



WATER IS
THE DRIVING FORCE
OF ALL NATURE.

—Leonardo da Vinci

kiawah island utility, inc.
DRINKING WATER
2010 quality report

**SOME UTILITY COMPANIES SEEM TO SEE
THEMSELVES AS STRICTLY, WELL, UTILITARIAN.**

At Kiawah Island Utility (KIU), we see our company and ourselves as true community partners. We are one of a portfolio of Kiawah Partners' organizations, all of which collectively strive to enhance your investment in this beautiful island and its exceptional quality of life. To that end, we continually dedicate ourselves to water quality, excellence in planning, superior customer relationships, and long-term financial and workforce stability.

We hope that even this Annual Drinking Water Report reflects our desire to go above and beyond the utilitarian. Its main purpose is to confirm that Kiawah Island Utility, Inc., operating under SC Drinking Water System #1010008, once again conformed to the high standards established by The Safe Drinking Water Act, during water system analysis performed between 1/1/10 and 12/31/10. Inside the report you'll also find a host of other useful water-related information, ranging from the importance of good routine maintenance of home filtering systems to tips on finding leaks.

We are all extremely lucky to be living and working in a place serenaded by the sounds of the tides and surrounded by the beauty of water. Together, we can learn to protect our water, and the quality of life it engenders will help quench our spirits far into the future.

Sincerely,

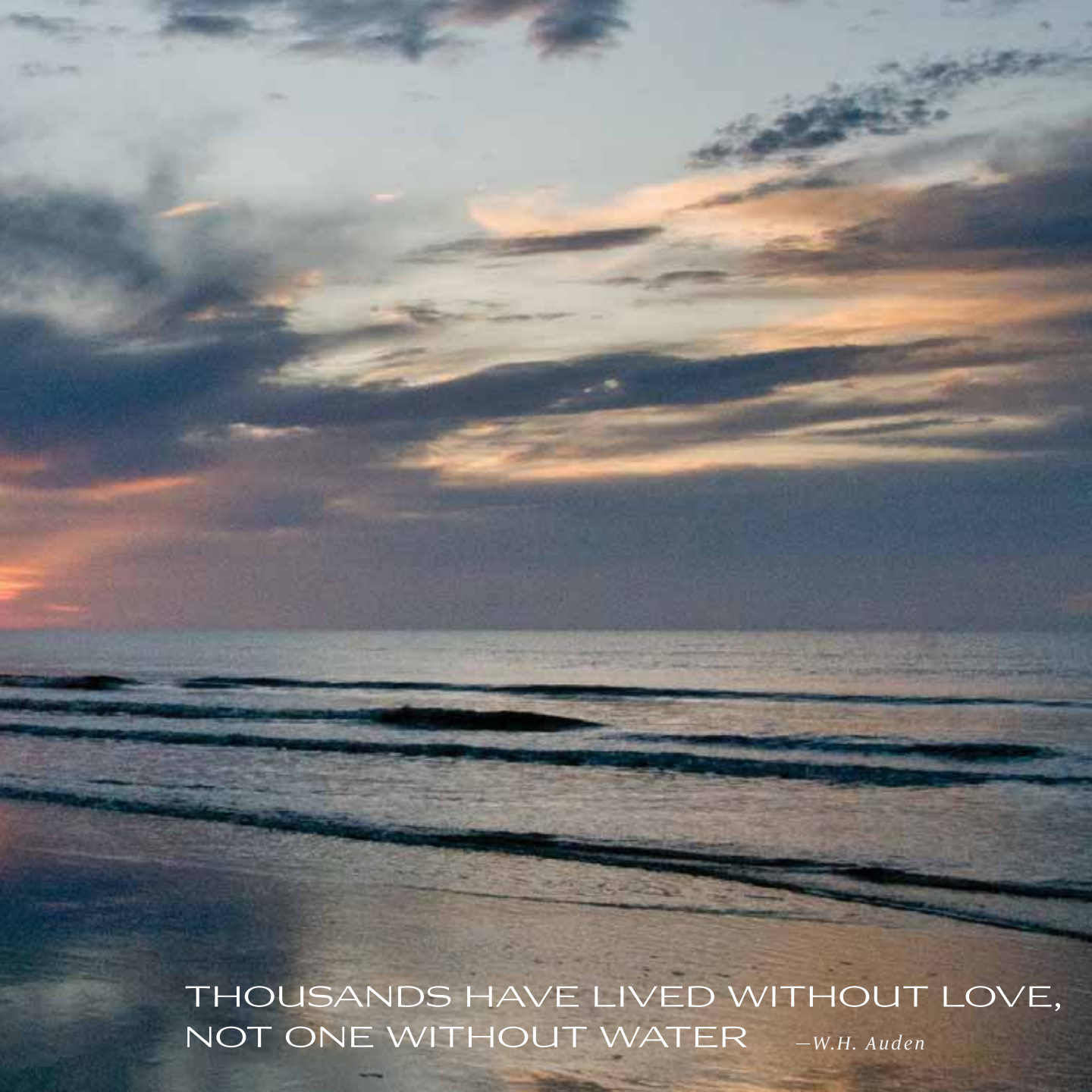
A handwritten signature in cursive script that reads "Becky J. Dennis". The ink is dark and the signature is fluid, with a large 'B' and 'D'.

