

# YOUR WATER

## ORANGE CITY UTILITIES

### WATER QUALITY REPORT | 2013

#### Planning for the Future of Your Water

Over the next 20 years, Orange City Utilities (OCU) will invest in proactive measures to protect the aquifer, provide clean and safe drinking water, and responsive customer service. Long-term planning and a strong conservation ethic are essential to the preservation of our natural resources. In 2013, OCU implemented a city wide water meter replacement program. Our new water meters feature radio read technology that enables a more accurate account of usage. These new meters link with AquaHawk software to provide customers the ability to monitor their water usage via the internet.



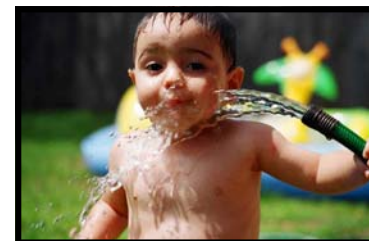
#### Why We Monitor

OCU provides this Annual Water Quality Report to our customers so you may understand the concerted and rigorous efforts that are made to continually maintain and improve the water-treatment process and preserve Orange City's precious water resources.



#### Providing Safe, Clean Water

This OCU system provides safe, clean drinking water to an approximate population of 11,000 who use a system wide daily average of approximately 1.6 million gallons per day. Making every drop safe is our top priority. OCU's water is tested continuously at our water treatment plants and throughout the distribution system. Water straight from the faucet continues to be safe, and the use of home filtration systems remains a matter of preference.



#### Value of Tap Water

You can drink **8 glasses of water** per day for  
**365 days** (That's 2,920 glasses of water)  
 For **60¢**

#### Conserve Our Resources, Know When to Water

When landscaping, remember overwatering wastes water and damages your lawn. Follow the rules to help keep your lawn healthy.

\*No more than 3/4-inch of water may be applied on irrigation days.

TIME OF YEAR	ODD-NUMBERED ADDRESSES	EVEN-NUMBERED ADDRESSES	BUSINESS PROPERTIES
Daylight Savings Time 3/9/14-11/2/14	Wednesday & Saturday	Thursday & Sunday	Tuesday & Friday
Eastern Standard Time 11/2/14-3/8/15	Saturday	Sunday	Tuesday

# ORANGE CITY UTILITIES

**Orange City Utilities is very pleased to provide you with this year's Annual Water Quality Report.** We strive to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide OCU customers safe and dependable supply of drinking water.

## **The Treatment Process**

OCU treats groundwater pumped from the Floridan Aquifer. Our treatment process consists of aeration and disinfection using injected chlorine. In addition to our primary treatment process, orthophosphosphate is added to the treated water to maintain the distribution system and improve the quality of the water.

## **About this Report**

This report depicts our water quality results. Orange City Utilities 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, 2013. Data obtained before January 1st, 2013 and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

## **About OCU**

OCU is a municipally-owned utility, governed by the Orange City Council. The Orange City Council meets at City

Hall, 201 N Holly Ave, Orange City, Fla., on the second and fourth Tuesday of every month.

**Additional information is available at [www.OurOrangeCity.com](http://www.OurOrangeCity.com).**



## **Special Health Considerations**

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).

## **Table Terms and Abbreviations**

- Non-Applicable (NA): Does not apply
- Parts per million (ppm): One part by weight of analyte to 1 million parts by weight of the water sample
- Parts per billion (ppb): One part by weight of analyte to 1 billion parts by weight of the water sample
- Picocurie per liter (pCi/L): Measure of radioactivity in water
- Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow
- 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 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 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 contaminant.

Service and Billing Questions: (386) 775-5444

After Hours Contact: (386) 736-5999

# WATER QUALITY TEST RESULTS

The following table shows the results of the monitoring period from January 1 to December 31, 2013. The State of Florida allows for the monitoring of some contaminants less than once a year because the concentration of some of these contaminants does not change frequently. Therefore, some of the provided data, though representative, is more than a year old.

