



Consumer Confidence Report 2024



WELCOME TO THE 2024 CONSUMER CONFIDENCE REPORT

Riviera is pleased to provide the 2024 Annual Water Quality Report. This report provides information concerning the drinking water source, treatment techniques, testing results, and an explanation of the results pulled from data retrieved in 2023. Riviera is committed to providing quality drinking water that meets or exceeds all state and federal drinking water standards.

GENERAL INFORMATION

All drinking water, including bottled water, may contain small amounts of contaminants. The presence of contaminants does not indicate that water poses a health risk. Maximum Contaminant Levels (MCL's) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, an individual would need to consume two liters of water every day at the MCL level over a lifetime to have a one-in-a-million chance of exhibiting the described health effects. Possible contaminants include:

- Microbial contaminants, such as viruses and bacteria.
- These may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife inorganic contaminants, such as salts and metals. These occur naturally or from urban storm water run-off, wastewater discharges, oil/gas production, mining or farming.
- Pesticides and herbicides. Possible sources for these include agriculture, storm water run-off and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals. These contaminants

can be byproducts of industrial processes and petroleum production.

- Possible sources include gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants. These can occur naturally or as a result of oil and gas production and mining activities.

To ensure the safety of tap water, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulates bottled water contaminants. Segments of the general populations are more vulnerable to contaminants in drinking water. Immunocompromised individuals should seek advice about drinking water from health care providers.

Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Monitoring for these contaminants is not required.





WHAT ARE FOGS?

Let's talk about Fats, Oils, and Greases.

They may be the cornerstone of Southern Cooking, but they sure do throw a wrench in our system!

Remember to never pour grease down sink drains or into toilets. Put strainers in sink drains to catch food scraps and solids for proper disposal! And remember the four P's before for you flush: pee, poo, puke, and (toilet) paper.



UNDERSTANDING WHAT'S IN THE REPORT:

- ♦ **Action Level (AL)** - the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.
- ♦ **Coliform Absent (ca)** - Laboratory analysis indicates that the contaminant is not present.
- ♦ **Disinfection byproducts (DBPs)** - are formed when disinfectants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in source water.
- ♦ **Locational Running Annual Average (LRAA)** - yearly average of all the DPB results at each specific sampling site in the distribution system. Reported in a range.
- ♦ **Maximum Contaminant Level (MCL)** - the highest level of a contaminant that is allowed in drinking water.
- ♦ **Maximum Contaminant Level Goal (MCLG)** - the level of a contaminant in drinking water below which there is no known or expected risk to health.
- ♦ **Maximum Residual Disinfectant Level (MRDL)** - the highest level of a disinfectant allowed in drinking water
- ♦ **Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.
- ♦ **Nephelometric Turbidity Unit (NTU)** - a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- ♦ **Non-Detects (ND)** - laboratory analysis indicates that the constituent is not present above detection limits of lab equipment.
- ♦ **Not Reported (NR)** - laboratory analysis, usually Secondary Contaminants, not reported by water system. EPA recommends secondary standards to water systems but does not require systems to comply.
- ♦ **Parts per billion (ppb) or Micrograms per liter (ug/l)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- ♦ **Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- ♦ **Parts per quadrillion (ppq) or Picograms per liter (picograms/l)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.
- ♦ **Parts per trillion (ppt) or Nanograms per liter (nanograms/l)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- ♦ **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- ♦ **RAA** - Running annual average
- ♦ **Standard Units (S.U.)** - pH of water measures the water's balances of acids and bases. Water with <6.5 could be acidic, soft, and corrosive. A pH >8.5 could indicate that the water is hard.
- ♦ **Treatment Technique (TT)** - a required process intended to reduce the level of a contaminant in drinking water.
- ♦ **Variations & Exemptions (V&E)** - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

MONITORING SCHEDULE: Riviera Utilities monitors for contaminants according to a schedule assigned by the Alabama Department of Environmental Management (ADEM), using EPA approved methods and a state certified laboratory. Due to the infrequent change in contaminant concentrations, ADEM allows Riviera to monitor for some contaminants less than once per year.