Becky J. Dennis

General Manager, Kiawah Island Utility

A close-up photograph of a green leaf, likely from a plant like a lily or iris, showing several water droplets clinging to its surface. The leaf is oriented diagonally from the bottom left towards the top right. The background is a soft, out-of-focus mix of green and blue, suggesting a natural outdoor setting. The text "A THIRST FOR QUALITY OF LIFE." is overlaid in white, sans-serif capital letters on the left side of the image.

A THIRST FOR QUALITY OF LIFE.



THOUSANDS HAVE LIVED WITHOUT LOVE,
NOT ONE WITHOUT WATER

—W.H. Auden

WHERE OUR WATER COMES FROM.

We buy our water from the Charleston Water System (CWS), 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 its 105,000 water accounts, CWS supplies 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 surface water from the Bushy Park Reservoir and the Edisto River, treated at the Hanahan Water Treatment Plant. CWS disinfects the treated water with chloramines and chlorine dioxide to keep it clean as it travels through pipes to homes and businesses. It also adds fluoride at levels recommended by the American Dental Association to help prevent tooth decay. Neither St. Johns nor Kiawah treats 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.

For more information about Charleston Water System, please visit **www.CharlestonWater.com**.



BEING ON A BOAT THAT'S MOVING THROUGH
THE WATER, IT'S SO CLEAR. EVERYTHING FALLS
INTO PLACE IN TERMS OF WHAT'S IMPORTANT
AND WHAT'S NOT. —James Taylor





DRINKING WATER OVERVIEW

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 **EPA's Safe Drinking Water Hotline** at **1-800-426-4791**.

GOOD NEWS!

Now you can get your KIU bills electronically in your email “box” instead of your street mailbox. It’s easy to sign up online at:

WWW.KIAWAHISLANDUTILITY.COM

And coming soon, yet another innovation — online statements with online bill pay.

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 the 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 organics, 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.

More information about contaminants and potential health effects can be obtained online or by calling the **EPA's Safe Drinking Water Hotline** at the number below:

800.426.4791 or online at www.EPA.gov/Safewater

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 comes 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 individual home



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 two 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 online and from **EPA's Safe Drinking Water Hotline** (number and URL at left).

IMMUNO-COMPROMISED PERSONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons — such as cancer patients 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 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 online and from **EPA's Safe Drinking Water Hotline** (number and URL at left).



IF THERE IS MAGIC ON THIS PLANET,
IT IS CONTAINED IN WATER.

—Loren Eisely

WHAT HAVE WE DONE FOR YOU LATELY?

The 13 employees of Kiawah Island Utility work for you 24/7. As you can see from these statistics, our commitment to serve you really adds up!

846 CUSTOMER SERVICE
WORK ORDERS
were handled by office and maintenance staff.

945,294
MILLION GALLONS OF WATER
purchased for distribution to customers.

