Columbus Department of Public Utilities

utility update
City of Columbus Ohio
Summer 2007 Tatyana Arsh, P.E., Director

Michael B. Coleman, Mayor

DO YOUR HOMEWORK BEFORE CONSIDERING A HOME WATER TREATMENT SYSTEM

The Columbus Division of Power and Water is responsible for the quality of your drinking water. We take this job very seriously. The water delivered to your home meets ALL of the requirements of the Safe Drinking Water Act (SDWA). We use a complex, multi-barrier treatment process (illustrated below) to assure safe drinking water is delivered to our customers. If for any reason the standards are not met, the public will be notified.

The water treatment plants and laboratories are staffed by certified, highly trained, professional chemists, biologists and plant operators who perform hundreds of tests each day to assure the quality of Columbus drinking water. As a result of our rigorous treatment process and our regular compliance with federal and state regulations, we are confident the water you are receiving is of the highest quality. There are a variety of home water treatment devices on the market and each varies in its ability to change the content of the water. If you choose to purchase a home treatment device, independently research the product to make sure it does what YOU intend it to do.

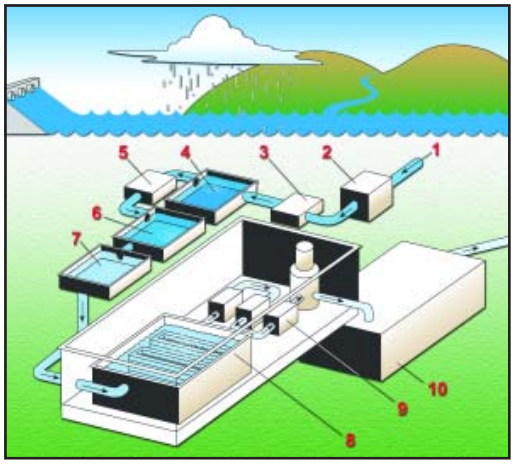
CALL US: if you have questions about Columbus' water quality. The Division of Power and Water's Water Quality Assurance staff will be happy to answer your questions at (614) 645-7691. **CALL THE EPA:** for additional information on drinking water regulations - EPA's *Safe Drinking Water Hotline* is 1(800)426-4791.

BE INFORMED ABOUT WATER TREATMENT DEVICES

Ion Exchange water softeners exchange sodium ions for naturally occurring magnesium and calcium ions in your water. If you are on a low sodium diet, consult your physician before purchasing this type of water softener. We soften the water at the plants to an OEPA recommended moderate hardness of 7gpg (grains per gallon). Water that is too soft can be corrosive to the distribution system and to your home plumbing and fixtures. Activated carbon filters can be used to remove some taste and odors, but if not maintained properly, they can become breeding grounds for microorganisms.

If you believe you have been solicited by a company that is using misinformation or scare tactics to sell a home treatment device, contact the State Attorney General's Office at 1(800) 282-0515 or www.ag.state.oh.us to report your concern.

THE WATER TREATMENT PROCESS



Water flows (1) to the treatment plant from the reservoir or stream through rotating screens (2) to remove large debris. It is then pumped into the plant where alum is added (3) to cause coagulation. After rapid mixing, the water remains in the settling basin (4) while sedimentation of floc occurs (2 - 4 hours). The water treatment residual (settled floc) is pumped from the bottom of the pools and stored in holding lagoons to dry. The softening process (5) involves the addition of sodium carbonate (soda ash) or caustic soda and hydrated lime to remove calcium and magnesium ions that are responsible for water hardness. This process takes an additional 2 - 4 hours. For each pound of chemical used in the treatment process, two pounds are removed. After an additional sedimentation process, carbon dioxide is added (6) to lower the pH level to approximately 7.8. Water is held in a stabilizing basin (7) for another 2 - 4 hours. Water then flows through large dual-media rapid sand filters made up of layers of gravel, sand and antracite coal (8). Addition of chlorine to disinfect the water, fluoride to protect teeth and a corrosion inhibitor take place at the end of the process (9) before water enters large underground clearwells (10) to be held until needed by the community. **Please note:** When ground water is used (as in the case of the Parsons Avenue Water Plant), neither screening (2) nor initial sedimentation (3,4) is needed.

