



TOWN OF LONGBOAT KEY

2009 Drinking Water Quality Summary

Protected Water Source

The Town of Longboat Key purchases its potable water from the Manatee County Utilities Department where it is treated for consumption before delivery to the Town. Manatee County and Longboat Key follow strict rules and guidelines enacted by the U.S. Environmental Protection Agency (EPA) to ensure that your drinking water is free from contaminants and certain compounds. Longboat Key and Manatee County make a daily commitment to provide the highest quality drinking water to their customers. This report reflects on that commitment and represents a summary of the drinking water quality from January through December 2009.



Drinking Water Sources

Drinking water for customers of Longboat Key is a blend of purified groundwater and purified surface water. In 2009, Manatee County Utilities extracted an average of 14.93 million gallons per day of deep groundwater and used 23.35 million gallons per day of surface water.






Groundwater is pumped from the Floridan Aquifer from six, 1,200-foot deep wells located in eastern Manatee County. This water is pumped through a 36-inch pipe approximately 13 miles to the Purification Plant. Surface water is taken from the Lake Manatee Reservoir located in central Manatee County.

In 2008 the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on Manatee County's system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of Manatee County wells or surface water intakes. Two potential sources of contamination were identified for the Manatee County Water Purification Plant with low to high susceptibility levels. The 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 the Manatee County Water Purification Plant at 941-746-3020.

The County takes stringent measures to protect these water sources. In the late 1980s Manatee County voters approved the purchase of 20,500 acres of the 82,000-acre watershed area, which drains into and includes the reservoir and well field. County and State agencies have continued to purchase additional watershed acreage, and today approximately 35,000 acres are in public ownership. This ownership insures that activities detrimental to water quality or quantity will not occur on these public lands.

Safe 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. 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas mining, or farming.*
-  *Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.*
-  *Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.*
-  *Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.*

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). 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. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

If you need help in understanding water quality issues, have questions about this report, or have a water quality concern please call the Town of Longboat Key Public Works Department at (941) 316-1988 or visit our website at www.longboatkey.org. For questions related directly to the water treatment please call Manatee County at (941) 746-3020.

Attention Property Managers:

If you are a property manager, please provide this water quality report to your tenants. This report may be photocopied or posted in a prominent location at your facility. More copies are available on the web at www.longboatkey.org, Town Hall and Public Works.

MICROBIOLOGICAL

Contaminant and Unit of Measurement	Dates of Sampling	MCL Violation Y/N	Highest Single Measurement	Lowest Monthly Percentage of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
Filter turbidity (NTU)	1/09—12/09	No	0.30	100%	N/A	TT	Soil runoff

INORGANIC

Contaminant and Unit of Measurement	Dates of Sampling	MCL Violation Y/N	Max. Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	1/09—12/09	No	0.014	0.0096 – 0.014	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide (ppb)	1/09—12/09	No	10	ND—10	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Fluoride (ppm)	1/09—12/09	No	0.88	0.52 – 0.88	4	4	Water additive which promotes strong teeth.
Nitrate (as Nitrogen) (ppm)	1/09—12/09	No	0.15	0.08 - 0.15	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	1/09—12/09	No	0.056	ND – 0.056	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	1/09—12/09	No	19	13—19	N/A	160	Salt water intrusion, leaching from soil

RADIOLOGICAL CONTAMINANTS

Alpha emitters (pCi/L)	1/09—12/09	No	2.5	N/D – 2.5	0	15	Erosion of natural deposits
Radium 226 (pCi/L)	1/09—12/09	No	0.5	0.2 – 0.5	0	5 ^A	Erosion of natural deposits
Radium 228 (pCi/L)	1/09—12/09	No	0.4	N/D – 0.4	0	5 ^A	Erosion of natural deposits
Uranium (ug/L)	1/09—12/09	No	0.41	ND—0.41	0	30	Erosion of natural deposits