78% OF STAFF *employed by
KIU greater than four years.*

6,708 LAB ANALYSES
performed in-house by KIU staff.

131 MILES
OF WATER AND SEWER LINES
maintained by KIU staff.



PROPER DISPOSAL OF PRESCRIPTION DRUGS

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 your prescription drugs safely, please follow these steps:

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 scratching it off.
5. Place the sealed container with the mixture, and the empty drug containers, in the trash.

PROPER DISPOSAL OF CHEMICALS

You can help protect our water!

Every day, the average adult uses nine personal care products that contain 126 unique compounds that could end up in our water. In addition to traces of products like shampoo, toothpaste, sunscreen, and cosmetics, minute amounts of prescription and over-the-counter drugs also make their way into water. They should be limited or prevented from entering our environment.

Water, Water Everywhere.
Seventy percent of the Earth
is covered with water, but
only one percent is suitable
for drinking.

Due to our increased use of these products and greater analytical sensitivity, very tiny amounts of compounds and drugs can be detected in conventional treatment plant outflow and end up in creeks, streams, and rivers. While there is no evidence that these traces pose a risk to human health, scientists can sometimes find



interference with aquatic organisms, and studies continue. Meanwhile, it's prudent to control what we put into water, and everyone's help is important.

For more information on how to safely dispose of household products, please visit: **www.wef.org/AboutWater/ForThePublic/FactSheets/FactSheetDocuments/HouseholdWaste.htm**.

Did You Know?

Some people tell us we're one in a million. In truth, KIU is one of 56,000 community public water systems in the U.S.



FILTER THE FACTS BEFORE YOU FILTER YOUR WATER

Many of us believe drinking bottled or filtered water is a healthy decision. In truth, it is as safe to drink KIU water as it is to drink bottled water — and in some instances, KIU water is safer than filtered water. Inadequately maintained filters can actually reduce water quality.

If you already have a home filtering system, you must make maintaining your equipment a priority, year-round. Failing to change the filter could result in water that is no longer being adequately filtered or treated.

If you're still thinking of adding a system, remember that all filtering systems are different. It is important to make sure the device you choose addresses your particular concern.

Questions regarding specific devices, as well as specific guidelines for maintenance, should be directed to the manufacturer. People with medical conditions that might put them at special risk should discuss the need for a water filter with their doctor. For more information about water treatment units, visit the following websites:

- > www.EPA.gov/Safewater
- > www.DrinkTap.org
- > www.AWWA.org

BE WATER-WISE AND SAVE

A rise in the amount of your water bill is usually caused by a change in water use or a leak. If you think about it, you'll realize your bill was higher one month because you had house guests or watered your lawn more than usual. But a bigger bill can also mean you need to check for leaks.

Waste Not, Want Not.

A small drip from a faucet can waste 50 gallons of water daily, enough water to run a dishwasher twice.

CHECKING FOR TOILET AND FAUCET LEAKS

You can usually hear a running toilet, but not always, so check toilets for leaks by putting a few drops of food coloring in the tank. If color appears in the bowl after a few minutes, you have a leak and probably need to replace the flapper valve. Never wait to fix a toilet leak! A continuously running toilet can waste up to 200 gallons a day, doubling a family's typical water use.

CHECKING FOR OUTDOOR AND UNDERGROUND LEAKS

Leaks can also occur under your house or in the service line between your water meter and your home. Check outdoor spigots and crawl spaces, and look for wet spots in your yard, which may indicate a leak.

CHECKING YOUR WATER METER

Your water meter also helps you check for leaks. Start by turning off everything inside and outside your home that uses water. Then go to your water meter and look under its glass face. You'll see a little red triangle on the meter dial. The triangle is an indicator that spins when water passes through. When everything that uses water is turned off, the little triangle should not move. If it is moving, you probably have a leak.

If you have any problems locating your meter, reading it, or have any questions, please contact KIU for assistance.





