Johnson County Special Utility District

Annual Water Quality Report - Consumer Confidence 2019

This report published in 2019 is intended to provide you with information about your drinking water and the District's efforts to provide safe drinking water. The latest test results data, Jan-Dec 2018, is used for this publication. Providing water / wastewater services to some 17,000 connections, JCSUD's service area covers the majority of rural Johnson County and some of Tarrant and Hill counties.

Mission Statement

The Board of Directors and staff are united in providing quality drinking water with quality service, to plan best to accommodate growth, and apply the fairest, reasonable cost all while conserving resources.

A Snapshot Today, with a Look Back by Terry Kelley, GM

It is worth reporting to JCSUD (commonly pronounced as jace-sud) customers to observe where we have come over the last 8 years. In 2011, the water rate for the average residential monthly usage of 6K gallons was $57.00. Fortunately the District has succeeded to maintain rate stability so that for the same usage today at $59.50 is a nominal $2.50 increase since 2011. While the DFW rate of inflation on most goods and services streams around 3%; likewise water utilities in Johnson and Hood counties rose an average annual rate of 2.4% since 2009. Comparatively, JCSUD's average water cost to retail customers lags markedly behind at a rate of one-half of 1% annually over the last 8 years. The District's outlook through the upcoming 2020 budget cycle is expected to continue this same good trend.

Over the same 8-year interval, JCSUD has implemented $32.3 million in system improvements. Installing more waterlines and other distribution system improvements accounts for 30% of the total. 10% was allocated to wastewater plant/collection system upgrades, while 60% was dedicated to extending 12 miles of 30" transmission supply line in 2012-13 to transport purchased water from the City of Mansfield. Today, JCSUD has twice the transmission pumping capacity (from 10 MGD to 20 MGD) than 8 years ago. Other good statistics worth sharing:

	2011	*2018*	*notes*
total revenue	*$16.7M*	*$19.6M*	*17% increase*
total expense	*$10.7M*	*$11.7M*	*1% ann. increase*
total reserves	*$6.7M*	*$18M*	*2.7 times more*
total pumped	*1,898MG*	*1,901MG*	*2011 a record hot/dry yr.*
total accounts	*13,834*	*15,691*	*13% increase*
employees	*34*	*40*	*18% more workforce*

The increase in total revenue is near $3 million more today and attributable in part to wholesale collections; which now represents about 8% of water sales. Also, non-operating revenue is some $1.5 million more annually than 2011. Mainly due to keeping the system development fees updated to apply to the growing number of meters coming onto the system. In turn, it paves the way to maintain an active capital improvement program. Also, the District is enabled to issue new bond debt, all while managing the ratepayer's burden to not shoulder the brunt of the debt service. In 2011, the District's total outstanding debt was $27 million. In 2021, when the ongoing Capital Improvement Bundled Project is finally complete, the outstanding debt is projected to be about $34 million. This represents a 26% higher debt load than what the District had ten years ago. It is both expected and manageable, given the growth and the good financial trend shown above.

Surely the goodness is apparent in this report, as it reflects good fiscal practice to maintain water rate stability while applying strategic planning to implement projects timely. It's what we do every day to stay the course with delivering a steady, uninterrupted supply to meet the daily demand and manage a "growth pays for growth" mission.

Rest assured that management takes pride in striving to uphold the District's mission statement. Among 40 employees, a core group of 11 is the nucleus which serves in managerial or supervisory roles. For these 11, the average years-of-service with JCSUD is 15 years. Never before have we had such a team-spirited, cohesive managerial staff. This article highlighting the good trend over the last decade is but a short summary. Here's to hoping this message serves to instill favor and confidence in the daily work we do. Moreover, please remember those directors that represent you as they volunteer their time to serve on the Board of Directors. It is the Board's good actions which advocates management's practice to implement timely projects and programs. Good leadership here at JCSUD takes stewardship seriously to apply what is best for the good of the whole.

REGULATED SUBSTANCES

Substance	Unit of Measure	Year	Highest Level Detected	Individual samples range	MCL	MCLG	Typical Source
Barium	ppm	2017	0.038	0.032 - 0.038	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	ppm	2017	2.44	0.31 – 2.44	4	4	Erosion of natural deposits; water additive which at low levels promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate	ppm	2018	0.679	0.046 – 0.679	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Chromium	ppb	2017	4.1	2.2 – 4.1	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
Combined Radium 226/228	pCi/L	2017	1.5	1.5 – 1.5	5	0	Erosion of natural deposits
Xylenes	ppm	2017	0.003	0 – 0.003	10	10	Discharge from petroleum and chemical factories.

Disinfectant Residual

Disinfectant	Unit of Measure	Year	Average Level	Range of Levels	MRDL	MRDLG	Typical Source
Chloramines Free Chlorine	ppm	2018	2.52	0.50 – 3.94	4.0	<4.0	Water additive used to control microbes

Disinfection Byproducts

The values in the Highest Average column is the highest average of all sample results collected over a year.

