



*Kiawah Island*  
UTILITY, INC.

31 Sora Rail Road  
Kiawah Island, SC 29455

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Kiawah Island Utility has teamed with the US Environmental Protection Agency's (EPA) WaterSense program to help consumers save water for future generations and reduce costs on their utility bill. For more information on WaterSense, and for a full list of labeled products and WaterSense irrigation partners, visit [www.epa.gov/watersense](http://www.epa.gov/watersense).

**“We never know the worth of water til the well is dry.”** ~Thomas Fuller  
Visit [www.watermissions.org](http://www.watermissions.org) to see how you can help provide safe drinking water to the victims of disaster stricken areas around the world.

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KIAWAH ISLAND UTILITY, INC.  
DRINKING WATER  
**2009**  
QUALITY REPORT



## KIAWAH ISLAND UTILITY, INC. WATER QUALITY TABLE

PARAMETER	UNITS	KIU WATER HIGHEST LEVEL DETECTED	RANGE OR OTHER COMMENT	MCL	DATE SAMPLED	MCLG	POSSIBLE SOURCES IN WATER
Total Coliform Bacteria	% positive samples	0%	0%	Presence of coliform bacteria <5% of monthly samples	2009	0%	Naturally present in the environment
Copper	ppm	0.101 (90%)	No samples exceeded the action level	AL = 1.3	2009*	1.3	Corrosion of household plumbing materials
Lead	ppb	7 (90%)	1 sample exceeded the action level	AL = 15	2009*	0	Corrosion of household plumbing materials

\* EPA requires testing once every three years.

### TABLE OF DEFINITIONS

**(MCL) MAXIMUM CONTAMINANT LEVEL**  
The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

**(MCLG) MAXIMUM CONTAMINANT LEVEL GOAL**  
The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**(AL) ACTION LEVEL**  
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**(MRDL) MAXIMUM RESIDUAL DISINFECTANT LEVEL**  
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.

**(TT) TREATMENT TECHNIQUE**  
A required process intended to reduce the level of a contaminant in drinking water.

**(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 disinfectants to control microbial contamination.

## CHARLESTON WATER SYSTEM (1) GENERAL INTEREST

PARAMETER	CWS WATER AVERAGE	HIGHEST LEVEL ALLOWED BY EPA REGULATION (MCL)
Alkalinity, ppm	29	No Standard
Chloride, ppm	19	250
Color, PCU	3	15
Conductivity, umhos/cm	199	No Standard
Hardness, ppm	60	No Standard
Iron, ppm	0.10	1.3
Manganese, ppm	<0.05	0.05
Ortho-phosphate, ppm	1.3	No Standard
Silica, ppm	6.9	No Standard
Sodium, ppm	15	No Standard
Temperature, C	22	No Standard
Total Dissolved Solids (TDS), ppm	108	500

## (2) WATER QUALITY TABLE

PARAMETER	UNITS	CWS WATER HIGHEST LEVEL DETECTED	RANGE OR OTHER COMMENTS	MCL	DATE SAMPLED	MCLG	POSSIBLE SOURCES IN WATER
Total Coliform Bacteria	% positive samples	2.2% highest level detected in any monthly sample	0% to 2.2%	presence of coliform bacteria in >5% of monthly samples	2009	0%	naturally present in the environment (all repeat samples were satisfactory)
Turbidity	NTU	0.14	100% lowest monthly % of samples meeting limits	Requires a specific treatment technique (TT). 95% of monthly samples must be < 0.3 NTU	2009	none	soil runoff
Copper	ppm	0.13	no sample exceeded the action level (0.00 to 0.13)	AL = 1.3	2009	1.3	corrosion of household plumbing materials
Lead	ppb	5	2 samples exceeded the action level (0 to 17)	AL = 15	2009	0	corrosion of household plumbing materials
Nitrate/Nitrogen	ppm	0.077	N/A	10	2009	10	runoff from fertilizers
Fluoride *	ppm	0.15 ppm in source water <0.10 ppm in finished water	N/A	4	2009	4	additive to reduce tooth decay
Total Trihalomethanes (THM)	ppb	RAA: 16	3.2 to 31.9	80	2009	N/A	byproduct of water disinfection process
Total Haloacetic acids	ppb	RAA: 18	9 to 28	60	2009	N/A	byproduct of water disinfection process
N-Nitrosodimethylamine (NDMA)	ppt	9.4	<2.0 to 9.4	none, unregulated	2009	none	byproduct of water disinfection process
Total Organic Carbon (TOC)	ppm	RAA: ratio 1.32	2.4 to 3.2 **	TT	2009	N/A	naturally present in the environment
Chlorine Dioxide	ppb	<100	0 to <100	800	2009	800	added to protect against bacteria
Chloramine Residual	ppm	RAA: 2.0	1.6 to 2.4	MRDL = 4	2009	MRDLG = 4	water additive used to control microbes
Chlorite	ppm	0.80	0.48 to 0.80	1.0	2009	0.8	byproduct of water disinfection process
Giardia in River Water	per liter	0.0	N/A	none	2009	none	human and animal sources
Cryptosporidium in River Water	per liter	0.0	N/A	none	2009	none	human and animal sources

\* CWS has not been fluoridating drinking water since November 2008.