STAGE 1 DISINFECTANT AND DISINFECTION BY-PRODUCTS (D/DBP) PARAMETERS

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling	Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chloramines (ppm)	1/09—12/09	No	3.69 ^B	0.6 – 5.8 ^C	MRDLG = 4	MRDL = 4 ^D	Water additive used to control microbes
Haloacetic acids (ppb)	1/09—12/09	No	21.5 ^B	11.2-31.4 ^C	N/A	MCL = 60	By-product of drinking water disinfection
Total trihalomethanes (ppb)	1/09—12/09	No	30.0 ^B	17.9-38.7 ^C	N/A	MCL = 80	By-product of drinking water disinfection
Total organic carbon (ratio) ^E	1/09—12/09	No	1.41 ^F	1.22 – 1.62	N/A	TT	Naturally present in the environment

LEAD AND COPPER (TAP WATER)

Contaminant and Unit of Measurement	Dates of Sampling	AL Violation Y/N	90 th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (ppm)	2007 ^G	No	0.20	1	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2007 ^G	No	ND	1	0	15	Corrosion of household plumbing systems; erosion of natural deposits

UNREGULATED CONTAMINANTS

Contaminant and Unit of Measurement	Level Detected	Range	Likely Source of Contamination
N-nitroso-dimethylamine (NDMA), ppt	4.3	4.3	Industrial groundwater contamination (rocket fuel), from the chlorination/chloramination of cationic polymers, from the use of ion exchange resins, and as a chlorination/chloramination byproduct.

HOW IS YOUR WATER PURIFIED?

The Manatee County Water Purification Plant, located on the shore of Lake Manatee, purifies both groundwater and surface water. The groundwater is purified by aeration, lime softening and filtration. These processes remove odor, a portion of the hardness and undesirable elements such as suspended matter and microbiological organisms.

The surface water is purified by carbon adsorption, coagulation, sedimentation and filtration. These processes remove odor, color, and undesirable elements such as suspended matter and microbiological organisms. The filtered water from the two sources is then combined. The combined water is further enhanced before leaving the plant. The water is disinfected to destroy microbes and provide protection against microbial regrowth in the distribution system and your plumbing. The water is also made less corrosive, thus prolonging your home plumbing and fixtures. Natural fluoride levels are slightly increased to optimal levels as a public health measure to help develop decay resistant teeth and strong bones. The purification plant is staffed with dedicated, professionally trained, State certified operational, laboratory and maintenance personnel. This staff operates and maintains the advanced water purification facility as well as monitors and researches water quality issues.

The Town of Longboat Key provides additional disinfection in the Longboat Key distribution system to protect against microbial regrowth. The Town is staffed by professionally trained, State certified operational and maintenance personnel.

TABLE KEY & DEFINITIONS

AL:	Action Level	A	MCL limit of Radium-226 and Radium-228 combined.
MCL:	Maximum Contaminant Level	B	The value is the highest running annual average, computed quarterly.
MCLG:	Maximum Contaminant Level Goal	C	These values represent values at individual sample sites.
N/A:	Not applicable	D	A public water system (PWS) is in compliance with the MRDL when running annual average of monthly averages of samples taken in the distribution system, computed quarterly, is less than or equal to the MRDL.
ND:	Not detected	E	These values represent the % total organic carbon removal achieved at the treatment plant divided by the % removal achieved at the treatment plant divided by the % removal required. This value must be above 1.0 for compliance.
NTU:	Nephelometric turbidity units	F	This value is the lowest running annual average, computed quarterly of monthly removal ratio..
pCi/L:	Picocuries per liter (a measure of radioactivity)	G	The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.
ppb:	Parts per billion or micrograms per liter (µg/L)		
ppm:	Parts per million or milligrams per liter (mg/L)		
ppt:	Parts per trillion or nanograms per liter (ng/L)		
TT:	Treatment Technique		
LBK:	Town of Longboat Key results		

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

Filter Turbidity (NTU): Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants.

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.

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.

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.

Total trihalomethanes: Disinfection by-products expressed as the sum of chloroform, dibromochloromethane, bromodichloromethane and tribromomethane.

Not Detected or ND: Means not detected and indicates the substance was not found by laboratory analysis.

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

LONGBOAT KEY ADDITIONAL ANALYSIS — The Town performs supplemental laboratory tests on a monthly basis. The following details the results of the Longboat Key water sampling program.

