

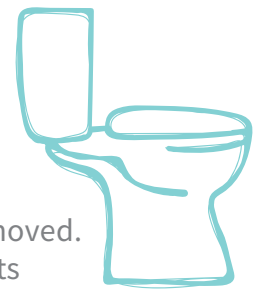
GET THE FACTS: WASTEWATER

WASTEWATER

Wastewater is any water that has been contaminated by human use. It comes from domestic, industrial, commercial, or agricultural activities, and it contains chemical, physical (trash) or biological pollutants. Households produce wastewater from **toilets, sinks, dishwashers, washing machines, bathtubs** and **showers**. This water is typically cleaned by wastewater treatment plants.

HOW IS WASTEWATER TREATED?

The majority of municipal wastewater treatment plants split treatment into four parts. During primary treatment, non-organic solids, such as trash, silt, and debris are separated out from the organic waste. Secondary treatment adds bacteria to the water that breaks down harmful organic material, which is then removed. The water is chlorinated to kill the remaining bacteria, tested to ensure that it meets safety regulations, and then discharged.

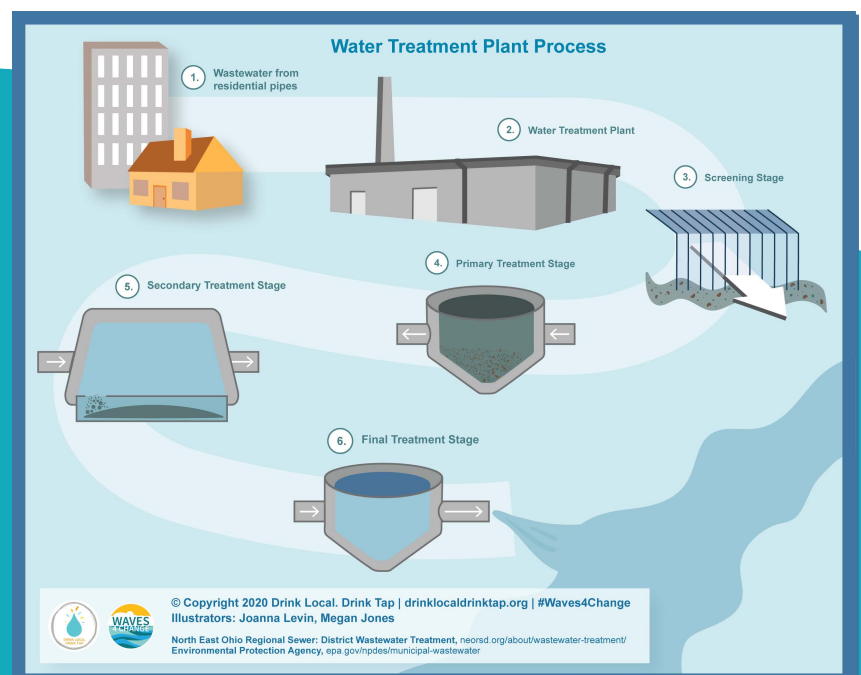


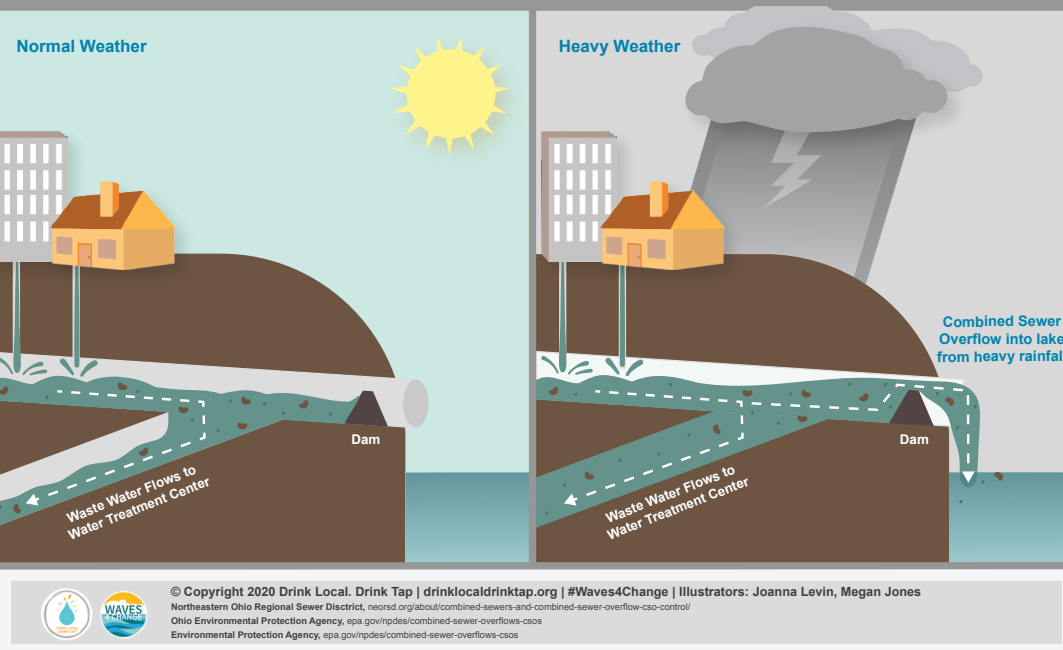
WHY DO I NEED TO KNOW HOW THIS SYSTEM WORKS?

Some of what you pour down the drain and flush down the toilet can eventually find its way back into nature. For example, medication should not be flushed down the toilet or sink. This is because it is not removed by wastewater treatment plants and can harm aquatic animals, and end up back in our drinking water. Being careful about what goes down the pipes not only helps protect the environment, but helps the entire wastewater treatment system operate smoothly.

4 stages of water treatment

1. SCREENING - (Step 3)
removal of large objects like diapers, face wipes, plastics and rags.
2. PRIMARY TREATMENT - (Step 4)
non-organic solids are separated from the organic waste.
3. SECONDARY TREATMENT - (Step 5)
bacteria is added to break down harmful organic materials.
4. FINAL TREATMENT - (Step 6)
water is chlorinated to kill the remaining bacteria.





HOW DOES WASTEWATER AFFECT THE ENVIRONMENT?

Cities with older sewage systems might have combined sewer overflows (CSOs). When these systems are overwhelmed by too much stormwater, CSOs act as a release valve and discharge sewage, stormwater, and industrial waste directly into the environment. This means any pollutants that are flushed or poured down the drain, such as paints, oils, garbage, or human waste (poop!) may be released straight into local water sources.

WHAT WE CAN DO

Only put easily biodegradable organic matter down the drain. Items such as coffee grinds and grease will only clog your pipes, so put them in the trash or compost. Cleaning products and paint are toxic chemicals that need proper disposal.

Flush only human waste and toilet paper down the toilet. Condoms, wipes, feminine products, and needles may clog your pipes or be unintentionally released into the environment. Medications should be disposed of in the trash, or at a “take back” program and never flushed down the drain. Check with your local municipality on proper disposal of items about which you have questions.

SOURCES:

neorsd.org/about/wastewater-treatment/
epa.gov/npdms/municipal-wastewater
stanlycountyutilities.com/liquid-waste-treatment-process/



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