FREQUENTLY ASKED QUESTIONS ABOUT SEWER OVERFLOWS

What are CSOs and SSOs?

Combined Sewer Overflows (CSOs) are discharges of wastewater and stormwater from the combined sewer system that serves the downtown and surrounding areas. Sanitary Sewer Overflows (SSOs) are discharges of wastewater from the sanitary sewer system. Sewer overflows can occur at various discharge points along local waterways when volume temporarily exceeds capacity, typically during wet weather.

Why do overflows exist?

Many years ago, prior to the existence of the Environmental Protection Agency or Clean Water Act, it was considered best engineering practice to design such relief points in a sewer system in order to prevent backups into homes during major rain events.

Are overflows an issue in other cities?

Yes. Solving wet-weather issues is the biggest challenge facing most sewer districts today.

What is the City of Columbus doing about overflows?

The Department of Public Utilities developed a Wet Weather Management Plan, which identifies an estimated $2.5 billion in sewer capital improvements over the next 40 years to address wet weather issues.

How will these projects affect rates?

Sanitary sewer rates are expected to continue to rise in order to fund the improvements. An affordability analysis was conducted to ascertain the community's ability to finance the projects and revenue needs will be reviewed each year.

How are sewer improvements financed?

Funding is provided through customer sewer rate revenue and by low-interest loan programs such as the Water Pollution Control Loan Fund through the Ohio EPA.

How will Central Ohio residents benefit?

Anything that improves our environment and surface water quality benefits the entire community. Solving wet weather capacity issues will also reduce basement backups.

Where are the overflow points located?

Discharge locations are along the Olentangy River from Worthington to First Avenue, on the Scioto River from around Neil Ave. to S.R. 104, and on Alum Creek from Main St. to I-70. The locations are marked with signage.

How many discharge locations are in Columbus?

Columbus has 36 SSO, 18 CSO and two SSO/CSO discharge points that can potentially overflow. Additional locations in the Columbus area are owned by other municipalities, two of which are maintained by Columbus under contract.

How often do they overflow?

The most active one is on the Scioto River near Whittier Street, which receives partial treatment. The activity at this CSO location will be significantly reduced under the improvements to be done by 2010. The frequency and volume of overflows depend on the amount of rainfall received. More information is available at: http://gis.columbus.gov/ssocso.

If I see an overflow sign, is it safe to swim near it?

No. First, be aware that swimming in local waterways is prohibited by Columbus City Code and is considered a drowning risk in some locations due to lowhead dams and utility crossings. Always avoid water contact near a sewer overflow location especially following periods of heavy rain. For more information on possible health and environmental effects, please visit http://gis.columbus.gov/ssocso.

Can residents help prevent overflows?

Yes. Please check your downspouts and foundation drains to make sure they are not connected to the sanitary sewer. These outdated connections, which were common in homes built prior to 1963, add excess water to the system during wet weather. For an instructional brochure on disconnecting downspouts, please call 645-2123. It's also important to attend to any needed repairs on your home sewer line. Please dispose of grease properly to avoid blockages in city and home sewers, which can cause overflows in waterways and basement backups. Do not pour grease into sinks or other drains. Place grease in the trash after it cools in a sealed container such as a coffee can.

Should residents report a sewer overflow or backup?

Yes. Please report any suspected overflows or basement backups in Columbus immediately to the 24-hour Sewer Maintenance Operations Center by calling 311, 645-3111 or directly at 645-7102. In the case of a basement backup, this is also the first step to determine eligibility for the Project Dry Basement backflow prevention program to prevent sewer backups into single and two-family homes in Columbus.

For more information, please call 311, 645-3111 or visit our web site at www.utilities.columbus.gov.