

South Santa Rosa Utility System
2014 ANNUAL DRINKING WATER QUALITY REPORT
THE WATER WE DRINK

South Santa Rosa Utility System (SSRUS) is pleased to present to you the 2014 Annual Drinking Water Quality Report. Our constant goal is to provide you with a safe and dependable supply of drinking water. This report shows our water quality results and what they mean. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. If you have any questions about this report or concerning your water utility, please contact Vernon Prather, Director of Public Services at (850) 934-5100.

Our primary supply of water is purchased from the Fairpoint Regional Utility System (FRUS), a wholesale purveyor of water, owned and operated by the City of Gulf Breeze, Midway Water System and Holley-Navarre Water System. FRUS consists of six (6) wells which draw from the Sand & Gravel Aquifer and are chemically treated with lime & orthophosphates for pH adjustment and chlorine for disinfection. Additional information regarding FRUS water supply can be obtained from Donna Lupola, (850) 939-2427 x234.

We purchase additional water from Midway Water System, Inc. (Midway), whose groundwater wells draw from the Sand and Gravel Aquifer and the Floridan Aquifer. The production of these wells is chemically treated with lime for pH control; zinc orthophosphates and Aqua Mag as corrosion inhibitors; and chlorine gas for disinfection. Additional information on the Midway water supply can be obtained from Bobby Cooley, General Manager, at (850) 932-5188.

Due to a major, prolonged water outage from FRUS, we relied upon our back-up supply with ECUA to meet the system demands. ECUA has 30 wells distributed throughout its service area that pump water from the Sand-and-Gravel Aquifer. In general, ECUA customers receive water from the wells (two to five) located closest to their residence. Each well is considered a separate treatment plant, where water quality parameters are adjusted to maximize operational efficiencies and to comply with regulatory standards. The Sand-and-Gravel Aquifer is a high-quality, prolific source of water for our community. Because it does not have a confining layer above it, virtually everything that falls on the ground has the potential to affect the quality of our water supply. Granular Activated Carbon (GAC) filters are installed on eleven (11) wells for iron or organic contamination removal. Calcium Hydroxide (lime) is added for pH adjustment; Phosphoric Acid is added for corrosion control in the distribution system and Chlorine is added for disinfection. Fluoride is added at select wells, as a source of fluoride treatment. Additional information regarding the ECUA water supply can be obtained from the ECUA Laboratory Manager at, (850) 969-6689.

Due to the quality of water received from FRUS, Midway and ECUA, the only treatment done by SSRUS is chlorination to boost the disinfection residual in our system.

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.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) 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. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

SSRUS, FRUS, Midway, and ECUA routinely monitor for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this table shows the results of our monitoring for the period of January 1st through December 31st, 2014. Sampling for Trihalomethanes, Haloacetic Acids, Chlorine, Bacteria, Lead, & Copper were performed by SSRUS. All other results were performed by FRUS, Midway, and/or ECUA. Some of the data, though representative, are more than one year old, but represent the most recent data. As authorized and approved by EPA, the state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentration of these contaminants are not expected to vary significantly from year to year.

In 2014 the Department of Environmental Protection performed a Source Water Assessment on the Midway Water System, FRUS, and ECUA systems. The assessments were conducted to provide information about any potential sources of contamination in the vicinity of our supplier's wells. A search of the data sources indicated no potential sources of contamination near the Midway or FRUS wells. For ECUA, there are 25 potential sources of contamination identified in their system, with a low to moderate susceptibility level. These assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained from South Santa Rosa Utility System.

Water and Your Health

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Infants and children who drink water containing lead in excess of the Action Level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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. South Santa Rosa Utility System 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 <http://www.epa.gov/safewater/lead>.

Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) 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.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- (D) 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.
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Definitions

In the following table, you will find terms and abbreviations you may not be familiar with. To help you better understand these terms we've provided the following definitions:

ND - means not detected and indicates that the substance was not found by laboratory analysis.

