

WATER QUALITY 2021



PWS# 0290065

EXCELLENCE IN WATER QUALITY

Port O'Connor Improvement District 361-983-2652

GBRA Water Treatment Plant 361-552-9751

Dear Customer,

The Port O'Connor Improvement District (POCID) is pleased to provide you with the 2021 Water Quality Report (January 1-December 31, 2021). We take all possible precautions to safeguard your water supply and hope you will be encouraged to learn about the high quality of water provided to you.

The federal Safe Drinking Water Act (SDWA) requires water utilities to issue an annual report to customers, in addition to other notices that may be required by law. This report explains where your drinking water comes from, what it contains, and the health risks our water testing and treatment are designed to prevent.

We are committed to providing you with information about your water supply because informed customers are our best allies in supporting improvements needed to maintain the highest drinking water standards.

We are proud to report that the Texas Commission on Environmental Quality (TCEQ) has assessed our system and determined that your drinking water, provided by the Port O'Connor Improvement District through the Guadalupe-Blanco River Authority's surface water treatment plant, meets or exceeds all federal and state water quality standards.

The tables on this report list all substances that were detected in our treated water, and the highest level at which they were detected. The tables also reflect the highest levels allowed by federal regulatory agencies. Please read this information carefully and if you have questions, call the numbers listed in this report. An electronic version of this report can be found at www.gbra.org/documents/publications/ccrs/2021/PortOConnor.pdf

Customer Views Welcome

The POCID strongly supports the national primary water regulation compliance process. If you are interested in learning more about the water department, water quality, or participating in the decision-making process, there are a number of opportunities available.

Questions about water quality can be answered by calling the Improvement District at 361-983-2652 from 8 am – 5 pm, Monday through Friday. Inquiries about public participation and policy decisions should be directed to the District office in Port O'Connor at 39 Denman Dr., Box 375, Port O'Connor, Texas 77982. The District Directors hold their monthly meeting the third Tuesday of each month at 6:00 pm.

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. 361-983-2652 para hablar con una personal bilingüe en español durante las horas regulares de oficina (8 am – 5 pm).



CONSERVE WATER/SAVE WATER!

Water Saving Tips: Reduce indoor water usage by 40-50% by installing low-flush toilets and low flow fixtures
Water lawns once a week rather than a short period every day
Fix leaks and stop the dripping faucets
American Water Works Drip calculator to estimate water waste:
<https://drinktapp.org/Water-Info/Water-Conservation/Drip-Calculator>

Information about your 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 immunocompromised 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).

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>.

Where Do We Get Our Drinking Water?

POCID received its water from surface water diverted from the Guadalupe River and treated at the GBRA Port Lavaca Water Treatment Plant operated by the Guadalupe-Blanco River Authority (GBRA).

A Source Water Susceptibility Assessment for your drinking water source was conducted by TCEQ in 2004. This 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 GBRA Water Treatment Plant at 361-552-9751.

Trained operators monitor and test the water, including the addition of fluoride and chloramine, to ensure that our water meets or exceeds all state and federal drinking water standards. The treated water is delivered to the District's water storage tanks and delivered through its distribution system to you. A well located near the POC ID office is blended with the GBRA water on a regular basis. This well gets its water from the Gulf Coast Aquifer. For information on the treatment of your drinking water and water quality protection efforts, contact the GBRA Port Lavaca Water Treatment Plant at 361-552-9751, or, for the well water quality information, contact the POC ID office at 361-983-2652.

What We Found

The following tables list the contaminants that have been found in your drinking water. USEPA requires water systems to test for more than 97 contaminants. The column marked "Highest Level at Any Sampling Point" shows the highest test results during the year. The "Source of Contaminant" column shows where the substance usually originates.

DEFINITIONS and ABBREVIATIONS

Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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 MCL's are based on running annual average of monthly samples.

Maximum Contaminant Level (MCL) – the highest level of the contaminant allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) – the level of a contaminant in drinking water below which there is no known or expected health risk. MCLG's 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.

NA – Not Applicable

ND – Not Detected

NTU's – Nephelometric Turbidity Units

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

ppm – parts per million, or milligrams per liter (mg/L)

ppb – parts per billion (ug/L)

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 water 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.



