Prepared June 2017

2016 Annual Drinking Water Quality Report

(Consumer Confidence Report)
For the period of January 1 to December 31, 2016

SOUTHWEST FANNIN S.U.D

Phone Number: 903-965-5316 Website: www.swfanninsud.org
PWS ID No.: 0740031

SPECIAL NOTICE

Required language for ALL community public water supplies:

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 Safe Drinking Water Hotline at (800) 426-4791.

Public Participation Opportunities

Date: None scheduled

Time: 9 am

Location: 8046 W State Hwy 56
Savoy, TX 75479

Phone Number: 903-965-5316

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

OUR DRINKING WATER IS REGULATED

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 tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

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 material, and can pickup substances resulting from the presence of animals or from human activity.

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.

WHERE DO WE GET OUR DRINKING WATER?

The source of drinking water used by SOUTHWEST FANNIN S.U.D. is Ground Water. It comes from the following Lake/River/Reservoir/Aquifer: WOODBINE. A Source Water Susceptibility Assessment for your drinking water sources(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at http://dww2.tceq.texas.gov/DWW/. For more information on source water assessments and protection efforts at our system, please contact us.

SOURCE WATER ASSESSMENT STATUS

A Source Water Assessment for your drinking water source(s) is currently being conducted by the TCEQ and should be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information in this assessment will allow us to focus our source water protection strategies. Further details about sources and source-water assessments are available in Drinking Water Watch at http://www.tceq.texas.gov/gis/swaview.

ALL DRINKING WATER MAY CONTAIN CONTAMINANTS

When drinking water meets federal standards there may not be any health benefits to purchasing bottled water or point of use devices. 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 (1-800-426-4791).

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, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

ABOUT THE FOLLOWING PAGES

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water proved by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

ABBREVIATIONS

- NTU – Nephelometric Turbidity Units (a measure of turbidity)
- MFL – million fibers per liter (a measure of asbestos)
- pCi/L – picocuries per liter (a measure of radioactivity)
- pg/L – parts micrograms per liter – roughly equivalent to ppb
- 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 – or one ounce in 7,350,000 gallons of water
- ppt – parts per trillion, or nanograms per liter
- ppq – parts per quadrillion, or pictograms per liter
- mrem/year – millirems per year (a measure of radiation absorbed by the body)

DEFINITIONS

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Maximum Contaminant Level Goal (MCLG): 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 (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 (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 (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.

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

na: not applicable

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water

Action Level (AL): 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.

INORGANIC CONTAMINANTS

Inorganic Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2016	< 0	0 – 0	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition
Arsenic	2016	< 0	0 – 0	n/a	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2016	0.011	0.0011 – 0.011	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium	2016	< 0	0 – 0	4	4	ppb	N	Discharge from metal refineries and coal burning factories; Discharge from electrical, aerospace, and defense
Cadmium	2016	< 0	0 – 0	5	5	ppb	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries
Chromium	2016	0.0038	0 – 0.0038	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide	2014	12.9	0 – 12.9	200	200	ppb	N	Discharge from plastic and fertilizer factories: Discharge from steel / metal factories
Fluoride	2015	1.23	0 – 1.23	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury	2016	< 0	0 – 0	2	2	ppb	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands
Nitrate (Nitrogen)	2016	0.063	0 – 0.063	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	2016	< 0	0 – 0	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium	2016	< 0	0 – 0	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore processing sites; drug factories

SYNTHETIC ORGANIC CONTAMINANTS (including pesticides and herbicides)

