Winchester Municipal Utilities

KY0250473

DRINKING WATER QUALITY REPORT 2013

150 North Main Street
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The Winchester Municipal Utilities (WMU), your drinking water provider, works around the clock to provide exceptional water, wastewater, and solid waste utility services to every consumer. This Drinking Water Quality Report provides you with information regarding your drinking water. For additional information, call WMU at 744-5434.

Este informe contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Website: www.wmutilities.com

BACKGROUND INFORMATION ABOUT WMU

The Winchester Municipal Utilities (WMU) is pleased to provide its Drinking Water Quality Report for 2013. The report is designed to inform you about the quality of your drinking water and is based on monitoring and test results for the year January 1 through December 31, 2012. Water treatment is a complex and highly regulated activity. WMU strives to continually improve the quality of its drinking water and of the many other utility services provided to you, our customer.

WMU's raw (untreated) water sources are the Kentucky River and the Carroll E. Ecton Reservoir, which are surface water sources. The Kentucky River supplied approximately 91% of the water treated in 2012. The remainder, or approximately 9%, was obtained from the Carroll E. Ecton Reservoir. WMU treated 1,505,529,523 gallons of water during 2012 from these two sources. The Kentucky River is most vulnerable to contamination from agricultural runoff, which may include pesticides, nutrients and silt from croplands, and substances resulting from the presence of animals on pasture lands. The Carroll E. Ecton Reservoir is most vulnerable to urban storm water runoff, which may include heavy metals from paved areas, nutrients, pesticides and organics (e.g., yard waste) from lawn care. Industrial and construction runoff in urban areas may include silts, synthetic chemicals and metals.

The water treatment plant has a rated maximum treatment capacity of 6.0 million gallons per day (MGD). WMU operates its water treatment plant 24 hours per day, 365 days per year. The treatment process utilizes conventional flocculation, sedimentation, high-rate filtration, and disinfection.

WMU provides water service to a customer base of 11,761 direct customers and through water sold for resale, to 2,365 customers of the East Clark County Water District and 215 customers of the Kentucky American Water Company. In total, WMU serves 14,341 water customers in Clark County. Growth, along with increasing regulatory requirements demands that WMU address the potable water supply to continue to provide high quality drinking water to you, our customer.

SUMMARY OF 2012 WATER QUALITY

WMU routinely monitors for contaminants in your drinking water according to Federal and State regulations. The following table provides the results of our monitoring averages for the period of January 1 through December 31, 2012. Important notes and explanatory definitions are provided at the end of the table.

DETECTED CONTAMINANTS

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. 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 the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected.

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Contamination
Turbidity (NTU)	No more than 1 NTU Less than 0.3 NTU in 95% of monthly samples	.41	99%	No	Soil runoff

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Microbiological Contaminant Test Results							
Total Coliform Bacteria # or % positive samples	1	0	1	N/A	Aug 2012	No	Naturally present in the environment
Radioactive Contaminants							
Alpha emitters [4000] (pCi/L)	15	0	1.50	1.5 to 1.5	Aug 08	No	Erosion of natural deposits
Combine radium (pCi/L)	5	0	0.20	0.2 to 0.2	Aug 08	No	Erosion of natural deposits
Beta/ Photon emitters	4	0	8.9	8.9 to 8.9	Aug 08	No	Decay of natural & man-made deposits
Inorganic Contaminants							
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.11 (90^{th} percentile	0.005 to 0.380	Aug 10	No	Corrosion of household plumbing systems
Lead [1030] (ppb)	AL= 15	0	3.4 (90^{th} percentile)	0.000 to 0.016	Aug 10	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	1.05	0.83 to 1.3	Nov 12	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	0.280	0.28 to .28	Jan 12	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfectants/Disinfection Byproducts and Precursors							
Total Organic Carbon (ppm)	TT*	N/A	1.24 (lowest average)	.86 to 2.37 (monthly ratios)	N/A	No	Naturally present in environment
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.19 (highest average)	0.20 to 2	N/A	No	Water additive used to control microbes.
HAA (ppb) [Haloacetic acids]	60	N/A	48 (sytem average)	22 to 92	N/A	No	Byproduct of drinking water disinfection
TTHM (ppb) [total trihalo-methanes]	80	N/A	52 (system average)	17 to 107	N/A	No	Byproduct of drinking water disinfection.

****TT for TOCs; % TOC removal achieved to the % TOC removal required. A minimum ratio 1.0 is required to meet the TT.**

OTHER TESTS

WMU regularly tests your drinking water for 77 other primary standards, 16 secondary standards, and other standards for which results were found to be within acceptable levels. In order to make this report easier to read and understand, results of those tests are not reported here.

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. WMU 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 and 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.

REPORTING REQUIREMENTS

The United States Environmental Protection Agency (EPA) requires that every water system provide consumers with an annual consumer confidence or water quality report as a result of the Safe Drinking Water Act Amendments of 1996. The report is intended to provide consumers with information regarding the quality of their drinking water and to encourage actions by consumers to protect drinking water supplies. WMU is providing you with this report so that you might be better informed about the quality of your drinking water.

IMPORTANT DEFINITIONS

MCL - Maximum Contaminant Level
The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG 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 risk to health. MCLGs allow for a margin of safety.

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.

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 contaminants.