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TABLE I - Test results for the GBRA water supply to Port O'Connor Improvement District (Sampled at the GBRA Water Treatment Plant)

| Year | Detected Constituent | Highest Level of Any Sample Point | Number of Analyses | MCL | MCLG | Units of Measure | Source of Constituent |
|-------------------|----------------------|-----------------------------------|--------------------|-----|------|------------------|---|
| Inorganics | | | | | | | |
| 2021 | Fluoride | 0.52 | 1 | 4 | 4 | ppm | Erosion of natural deposits; water additive which promotes strong teeth; runoff from fertilizer use. |
| 2021 | Barium | 0.0789 | 1 | 2 | 2 | ppm | Discharge of drilling wastes; erosion of natural deposits. |
| 2021 | Nitrate | 0.76 | 1 | 10 | 10 | ppm | Runoff from fertilizer use; leaching from septic tanks; treated wastewater effluent; erosion of natural deposits. |
| 2021 | Chromium | ND | 1 | 100 | 100 | ppb | Discharge from steel and pulp mills; erosion of natural deposits. |
| 2017 | Gross Beta Emitters | 5.6 | 1 | 50 | 0 | pCi/l | Decay of mineral and man-made deposits. |

| Year | Detected Constituent | Concentration Detected | Number of Analyses | MCL | MCLG | Unit of Measure | Source of Constituent |
|------|----------------------|------------------------|--------------------|-----|------|-----------------|--|
| 2021 | Atrazine | 0.1 | 1 | 3 | 3 | ppb | Runoff from herbicide used on row crops. |

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in the following table. For additional information and data visit <http://www.epa.gov/safewater/ucmr/ucmr2/index.html>, or call the Safe Drinking Water Hotline at (800) 426-4791.

| Year | Constituent | Average Concentration of Analysis | Range of Detected Levels | Reason for Monitoring |
|-------------------------|------------------------|-----------------------------------|--------------------------|---|
| Trihalomethanes | | | | |
| 2021 | Chloroform | 18.16 | 7.9-43.3 | Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. |
| 2021 | Bromoform | 3.02 | 2.0-3.9 | |
| 2021 | Bromodichloromethane | 22.08 | 12.9-41.8 | |
| 2021 | Chlorodibromomethane | 15.58 | 9.9-21.7 | |
| Haloacetic Acids | | | | |
| 2021 | Chloroacetic acid | ND | ND-ND | Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. |
| 2021 | Dichloroacetic acid | 14.4 | 5.9-30.6 | |
| 2021 | Trichloroacetic acid | 7.1 | 2.7-15.7 | |
| 2021 | Bromoacetic acid | ND | ND-ND | |
| 2021 | Dibromoacetic acid | 4.3 | 3.3-5.2 | |
| 2021 | Bromochloroacetic acid | 9.1 | 4.9-14.7 | |

Disinfection Byproducts

| Year | Contaminant | Average level | Minimum level | Maximum level | MCL | Unit of Measure | Source of Contaminant |
|------|------------------------|---------------|---------------|---------------|-----|-----------------|---|
| 2021 | Total Haloacetic Acids | 25.83 | 11.9 | 51.5 | 60 | ppb | Byproduct of drinking water disinfection. |
| 2021 | Total Trihalomethanes | 63.65 | 37.2 | 110 | 80 | ppb | Byproduct of drinking water disinfection. |

Turbidity

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.

| Year | Detected Constituent | Highest Single Measurement | Lowest Monthly % of Samples Meeting Limits | Turbidity Limits | Unit of Measure | Source of Constituent |
|------|----------------------|----------------------------|--|------------------|-----------------|-----------------------|
| 2021 | Turbidity | 0.22 | 100 | 0.3 | NTU | Organic particles. |

Disinfectant Residuals

| Year | Constituent | Highest Average | Range of Detects (low-high) | MRDL | MCLG | Units | Source of Constituent |
|------|-------------|-----------------|-----------------------------|------|------|-------|--|
| 2021 | Chloramines | 3.68 | 1.0-5.0 | 4 | 4 | ppm | Disinfectant used to control microbes. |

