# JCSUD

PWS ID: TX 1260018 Phone 817.760.5200

## JOHNSON COUNTY SPECIAL UTILITY DISTRICT


# Consumer Confidence Annual Water Quality Report

For 2017, this report is intended to provide you with information about your drinking water and the efforts made by the District to provide safe drinking water. For this publication, the District utilizes the latest available test results data. Providing water / wastewater services to some 15,000 connections, JCSUD's service area covers the majority of rural Johnson County and some of Tarrant, Ellis and Hill counties. The article below lists just some of the recent projects that are integral in keeping the long-term commitment to provide safe drinking water now and in the future at the fairest reasonable cost while conserving resources. The Board of Directors and Staff are partnered together to demonstrate the District's best management practice to uphold our credibility as a public utility and regional water supplier.

## Major Achievements in 2016

Terry Kelley, G.M.

*20" line from TST to FM 917 - Master Plan Project* It was a big sigh of relief to finalize this project to extend 2836 linear feet of transmission line from the 3 MG storage tank on Brushy Nob Hill west of Joshua to FM 917. A few years prior to 2015 when construction began, it was a worrisome thought contemplating how we would be able to implement this vital project and obtain a good route and acquire the easements in such a congested area as this built-out, older subdivision which wraps around the bottom of a hill surrounding the "crown jewel" pump station of the JCSUD system. It all fell into place seemingly without a hitch. Our operations staff did a fine job to craft a route and worked very well with local residents for their consensus where it was needed. We had a fine engineer to design the work and partner with our key staff to oversee the work through completion of construction totaling $492K.

*Redline Projects* Each year meeting the demand to serve more and more connections is a growing challenge. Adding new meters today to the smaller water lines installed decades ago (but seemed adequately sized then) eventually become problematic. About one-third of the system consists of 3-inch and smaller diameter lines. JCSUD maintains a system hydraulic model tool that enables best management practice to predict system parameters based on proposed growth where it is anticipated. Line segments are identified and ranked in accordance with needing to be upsized or replaced. Lines designated as priority are called "redlines." The District's strategy is to replace or supplement existing lines with larger ones as soon as practical. Compared to normal construction projects requiring a higher level of engineering, design, and easement acquisition, the District staff manages redline projects. The preliminary planning work isn't as detailed as the construction new subdivisions may require. However, the construction phase is outsourced to a selected contractor based on competitive quantity pricing and their ability to perform the work over the course of several projects as long as pricing remains competitive and relatively constant.

Since 2013, the District has made good progress for this category of capital improvements. In 2015 we completed 9,400 linear feet of 8 inch and 12 inch pipe for $546K. Last year in 2016 some 4653 linear feet of 6 inch line was installed on CR 305B. Over the last four years redline projects funded through 2016 totals $1.38 million for about 7.6 miles (comparable to Cleburne courthouse to Joshua City Hall) of 6, 8, and 12 inch pipe. Future projects will be identified, ranked, and scheduled in subsequent years as the Master Plan stipulates.

*Community Development Grant Project* This wastewater project extended 3,712 feet of 4" and 6" force main (moving sewer uphill to a point where gravity carries it to the treatment plant) and was completed in 2016. The District submitted for this grant application in 2012. In 2014 the District was awarded a $500,000 grant towards this important improvement project in the Joshua area. The grant was approved through the Community Development Block Grant program as administered by the Texas Department of Agriculture whereby federal HUD dollars are distributed throughout the states. The grant calls for JCSUD's match to be at least $55,000 (depending on total construction cost). Upon completion the grant contribution funded 71% of this much needed improvement for JCSUD's relatively small sewer collection system with only 1900 connections.

## Current Initiatives

*Grand Prairie Water Supply Contract Transfer to Mansfield* JCSUD contracted with the City of Grand Prairie in 2009 for 6 MGD of treated water. This supply capacity volume is JCSUD's element of "insurance" to meet growth projections beyond 2030. Last year this project was reported as a management strategy to extend a transmission line to a take-point location with Grand Prairie at U.S. Hwy 287 and U.S. Hwy 360. However, after careful thought and collaboration with key contacts from Grand Prairie and Mansfield, this project (estimated $750K) will be replaced with a better plan. GP has a water purchase agreement with Mansfield to take an additional 6 MGD when JCSUD connects with GP. It works best for JCSUD to gain consensus with GP and Mansfield to "transfer" this same capacity volume directly to JCSUD. In this way, JCSUD would have a (closer) second take-point location with Mansfield and negate the need for extending a longer transmission line to the GP take-point location. To date, both GP and Mansfield are agreeable to make this change. Mansfield and the District have tentatively selected a second take-point location and they are currently reviewing the JCSUD water purchase agreement to eventually incorporate the proper language to commemorate the transfer in a newly updated contract document.