ON A MISSION TO SAVE LIVES

Nearly one billion people — one in every eight individuals on the face of the Earth — lack access to the most basic element of life: safe water. Steve, a student in Asengo, Kenya was one of them. He and his neighbors were traveling two kilometers a day to the Yala River just to obtain contaminated water. It kept them alive, but also caused water-borne illnesses, causing many missed days of work, robbing time from studies, and cutting lives short, especially among children.

Thankfully, Steve's village learned about **Water Missions International (WMI)**, a Christian nonprofit that has provided safe water to more than two million people in 49 developing countries since its beginning in 2001. For the fifth year in a row, the organization has received Charity Navigator's top rating.

Water Missions International trains local people to operate and maintain water systems that can provide safe water for 20 years or more. Kiawah Island Utilities' own Becky Dennis, who began working with WMI over nine years ago, says each water purification unit fits in the back of a pickup truck, and produces approximately 10,000 gallons of clean, safe water a day, enough to supply a village of 2,500 to 4,000 people. Locally, units are built by volunteers at Charleston's own WMI warehouse and production facility, within 25 miles of



Steve — Asengo, Kenya

Kiawah Island, off Highway 17 at the I-526 interchange.

Dennis has volunteered with WMI in a variety of capacities, including building and packing units for shipping to devastated areas of the world, and serving as co-chair of the local Walk for Water. During this 3.5 mile trek, walkers carry buckets of water to symbolize the strain of the daily journey made by women and children in countries that have no nearby source of water.



Life Force.
Depending on conditions,
a person can live only
for approximately one
week without water.

Dennis says WMI's doors are open to anyone with a heart to serve. She invites KIU customers to join her on the production team, or to follow the lead of other KIU staff members who support WMI financially.

Water Missions International

To Support WMI:

volunteer: *To learn about group and individual volunteer opportunities, visit www.WaterMissions.org/ **Volunteer** or email Michael Simpson at msimpson@watermissions.org.*

connect: *Get updates about Water Missions International on Facebook and Twitter, or sign up for our monthly updates at my.WaterMissions.org.*  

give: *Water Missions International welcomes gifts of all sizes, and all donations are tax-deductible. Learn more about our monthly giving program — Thirst Quencher — how to fund a specific project, or how to make a one-time donation. Visit www.WaterMissions.org/ **Give** for more information.*

pray: *Please join us in prayer as we think about the one billion people around the world who lack safe water, as well as two million receiving safe water from our systems daily. Visit my.WaterMissions.org to sign up for our weekly “Prayer Ripples” newsletter.*



FOR MORE INFORMATION

Please feel free to contact us to get additional details about your water supply.



email: bdennis@kiawah.com

telephone: 843-768-0641

online: www.KiawahIslandUtility.com

Or mail your inquiry to:

Kiawah Island Utility, Inc.

Attn: Becky Dennis

31 Sora Rail Road, Kiawah Island, SC 29455

For consumer services information, please contact the S.C. Office of Regulatory Staff:

telephone: 803-737-5230

online: www.RegulatoryStaff.SC.Gov

Or, mail your inquiry to:

S.C. Office of Regulatory Staff

Consumer Services Division

P.O. Box 11263, Columbia, SC 29211

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	2010	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%)	One sample exceeded the action level	AL = 15	2009	0	Corrosion of household plumbing materials

On November 5, 2010, Kiawah Island Utility, Inc., operating under S.C. Drinking Water System #1010008, received a notice of violation from DHEC for failure to submit an Initial Distribution Report in January 2009. Although the KIU report was received by the SCDHEC and EPA in August, 2009, we are required to report this violation on the current Annual Report.

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.