Synthetic Organic Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2, 4, 5 – TP (Silvex)	2014	< 0	0 – 0	50	50	ppb	N	Residue of banned herbicide
2, 4 – D	2014	< 0	0 – 0	70	70	ppb	N	Runoff from herbicide used on row crops
Alachlor	2016	< 0	0 – 0	0	2	ppb	N	Runoff from herbicide used on row crops
Atrazine	2016	< 0	0 – 0	3	3	ppb	N	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH)	2016	< 0	0 – 0	0	200	ppt	N	Leaching from linings of water storage tanks and distribution lines
Carbofuran	2011	< 0	0 – 0	40	40	ppb	N	Leaching of soil fumigant used on rice and alfalfa
Chlordane	2016	< 0	0 – 0	0	2	ppb	N	Residue of banned termiticide
Dalapon	2014	< 0	0 – 0	200	200	ppb	N	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate	2/5/2014	< 0.51	0 – < 0.51	400	400	ppb	N	Discharge from chemical factories
Di (2-ethylhexyl) phthalate	2016	1	0 – 0.5	0	6	ppb	N	Discharge from rubber and chemical factories
Dibromochloropropane (DBCP)	2/5/2014	< 0	0 – 0	0	200	ppt	N	Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb	2014	< 0	0 – 0	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables
Endrin	2016	< 0	0 – 0	2	2	ppb	N	Residue of banned insecticide
Ethylene dibromide	11/8/2011	< 0	0 – 0	0	50	ppt	N	Discharge from petroleum refineries
Heptachlor	2016	< 0	0 – 0	0	400	ppt	N	Residue of banned termiticide
Heptachlor epoxide	2016	< 0	0 – 0	0	200	ppt	N	Breakdown of heptachlor
Hexachlorobenzene	1/26/2016	< 0.08	0 – < 0.08	0	1	ppb	N	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene	1/26/2016	< 0.08	0 – < 0.08	50	50	ppb	N	Discharge from chemical factories
Lindane	3/28/2013	< 0.02	0 – < 0.02	200	200	ppt	N	Runoff / leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	2016	< 0	0 – 0	40	40	ppb	N	Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl (Vydate)	2011	< 0	0 – 0	200	200	ppb	N	Runoff / leaching from insecticide used on apples, potatoes and tomatoes
Pentachlorophenol	2016	< 0	0 – 0	0	1	ppb	N	Discharge from wood preserving factories
Picloram	2014	< 0	0 – 0	500	500	ppb	N	Herbicide runoff
Simazine	2016	< 0	0 – 0	4	4	ppb	N	Herbicide runoff
Toxaphene	2016	< 0	0 – 0	0	3	ppb	N	Runoff / leaching from insecticide used on cotton and cattle

VOLATILE ORGANIC CONTAMINANTS

Volatile Organic Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1, 1, 1 – Trichloroethane	2016	< 0	0 – 0	200	200	ppb	N	Discharge from metal degreasing sites and other factories
1, 1, 2 – Trichloroethane	2016	< 0	0 – 0	3	5	ppb	N	Discharge from industrial chemical factories
1, 1 – Dichloroethylene	2016	< 0	0 – 0	7	7	ppb	N	Discharge from industrial chemical factories
1, 2, 4 – Trichlorobenzene	2016	< 0	0 – 0	70	70	ppb	N	Discharge from textile – finishing factories
1, 2 – Dichloroethane	2016	< 0	0 – 0	0	5	ppb	N	Discharge from industrial chemical factories
1, 2 – Dichloropropane	2016	< 0	0 – 0	0	5	ppb	N	Discharge from industrial chemical factories
Benzene	2016	< 0	0 – 0	0	5	ppb	N	Discharge from factories; Leaching from gas storage tanks and landfills
Carbon Tetrachloride	2016	< 0	0 – 0	0	5	ppb	N	Discharge from chemical plants and other industrial activities
Chlorobenzene	2016	< 0	0 – 0	100	100	ppb	N	Discharge from chemical and agricultural chemical factories
Dichloromethane	2016	< 0	0 – 0	0	5	ppb	N	Discharge from pharmaceutical and chemical factories
Ethylbenzene	2016	< 0	0 – 0	700	700	ppb	N	Discharge from petroleum refineries
Methylene chloride	2/5/2014	<0.50	0 - <0.50		5	ppb	N	
Styrene	2016	< 0	0 – 0	100	100	ppb	N	Discharge from rubber and plastic factories; Leaching from landfills
Tetrachloroethylene	2016	< 0	0 – 0	0	5	ppb	N	Discharge from factories and dry cleaners
Toluene	2016	< 0	0 – 0	1	1	ppm	N	Discharge from petroleum factories
Trichloroethylene	2016	< 0	0 – 0	0	5	ppb	N	Discharge from metal degreasing sites and other factories
Vinyl Chloride	2016	< 0	0 – 0	0	2	ppb	N	Leaching from PVC piping; Discharge from plastics factories
Xylenes, Total	2016	< 0	0 – 0	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories
cis-1, 2 – Dichloroethylene	2016	< 0	0 – 0	70	70	ppb	N	Discharge from industrial chemical factories
o-Dichlorobenzene	2016	< 0	0 – 0	600	600	ppb	N	Discharge from industrial chemical factories
p-Dichlorobenzene	2016	< 0	0 – 0	75	75	ppb	N	Discharge from industrial chemical factories
trans-1, 2-Dicholoroethylene	2016	< 0	0 – 0	100	100	ppb	N	Discharge from industrial chemical factories