*Redline Projects* In 2017 the Capital Improvements Program is more robust to schedule five redline projects with a combined estimated cost of $495K for approximately 22K linear feet of planned 6 and 8 inch pipe.

*Read more on last page, 'Current Initiatives'*

## REGULATED SUBSTANCES

| Substance | Unit of Measure | Year | High Level Detected | Range of Levels | MCL | MCLG | Typical Source |
|---|---|---|---|---|---|---|---|
| Barium | ppm | 2016 | 0.064 | 0.024 - 0.064 | 2 | 2 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits. |
| Fluoride | ppm | 2015 | 1.63 | 1.63 – 1.63 | 4 | 4 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| Nitrate | ppm | 2016 | 1 | 0 - 0.79 | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits. |
| Chromium | ppb | 2016 | 3.6 | 1.6 – 3.6 | 100 | 100 | Discharge from steel and pulp mills; Erosion of natural deposits. |
| Arsenic | ppb | 2016 | 1.8 | 0 – 1.8 | 10 | 0 | Discharge from rubber and chemical factories. |
| Beta/photon emitters | pCi/L | 2011 | 5 | 0 – 5 | 50 | 0 | Decay of natural and man-made deposits. |

*EPA considers 50 pCi/L to be the level of concern (MCL) for beta particles.*

### Maximum Residual Disinfectant Level

| Disinfectant | Unit of Measure | Year | Average Level | Range of Levels | MRDL | MRDLG | Typical Source |
|---|---|---|---|---|---|---|---|
| Chloramines Free Chlorine | ppm | 2016 | 2.35 | 0.4 – 3.82 | 4.0 | <4.0 | Water additive used to control microbes |

### Disinfection Byproducts

| Substance | Unit of Measure | Year | Average Level | Range of Levels | MCL | Typical Source |
|---|---|---|---|---|---|---|
| Haloacetic Acids (HAA5) | ppb | 2016 | 28 | 2.9 – 47 | 60 | By-products of drinking water chlorination |
| Total Trihalomethanes | ppb | 2016 | 54 | 18.8 – 75.9 | 80 | |

*Turbidity is a measure of the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, samples taken to measure turbidity met water quality standards.*

| Substance | Unit of Measure | Year | Highest Single Measurement | Lowest Monthly % of Samples Meeting Limits | Turbidity Limits | MCL | Typical Source |
|---|---|---|---|---|---|---|---|
| Turbidity | NTU | 2016 | .38 | 99.4% | 0.3 | TT | Soil Runoff |

### *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 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 to take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at http://www.epa.gov/safewater/lead.

*Tap water samples were collected for lead and copper analyses from homes throughout the service area.*

| Lead and Copper | Unit of Measure | Sampled | The 90th Percentile | No. of Sites Above AL | Action Level | Typical Source |
|---|---|---|---|---|---|---|
| Copper | ppm | 2016 | 0.15 | 0 | 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits. Leaching from wood preservatives. |
| Lead | ppb | 2016 | 3.17 | 1 | 15 | Corrosion of household plumbing systems; Erosion of natural deposits. |

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

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosiveness. Lead and copper enter drinking water mainly from corrosion of service lines and home plumbing.

| Violation Type | Begin | End | Explanation |
|---|---|---|---|
| Follow-up or Routine tap M/R (LCR) | 10/1/2016 | 2016 | In 2016, 30 samples for Lead/Copper were taken during the required duration from June 1 thru Sept 30th. All samples were delivered to the Lab for testing by Sept 29. TCEQ's deadline to receive the Lab reports for these samples was October 10. 29 of the 30 samples were tested and submitted to TCEQ timely. However, for some reason the 30th sample was not tested by the Lab until Oct 12. A violation occurred because TCEQ did not receive this last JCSUD sample report from the Lab until October 17. |

## Under the Microscope

We are pleased to report that during the past year, the water delivered to your home or business complies with all state and federal drinking water requirements. The tables on page 2 show what substances were detected in our drinking water during the last testing period. Although all of the substances listed are under the Maximum Contaminant Level (MCL) set by the U.S. Environmental Protection Agency (EPA), it is important to inform of what was detected and how much of the substance was present in the water. The state requires monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. Contaminants that may naturally exist in untreated water include organic biological elements, such as bacteria and viruses; inorganics, such as salts and metals; pesticides and herbicides; chemicals from industrial or petroleum use; and radioactive materials. Fortunately, the report shows that contaminants do not exist in our local sources at action levels.

