2016 Annual Drinking Water Quality Report

TX0270022 CITY OF GRANITE SHOALS SHERWOOD III

Annual Water Quality Report for the period of January 1 to December 31, 2016

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

CITY OF GRANITE SHOALS SHERWOOD III is Ground Water from Burnet County.

For more information regarding this report contact:

Name: Peggy Smith

Phone: 830-598-2424 ext. 309

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (830) 598-2424.

Public Participation Opportunities:
City Council meetings on 2nd & 4th Tuesday of month at 6:00 P.M.
Granite Shoals City Hall, 2221 N. Phillips Ranch Road

Sources 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 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 EPAs 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.

Information about Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water source(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 activitie s and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Peggy Smith.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: http://Agis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: http://dww.tceq.texas.gov/DWW

Source Water Name		Type of Water	Report Status	Location
1 - TEJAS DR	TEJAS DR	GW	Active	Burnet County
2 - TEJAS DR	TEJAS DR	GW	Active	Burnet County
3 - TEJAS DR	TEJAS DR	GW	Active	Burnet County

2016 Regulated Contaminants Detected

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	0		0	N	Naturally present in the environment.

Disinfectant Residual Table

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Likely Source of Contamination
Chlorine, Free	2016	1.71	0.6	4.3	4	4	ppm	N	Water additive used to control microbes.

2016 Regulated Contaminants Detected

Lead and Copper

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2016	1.3	1.3	0.22	0	ppm	Y	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	2016	0	15	5.6	1	ppb	Y	Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
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.
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.
Maximum Contaminant Level Goal or 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.
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.
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.
MFL	million fibers per liter (a measure of asbestos)
na:	not applicable.
mrem:	millirems per year (a measure of radiation absorbed by the body)
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.
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

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	1	1.4 - 1.4	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2016	9	9.4 - 9.4	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2016	0.0123	0.0123 - 0.0123	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	03/16/2015	0.85	0.85 - 0.85	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen] - 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.	2016	6	5.28 - 5.6	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	02/07/2012	5	5 - 5	0	50	pCi/L*	N	Decay of natural and man-made deposits.

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

Gross alpha excluding radon and uranium	02/07/2012	7	7 - 7	0	15	pCi/L	N	Erosion of natural deposits.

Violations Table

Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	07/01/2015	10/17/2016	We took this action: We did not fail to test our water for lead and copper in the period. Reporting requirements for the lead/copper program changed and we failed to complete all the new reports required. We failed to send in a certification of delivery report to lead / copper division of TCEQ to verify the delivery of test results to our Customers. We notified our Customers verbally of test results. To comply with the new reporting requirement, we delivered written reports to our customers of results and sent in the delivery certification with a sample of customer report to the TCEQ. The quality of the drinking water was not affected at any time. The following statement is mandatory language required by the Texas Commission on Environmental Quality (TCEQ): 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.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	01/01/2016	10/17/2016	We took this action: We did not fail to test our water for lead and copper in the period. Reporting requirements for the lead/copper program changed and we failed to complete all the new reports required. We failed to send in a certification of delivery report to lead/copper division of the TCEQ to verify the delivery of test results to our Customers. We notified our Customers verbally of test results. To comply with the new reporting requirements, we delivered written reports to our customers of results and sent in the delivery certification with a sample report to the TCEQ. The quality of the drinking water was not affected at any time. The following statement is mandatory language required by the TCEQ: 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.
INITIAL/FOLLOW-UP/ROUTINE SOWT M/R (LCR)	04/01/2015	04/22/2016	We took this action: The samples for this contaminant and period indicated were collected and analyzed. Results were reported to the lead/copper division of the TCEQ. Reporting requirements for the lead/copper program changed and we failed to complete all the new reports required. We failed to send in certification of delivery report to lead/copper division. To comply with the new reporting requirements, we sent in the delivery certifications and all analytical results and supporting data to the lead/copper division of the TCEQ. The quality of the drinking water was not affected at any time. The following statement is mandatory language required by the TCEQ: 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.
LEAD CONSUMER NOTICE (LCR)	12/30/2014	03/23/2016	We took this action: Customers were provided verbal results of the lead and copper results within the required time period. As the reporting requirements for the lead/copper program had changed to require written reports to customers, we failed to send in the required certifications of delivery of written reports to customers. To comply with the lead/copper program requirements, we delivered written reports to our customers of the results of the lead tap water monitoring to each customers at the location water was tested. The following statement is mandatory language required by the TCEQ: We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.
SOCCT/SOWT RECOMMENDATION/STUDY (LCR)	03/31/2015	10/18/2016	We took this action: We sampled and analyzed samples from our system to determine if our water needed further treatment to reduce lead and/or copper levels. Sample results from the distribution system indicate the locations with lead results over the action limited to locations known to have lead solder present and further investigation found samples were incorrectly collected for the period. System samples do not indicate the need for further treatment. The following statement is mandatory language required by the TCEQ: We failed to propose treatment to our regulator in response to results that indicate our water needs treatment to reduce lead and/or copper levels.

OCCT/SOWT RECOMMENDATION/STUDY (LCR)	**04/01/2015**	**2016**	**We took this action: We sampled and analyzed samples from our system to determine if our water needed further treatment to reduce lead and/or copper levels during the compliance period. Sample results from the distribution system indicate the locations with lead results over the action limited to locations known to have lead solder present and further investigation found samples were incorrectly collected for the period. System samples do not indicate the need for further treatment.** **The following statement is mandatory language required by the TCEQ: We failed to propose treatment to our regulator in response to results that indicate our water needs treatment to reduce lead and/or copper levels.**
PUBLIC EDUCATION (LCR)	12/01/2014	10/19/2016	We took this action: We verbally spoke with customers at sample locations which exceeded the action level for lead. These sample locations are known to the customer to have lead solder and customers have been verbally counseled on potential health problems associated with and the sources of elevated lead levels at their individual homes. We distributed public education notices to each customer in the system regarding the health problems associated with lead. The rule changes in the lead monitoring program required written notices for public education. We also provided copies of the written public education material sent to customers to the TCEQ and the appropriated certificates of delivery as required by the TCEQ. The following statement is mandatory language required by the TCEQ: We failed to adequately educate you regarding the health problems associated with and sources of elevated lead levels in our water system.

Public Notification Rule

The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).

Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	03/31/2015	05/24/2016	We took this action: Due to a rule change in the lead/copper program of the TCEQ, we were unaware of the need to notify multiple departments within the TCEQ of the notification actions we took to our customers. Upon learning of the deficiencies, we took the actions to comply with the new public notification rules. The following statement is mandatory language required by the TCEQ: We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	04/01/2015	05/24/2016	We took this action: Due to a rule change in the lead/copper program of the TCEQ, we were unaware of the need to notify multiple departments within the TCEQ of the notification actions we took to our customers. Upon learning of the deficiencies, we took the actions to comply with the new public notification rules. The following statement is mandatory language required by the TCEQ: We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	11/06/2015	04/04/2016	We took this action: Due to a rule change in the lead/copper program of the TCEQ, we were unaware of the need to notify multiple departments within the TCEQ of the notification actions we took to our customers. Upon learning of the deficiencies, we took the actions to comply with the new public notification rules. The following statement is mandatory language required by the TCEQ: We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.