



TOWN OF LONGBOAT KEY

2007 Drinking Water Quality Summary

Protected Water Source

The Town of Longboat Key purchases its potable water from Manatee County where it is treated and made safe 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 safe and 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 2007.

Drinking Water Sources

Manatee County water is a blend of purified groundwater and purified surface water. In 2007, an average of 13.57 million gallons per day of deep groundwater and 32.41 million gallons per day of surface water was used. The 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 also located in eastern Manatee County.

The County has taken 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.

In 2004 the Department of Environmental Protection 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 identified included the diesel storage tanks used to power back-up emergency supply wells and the surface water intakes at Lake Manatee, which were assigned a high susceptibility ranking because of the open nature of surface waters and the presence of potential sources of contamination within the assessment area for our system. 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.

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 EPA's 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.

Detected Contaminants	Sampling Dates	Violation	Max. Value	Range	MCLG	MCL	Major Source
Microbiological							
Filter Turbidity (NTU)	Continuous	No	0.49	99.4% ^A	N/A	TT	Soil runoff and treatment processes
Total Coliform Bacteria	Weekly	No	0.50%	0.0% - 0.5%	0	<5% ^B	Naturally present in the environment
Inorganic							
Fluoride (mg/L)	Daily	No	0.77	0.16 - 0.77	2	2	Water additive which promotes strong teeth
Nitrate (mg/L)	Quarterly	No	0.38	0.001 - 0.38	10	10	Runoff from fertilizer use and erosion of natural deposits
Nitrite (mg/L)	Quarterly	No	0.053	0.005 - 0.053	1	1	Runoff from fertilizer use and erosion of natural deposits
Sodium (mg/L)	Quarterly	No	23.0	12.0 - 23.0	N/A	160	Saltwater intrusion, leaching from soil
Barium (mg/L)	Quarterly	No	0.035	0.013 - 0.035	2	2	Discharge of drilling wastes and metal refineries and erosion of natural deposits
Cadmium (mg/L)	Quarterly	No	0.0011	ND - 0.0011	0.005	0.005	Corrosion of galvanized pipes, erosion of natural deposits, runoff from waste batteries and paints
Stage One Disinfectant/Disinfection By-Product Parameters							
Chloramines (mg/L)	Weekly	No	3.30 ^C	0.7 - 5.6 ^D	4 ^E	4 ^F	Water additive used to control microbes
Haloacetic Acids (ug/L)	Quarterly	No	13.5	9.0 - 19.3 ^D	N/A	60 ^C	By-product of drinking water disinfection
			183.00 ^{LBK & C}	16.20 - 183.00 ^{LBK & C}			
Total Trihalomethanes (ug/L)	Quarterly	No	24.2	17.9 - 31.1 ^D	N/A	80 ^C	By-product of drinking water disinfection
			130.00 ^{LBK & C}	23.00 - 130.00 ^{LBK & C}			
Total Organic Carbon (ratio) ^G	Monthly	No	1.44 ^C	1.25 - 1.58	N/A	TT	Naturally present in the environment
Lead and Copper (Tap Water)							
Copper (mg/L)	2007	No	0.20 ^H	One sample > AL	1.3	AL = 1.3	Corrosion of household plumbing systems
Lead (ug/L)	2007	No	ND ^H	One sample > AL	0	AL = 15	Corrosion of household plumbing systems
Synthetic Organic Contaminants							
Atrazine (ug/L)	2007	No	0.08	ND - 0.08	3	3	Runoff from herbicide used on row crops and weed and feed type fertilizers used for home
Radioactive Contaminants							
Radium-226 (pCi/L)	2007	No	1.2	ND - 1.2	0	5 ^I	Erosion of natural deposits
Gross Alpha (pCi/L)	2007	No	4.0	ND - 4.0	0	15	Erosion of natural deposits
Radon (pCi/L)	2007	No	29	ND - 29	NA	300	Erosion of natural deposits

Table Key and Definitions

NR: not regulated. **N/A:** not applicable. **ND:** not detected. **NTU:** nephelometric turbidity units. **ug/L:** micrograms per liter or parts per billion. **mg/L:** milligram per liter or parts per million. **LBK:** Town of Longboat Key Sample Results.

A the value in the "range" column represents the month with the lowest percentage of turbidity values meeting the goal.

B total coliform detections must not exceed 5% of all monthly samples for Manatee County or more than 1 per month for Longboat Key.

C these values represent an annual average. Individual LBK samples were higher than the MCL however, compliance is based on the annual average and was not exceeded.

D these values represent values at individual sample sites.

E this value is a MRDLG (see definition below).

F this value is a MRDL (see definition below).

G these values represent the % total organic carbon removal achieved at the treatment plant divided by the % removal required. This value must be above 1.0 for compliance.

H the maximum value for the copper and lead results represents the 90th percentile level (90% of the results are below this concentration) from 50 Manatee County homes collected from June to September 2007. One home tested above the action level for lead and copper.

I MCL limit of Radium-226 and Radium-228 combined.

Maximum Contaminant Level Goal (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 Contaminant Level (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.

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

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

Filter Turbidity (NTU): Filter turbidity or water clarity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

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

Maximum Residual Disinfectant Level Goal (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.

Maximum Residual Disinfectant Level (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.

Not Detected (ND): Indicates the substance was not found by laboratory analysis.

Longboat Key Additional Analysis

The Town performs supplemental laboratory tests. The following details the results of the Longboat Key water sampling program:

Bacteriological Analysis: The Town collected 147 samples in 2007. All samples were absent of bacteria.

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 March 2005 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. One lead sample tested above the action level.

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 2004 test were less than 0.184 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
Copper (mg/l)	3/05	N	0.36 ^{LBK}	0	1.3	1.3	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives
Lead (ug/l)	3/05	N	3 ^{LBK}	1	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	Highest Monthly Percentage / Number	MCLG	Likely Source of Contamination
Total Coliform Bacteria	Monthly 1/07 to 12/07	N	0 ^{LBK}	0	Naturally present in the environment

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
Chloramines (mg/l)	1/07 to 12/07	N	3.0 ^{LBK}	0.7 - 3.5 ^{LBK}	4	4	Water Additive used to control microbes

Additional Parameters	Average		
	MCL	Value	Range
Sulfate (mg/L)	250	107	88 - 120
Zinc (ug/L)	5000	80	ND - 110
Manganese (ug/L)	50	ND	ND
Aluminium (ug/L)	200	ND	ND
Color (color units)	15	3.8	ND - 5
pH (units)	6.5 - 8.5	7.6	7.29 - 7.75
Total dissolved solids (mg/L)	500	250	180 - 360
Chloride (mg/L)	250	18	17 - 21
Total hardness (mg/L as CaCO3)	NR	141	115 - 161
Total alkalinity (mg/L as CaCO3)	NR	37	22 - 57
Foaming Agents (ug/L)	500	ND	ND
Iron (ug/L)	300	ND	ND
Odor (threshold odor units)	3	0.9	ND - 1.4

ADDITIONAL WATER QUALITY INFORMATION

The accompanying table lists additional regulated and non-regulated parameters. The MCLs listed in this table were established for aesthetic-related purposes and not for health reasons. Note that all average and maximum values are below the MCL.

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 wa-

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.

Town of Longboat Key

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Phone: 941-316-1988
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Every Drop Counts!



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 1 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.



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.

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>.

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.