N/A - does not apply.

Parts per million (ppm) or Milligrams per liter (mg/l) – one part by weight of analyte to 1 million parts by weight of water sample.

Part per billion (ppb) or Micrograms per liter (ug/l) – one part by weight of analyte to 1 billion parts by weight of water sample.

Picocuries per liter (pCi/L) – measure of the radioactivity in water.

Action Level (AL) – the concentration of contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.

Maximum Contaminant Level or MCL – the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

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. MCLG's allow for a margin of safety.

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.

TABLES OF WATER QUALITY TEST RESULTS FOR 2014

Microbiological Contaminants (Sampled by SSRUS)

Disinfectant or Contaminant and unit of measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Number	MCLG	MCL	Likely Source of Contaminants
Total Coliform Bacteria	Jan/Dec 2014	N	1 positive sample	0	Presence of coliform bacteria in >1 sample collected during a month	Naturally present in the environment.

Radioactive Contaminants (Sampled by FRUS, ECUA and Midway)

Contaminant and unit of measurement (Source that had highest value)	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCL Goal	Maximum Contaminant Level (MCL)	Likely Source of Contaminants
Alpha Emitters (pCi/l) (ECUA)	2008 - 2014	N	Average 13	ND - 15.7	0	15	Erosion of natural deposits
Radium 226 + 228 (pCi/l) (ECUA)	2008 - 2014	N	Average 5	ND - 8.5	0	5	Erosion of natural deposits

Inorganic Contaminants (Sampled by FRUS, ECUA and Midway)

Contaminant and unit of measurement (Source that had highest value)	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCL Goal	Maximum Contaminant Level (MCL)	Likely Source of Contaminants
Arsenic (ppm) (ECUA)	June/Aug 2014	N	1.8	ND - 1.8	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm) (Midway)	June/Aug 2014	N	0.089	0.0079 - 0.089	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb) (ECUA)	June/Aug 2014	N	0.5	ND - 0.5	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Chromium (ppb) (ECUA)	June/Aug 2014	N	4.8	ND - 4.8	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb) (ECUA)	June/Aug 2014	N	16	ND - 16	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm) (Midway)	June/Aug 2014	N	1.20	ND - 1.20	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm
Mercury (ppb) (FRUS)	June/Aug 2014	N	0.1	ND - 0.1	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel (ppb) (ECUA)	June/Aug 2014	N	1.5	ND - 1.5	N/A	100	Pollution from mining and refining operations; natural occurrence in soil
Nitrate (as Nitrogen) (ppm) (ECUA)	June/Sept 2014	N	3.2	ND - 3.2	10	10	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks, sewage
Selenium (ppb) (ECUA)	June/Aug 2014	N	2.7	ND - 2.7	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm) (Midway)	June/Aug 2014	N	140	1.8 - 140	N/A	160	Salt water intrusion, leaching from soil

Volatile Organic Contaminants (Sampled by FRUS, ECUA and Midway)

Contaminant and Unit of Measurement (Source that had highest value)	Dates of Sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contaminants
Styrene (ppb) (ECUA)	Jan/Dec 2014	N	Average 1.3	ND – 1.3	100	100	Discharge from rubber and plastic factories leaching from landfills
Tetrachloroethylene (ppb) (ECUA)	Jan/Dec 2014	N	Average 2.1	ND – 4.59	0	3	Discharge from factories and dry cleaners
Trichloroethylene (ppb) (ECUA)	Jan/Dec 2014	N	Average 0.53	ND – 0.63	0	3	Discharge from metal degreasing sites and other factories
Xylene (ppm) (Midway)	Jan/Dec 2014	N	0.00075	ND - 0.00075	10	10	Discharge from petroleum factories; discharge from chemical factories

Stage 2 Disinfectant/Disinfection By-Product (D/DBP) (Sampled by SSRUS)