CONTAMINANTS MONITORED	MONITORED
Inorganic Contaminants	2022
Lead/Copper	2022
Microbiological Contaminants	monthly
Nitrates	2023
Radioactive Contaminants	2019
Synthetic Organic Contaminants (including pesticides and herbicides)	2022
Volatile Organic Contaminants	2022
Disinfection By-products	2023
PFAS Contaminants	2023
UCMR4 Contaminants	2016

WATER QUALITY PROTECTION: In complying with ADEM requirements, Riviera Utilities developed a Source Water Assessment plan that assists in the protection of Riviera's water sources. Riviera performed the appropriate assessment, performed public notification, and received an approved plan from ADEM. A copy of the report is available at the Riviera Utilities office for review during regular business hours, or copies are available for purchase at a nominal reproduction fee. Riviera Utilities continuously monitors the water production and water treatment facilities that deliver safe drinking water to customers.

Riviera utilizes a Bacteriological Monitoring Plan to monitor for potential contamination from locations throughout the distribution system. Chlorine residual is routinely tested and bacteriological tests are run to ensure adequate disinfection is available to protect the drinking water. Results show that the required minimum free chlorine residual level of 0.2 mg/L is maintained. Riviera also has established a Cross-Connection Policy to ensure safe drinking water.

Please help protect the water source by carefully following instructions on pesticides and herbicides used for lawn and garden care and properly disposing of household chemicals, paints, and waste oil.



TABLE OF DETECTED DRINKING WATER CONTAMINANTS

Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination	
Alpha emitters	NO	Avg. 1.90 (1.04-2.75)	PCI/l	0	15	Erosion of natural deposits	
Radium-228	NO	Avg. 2.53 (1.49-3.56)	PCI/l	0	5	Erosion of natural deposits	
Barium	NO	0.025-0.043	ppm	2	2	Drilling & refinery discharge; erosion	
Chlorine	NO	McAlilly Plant 1.19-1.98	South Plant 1.12-2.27	ppm	MRDL=4	MRDL=4	Water additive used to control microbes
Fluoride	NO	0.33-0.39	ppm	4	4	Erosion; water additive; discharge from factories	
Nitrate -as Nitrogen	NO	1.2-1.3	ppm	10	10	Runoff from fertilizer; leaching from septic tanks, sewage; erosion of natural deposits	
TTHM -Total trihalomethanes	NO	LRAA Range 0.25-7.98	ppb	0	80	By-product of drinking water chlorination	
HAA5 -Total haloacetic acids	NO	LRAA Range ND-1.88	ppb	0	60	By-product of drinking water chlorination	
Secondary Contaminants *							
Aluminum	NO	ND-0.04	ppm	n/a	0.2	Erosion of natural deposits or from water treatment	
Chloride	NO	7.9-8.6	ppm	none	250	Naturally occurring or from discharge or runoff	
Hardness	NO	8.8-22.3	ppm	none	none	Naturally occurring or from water treatment	
Iron		ND-0.05	ppm	n/a	0.30	Naturally occurring; erosion; leaching from pipes	
Manganese	NO	0.01-0.04	ppm	none	none	Naturally occurring in environment; dissolved minerals	
pH	NO	7.5-7.6	S.U.	none	6.5-8.5	Naturally occurring or from water treatment	
Sodium	NO	4.0-7.9	ppm	none	none	Naturally occurring in environment	
Sulfate	NO	0.64-4.3	ppm	none	250	Naturally occurring or from discharge or runoff	
Total Dissolved Solids	NO	47.0-71.0	ppm	none	500	Naturally occurring or from discharge or runoff	
Zinc	NO	0.06-0.10	ppm	none	5	Erosion; discharge from factories; runoff from landfills	

* Secondary contaminants have non-enforceable guidelines relating to cosmetic or aesthetic effects in drinking water.