(1) GENERAL INTEREST

(2) WATER QUALITY TABLE

ABBREVIATIONS PER UNIT

C: Centigrade	ppt: parts per trillion (ng/L)
NTU: Nephelometric Turbidity Units	RAA: Running Annual Average
PCU: Platinum Cobalt Units	umhos/cm: Micromohs/centimeter
ppb: Parts per billion (ug/l)	
ppm: Parts per million (mg/l)	

Total Trihalomethanes	ppb	RAA: 17
Total Haloacetic acids	ppb	RAA: 17
Chlorite	ppm	0.79
Total Organic Carbon (TOC)	ppm	RAA: ratio 1.35

8 to 30	80	2010	NA	Byproduct of water disinfection process
10 to 29	60	2010	NA	Byproduct of water disinfection process
0.46- 0.79	1.0	2010	0.8	Byproduct of water disinfection process
1.8 to 3.3*	TT	2010	NA	Naturally present in the environment

*TOC Values (1.8 to 3.3 ppm). The range of removal was 52% to 74% (45% is required). TOC samples are taken on a daily basis.

CHARLESTON WATER SYSTEM

(1) GENERAL INTEREST

PARAMETER	CWS WATER AVERAGE 2010	HIGHEST LEVEL ALLOWED BY EPA REGULATION MCL
Chloride, ppm	16	250
Color, PCU	4	15
Iron, ppm	<0.1	0.3
Manganese, ppm	<0.05	0.05
Total Dissolved Solids (TDS), ppm	91	500
Sodium, ppm	11	No Standard
Alkalinity, ppm	28	No Standard
Conductivity, umhos/cm	190	No Standard
Hardness, ppm	58	No Standard
Ortho-phosphate, ppm	1.1	No Standard
Silica, ppm	5.8	No Standard
Temperature, C	21	No Standard

ABBREVIATIONS PER UNIT

C: Centigrade

NTU: Nephelometric

Turbidity Units

PCU: Platinum Cobalt Units

ppb: Parts per billion (ug/l)

ppm: Parts per million (mg/l)

ppt: parts per trillion
(ng/L)

RAA: Running Annual
Average

umhos/cm: Micromohs/
centimeter

(2) WATER QUALITY TABLE

PARAMETER	UNITS	CWS WATER HIGHEST LEVEL DETECTED
Total Coliform Bacteria	% positive samples	1.0 % highest level detected in any monthly sample (all repeat samples were satisfactory)
Turbidity	NTU	1.40
Cryptosporidium in River Water	per liter	0.0
Giardia in River Water	per liter	0.0
Copper	ppm	0.13
Lead	ppb	5
Nitrate/Nitrogen	ppm	0.075
Fluoride	ppm	0.15 ppm in source water. 0.89 ppm in finished water.
Chlorine Dioxide	ppb	240
Chloramine Residual	ppm	RAA: 2.6
Total Trihalomethanes	ppb	RAA: 17
Total Haloacetic acids	ppb	RAA: 17
Chlorite	ppm	0.79
Total Organic Carbon (TOC)	ppm	RAA: ratio 1.35

RANGE OR OTHER COMMENTS	MCL	DATE SAMPLED	MCLG	POSSIBLE SOURCES IN WATER
0% to 1.0 %	Presence of coliform bacteria in >5% of monthly samples	2010	0%	Naturally present in the environment
99% lowest monthly % of samples meeting limits	Requires a specific treatment technique (TT). 95% of monthly samples must be less than 0.3 NTU.	2010	none	Soil runoff
NA	none	2010	none	Human and animal sources
NA	none	2010	none	Human and animal sources
No samples exceeded the action level (0.00 to 0.13)	AL=1.3	2009	1.3	Corrosion of household plumbing materials
Two samples exceeded the action level (0 to 17)	AL= 15	2009	0	Corrosion of household plumbing materials
NA	10	2010	10	Runoff from fertilizers
NA	4	2010	4	Additive to reduce tooth decay
0 to <240	800	2010	800	Added for disinfection
2.4 to 2.8	MRDL= 4	2010	MRDLG =4	Added for disinfection
8 to 30	80	2010	NA	Byproduct of water disinfection process
10 to 29	60	2010	NA	Byproduct of water disinfection process
0.46- 0.79	1.0	2010	0.8	Byproduct of water disinfection process
1.8 to 3.3*	TT	2010	NA	Naturally present in the environment

*TOC Values (1.8 to 3.3 ppm). The range of removal was 52% to 74% (45% is required). TOC samples are taken on a daily basis.



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