ND or N/A
Not detected; does not apply; not available

NTU - Nephelometric Turbidity Units
A measure of water turbidity. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

pCi/l - Picocuries per Liter
A unit of measure of radioactivity.

ppm - Parts per Million
A unit of measure; equal to milligrams per liter (mg/L).

ppb - Parts per Billion
A unit of measure; equal to micrograms per liter (ug/L).

Primary Standards
Mandatory standards established and enforced by EPA and the Kentucky Division of Water that relate to water quality health effects and for which monitoring is required.

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

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

CRYPTOSPORIDIUM

WMU has voluntarily tested its source water supplies and it's finished (treated) water for the presence of *Cryptosporidium*. Cryptosporidium is a microbial parasite which is found in surface waters throughout the United States and has been found to be present in both the Kentucky River and the Carroll E. Ecton Reservoir. **Cryptosporidum has not been detected in WMU drinking water.** Although conventional treatment can remove cryptosporidium, commonly used sedimentation and filtration methods cannot guarantee 100% removal. Symptoms of Cryptosporidium infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the infection within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life-threatening illness.

WHY ARE THERE CONTAMINANTS IN DRINKING WATER?

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (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 may pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before treatment include:

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or 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, storm water runoff, and residential uses.
- *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 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, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. US FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health. EPA has determined that drinking water is safe at these levels.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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 and the Centers for Disease Control and Prevention (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 at (800) 426-4791.

WATER SUPPLY

Previous decisions by the WMU and City Commissions have provided for construction of a new water treatment plant and associated infrastructure. Construction will include a new water treatment plant, raw water transmission improvements, and finished water transmission improvements. Final effective capacities will be determined by the Division of Water (DOW) with design of the new facilities. Finished Water Transmission Improvements as well as upgrades to the Kentucky River Pumping Station are expected to be designed calendar year 2013 with construction to begin calendar year 2014. The new Water Treatment Plant design and construction is planned to begin in the near future. Preliminary costs associated with water system improvements range from 40-50 million dollars.

CONSENT DECREE

The Consent Decree is the settlement agreement between the United States Environmental Agency (EPA), the Kentucky Energy and Environment Cabinet (EEC, formerly known as the Environmental and Public Protection Cabinet), City and WMU detailing actions to be taken by City and WMU for violations of the Clean Water Act , 33 U.S.C. § 1319. The basic tenants of the Consent Decree call for City and WMU to

- Eliminate existing and recurring sanitary sewer overflows (SSOs)
- Reduce the potential for future SSOs

Such is being achieved through a defined capital program and structured operation and maintenance (O&M) program.

One of the most significant defined capital projects is the Lower Howards Creek Sanitary Sewer Improvements. The deadline for construction of this project was January 31, 2013. This project was designed for elimination of the sanitary sewer overflows (SSOs) located at the Snowfall and Stoneybrook sewage pump stations. The project involved construction of approximately 3 miles of new interceptor sewers, approximately 3 miles of force main piping, a new influent pump station, and a new wastewater treatment plant. The project was substantially complete as of January 25, 2013. Final project completion is scheduled for May 24, 2013.

SOLID WASTE / RECYCLING

In May of 2012, WMU retained MSW Consultants, an independent waste and recycling consulting firm, to conduct an operations review and cost/rate study for its solid waste services, spanning collections to residential and commercial customers, as well as operation of the transfer station. While the study intended to cover the entire solid waste management system and allow for broad-ranging observations and assessment, the following issues were considered primary objectives of the evaluation:

- **Operating Efficiency**: Document the operational performance of WMU's solid waste function, and compare/contrast WMU performance against other local governments and industry best practices and identify opportunities for improvement.
- **Financial Cost and Rate Evaluation**: Review and validate the actual costs to provide each solid waste service, including both direct costs and WMU allocated management, administrative, and overhead costs; and use the cost-of-service results to inform how best to structure solid waste rates in the context of WMU's overall revenue needs. Of particular importance, the analysis sought to address the following two issues: 1) Elimination of the mandatory solid waste charge which is assessed to commercial businesses even if such businesses opt not to receive any solid waste collection service from WMU; and 2) Establishment of more equitable rates for multi-family properties that receive service via dumpster containers rather than curbits.

MSW Consultants information will be utilized by the WMU Commission in the decision making process moving forward.

CAPITAL PROJECTS

Projects under or scheduled for construction include:

Finished Water Transmission Improvements	$ 8,000,000
Lower Howards Creek Sanitary Sewer Improvements	$36,600,000
Bel-Air Sanitary Sewer Improvements	$ 531,266
Bon Haven and Willow Drive Water Improvements	$ 250,000
Manor Drive Water System Improvements	$ 675,000
Telemetry System Upgrades	$ 300,000

INFORMATION AND PUBLIC INPUT

If you have questions regarding the information provided in this report or about utility services provided by WMU, please contact WMU (859) 744-5434. We want you to be informed about the drinking water quality and the utility services provided by WMU.

WMU operates as an enterprise fund of the city of Winchester. Regular public meetings of the WMU Commission are held on the first and third Thursdays of each month at 5:30 p.m. at the WMU administrative offices located at 150 North Main Street, Winchester. The regular meeting agenda for each meeting provides an opportunity for public comment regarding WMU services and operations. The WMU Commission is comprised of local community leaders who are WMU customers and who are very interested in your input. You are invited to avail yourself of this opportunity for public input.