

# 2019 Annual Drinking Water Quality Report

(Consumer Confidence Report – January 1, 2019 to December 31, 2019)

For

## Emerald Bay Municipal Utility District

Phone Number: (903) 825-6960

### Our Drinking Water is Regulated

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. We hope this information helps you become more knowledgeable about what's in your drinking water. For more information about this report, please contact Bill Harris at the Emerald Bay Municipal Utility District Office **(903) 825-6960**.

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**Our drinking water is GROUND WATER extracted from the Carrizo/Wilcox Aquifer**

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### Public Participation Opportunities

The District Board of Directors holds regularly scheduled board meetings on a quarterly basis at the District Office, 155 LaSalle Drive, Bullard, TX 75757. To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us at: **(903) 825-6960**.

### En Español

Este informe incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono **(903) 825-6960** – Para hablar con una persona bilingüe en español.

## 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 materials, and can pick up substances resulting from the presence of animals or from human activity.

### ***ALL drinking water may contain contaminants***

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of some 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 (1-800-426-4791).

### ***Contaminants that may be present in source water before treatment 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, the 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 to 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, color, or odor of drinking water, please call the Emerald Bay Municipal Utility District office at: (903) 825-6960.

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; 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 (1-800-426-4791).

### ***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. This water supply is responsible for supplying 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 your exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### ***Information about Source Water***

TCEQ (Texas Commission on Environmental Quality) completed an assessment of your source water, and results indicate that our sources have a low susceptibility to contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Bill Harris at the Emerald Bay Municipal District Office (903) 825-6960.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>.

| <b>Source Water Name</b>     | <b>Type of Water</b> | <b>Report Status</b> | <b>Location</b>        |
|------------------------------|----------------------|----------------------|------------------------|
| 1 – 14040 CR 188/Bullard, TX | Ground Water         | Active               | Carrizo/Wilcox Aquifer |
| 1 – 13951 CR 1106/Flint, TX  | Ground Water         | Active               | Carrizo/Wilcox Aquifer |
| 1 – 21343 CR 178/Flint, TX   | Ground Water         | Active               | Carrizo/Wilcox Aquifer |

## Definitions and Abbreviations

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

**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 for a margin of safety.

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

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**Maximum Contaminant Level or MCL:** The highest level of a contaminant that is allowed in drinking water. MCLs are set close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal or MCLG:** The level of 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.

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

**mrem:** millirems per year (a measure of radiation absorbed by the body)

## Definitions and Abbreviations Continued

**Na:** Not applicable.

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

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

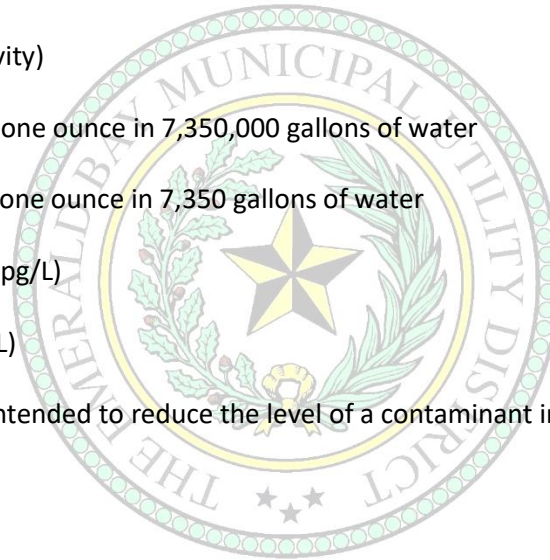
**ppb:** micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water

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

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

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

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



## Regulated Contaminants

### Disinfectants and Disinfection Byproducts:

| Collection Date | Contaminant                  | Highest Level Detected | Range of Levels Detected | MCLG                  | MCL | Unit of Measure | Violation | Likely Source of Contaminant             |
|-----------------|------------------------------|------------------------|--------------------------|-----------------------|-----|-----------------|-----------|--|
| 2019            | Haloacetic Acids (HAA5)      | 2                      | 2.4-2.4                  | No Goal for the Total | 60  | ppb             | NO        | Byproduct of drinking water disinfection |
| 2019            | Total Trihalomethanes (TTHM) | 9                      | 9.34-9.34                | No Goal for the Total | 80  | ppb             | NO        | Byproduct of drinking water disinfection |

\*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year.

\*The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year.

### Inorganic Contaminants:

| Collection Date | Contaminant                    | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Unit of Measure | Violation | Likely Source of Contaminant   |
|-----------------|--------------------------------|------------------------|--------------------------|------|-----|-----------------|-----------|--|
| 2019            | Barium                         | 0.037                  | 0.0359-0.037             | 2    | 2   | ppm             | NO        | Discharge of drilling wastes; discharge from metal refineries, erosion of natural deposits.                                |
| 2019            | Fluoride                       | 0.149                  | 0.149-0.149              | 4    | 4.0 | ppm             | NO        | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| 2019            | Nitrate (Measured as Nitrogen) | 0.0285                 | 0.0285-0.0285            | 10   | 10  | ppm             | NO        | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.                               |
| 12/19/2013      | Chromium                       | 1.58                   | 1.58-1.58                | 100  | 100 | ppb             | NO        | Discharge from steel and pulp mills; erosion of natural deposits.  |
| 9/15/2014       | Cyanide                        | 6.83                   | 6.83-6.83                | 200  | 200 | Ppb             | NO        | Discharge from plastic and fertilizer factories; discharge from steel/metal factories.                                     |

**Radioactive Contaminants:**

| Collection Date | Contaminant               | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Unit of Measure | Violation | Likely Source of Contaminant |
|-----------------|---------------------------|------------------------|--------------------------|------|-----|-----------------|-----------|------------------------------|
| 12/19/2013      | Combined Radium 226 & 228 | 1                      | 1-1                      | 0    | 5   | pCi/L           | NO        | Erosion of natural deposits. |

**Maximum Residual Disinfectant Level:**

| Collection Date | Disinfectant            | Average Level | Range of Levels Detected | MRDL | MRDLG | Unit of Measure | Violation | Source of Disinfectant                                  |
|-----------------|-------------------------|---------------|--------------------------|------|-------|-----------------|-----------|---|
| 2019            | Chlorine Residual, Free | 1.23          | 0.87-1.95                | 4    | 4     | ppm             | NO        | Water additive (Chlorine Gas) used to control microbes. |

**Coliform Bacteria:**

| MCL Goal | Total Coliform MCL         | Highest No. of Positive | Fecal Coliform or E. Coli MCL | Total No. of Fecal Coliform or E. Coli Samples | Violation | Likely Source of Contamination       |
|----------|----------------------------|-------------------------|-------------------------------|--|-----------|--------------------------------------|
| 0        | No Positive Monthly Sample | No Sample Was Positive  | 0                             | 0  | NO        | Naturally Present in the Environment |

**Lead and Copper:**

| Collection Date | Contaminant | MCLG | Action Level (AL) | 90 <sup>th</sup> Percentile | No. Sites Over AL | Units | Violation | Likely Source of Contaminant  |
|-----------------|-------------|------|-------------------|-----------------------------|-------------------|-------|-----------|---|
| 09/21/2018      | Lead        | 0    | 15                | 1.2                         | 0                 | ppb   | NO        | Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems. |
| 09/21/2018      | Copper      | 1.3  | 1.3               | 0.44                        | 0                 | ppm   | NO        | Corrosion of household plumbing systems; erosion of natural deposits.                                   |

**Violation Table & Fecal Coliform:**

**NO VIOLATIONS FOR THE YEAR 2019 & REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA FOR THE YEAR 2019**