LEAD AND DRINKING WATER: As required by federal and state agencies, Riviera uses an outside laboratory to monitor the distribution system for lead. Test results show that lead levels remain well below the minimum standard. The following information about lead is required to be in this report: 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. Riviera is responsible for providing high quality drinking water. Riviera does not control or maintain plumbing systems beyond the meter connections. To minimize the potential for lead exposure, flush taps for 30 seconds to 2 minutes before using water for drinking or cooking. Testing agencies are available for customers concerned about lead in drinking water.

The table to the left contains results from the most recent monitoring which was performed in accordance with State and Federal regulations. The table shows only those contaminants that were detected. We are pleased to report that our drinking water meets or exceeds federal and state requirements.



STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS

Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Bacteriological Contaminants			trans-1,2-Dichloroethylene	100	ppb
Total Coliform Bacteria	>5%	present/absent	Dichloromethane	5	ppb
Fecal Coliform and E. coli	0	present/absent	1,2-Dichloropropane	5	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)adipate	400	ppb
Cryptosporidium	TT	Calc.organisms/l	Di (2-ethylhexyl)phthalate	6	ppb
Radiological Contaminants			Dinoseb	7	ppb
Beta/phon emitters	4	mrem/yr	Dioxin [2,3,7,8-TCDD]	30	ppb
Alpha emitters	15	pCi/l	Diquat	20	ppb
Combined radium	5	pCi/l	Endothall	100	ppb
Uranium	30	pCi/l	Endrin	2	ppb
Inorganic Chemicals			Epichlorohydrin	TT	TT
Antimony	6	ppb	Ethylbenzene	700	ppb
Arsenic	10	ppb	Ethylene dibromide	50	ppt
Asbestos	7	MFL	Glyphosate	700	ppb
Barium	2	ppm	Heptachlor	400	ppt
Beryllium	4	ppb	Heptachlor epoxide	200	ppt
Cadmium	5	ppb	Hexachlorobenzene	1	ppb
Chromium	100	ppb	Hexachlorocyclopentadiene	50	ppb
Copper	AL=1.3	ppm	Lindane	200	ppt
Cyanide	200	ppb	Methoxychlor	40	ppb
Fluoride	4	ppm	Oxamyl (Vydate)	200	ppb
Lead	AL=15	ppb	Polychlorinated biphenyls	0.5	ppb
Mercury	2	ppb	Pentachlorophenol	1	ppb
Nitrate	10	ppm	Picloram	500	ppb
Nitrite	1	ppm	Simazine	4	ppb

Below is a list of Primary Drinking Water Contaminants and some Un-regulated Contaminants that Riviera monitors according to a schedule assigned by the Alabama Department of Environmental Management (ADEM). Unless listed in the Table of Detected Drinking Water Contaminants, these contaminants were not detected in the drinking water.

LIST OF PRIMARY DRINKING WATER CONTAMINANTS CONT.

Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Selenium	.05	ppm	Styrene	100	ppb
Thallium	.002	ppm	Tetrachloroethylene	5	ppb
Organic Chemicals			Toluene	1	ppm
2, 4-D	70	ppb	Toxaphene	3	ppb
Acrylamide	TT	TT	12,4,5-TP(Silvex)	50	ppb
Alachlor	2	ppb	1,2,4-Trichlorobenzene	.07	ppm
Atrazine	3	ppb	11,1, 1-Trichloroethane	200	ppb
Benzene	5	ppb	11,1,2-Trichloroethane	5	ppb
Benzo(a)pyrene (PAHs)	200	ppt	Trichloroethylene	5	ppb
Carbofuran	40	ppb	Vinyl Chloride	2	ppb
Carbon tetrachloride	5	ppb	Xylenes	10	ppm
Chlordane	2	ppb	Disinfectants & Disinfection Byproducts		
Chlorobenzene	100	ppb	Chlorine	4	ppm
Dalapon	200	ppb	Chlorine Dioxide	800	ppb
Dibromochloropropane	200	ppt	Chloramines	4	ppm
o-Dichlorobenzene	600	ppb	Bromate	10	ppb
p-Dichlorobenzene	75	ppb	Chlorite	1	ppm
11,2-Dichloroethane	5	ppb	HAA5 [Total haloacetic acids]	60	ppb
1,1-Dichloroethylene	7	ppb	TTHM [Total trihalomethanes]	80	ppb

UCMR4: The Fourth Unregulated Contaminant Monitoring Rule (UCMR4) required some systems to monitor for 30 unregulated contaminants during January 2018 through December 2020 on an assigned schedule. Our assigned sampling period occurred during 2018, and the results are in the table below.