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

**Some Secondary Substances**

This chart lists other items for which the water is tested. These items do not relate to public health but rather to aesthetic effects.
These items are often important to industrial users.

**No MCL exists**

| Item | Measure | Avg Level |
|---|---|---|
| Calcium | ppm | 02.39 |
| Iron | ppm | 0.04 |
| pH | units | 8.55 |
| Sodium | ppm | 222 |
| Total Hardness | ppm | 10.37 |

## Community Participation

The District is governed by a Board of seven directors, each serving three year terms. In accordance with the Texas Election Code, each year the District orders an election which is scheduled for the first Saturday in February. The last day to file for a place on the ballot is 60 days before the Election Day. To learn more about the District's governance and the schedule for the next election planning cycle, please call the office. The Board regularly meets on the third Tuesday of each month beginning at 5:30 pm at the District office. An open forum at the beginning of each meeting is a time to receive public comments or concerns by those who wish to attend. Address: 2849 S Highway 171, Cleburne, TX Phone: 817-760-5200

En Español:
Este informe incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (817) 760-5200.

## DEFINITIONS and ABBREVIATIONS

**MCLG:** Maximum Contaminant Level Goal. The level of a contaminant in drinking water which there is no known or expected health risk. MCLGs allow for a margin of safety.

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

**MRDL:** Maximum Residual Disinfectant Level. The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG:** Maximum Residual Disinfectant Level Goal. 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 disinfectant to control microbial contamination.

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

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

**NTU:** Nephelometric Turbidity Units

**ppm:** parts per million, or milligrams per liter (mg/L) – or one ounce in 7,350 gallons of water

**ppb:** parts per billion, or micrograms per liter (µg/l) – or one ounce in 7,350,000 gallons of water.

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


In the interest of conservation, the District has adopted the year-round policy that outdoor watering with sprinkler systems is prohibited between 10 am and 6 pm. This aligns with the idea to make every drop count.

## Convenient Options for our Customers:

- Go paperless. Receive email notification when bill is ready.
- Sign up to receive and pay bill with text message system.
- Call toll free number 1-877-768-0858 for automated pay.
- Visit website: http://www.jcsud.com to pay your bill online.
- Pay by mail, in person, or night drop.
- We accept Visa, MasterCard, Discover, American Express

## Source Water Assessment

The TCEQ completed an assessment of our source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detections of these substances may be found in this Consumer Confidence Report.

The District has two main water production sources. About 30 percent of total production comes from well water (Trinity Aquifer) and 70 percent is from purchased surface water from Lake Granbury and the City of Mansfield.

For more information about our focus on protection efforts, contact Danny Armstrong at 817-760-5200.