Disinfectant or Contaminant and unit of measurement	Dates of Sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contaminants
Stage 1 Chlorine (ppm)	Jan/Dec /2014	N	0.94 (running annual avg.)	0.71 - 1.1	MRDLG = 4	MRDL=4.0	Water additive used to control microbes
HAA5 (Haloacetic Acids)	Oct 2013 – July 2014	N	2.33 Annual Avg.	ND – 9.3	NA	MCL=60	By-product of drinking water disinfection
TTHM (Total trihalomethanes) (ppb)	Oct 2013 – July 2014	N	6.26 Annual Avg.	ND - 20.3	N/A	MCL=80	By-product of drinking water disinfection

Lead and Copper (Tap Water) (Sampled by SSRUS)

Contaminant and unit of measurement	Dates of sampling (mo./yr.)	AL Exceeded Y/N	90 th Percentile Result	No. of sampling sites exceeding the AL	MCL Goal	AL (Action Level)	Likely Source of Contaminant
Copper (Tap Water) (ppm)	July 2014	N	0.2	0 of 60	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (Tap Water) (ppb)	July 2014	N	4.6	2 of 60	0	15	Corrosion of household plumbing systems; erosion of natural deposits

The State of Florida Department of Environmental Protection (FDEP) sets drinking water standards for secondary contaminants and has determined that Iron and Total Dissolved Solids are aesthetic concern at certain levels of exposure. Iron was sampled in September 2014 by ECUA and Total Dissolved Solids were sampled in August 2014 by Midway. These samples were found in higher levels than are allowed by the State (an MCL violation). Iron and Total Dissolved Solids, as secondary drinking water contaminants, do not pose a health risk; and iron, in small amounts, is essential to human health. ECUA and Midway continue to sample as required by rule and will work with FDEP as needed.

Secondary Contaminants (Sampled by FRUS, ECUA and Midway)

Contaminant and unit of measurement (Source with highest value)	Dates of Sampling (mo/yr)	MCL Violation Y/N	Highest Result	Range of Results	MCLG	MCL	Likely Source of Contamination
Iron (ppm) (ECUA)	June/Sept 2014	Y	0.55	ND – 0.55	N/A	0.3	Natural occurrence from soil leaching
Total Dissolved Solids (ppm) (Midway)	June/Aug 2014	Y	590	27 - 590	N/A	500	Natural occurrence from soil leaching

SSRUS monitored for Unregulated Contaminants (UCs) in 2014 as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) or likely sources have been established for UCs. However, it is a requirement to publish the analytical results of the UC monitoring in the annual water quality report. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Unregulated Contaminants (reported in parts per billion, ppb) (Sampled by SSRUS)

Contaminant and Unit of Measurement (Source with highest value)	Date of Sampling (mo/yr)	Level Detected	Range	Likely Source of Contamination
Vanadium	Nov 2014	0.335	0.28 – 0.39	Unavailable
Cobalt	Nov 2014	0.25	ND – 0.49	Unavailable
Strontium	Nov 2014	208.95	36.9 – 381	Unavailable
Chromium (total chromium)	Nov 2014	0.33	0.31 – 0.34	Unavailable
Molybdenum	Nov 2014	0.33	ND – 0.65	Unavailable
Chromium Hexavalent	Nov 2014	0.13	0.11 – 0.15	Unavailable

South Santa Rosa Utility System works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future. Conservation of water is of utmost importance to us and we ask that everyone make efforts, wherever possible, to conserve water. Did you know that Florida Statute Chapter 373.62 states, in part, that all irrigation systems must have an automatic rainfall shut-off device?

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding. If you have any questions about this report or concerning your water utility, please contact Vernon Prather, Director of Public Services at (850) 934-5100. The SSRUS Advisory Board meets on the second Monday of every other month (Feb., Apr., June, Aug., Oct., and Dec.) at 7:00 P.M., Gulf Breeze City Hall, 1070 Shoreline Drive. We want our valued customers to be informed about their water utility.