



**2014 Annual
Drinking Water Quality
Report**

Town of Oakland
PWS #3480913

A Message from the Public Works Director

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Our water source is the Floridan Aquifer. The Town's raw water is fed from two separate wells, one located at Speer Park and one located at VanderLey Park. Raw water from both wells is sent to our treatment plant, also located at VanderLey Park, where it is treated with chlorine for disinfection.

You may have noticed the construction in progress at VanderLey Park during 2014. This project, known as the Town of Oakland's Water System Improvements Project, was a joint venture between the Town and the State of Florida's Department of Environmental Protection. It began in January, 2014 and was completed by December, 2014. The goal of the project was to improve overall system reliability, eliminate problems associated with inconsistent pressures, and, in the event of a fire or other emergency, to provide additional water storage capacity. The project included the construction of a new water storage tank – the Town's third and largest at 500,000 gallons capacity – that will provide for current demand and ensure an adequate supply is available for potential growth. In addition to the new ground-storage tank, the Town also constructed a new water-distribution pump house, installed new distribution pipelines to improve system



efficiency, replaced an aging raw-water pipeline and upgraded pumps to a variable frequency drive (VFD) system, which reduces energy costs and helps to maintain consistent water pressure. VFD's also provide protection to our extensive distribution infrastructure by minimizing the damaging effects of "water hammer". You will also be pleased to know that the Town complied with all Federal and State laws, rules and regulations, including safety precautions during construction. One very important precaution was the hyper-chlorination of the tank and new infrastructure for a 30-day period. The scope of this project was limited to the storage and distribution of water post-treatment. In other words, no changes were made to the way the Town disinfects and otherwise treats its water. Moreover, the construction did not interrupt or prevent normal, daily water-plant operations. All water-plant operations maintained routine functions throughout construction. The upgrades to VanderLey Park were not limited to water storage and distributions functions. The park itself received a "sprucing up". If you haven't yet visited our beautiful new park, we invite you to come and stroll along our picnic-friendly trails and check out our state-of-the art water facilities.

If you have any questions about this report or questions concerning your water utility, please contact the Public Works Director Michael Parker at (407) 656-1117 ext. 2302. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Town Commission meetings. They are held on the second and fourth Tuesday of every month. See the Town's calendar for upcoming meetings at www.oaktownusa.com.

Tools to Better Understand this Report

The Town of Oakland routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2014. Data obtained before January 1, 2014 and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

- *Action Level (AL)*: The concentration of contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- *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 Disinfection 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.
- "N/A" means not applicable
- "ND" means not detected and indicates that the substance was not found by laboratory analysis.
- *Parts per billion (ppb) or Micrograms per liter ($\mu\text{g/l}$)*: one part by weight of analyte to 1 billion parts by weight of the water sample.
- *Parts per million (ppm) or Milligrams per liter (mg/l)*: one part by weight of analyte to 1 million parts by weight of the water sample.
- *Picocurie per liter (pCi/L)*: measure of the radioactivity in water.

The State allows us to monitor for some contaminant 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.

As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data (e.g., for organic contaminants), though representative, is more than one year old.

In 2014 the Florida Department of Environmental Protection performed a Source Water Assessment for The Town of Oakland. A potential source of contamination was identified at one location for this system with a moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at http://www.dep.state.fl.us/swapp/DisplayPWS.asp?pws_id=3480913&odate=01-OCT-14.

The well located at Speer Park is categorized as a "delineated area" and was given a susceptibility score of 16.66 and a "moderate" concern level. According to the State of Florida's Department of Environmental Protection website,

Approximately 427,897 acres in 38 counties have been delineated for ground water contamination. Of these areas, the majority are delineated for EDB [Ethylene Dibromide] contamination with a few additional areas delineated for solvents and gasoline...These areas are typically mapped using a 1000-foot protective setback from a contaminated well or site.