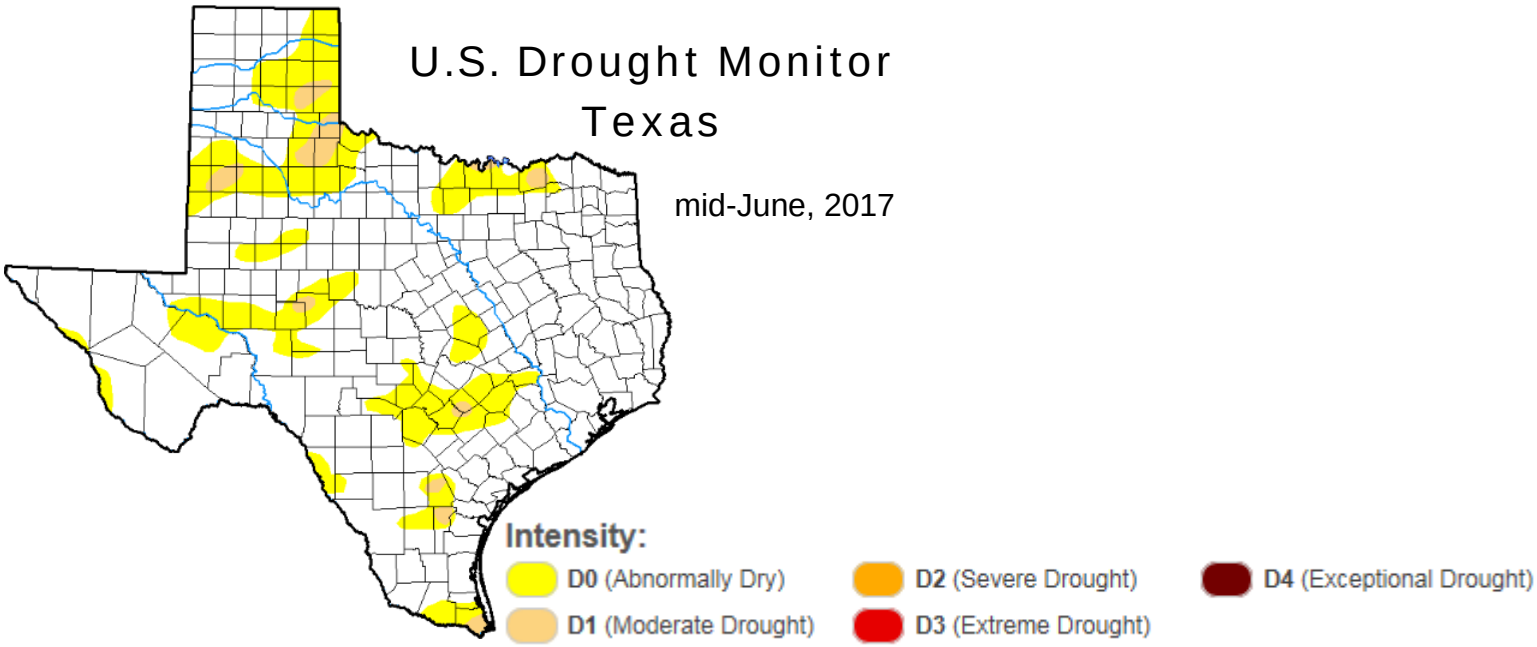
All sources are monitored and tested according to state regulations.

PWS ID# TX 1260018

*. . . cont'd 'Current Initiatives'*

*Relocate District Office/Service-Center Campus*

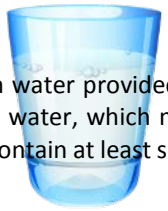
In 2012 a building fund account was set up towards the prospect of developing a new campus for a new central office and service center facilities. In January 2014, the District purchased property as the first big step towards this initiative. The current office location at 2849 S. Hwy. 171 was constructed in 1980 on a 5-acre tract in the southern part of the system. At the time, residential service was more populated in this part of Johnson County, mainly south of U.S. Hwy 67. Over the last 35 years, growth has shifted to make the northern half of the system the most dynamic in terms of water utility activities. New connections and capital improvements predominately occur in and around Joshua and the northern portion of the county. Also, the workforce has outgrown the existing work space. Inefficiency associated with workforce travel-time is eliminated in locating the new office/service-center campus to a more central location where the prevailing activity occurs in the system. The good news is that the funding model does not require issuing debt nor adjusting water rates to cover this project. As 2015 marked the 50-year anniversary of this organization's existence, moving ahead towards the next 50 years with a centrally located office complex affords proper amenities and enhances customer service. At the end of 2016, Phase 1 is substantially complete (about 45% of the total project) to have the Service Center and ancillary elements ready for the Operations department to mobilize and occupy in the Q1 2017. It is good to pass along that the building fund amount is sufficient to cover the remaining Phase 2 cost to complete the Administrative Office Building, parking and vehicular circulation for the new complex. Over half of the cost of the new office campus will be funded with non-operating revenues (other sources besides bill collections). Completion is expected mid-2018.




## *Special Health Information* *Required language for ALL community public water suppliers:*

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; 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 EPAs Safe Drinking Water Hotline at 1-800-426-4791.

## *Some Elements are Expected*



To ensure tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain elements in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Measurable amounts do not necessarily indicate that the water poses a health risk.

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, in fewer cases, radioactive material and substances resulting from the presence of animals or from human activity.

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