

Our Wastewater Treatment Process

SWSC's Wastewater Treatment Plant (WWTP) is a sequencing batch reactor (SBR). SBR's are a fill-and-draw activated sludge system for wastewater treatment. In this system, wastewater is added to a single "batch" reactor, treated to remove undesirable components, and then discharged. Equalization, aeration, and clarification can all be achieved using a single batch reactor. To optimize the performance of the system, two or more batch reactors are used in a predetermined sequence of operations. SWSC has 3 batch reactors and is capable of treating 1.3 Million Gallons per Day.

A typical process flow schematic for a municipal wastewater treatment plant using an SBR is shown in the flow diagram (to the right).



Influent wastewater passes through screens and grit removal prior to the SBR, to remove items that cannot be biologically treated. The wastewater then enters a partially filled reactor, containing biomass, which is acclimated to the wastewater constituents during preceding cycles. Once the reactor is full, it behaves like a conventional activated sludge system, but without a continuous influent or effluent flow.

The aeration and mixing is discontinued after the biological reactions are complete, the biomass settles, and the treated supernatant is removed.

The Flow

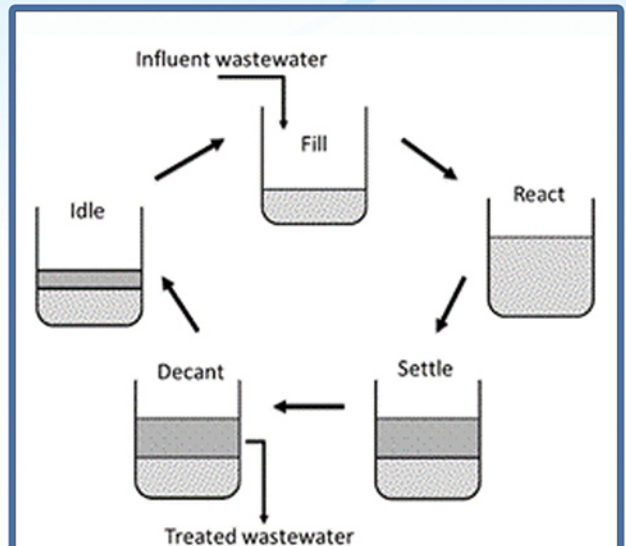
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The supernatant is further treated and discharges as clean effluent to the creek and the settled material (sludge) is sent to sludge holding tanks.

Sludge is processed through a centrifuge and the centrifugal force of spinning the sludge dries it substantially by forcing the water out. The dried sludge is then placed in dumpster and delivered to the landfill.

Kentucky Drinking Water Ranked First in National Poll

The Kentucky Division of Water (DOW) congratulates Kentucky water systems for being recognized for their great work producing high-quality water. The article "*As Americans Focus on Water Quality, These States Boast the Best*" published by J.D. Power, evaluated drinking water service in six areas, and ranked Kentucky as No. 1 in the nation. While the study focused on large water systems, DOW knows that many other systems across the state also overcome obstacles year-round to provide consistent access to clean, healthy drinking water.

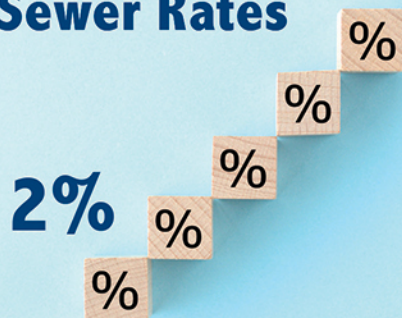
The six areas evaluated in the poll are:

- quality and reliability
- price
- conservation
- billing and payment
- communications
- customer service

The DOW is proud to work with Kentucky's drinking water operators and managers who provide such an important resource to the Commonwealth.



Water & Sewer Rates



Per ordinance, Water and Sewer Rates were raised 2% on July 1, 2023. For specific rates, please visit [our website](#) or [our Facebook page](#).

Go Paperless



The push is on for paperless billing. If you opened an envelope to get to this informative newsletter, you are probably NOT on paperless billing. Please call our office to ask about paperless billing and then go to our website and sign up for this newsletter and you will still get it.