In layman's terms, the well located at Speer Park is within a 1000-foot radius of an area where ground water has been found to have either contaminants of EDB (Ethylene Dibromide), solvents, or gasoline. The State of Florida has enacted strict regulations and protocols for wells located within a delineated area. Florida Department of Environmental Protection states the following:

Within delineated areas more stringent well construction standards are required for new drinking water well construction, along with testing of well water for the chemicals of concern and clearance for potable use by the Florida Department of Health. Contaminated potable water wells are typically remediated by installation of a granular activated carbon filtration system or by connection to a municipal water system. In addition, community and non-transient non-community public water systems with wells located within a delineated area routinely monitor for EDB and solvents.

For more information delineated areas, please see the cited resource listed below.

<http://www.dep.state.fl.us/swapp/pwc.asp#groundwater>

The Town of Oakland received a violation on its 2013 Annual Drinking Water Quality Report due to its failure to report the document before the required due date. The Town submitted the report on August 7, 2014.

This report shows our water quality and what they mean.

Water Quality Testing Results

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants							
Alpha emitters (pCi/L)	8/2009	N	2.7	N/A	0	15	Erosion of natural deposits
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Antimony (ppb)	8/2012	N	1.3	N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	8/2012	N	1.0	N/A	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	8/2012	N	15.9	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	8/2012	N	3.6	N/A	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	8/2012	N	0.7	N/A	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	8/2012	N	1.6	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	8/2012	N	0.017	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm
Lead (point of entry) (ppb)	8/2012	N	0.4	N/A	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nickel (ppb)	8/2012	N	2.3	N/A	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	8/2014	N	0.0	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	8/2014	N	0.0		1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Selenium (ppb)	8/2012	N	1.5	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	8/2012	N	13	N/A	N/A	160	Salt water intrusion, leaching from soil
Thallium (ppb)	8/2012	N	0.4	N/A	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Stage 1 Disinfectants and Disinfection By-Products

For bromate, chloramines, or chlorine, the level detected is the the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitoring quarterly or is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDL G	MCL or MRDL L	Likely Source of Contamination
Chlorine (ppm)	1/2014-12/2014	N	Average* 1.17	0.6-1.95	MRDL G = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	8/2014	N	7.87**	2.75-7.87	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	8/2014	N	64.18**	26.16-64.18	N/A	MCL = 80	By-product of drinking water disinfection

*the level detected is the average result.

**the level detected is the highest result.

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Exceeded (Y/N)	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
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Lead and Copper (Tap Water)

Copper (tap water) (ppm)	9/2012	N	0.2910	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	9/2012	N	1.3	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

As you can see by the tables, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements.

Disclaimer from Florida Department of Environmental Protection

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. The Town of Oakland is responsible for providing high quality drinking water, but cannot control the variety of materials used in private 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 or at <http://www.epa.gov/safewater/lead>.

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:

- (A) *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) *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 production, mining, or farming.
- (C) *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- (D) *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- (E) *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, the 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.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Recent and Future Improvements

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are typically funded by impact fees and by the rates that our customers pay for their water consumption. After many years with the same rates, the Town made changes to the rate structure in October, 2013. This was to provide for increased operating expenses and to provide for much needed capital improvements. In an effort to be environmentally conscious, the rates were also designed to promote water conservation and comply with state mandates pertaining to such.

During 2014, several capital improvements were successfully completed throughout Town. As previously mentioned, the Town undertook extensive construction improvements at VanderLey Park to improve water distribution system's capacity and efficiency. A new raw water pipeline was installed from Speer Park, crossing N Tubb Street, running parallel with the West Orange Trail and then crossing it, to eventually being connected to existing pipes along N Arrington Road. Last year, the Town also expanded its water supply lines eastward, along E Oakland Avenue to provide new water connections to even more of our Oakland residents. This endeavor was particularly challenging as it included a difficult crossing of the Motamassek Canal.

Future plans for improvement include modifications to the 40+ year old elevated tank which will allow it to serve in a "reserve" status in the event of an emergency. Plans are also being developed for a retrofitting of the 150,000 gallon ground storage tank and pumping facility located along West Oakland Avenue, and for developer-driven expansion and improvements of water distribution in the area of J.W. Jones Road.

In Closing

We at the Town of Oakland would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to insuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed in this report.