



DUCK RIVER UTILITY COMMISSION

2011 WATER QUALITY REPORT

UTILITY INFORMATION

The Duck River Utility Commission is a regional water authority that provides ultra-pure and plentiful water to Manchester, Tullahoma and portions of the surrounding counties. The Commission serves a population of nearly 60,000 citizens of Coffee, Bedford, Franklin, Grundy, Moore, and Warren Counties. The DRUC, a government agency formed in 1976, operates a state-of-the-art water filtration plant and other water supply facilities. The DRUC system is operated twenty-four hours a day by State certified personnel producing up to ten million gallons of pure water each day.

WATER SOURCE

The DRUC water treatment plant withdraws surface water from Normandy Reservoir, constructed by TVA in 1976, which is filled by flow from the Duck River. The DRUC, TVA and the Tennessee Department of Environment and Conservation (TDEC) are actively working to protect the reservoir from sources of pollution and assess vulnerability to potential contamination. The DRUC has prepared a Source Water Assessment Program (SWAP) report that assesses the susceptibility of Normandy Reservoir to *potential* contamination and it has been rated as reasonably susceptible (moderate) based on geological factors and human activities in the vicinity of the reservoir. An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scoring and the overall TDEC report to the USEPA can be viewed online at www.state.tn.us/environment/dws/dwassess.shtml or you may contact the DRUC or TDEC at 1-888-891-TDEC to obtain copies of specific assessments. In addition, the DRUC has implemented a number of security measures, including 24-hour surveillance and alarms at our facilities to protect against vandalism and other forms of attack.

THE TREATMENT PROCESS

The DRUC water treatment plant utilizes advanced water treatment technology to remove both particulate matter and dissolved compounds from the water before it is disinfected and pumped to the distribution system. The reservoir water entering the facility is first oxidized and disinfected by the injection of chlorine dioxide. Traditional pretreatment with gaseous chlorine was discontinued in 1988 in favor of chlorine dioxide that does **NOT** create certain regulated byproducts. After oxidation and disinfection, particulate matter is coagulated using polyaluminum chloride. The coagulant causes the particles in the water to stick to each other, increasing the overall size and weight of the particles. The water then moves into settling basins where these new larger particles sink to the bottom and are removed. The clarified water then travels into the filtration building where the water is vacuumed through hollow fiber ultrafiltration membranes and then flows through eight huge granular activated carbon contactors. These new filters are designed to remove any remaining particulate matter, even particles smaller than bacteria or viruses. The GAC contactors absorb any remaining organic compounds that could cause objectionable tastes and odors. After charcoal filtration, the water is pH neutralized and a chlorine disinfectant residual is added before the water is pumped to the distribution system. Fluoride is also added to prevent tooth decay at the State required level of one part per million.

CUSTOMER COMMITMENT

The DRUC is committed to producing safe and reliable water for all of our customers' needs. The Commission is proud to report that the water produced by the DRUC filtration plant met all federal and state standards for drinking water during 2010. In fact, the DRUC has never violated any USEPA or State standard or regulation since it was formed in 1976.

The Commission is also very proud of the 99.6% average score achieved on inspections by the Tennessee Division of Water Supply over the last 20 years. The Commission employs a full time staff to manage, operate and monitor both source and product water quality including environmental engineers, biologists/chemists and certified water treatment plant operators. Thousands of tests are conducted each month on water samples at the treatment plant and throughout the distribution systems to ensure that the water remains safe and pure at all times. Over the past ten years, the DRUC has invested over \$15,000,000 in state-of-the-art technology and upgrades to the treatment facilities, improving both water quality and reliability. The DRUC also operates a USEPA and State certified laboratory at the water treatment plant, analyzing water samples for the systems it serves and other utilities as well as the general public.

REQUIRED INFORMATION FROM THE USEPA

All 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 Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both bottled water and tap water) include rivers, lakes, streams, reservoirs, ponds, 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: 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 production, mining or farming. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses. Organic chemical contaminants, including synthetic and volatile chemicals, which are byproducts of industrial processes and petroleum production, and also come from gas stations, urban stormwater runoff and septic tanks. Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

VULNERABLE POPULATIONS

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 food preparation, sanitation and handling of infants or pets as well as 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 toll free at (800-426-4791) or on the Internet at www.epa.gov/ogwdw.

ATTENCION

Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien.

INFORMATION AND INVOLVEMENT

For more information about this report or other water quality questions, contact the DRUC at (931) 455-6458 or the Internet at www.druc.org or by email at manager@druc.org. The Duck River Utility Commission meets on the third Wednesday of every month at 5:00 pm at the DRUC offices near Tullahoma, Tennessee. The Public is always welcome.