Substance	Unit of Measure	Year	Highest Average	Individual Samples Range	MCL	Typical Source
Haloacetic Acids HAA5	ppb	2018	14.13	4.5 – 30.60	60	By-products of drinking water disinfection
Total Trihalomethanes TTHM	ppb	2018	23.18	3.75 – 37.5	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	2018	.26	100%	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	2018	0.19	0	1.3	Corrosion of household plumbing systems; Erosion of natural deposits. Leaching from wood preservatives.
Lead	ppb	2018	3.4	0	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.

Public water suppliers are required to submit their annual Water Loss Audit report to the Texas Water Development Board. Every water system has water loss and commit to reporting to its customers the percentage of unmetered water from the total supply which is pumped annually. It can range up to 50% for some. Over the last few years JCSUD's water loss ranges from 15 to 18%. For 2018, JCSUD accounts for 14.5% total water loss or 255 MG (million gal) of the 1762 MG that was pumped into the system. This demonstrates a reduction of 19% less than the 18% water loss reported in 2016.

There are two categories of water loss called Apparent Losses and Real Losses. Real Losses include the weeps and seeps which go undetected among the 891 miles of water mains throughout the distribution system. Apparent Losses are mainly due to meter inaccuracy. Over time, mechanical meters tend to "under register" the actual amount which flows through them. In turn this generates water loss and accounts for about 13% of the total system losses.

According to EPA publication about water loss, 14.5% is on the low end of the average water loss value for public water systems. Nevertheless, the District is committed to reducing water loss and adopts a Water Loss Control Program.

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.

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	1.85
Iron	ppm	0.05
pH	units	8.55
Sodium	ppm	110.26
Total Hardness	ppm	56.91

Community Participation

The District is governed by a Board of seven directors. Terms are staggered such that a portion of the Board positions are renewable each election cycle. 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: 740 FM 3048, Joshua, TX 76058. 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, which 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 833-529-2837 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

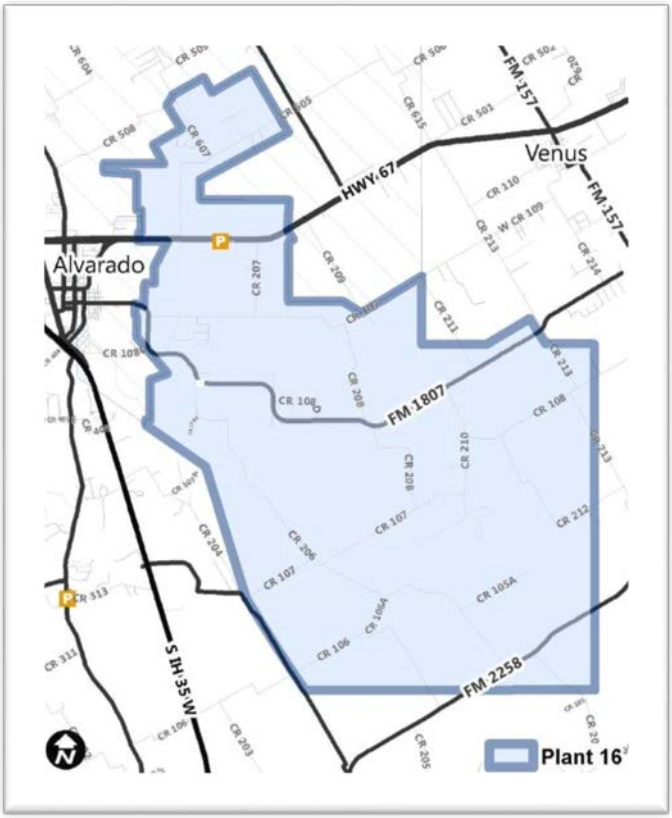
Source Water Assessment

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

Required Language about Fluoride

This is an alert about drinking water and a cosmetic dental problem that might affect children under the age of nine. At low levels, fluoride can help prevent cavities, but some children drinking water with more than 2 milligrams per liter (mg/L) of fluoride may possibly develop cosmetic discoloration of their permanent teeth (dental fluorosis), which can occur only in developing teeth before they erupt from the gums. Your drinking water does not contain more than 4.0 mg/L of fluoride, which is the maximum contaminate level limit, yet a notice is needed because of a 2.4 mg/L sample reported, as explained here.



Systems exceeding the fluoride secondary constituent level (SCL) of 2.0 mg/L but has not exceeded the maximum contaminant level (MCL) are required to notify customers in the Consumer Confidence Report. In this reporting cycle in 2017, one ground water well pump station sample triggers an alert for a specific area. There is a small portion within the distribution system where a producing Paluxy well recently produced a fluoride level of 2.4 mg/L. The subject area represents only 5% of the total system connections (some 700 residents) that should be mindful of this notice. The subject area is just east of Alvarado and generally south of U.S. Hwy. 67 around the F.M. 1807 corridor, as shown on the map at left.

For more information, please call Danny Armstrong, Operations Manager, 817-760-5224.

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 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.

PWS ID# TX 1260018