Contaminant and Unit of Measurement	Dates of Sampling	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
<b>Inorganic Contaminants</b>							
Barium (ppm)	06/2011	N	.031	.027 - .031	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	06/20/2011	N	0.11	0.10 - 0.11	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 0.7ppm
Nitrate (as Nitrogen) (ppm)	02/28/2013	N	0.73	0-0.73	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	06/2011	N	58.2	37.9 - 58.2	NA	160	Salt water intrusion, leaching from soil

## Synthetic Organic Contaminants including Pesticides and Herbicides

Dalapon (ppb)	06/2011	N	0.91	0 - 0.91	200	200	Runoff from herbicide used on rights of way
Methoxychlor (ppb)	06/2011	N	0.021	0 - 0.021	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Contaminant and Unit of Measurement	Dates of Sampling	AL Exceeded Y/N	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination

## Lead and Copper (Tap Water)

Copper (tap water) (ppm)	08/2011	N	0.28	No sites exceeded the AL	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/2011	N	1.9	No sites exceeded the AL	0	15	Corrosion of household plumbing systems, erosion of natural deposits

## Stage 1 Disinfectant/Disinfection By-Product (D/DBP Contaminants)

Disinfectant of Contaminant and Unit of Measurement	Dates of Sampling	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	01/2013- 12/2013	N	1.7	0.4 - 1.7	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	01/2013- 12/2013	N	22.0	14.5 - 32.5	NA	MCL = 60	By-product of drinking water disinfection
THM [Total trihalomethanes] (ppb)	01/2013-12/2013	Y	84.6	37.6 - 168	NA	MCL = 80	By-product of drinking water disinfection

## Stage 2 Disinfectant/Disinfection By-Product

Contaminant and Unit of Measurement	Dates of Sampling	MCL Violation Y/L	Level Detected	Range of Results	MCLG	MCL	Likely Source Of Contamination
Haloacetic Acids (five) (HAA5) (ppb)	10/29/13	N	NA	6.3 -17.3	NA	60	By-product of drinking water disinfection
THM [Total Trihalomethanes] (ppb)	10/29/13	N	NA	44.1 - 57.9	NA	80	By-product of drinking water disinfection

# WATER QUALITY TEST RESULTS

## Trihalomethanes

Total Trihalomethanes (TTHM) are by-products of the reaction of the chlorine disinfectant with the natural organic matter in the water. The state of Florida as well as many other states requires the use of a disinfectant (chlorine) to minimize the possibility of bacterial contamination in the drinking water distribution system. The Maximum Contaminant Level (MCL) set by the Florida Department of Environmental Protection (FDEP) for TTHMs is 80 parts per billion (ppb). The test results for the samples collected on September 18, 2013 were an average of 84.6 parts per billion (ppb) for TTHM. Based on an annual average exceeding 80 ppb, a TTHM by-product violation existed for the last quarter of Stage I Disinfectant/Disinfection By-Product testing. Orange City Utilities has taken corrective actions to rectify this matter and as of the date of this report, OCU is currently not in violation of the Health Department's standards concerning TTHMs. Additional evaluations, testing, and recommendations for further actions are underway to ensure OCU continues to meet the standards set forth by the Health Department for Disinfectant/Disinfection By-Products.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Contaminant and Unit of Measurement	Dates of Sampling	MCL Violation Y/N	Highest Monthly Percentage/ Number	MCLG	MCL	Likely Source of Contamination
<b>Microbial Contaminants</b>						
Total Coliform Bacteria (positive samples)	07/2013	N	1	0	For systems collecting less than 40 samples per month: presence of coliform bacteria in >1 sample collected during a month	Naturally present in the environment

## Source Water Assessment

The Florida Department of Environmental Protection (DEP) under the Federal Safe Drinking Water Act has created the Source Water Assessment and Protection Program. The program is designed to ensure the safety of drinking water at the source. Contamination of ground water can occur from contaminants such as hazardous chemicals, stormwater runoff, waste disposal sites and underground storage tanks. In 2013 the Department of Environmental Protection updated the Source Water Assessment on our system. The assessment was updated to provide information about any potential sources of contamination in the vicinity of our wells. There is only ten (10) potential sources of contamination identified for this system with a moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp) or they can be obtained from Orange City Utilities at 426 S Volusia Ave, Orange City, 32763.



# ORANGE CITY UTILITIES

## Mandatory Information From EPA

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.

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.

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.

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. Orange City Utilities 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 or at <http://www.epa.gov/safewater/lead>.



## Did You Know About Your H<sub>2</sub>O?

- Approximately 85 percent of U.S. residents receive their water from public water facilities. The remaining 15 percent supply their own water from private wells or other sources.
- By the time a person feels thirsty, his or her body has lost over 1 percent of its total water amount.
- You can survive longer without food than without water. Depending on a variety of factors, you can survive from 3-6 weeks without food, but only 2-10 days without water.
- The average person in the United States uses anywhere from 80-100 gallons of water per day. Flushing the toilet actually takes up the largest amount of this water.
- Of all the water on the earth, humans can only use about three tenths of a percent of this water. Such usable water is found in groundwater aquifers, rivers, and freshwater lakes.