RADIOACTIVE CONTAMINANTS

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2016	3.4	1.5 – 3.4	0	5	pCi/L	N	Erosion of natural deposits
Grosss alpha excluding radon and uranium	2016	3.4	0 – 3.4	0	15	pCi/L	N	Erosion of natural deposits

REGULATED CONTAMINANTS

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2016	6	6.1 – 6.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection
Total Trihalomethanes (TTHMs)*	2016	22	21.8 – 21.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

UNREGULATED CONTAMINANTS

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2014	Bromoform	1.81	1.15	10.3	ppb	Byproduct of drinking water disinfection
2014	Bromodichloromethane	1.65	0	7.2	ppb	Byproduct of drinking water disinfection
2014	Chloroform	< 1.00	0	2.3	ppb	Byproduct of drinking water disinfection
2014	Dibromochloromethane	2.58	1.02	14.5	ppb	Byproduct of drinking water disinfection

SECONDARY and OTHER CONSTITUENTS NOT REGULATED

(No associated adverse health effects)

Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2016	Aluminum	0.0051	0.002	0.005	.05	ppm	Abundant naturally occurring element
2012	Bicarbonate	339	271	523	NA	ppm	Corrosion of carbonate rocks such as limestone
2016	Calcium	0.747	.316	1.78	NA	ppm	Abundant naturally occurring element
2015	Chloride	53.7	53.7	53.7	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2016	Hardness as Ca/Mg	2.634	0.79	7.02	NA	ppm	Naturally occurring calcium and magnesium
2016	Iron	.108	0	.38	.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities
2016	Magnesium	.187	0	.625	NA	ppm	Abundant naturally occurring element
2016	Manganese	.004	.0016	.0051	.05	ppm	Abundant naturally occurring element
2012	P. Alkalinity as CaCO3	7	0	26	NA	ppm	Naturally occurring soluble mineral salts
2012	pH	8.4	8.1	8.5	>7.0	Units	Measure of corrosivity of water
2016	Silver	.001	.001	.001	.1	ppm	Erosion of natural deposits; used in photographic film industry
2016	Sodium	254	170	330	NA	ppm	Erosion of natural deposits; byproduct of oil field activity
2015	Sulfate	233	58.5	300	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity
2015	Total Alkalinity as CaCO3	342	342	342	NA	ppm	Naturally occurring soluble mineral salts
2014	Total Dissolved Solids	825	433	849	1000	ppm	Total dissolved mineral constituents in water
2016	Zinc	.0040	.0061	.01	5	ppm	Moderately abundant naturally occurring element; used in the metal industry

Turbidity NOT REQUIRED

Total Coliform REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.

Fecal Coliform REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

E-Coli REPORTED MONTHLY TESTS FOUND NO E-COLI BACTERIA

DISINFECTION DATA

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2016	Chlorine Residual, Free	1.39	0.74	2.20	4.0	<4.0	ppm	Disinfectant used to control microbes

LEAD and COPPER

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2014	1.3	1.3	0.22	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	2014	0	15	0	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits

Required 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 district 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 https://www.epa.gov/lead.