Secondary and Other Constituents Not Regulated

(No associated adverse health effects)

| Year | Constituent | Measured Concentration | Number of Analyses | Secondary Limit | Unit of Measure | Source of Constituent |
|------|---------------------------|------------------------|--------------------|-----------------|-----------------|---|
| 2021 | Aluminum | 42.5 | 1 | 50 | ppb | Abundant naturally occurring element |
| 2021 | Bicarbonate | 201 | 1 | NA | ppm | Corrosion of carbonate rocks such as limestone. |
| 2021 | Calcium | 70.3 | 1 | NA | ppm | Abundant naturally occurring element. |
| 2021 | Chloride | 101 | 1 | 300 | ppm | Abundant naturally occurring element, used in water purification, byproduct of oil field activity. |
| 2021 | Copper | 0.0866 | 1 | NA | ppm | Corrosion of household plumbing systems; erosion from natural deposits; leaching from wood preservatives. |
| 2021 | Hardness as Ca/Mg | 248 | 1 | NA | ppm | Naturally occurring calcium and magnesium. |
| 2021 | Magnesium | 17.5 | 1 | NA | ppm | Abundant naturally occurring element. |
| 2021 | pH | 7.7 | 1 | 7 | units | Measure of corrosivity of water. |
| 2021 | Nickel | 0.0039 | 1 | 0.1 | ppm | |
| 2021 | Sodium | 73.3 | 1 | NA | ppm | Erosion of natural deposits. Byproduct of oil field activity. |
| 2021 | Zinc | ND | 1 | 5 | ppm | |
| 2021 | Sulfate | 97 | 1 | 300 | ppm | Naturally occurring, common industrial byproduct, byproduct of oil field activity. |
| 2021 | Total Alkalinity as CaCO3 | 165 | 1 | NA | ppm | Naturally occurring soluble mineral salts. |
| 2021 | Total Dissolved Solids | 491 | 1 | 1000 | ppm | Total dissolved mineral constituents in water. |
| 2021 | Potassium | 8.23 | 1 | NA | ppm | |
| 2021 | Cyanide | ND | 1 | NA | ppm | |
| 2021 | Iron | ND | 1 | NA | ppm | Abundant naturally occurring element. |

TOC (Total Organic Carbon)

Total organic carbon (TOC) has 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 | Detected Constituent | Average Measurement | Minimum Measurement | Maximum Measurement | Units of Measurement | Source of Constituent |
|------|----------------------|---------------------|---------------------|---------------------|----------------------|--|
| 2021 | Source Water TOC | 5.48 | 2.23 | 12.9 | ppm | Naturally occurring and there are no health effects directly associated with it. |
| 2021 | Drinking Water | 2.86 | 1.46 | 5.59 | ppm | Naturally occurring and there are no health effects directly associated with it. |
| 2021 | Removal Ratio | 1.98 | 1.42 | 2.33 | % | NA |

Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Coliform Bacteria

| Maximum Contaminant Level Goal | Highest No. of Coliform Positive | E.Coli Maximum Containment Level | Total No. of Positive E.Coli Samples | Violation | Likely Source of Contamination |
|--------------------------------|----------------------------------|---|--------------------------------------|-----------|--------------------------------------|
| 0 | 0 | System has a combination of routine and repeat coliform and E.coli positive samples | 0 | N | Naturally present in the environment |

Violations Table

No Violations

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Table II - Tests results for Port O'Connor Improvement District customers (As sampled in the Port O'Connor blended distribution system)

