



ANNUAL DRINKING WATER QUALITY REPORT

Pine Village PUD
TX1010901

2022
CALENDAR YEAR
RESULTS

ABOUT THIS REPORT

Our Drinking Water Meets or Exceeds All Federal and State Drinking Water Requirements.

Requirements. 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 testing. We hope this information helps you become more knowledgeable about what's in your drinking water.

SPECIAL NOTICE FOR THE ELDERLY, INFANTS, CANCER PATIENTS, PEOPLE WITH HIV/AIDS OR OTHER IMMUNE PROBLEMS

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly or immuno-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 for 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: (800-426-4791).

En Español

Este reporte incluye informacion importante sobre el agua para tomar.
Para asistencia en español, favor de llamar al telefono (281) 367-5511.

WHERE DO WE GET OUR WATER?

PINE VILLAGE PUD WATER SOURCES

Pine Village PUD provides ground water year-round from the district wells and surface water purchased from the City of Houston.



SURFACE WATER SOURCE

**SAN JACINTO RIVER
(LAKE CONROE & LAKE HOUSTON)**

Treated by the City of Houston at the Northeast Water Purification Plant.



GROUNDWATER SOURCE

**1 DISTRICT WELL
(EVANGELINE AQUIFER)**

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.

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on the 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, please contact our Regulatory Compliance Department at (281) 367-5511 or compliance@municipalops.com.

WATER CONSERVATION TIPS



OUTDOORS

SET SPRINKLER TIMER, ADJUST DURING DIFFERENT SEASONS

SUMMER LAWN CARE

- WATER IN EARLY MORNING OR LATE EVENING
- SET MOWER TO HIGHER SETTING TALLER GRASS HOLDS IN MORE MOISTURE AND REQUIRES LESS WATERING
- 1" OF WATER A WEEK KEEPS YOUR LAWN HEALTHY



INDOORS

TAKE A SHOWER INSTEAD OF A BATH

ALWAYS RUN YOUR CLOTHES WASHER AND DISHWASHER WITH A FULL LOAD

CHECK FOR LEAKS IN YOUR TOILETS AND FAUCETS EVERY SIX MONTHS

ONLY RUN WATER TO RINSE WHEN

- BRUSHING TEETH
- SHAVING
- WASHING HANDS

WATER QUALITY DATA

EPA requires water systems to test for more than 90 contaminants in drinking water. The data tables in this report contain all of the regulated contaminants detected in your water. The state of Texas allows us to monitor for some contaminants less than once per year because the concentrations do not change frequently. The year that each result was detected is indicated in the tables.

Definitions, abbreviations, and sources of detected contaminants can be found on the last page of this report.

PINE VILLAGE PUD MONITORING RESULTS

| INORGANIC CONTAMINANTS | | | | | | | |
|--------------------------------|------------------------------|------------------------|--------------------------|------|-------|-------|-----------|
| Year | Contaminant | Highest Level Detected | Range of Detected Levels | MCL | MCLG | Units | Violation |
| 2021 | Arsenic | 3.7 | 3.7 - 3.7 | 10 | 0 | ppb | No |
| 2021 | Barium | 0.111 | 0.111 - 0.111 | 2 | 2 | ppm | No |
| 2020 | Cyanide | 90 | 90 - 90 | 200 | 200 | ppb | No |
| 2021 | Fluoride | 0.19 | 0.19 - 0.19 | 4 | 4 | ppm | No |
| 2022 | Nitrate | 1 | 0.91 - 0.91 | 10 | 10 | ppm | No |
| SYNTHETIC ORGANIC CONTAMINANTS | | | | | | | |
| Year | Contaminant | Highest Level Detected | Range of Detected Levels | MCL | MCLG | Units | Violation |
| 2022 | Atrazine | 1 | 0.93 - 0.93 | 3 | 3 | ppb | No |
| 2022 | Simazine | 0.07 | 0.07 - 0.07 | 4 | 4 | ppb | No |
| DISINFECTANT BYPRODUCTS | | | | | | | |
| Year | Contaminant | Highest LRAA | Range of Detected Levels | MCL | MCLG | Units | Violation |
| 2022 | Haloacetic Acids (HAA5) | 10 | 5.3 - 9.9 | 60 | None | ppb | No |
| 2022 | Total Trihalomethanes (TTHM) | 9 | 6.1 - 9.8 | 80 | None | ppb | No |
| DISINFECTANT RESIDUAL | | | | | | | |
| Year | Disinfectant | Average Level | Range of Detected Levels | MRDL | MRDLG | Units | Violation |
| 2022 | Chloramines (Total Chlorine) | 3.25 | 1.22 - 4.5 | 4 | 4 | ppm | No |

PINE VILLAGE PUD MONITORING RESULTS, CONTINUED

| LEAD AND COPPER | | | | | | | |
|-----------------|-------------|-----------------|------------------------------|-----|------|-------|-----------|
| Year | Contaminant | 90th Percentile | Number of Sites Exceeding AL | AL | MCLG | Units | Violation |
| 2021 | Copper | 0.068 | 0 | 1.3 | 1.3 | ppm | No |
| 2021 | Lead | 2.3 | 0 | 15 | 0 | ppb | No |

| RADIOACTIVE CONTAMINANTS | | | | | | | |
|--------------------------|---|------------------------|--------------------------|-----|------|-------|-----------|
| Year | Contaminant | Highest Level Detected | Range of Detected Levels | MCL | MCLG | Units | Violation |
| 2018 | Gross Alpha excluding Uranium and Radon | 3.5 | 3.5 - 3.5 | 15 | 0 | pCi/L | No |