\*\* TOC Values (2.4 to 3.2 ppm). The range of removal was 55% to 65% (45% is required). TOC samples are taken on a daily basis.

### ABBREVIATIONS OF UNITS

NTU = Nephelometric Turbidity Units  
PCU = Platinum Cobalt Units  
ppm = parts per million (mg/l)  
ppb = parts per billion (ug/l)

umhos/cm = micromhos/centimeter  
C = Centigrade  
RAA = Running Annual Average  
ppt = parts per trillion (ng/L)

## DEAR KIU CUSTOMER,

We hope that you will find this Annual Drinking Water Report covering the period of 1/1/09 – 12/31/09 informative as well as a helpful resource throughout the year.

Kiawah Island Utility, Inc., operating under SC Drinking Water System #1010008, is pleased to report that another year has passed without exceeding any contaminant levels in samples analyzed. All of the potable water used on Kiawah Island comes from Charleston Water System by way of our supplier, St. Johns Water Company. The source of our water is surface water from the Edisto River and Bushy Park Reservoir that has been treated prior to pumping it nearly 45 miles for use on Kiawah Island. Neither St. Johns nor Kiawah treat the water in any way that significantly alters its composition, therefore the analytical results from CWS is included as a part of our annual report.

Although 2009 presented challenges for everyone, the staff at KIU was able to maintain the high level of service and preserve our commitment to provide high quality water that exceeds the standards established by The Safe Drinking Water Act.

We are hopeful that you will take the time to review this report and will remain confident that your utility staff is working 24/7 to ensure you receive the highest quality and quantity of water to meet your needs.

Sincerely,



Becky J. Dennis  
General Manager





## WHERE DOES YOUR WATER COME FROM?

We buy our water from the Charleston Water System (CWS), which is a publicly owned water and wastewater utility. CWS provides safe, clean drinking water to more than 400,000 people in the City of Charleston, James Island, North Charleston, Hanahan, Hollywood, Ravenel, and West Ashley. In addition to their 105,000 water accounts, they provide water to other utilities in the area, including Mt. Pleasant Waterworks, the Town of Sullivan’s Island, Isle of Palms Water and Sewer Commission, Town of Folly Beach, City of Lincolnville, St. John’s Water Company (serving Kiawah and Seabrook Islands), and Dorchester County Public Works.

Your water is treated at the Hanahan Water Treatment Plant, which uses surface water from the Bushy Park Reservoir and the Edisto River. CWS disinfects the treated water with chloramines and chlorine dioxide to keep it clean as it travels through pipes to homes and businesses. They also add fluoride at levels recommended by the American Dental Association to help prevent tooth decay.

For more information about Charleston Water System please visit their website at [www.charlestonwater.com](http://www.charlestonwater.com).

## WHAT’S IN YOUR WATER?

There is no such thing as “pure” water. As it moves through the water cycle, water picks up minerals, plant matter, and man-made contaminants that eventually end up in lakes and streams, where many cities get their drinking water. The compounds that may be present in lakes and streams are shown in the table below.

While the water treatment process removes many of these compounds, it’s impossible to remove them all. The compounds found in our water were all at safe levels, meaning they were below the limits set by the US EPA, which regulates public water systems. The US Food and Drug Administration (FDA) Regulations establish limits for compounds in bottled water.

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 the 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 at 1-800-426-4791.

Kiawah Island Utility, Inc. fully supports South Carolina’s efforts to prevent contamination in watershed areas that supply drinking water. The SC Department of Environmental Control lists potential sources of contaminants for all water supplies. It’s easy to get more information about ways in which our state offers protection. Just go to The Source Water Assessment and Protection Program (SWAP) for South Carolina at [www.scdhec.net/water/html/srcwtr.html](http://www.scdhec.net/water/html/srcwtr.html).

### BIOLOGICAL COMPOUNDS

such as viruses and bacteria which may come from septic systems, agricultural livestock operations, and wildlife.

### INORGANIC COMPOUNDS

such as salts and metals which can be naturally occurring or the result of 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 agricultural, runoff, and residential uses.

### ORGANIC COMPOUNDS

including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, can also come from gas stations, runoff, and septic systems.

### RADIOACTIVE MATERIAL

which can be naturally occurring or be the result of oil and gas production and mining activities.

# lead & drinking water

[www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

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.