Contaminant	Unit of Msmt	Level Detected	Contaminant	Unit of Msmt	Level Detected
Germanium	ppb	ND	Tribufos	ppb	ND
Manganese	ppb	ND-12.5	1-butanol	ppb	ND
Alpha-hexachlorocyclohexane	ppb	ND	2-methoxyethanol	ppb	ND
Chlorpyrifos	ppb	ND	2-propen-1-ol	ppb	ND
Dimethipin	ppb	ND	Butylated hydroxyanisole	ppb	ND
Ethoprop	ppb	ND	O-toluidine	ppb	ND
Oxyfluorfen	ppb	ND	Quinoline	ppb	ND-0.02
Profenofos	ppb	ND	Total organic carbon (TOC)	ppb	ND
Tebuconazole	ppb	ND	Bromide	ppb	21.3-28.2
Total permethrin (cis- & trans-)	ppb	ND		ppb	ND

Bromochloroacetic	ppb	0.62-2.69	Monobromoacetic	ppb	ND
Bromodichloroacetic	ppb	0.52-3.52	Monochloroacetic	ppb	ND
Chlorodibromoacetic	ppb	ND-0.48	Tribromoacetic	ppb	ND
Dibromoacetic	ppb	ND-0.51	Trichloroacetic	ppb	0.69-19.1
Dichloroacetic	ppb	1.04-19.3		ppb	ND

OUR SYSTEM

Water Sources

Seven groundwater wells with a pumping capacity of 6.5 million gallons per day.

Treatment

Chlorination, Fluoridation, Corrosion Control, and pH Adjustment

Storage Capacity

Four tanks - 3,150,000 gallons

Customers

Approximately 17,700

Interconnections

Summerdale Water, Perdido Bay Water, and Orange Beach Water

PFAS: Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that were used in the manufacture of nonstick cookware, stain-resistant carpet and textiles, and other industrial and consumer applications. Below is a list of PFAS contaminants for which our system monitored in 2023 and the results of that monitoring. For more information on PFAS contaminants, please consult <https://www.epa.gov/pfas>.

Contaminant	Unit of Msmt	Level Detected	Contaminant	Unit of Msmt	Level Detected
11Cl-PF3OUdS(11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid)	ppb	ND	Perfluoroheptanoic acid	ppb	ND-0.0041
9Cl-PF3ONS(9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid)	ppb	ND	Perfluorohexanesulfonic acid	ppb	ND-0.0110
ADONA (4,8-dioxa-3H-perfluorononanoic acid)	ppb	ND	Perfluorononanoic acid	ppb	ND
HFPO-DA (Hexafluoropropylene oxide dimer acid)	ppb	ND	Perfluorooctanesulfonic acid	ppb	ND-0.0430
NEiFOSAA(N-ethylperfluorooctanesulfonamidoacetic acid)	ppb	ND	Perfluorooctanoic acid	ppb	ND-0.0057
NMeFOSAA(N-methylperfluorooctanesulfonamidoacetic acid)	ppb	ND	Perfluorotetradecanoic acid	ppb	ND
Perfluorobutanesulfonic acid	ppb	ND-0.0069	Perfluorotridecanoic acid	ppb	ND
Perfluorodecanoic acid	ppb	ND	Perfluoroundecanoic acid	ppb	ND
Perfluorohexanoic acid	ppb	ND-0.0060	Total PFAS	ppb	ND-0.073
Perfluorododecanoic acid	ppb	ND			



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The Utilities Board meets on the third Tuesday of each month at 1:00 p.m. in the office of the Board. If you have any questions about this report or our monitoring requirements, please call Tony Schachle at Riviera Utilities at 251-943-5001.