| Inorganics | | | | | | | |
|---|---------------------------|--------------------------------|----------------------------------|---|------|-----------------|---|
| Year | Detected Constituent | Highest measured Concentration | Number of Analyses | MCL | MCLG | Unit of Measure | Source of Constituent |
| 2020 | Gross Alpha | 3.1 | 1 | 5 | NA | pCi/L | Decay of minerals and man-made deposits |
| 2021 | Nitrogen, Nitrate | 0.07 | 4 | 10 | 10 | ppm | Runoff from fertilizer use; leaching from septic tanks; treated wastewater effluent; erosion of |
| 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. | | | | | | | |
| Organics | | | | | | | |
| Year | Detected Constituent | Concentration Detected | Number of Analyses | MCL | MCLG | Unit of Measure | Source of Constituent |
| 2021 | Carbon Tetrachloride | 0.5 | 1 | 6 | 0 | ppb | Runoff from industrial and hazardous waste sites |
| 2021 | Hexadecanoic Acid | 4.9 | 1 | NA | NA | ppb | Found in animal products such as meat and dairy |
| 2021 | Octadecanoic Acid | 5.5 | 1 | NA | NA | ppb | Found in animal products such as meat and dairy |
| 2021 | Atrazine | 0.11 | 1 | NA | NA | ppb | Runoff from herbicide used on row crops. |
| Lead and Copper (Analyzed every 3 years) | | | | | | | |
| Year | Detected Constituent | The 90th Percentile | Number of Sites Exceeding Action | Action Level | | Unit of Measure | Source of Constituent |
| 2021 | Lead | 0.74 | 0 | 15 | | ppb | Corrosion of house hold plumbing systems; erosion of natural deposits |
| 2021 | Copper | 0.257 | 0 | 1.3 | | ppm | Corrosion of house hold 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. This water supply 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 . | | | | | | | |
| Maximum Residual Disinfectant Level | | | | | | | |
| Systems must complete and submit 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. | | | | | | | |
| Year | Disinfectant | Average level | Minimum level | Maximum level | MRDL | Unit of Measure | Source of Constituent |
| 2021 | Chloramine Residual | 1.435 | 0.5 | 3.7 | 4 | ppm | Disinfectant used to control microbes. |
| Total Trihalomethanes | | | | | | | |
| Year | Detected Constituent | Average of Sampling Points | Range of Detected Levels | MCL | MCLG | Unit of Measure | Source of Constituent |
| 2021 | Total Trihalomethanes | 61.4 | 41.3-100 | 80 | 0 | ppb | By-product of drinking water chlorination. |
| Haloacetic Acids (HAA5) | | | | | | | |
| Year | Detected Constituent | Average of Sampling Points | Range of Detected Levels | MCL | MCLG | Unit of Measure | Source of Constituent |
| 2021 | Total Haloacetic Acids | 26.9 | 15.4-45.7 | 60 | 0 | ppb | By-product of drinking water chlorination. |
| Total Coliform | | | | | | | |
| Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms, therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. | | | | | | | |
| Total Coliform | | | | | | | |
| REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA. | | | | | | | |
| Fecal Coliform | | | | | | | |
| REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA. | | | | | | | |
| Violations Table | | | | | | | |
| Violation Type | Violation Begin | | Violation End | Violation Explanation | | | |
| Monitoring, Routine, Major (DBP) | 4/1/2021 | | 6/30/2021 | 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 for the Port O'Connor Improvement District. | | | | | | | |
| 25.889 MG (million gallons) for the year or 21.0 % | | | | | | | |
| Secondary and Other Constituents Not Regulated | | | | | | | |
| (No associated adverse health effects) | | | | | | | |
| Year | Constituent | Measured Concentration | Number of Analyses | Secondary Limit | | Unit of Measure | Source of Constituent |
| 2021 | Aluminum | 28.1 | 1 | 50 | | ppb | Abundant naturally occurring element |
| 2021 | Arsenic | ND | 1 | 0.01 | | ppm | |
| 2021 | Bicarbonate | 306 | 1 | NA | | ppm | Corrosion of carbonate rocks such as limestone. |
| 2021 | Calcium | 57.1 | 1 | NA | | ppm | Abundant naturally occurring element. |
| 2021 | Chloride | 252 | 1 | 250 | | ppm | Abundant naturally occurring element, used in water purification, byproduct of oil field activity. |
| 2021 | Copper | 0.0535 | 1 | NA | | ppm | Corrosion of household plumbing systems; erosion from natural deposits; leaching from wood preservatives. |
| 2021 | Fluoride | 0.5 | 1 | 4 | | ppm | Erosion of natural deposits; water additive which promotes strong teeth; runoff from fertilizer use |
| 2021 | Hardness as Ca/Mg | 212 | 1 | NA | | ppm | Naturally occurring calcium and magnesium. |
| 2021 | Magnesium | 16.9 | 1 | NA | | ppm | Abundant naturally occurring element. |
| 2021 | Manganese | 0.0065 | 1 | NA | | ppm | |
| 2021 | Nickel | 0.0028 | 1 | 0.1 | | ppm | |
| 2021 | Sodium | 225 | 1 | NA | | ppm | Erosion of natural deposits. Byproduct of oil field activity. |
| 2021 | Selenium | 0.0048 | 1 | 0.05 | | ppm | |
| 2021 | Zinc | ND | 1 | 5 | | ppm | |
| 2021 | Sulfate | 73 | 1 | 300 | | ppm | Naturally occurring, common industrial byproduct, byproduct of oil field activity. |
| 2021 | Total Alkalinity as CaCO3 | 251 | 1 | NA | | ppm | Naturally occurring soluble mineral salts. |
| 2021 | Total Dissolved Solids | 786 | 1 | 500 | | ppm | Total dissolved mineral constituents in water. |
| 2021 | Potassium | 7.93 | 1 | NA | | ppm | |
| 2021 | Cyanide | 0.04 | 1 | 0.2 | | ppm | |
| 2021 | Iron | 0.028 | 1 | NA | | ppm | Abundant naturally occurring element. |

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