-----------|--|
| 2020 | Barium                  | 0.0457                 | 0.0457-0.0457            | 2   | 2    | ppm              | No        | Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits.                                 |
| 2020 | Fluoride                | 0.25                   | 0.24-0.25                | 4   | 4    | ppm              | No        | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| 2020 | Nitrate                 | 0.46                   | 0.45-0.46                | 10  | 10   | ppm              | No        | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.                               |
| 2020 | Nitrite                 | <0.05                  | <0.05-<0.05              | 1   | 1    | ppm              | No        | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.                               |
| 2016 | Combined Radium 226/228 | 1.5                    | 1.5-1.5                  | 5   | 0    | pCi/L            | No        | Erosion of natural deposits.   |

### Organic Contaminants

| Year | Contaminant | Highest Level Detected | Range of Levels Detected | MCL | MCLG | Units of Measure | Violation | Likely Source of Contamination           |
|------|-------------|------------------------|--------------------------|-----|------|------------------|-----------|--|
| 2020 | Atrazine    | 0.32                   | 0.22-.32                 | 3   | 3    | ppb              | No        | Runoff from herbicide used on row crops. |
| 2020 | Simazine    | 0.12                   | 0.10-0.12                | 4   | 4    | ppb              | No        | Herbicide runoff.                        |

### Maximum Residual Disinfectant Level

| Year | Disinfectant        | Average Level | Range of Levels Detected | MCL | MCLG | Units of Measure | Violation | Source of Disinfectant            |
|------|---------------------|---------------|--------------------------|-----|------|------------------|-----------|-----------------------------------|
| 2020 | Chloramine Residual | 3.01          | 0.6-3.9                  | 4   | 4    | ppm              | No        | Disinfectant to control microbes. |

## Disinfection Byproducts

| Year | Contaminant            | Highest Level Detected | Range of Levels Detected | MCL | MCLG | Units of Measure | Likely Source of Contamination             |
|------|------------------------|------------------------|--------------------------|-----|------|------------------|--|
| 2020 | Total Haloacetic Acids | 28.5                   | 16.5-28.5                | 60  | na   | ppb              | By-product of drinking water disinfection. |
| 2020 | Total Trihalomethanes  | 41.6                   | 19.5-41.6                | 80  | na   | ppb              | By-product of drinking water disinfection. |

## Unregulated Contaminants

| Year | Contaminant          | Highest Level Detected | Range of Levels Detected | Units of Measure | Likely Source of Contamination             |
|------|----------------------|------------------------|--------------------------|------------------|--|
| 2020 | Chloroform           | 26.3                   | 11.5-26.3                | ppb              | Byproducts of drinking water disinfection. |
| 2020 | Bromodichloromethane | 12.0                   | 6.1-12.0                 | ppb              | Byproducts of drinking water disinfection. |
| 2020 | Dibromochloromethane | 3.6                    | 1.7-3.6                  | ppb              | Byproducts of drinking water disinfection. |

(Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point).

## Lead and Copper

| Year | Contaminant | MCLG | Action Level (AL) | The 90th Percentile | # Sites Over AL | Units of Measure | Violation | Likely Source of Contamination  |
|------|-------------|------|-------------------|---------------------|-----------------|------------------|-----------|---|
| 2020 | Lead        | 0    | 15                | 8.54                | 0               | ppb              | No        | Corrosion of household plumbing systems; erosion of natural deposits. |
| 2020 | Copper      | 1.3  | 1.3               | 0.601               | 0               | ppm              | No        | Corrosion of household plumbing systems; erosion of natural deposits. |

(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>).

## Turbidity

| Year | Contaminant | Highest Single Measurement | Lowest Monthly % of Samples Meeting Limits | Turbidity Limits | Unit of Measure | Likely Source of Contamination |
|------|-------------|----------------------------|--|------------------|-----------------|--------------------------------|
| 2020 | Turbidity   | 0.10                       | 100  | 0.3              | NTU             | 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.

## Total Coliform

Reported monthly tests found no coliform bacteria.

## Secondary and Other Constituents Not Regulated

(No associated adverse health effects)

| Year or Range | Constituent                         | Average Level | Minimum Level | Maximum Level | Secondary Limit | Unit of Measure | Likely Source of Constituent   |
|---------------|-------------------------------------|---------------|---------------|---------------|-----------------|-----------------|--|
| 2020          | Sodium                              | 20.0          | 20.0          | 20.0          | n/a             | ppm             | Erosion of natural deposits; byproduct of oil field activity.                                      |
| 2020          | Chloride                            | 27.0          | 26.0          | 28.0          | 250             | ppm             | Abundant naturally occurring element; used in water purification; byproduct of oil field activity. |
| 2020          | Total Hardness as CaCO <sub>3</sub> | 140           | 140           | 140           | n/a             | ppm             | Naturally occurring calcium.   |