Bacteriological Analysis: The Town collected 158 samples in 2009.

Lead and Copper: Lead and Copper are sampled once every 3 years. The maximum allowable limits for Lead is 0.015 mg/l and for Copper is 1.3 mg/l. The last analysis period was in August 2008 when 20 samples were collected from various locations. Based on the 90th percentile level the samples for both parameters were below the allowable levels set forth by the EPA.

Asbestos Cement (AC) Pipeline Test : The Town has a portion of its water main that is AC material. Therefore a sample of tap water that receives water from the AC pipeline is tested for asbestos once every 5 years. The results of the 2009 test were less than 0.180 million fibers per liter. The maximum allowable level is 7 million fibers per liter.

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of Sampling Sites Exceeding AL	MCLG	AL (Action Level)	Likely Source of Contamination
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Copper (mg/l)	8/08	N	0.218 ^{LBK}	0	1.3	1.3	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives
Lead (ug/l)	8/08	N	3.0 ^{LBK}	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Contaminant and Unit of Measurement	Dates of Sampling (Mo/Yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
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Chloramines (mg/l)	1/09—12/09	N	2.7 ^{LBK}	0.1—4.8 ^{LBK}	4	4	Water Additive used to control microbes
Haloacetic acids (ppb)	1/09—12/09	N	28.78 ^{D & LBK}	17.8—51.4 ^{LBK}	N/A	MCL = 60	Byproduct of drinking water disinfection.
Total Trihalomethanes	1/09—12/09	N	47.43 ^{D & LBK}	28.0—77.10 ^{D, E & LBK}	N/A	MCL = 80	Byproduct of drinking water disinfection.

Town of Longboat Key

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Every Drop Counts! 



2010 Town of Longboat Key Commission

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Mayor



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Vice Mayor



Lynn Larson
District 1



David Brenner
District 3



Bob Siekmann
District 5



Hal Lenobel
At-Large



Gene Jaleski
At-Large

Find Out the Facts

Concerns about drinking water quality have caused many residents to use bottled water or to install home treatment devices. Be sure to learn about the quality of the alternate water or the expected water quality from home treatment devices.

Cryptosporidium — Cryptosporidium is a microbial parasite that is found in surface water throughout the United States. As required, Manatee County tests our source of drinking water, as well as the treated tap water, for the presence of this contaminant monthly. Manatee County did not detect any Cryptosporidium in the source water or in the treated water that goes to your tap. If Cryptosporidia are present in the source water, the multiple barrier treatment approach in place at the Manatee County Purification Plant, which includes optimized particulate removal, is effective in removing these microbes.

Lead — 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. Manatee County Water Purification Plant 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Radon — The water supply is constantly monitored for various contaminants. Radon was detected in the finished water supply in one out of four samples tested. The January quarterly sample indicated an amount of 23.3 pCi/L. There is no federal regulation for radon levels in drinking water; the proposed MCL for radon is 300 pCi/L. Exposure to air transmitted radon over a long period may cause adverse health effects.

Unregulated Contaminants (UCs) — Manatee County has been monitoring for twenty-five UCs as part of a study to help the USEPA 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 level) have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. If you would like more information on EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at 800-426-4791.

Immuno-compromised Individuals

— 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 microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791. These precautions apply to publicly supplied water, bottled water, private well water or water from home treatment devices.

Bottom Line—Your drinking water meets EPA and state drinking water health standards! Manatee County Water Purification Plant uses what is known as the multiple barrier approach to ensure the safety of the water. This approach includes source protection, optimized particle removal at the purification plant and appropriate disinfection. If you have any questions or concerns about water quality contact the **Town of Longboat Key Public Works Department at (941) 316-1988**. The public is encouraged to participate in decisions that may affect the policies concerning the quality of water at Town Commission meetings held the first Monday of the month at 7 PM or Workshops held on the third Thursdays of the month at 2 PM. All meetings are held in the Town Commission Chambers, 501 Bay Isles Road, Longboat Key, Florida. Meeting issues, times and locations are published in the local papers and on our website, www.longboatkey.org.



“Every Drop Counts!”