## LEAD AND DRINKING WATER

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. Kiawah Island Utility 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 drinking water, you may wish to have your water tested. Information is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## IMMUNO-COMPROMISED PERSONS

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 transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants – can be particularly at risk for infection. These people should seek advice about drinking water from their healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

800-426-4791

SAFE DRINKING WATER HOTLINE  
800-426-4791

## STAFF HIGHLIGHTS

In October, after 24 years of faithful service to Kiawah Island Utility, Inc. Marie Roper retired. Marie was the first voice many of you heard in her duties as Administrative Assistant. She offered excellent customer service and went the extra mile to share her smile over the phone. Marie will be missed by her fellow employees and the friends she made in our customers.



Marie Roper



The 13 employees of Kiawah Island Utility work around the clock (24/7) to ensure that adequate supplies of good quality water are delivered to its customers. Below are examples of the services provided by these dedicated individuals during this past year:

44,096	Meters read, data entered, and bills generated
36,000	Approximate number of customer checks processed for payment
5,866	Customer bank drafts processed for payment
314	Work orders related to customer service or inquiries were handled by office and maintenance staff
874,411	Million Gallons of water purchased for distribution to customers
4.38%	Unaccounted for water (National average is 11%)
66	Miles of water supply, transmission, and distribution lines were maintained
65	Miles of sewer collection and effluent transfer lines were maintained
126	Pumps, motors, and associated electrical components were maintained
2,850	Backflow letters mailed and processed
31	Licenses renewed by SC Environmental Certification Board, LLR
6	Trainee permits issued by SCECB, LLR
85%	Staff employed with KIU greater than 3 years
2,502	Water and wastewater samples collected
5,359	Kiawah Island Lab Analyses performed by KIU staff (in-house)

# PROPER DISPOSAL OF PRESCRIPTION DRUGS

## FEDERAL GUIDELINES

Do not flush prescription drugs down the toilet or drain unless the label or accompanying patient information specifically instructs you to do so.

To dispose of prescription drugs not labeled to be flushed, you may be able to take advantage of community drug take-back programs or other programs, such as household hazardous waste collections events, that collect drugs at a central location for proper disposal.

### **If a drug take-back or collection is not available:**

1. Take your prescription drugs out of their original containers.
2. Mix drugs with an undesirable substance, such as cat litter or used coffee grounds.
3. Put this mixture into a disposable container with a lid, such as an empty margarine tub, or into a sealable bag.
4. Conceal or remove any personal information, including Rx number, on the empty containers by covering it with black permanent marker or scratch it off.
5. Place the sealed container with the mixture, and the empty drug containers, in the trash.



## CONSERVATION TIPS

### INDOOR TIPS

- Insulate your water pipes: It's easy and inexpensive to insulate with pre-slit foam pipe insulation. You'll have hot water faster and avoid wasting water while it heats up
- Running tap water until it is cool is wasteful so keep a bottle of drinking water in the fridge
- Turn off the water after you wet your toothbrush and fill a glass to rinse
- Shortening your shower by just 1-2 minutes can save up to 150 gallons per month
- Upgrade toilets with water efficient models
- Soak pots and pans instead of letting the water run while they are scrubbed clean
- Reuse your towels after showering

### OUTDOOR TIPS

- Plant drought-resistant lawns, shrubs and plants.
- Use native plants in the garden. They will use far less water and be more resistant to local plant diseases
- Put a layer of mulch around trees and plants because it saves hundreds of gallons of water per year by slowing evaporation of moisture and also discourages weed growth
- Early morning watering is generally better than dusk since it helps reduce water loss to evaporation and prevents the growth of fungus
- Use the sprinkler for larger areas of grass and water small patches by hand to avoid waste
- Adjust your watering schedule each month to match seasonal weather conditions
- Use a commercial car wash that recycles water
- Listen to hear if your toilet is running; a running toilet can waste up to 200 gallons of water per day



## GET MORE INFORMATION

KIU provides information on demand. Please feel free to contact us to get additional details about your water supply. Email [Becky\\_Dennis@KiawahIsland.com](mailto:Becky_Dennis@KiawahIsland.com), phone **843-768-0641**, or mail your inquiry to:

Kiawah Island Utility, Inc.  
Becky Dennis  
31 Sora Rail Road  
Kiawah Island, SC 29455

You may also visit our website at [www.KiawahIslandUtility.com](http://www.KiawahIslandUtility.com)

For consumer services information, please mail your inquiry to the S.C. Office of Regulatory Staff:

Consumer Services Division  
S.C. Office of Regulatory Staff  
P.O. Box 11263  
Columbia, SC 29211

Also, please visit [www.regulatorystaff.sc.gov](http://www.regulatorystaff.sc.gov) or call **803-737-5230**.