CITY OF HOUSTON MONITORING RESULTS

Throughout 2022, Pine Village PUD received surface water through an open interconnect with the City of Houston. The City of Houston receives water from the City of Houston Acres Homes, East, and Northeast Water Purification Plants (PWS # 1010013 Entry Points 003, 101 and 141). The following table contains information from these water supplies.

| INORGANIC CONTAMINANTS | | | | | | | |
|------------------------|-------------|------------------------|--------------------------|-----|------|-------|-----------|
| Year | Contaminant | Highest Level Detected | Range of Detected Levels | MCL | MCLG | Units | Violation |
| 2022 | Nitrate | 0.29 | 0.29 - 0.29 | 10 | 10 | ppm | No |

| TURBIDITY | | | | | | | |
|-----------|-------------|----------------------------|------------------------------------|-----|------|-------|-----------|
| Year | Contaminant | Highest Single Measurement | Lowest Monthly Percentage <0.3 NTU | MCL | MCLG | Units | Violation |
| 2022 | Turbidity | 0.51 | 99.4% | TT | 0 | NTU | No |

DRINKING WATER CONTAMINANTS

ALL DRINKING WATER MAY CONTAIN CONTAMINANTS. 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 CALL (281) 367-5511.

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, 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.

ARSENIC

THIS DISTRICT'S DRINKING WATER CONTAINS LOW LEVELS OF ARSENIC, WHICH IS BELOW THE STATE AND FEDERAL ACTION LEVELS. EPA'S STANDARD BALANCES ARSENIC'S POSSIBLE HEALTH EFFECTS AGAINST THE COSTS OF REMOVING IT FROM DRINKING WATER. EPA CONTINUES TO RESEARCH THE HEALTH EFFECTS OF LOW LEVELS OF ARSENIC, WHICH IS A MINERAL KNOWN TO CAUSE CANCER IN HUMANS AT HIGH CONCENTRATIONS AND IS LINKED TO OTHER HEALTH EFFECTS SUCH AS SKIN DAMAGE AND CIRCULATORY PROBLEMS.

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 IN-HOME PLUMBING. THE PINE VILLAGE PUD IS RESPONSIBLE FOR PROVIDING HIGH QUALITY DRINKING WATER BUT CANNOT CONTROL THE VARIETY OF MATERIALS USED IN IN-HOME PLUMBING COMPONENTS. WHEN WATER IN YOUR HOME PLUMBING HAS BEEN SITTING FOR SEVERAL HOURS, YOU CAN MINIMIZE THE POTENTIAL FOR LEAD EXPOSURE BY FLUSHING YOUR TAP FOR 30 SECONDS TO TWO 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 (800.426.4791) OR AT EPA.GOV/SAFEWATER/LEAD.

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.

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 CAUSES FOR HEALTH CONCERN. THEREFORE, SECONDARY CONSTITUENTS ARE NOT REQUIRED TO BE REPORTED IN THIS DOCUMENT, BUT THEY MAY GREATLY AFFECT THE APPEARANCE AND TASTE OF YOUR WATER.

CONTAMINANT SOURCES

| Contaminant | Source |
|-------------------------------|--|
| Arsenic | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes. |
| Atrazine | Runoff from herbicide used on row crops. |
| Barium | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Chlorine Residual | Water additive used to control microbes. |
| Copper | Corrosion of household plumbing systems; erosion of natural deposits. |
| Cyanide | Discharge from steel/metal factories; Discharge from plastic and fertilizer factories. |
| Fluoride | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Gross Alpha emitters | Erosion of natural deposits. |
| Lead | Corrosion of household plumbing systems; erosion of natural deposits. |
| Nitrate | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Simazine | Herbicide runoff. |
| Total Trihalomethanes (TTHM) | By-product of drinking water disinfection. |
| Total Haloacetic Acids (HAA5) | By-product of drinking water disinfection. |
| Turbidity | Soil runoff. |

PUBLIC INPUT OPPORTUNITY

YOUR WATER BOARD MEETS AT 4:30 PM ON THE SECOND WEDNESDAY OF THE MONTH AT 3000 ALDINE MAIL ROUTE ROAD HOUSTON, TEXAS 77039 TO LEARN ABOUT FUTURE PUBLIC MEETINGS CONCERNING YOUR DRINKING WATER, OR TO REQUEST TO SCHEDULE ONE, PLEASE CALL US AT 281-367-5511.

DEFINITIONS AND ABBREVIATIONS

| | |
|---|--|
| 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. |
| Action Level (AL) | The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| Avg | Regulatory compliance with some MCLs are based on running annual average of monthly samples. |
| Level 1 Assessment | 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 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 Goal or MCL | 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. |
| MFL | million fibers per liter (a measure of asbestos) |
| mrem | millirems per year (a measure of radiation absorbed by the body) |
| na | not applicable. |
| ND | non-detect. Indicates a contaminant was not detected in the sample. If contaminant was present it was below the detection limit for the laboratory test. |
| 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 | Required process intended to reduce the level of a contaminant in drinking water. |

CONTACT US

QUESTIONS ABOUT THIS REPORT OR YOUR WATER QUALITY? PLEASE EMAIL COMPLIANCE@MUNICIPALOPS.COM OR CALL 281-367-5511 TO SPEAK WITH A MEMBER OF OUR REGULATORY COMPLIANCE TEAM.