

Orangetown Wastewater Treatment Plant Tour - FUN FACTS:

1. The average Rockland County single family household uses about 68 gallons of water per day – the more water you use, the more labor, energy and other costs needed to treat the waste water.
2. On its way to the Treatment Plant, wastewater passes through 45 pump stations that pump the water to the plant.
3. Orangetown owns and maintains about 200 miles of sewer lines, usually 6-24” in diameter.
4. Wipes are not really “flushable” – and make up 35% of all non-dispersable materials, or debris, that must be screened or removed from pump stations and treatment facilities. To learn more about “flushable wipes,” and the problems they cause, visit NACWA.org/flushables.
5. Grease causes clogs and sewage overflows when it solidifies around other debris, such as wipes, and sticks in sewer lines. Most sewer pipes are laid at an angle to keep the flow speed of the water high enough to prevent grit from settling into the pipes; otherwise sand, eggshells, cinders and other inorganic materials will settle into the pipes, glued together by congealed grease, and cause clogs.
6. Biological Oxygen Demand (BOD) is how much oxygen is needed in the water for aerobic biological organisms to break down organic material present in a given waste sample. During the biological process of waste treatment, 85% of the BOD-causing wastes and solids are removed. NY’s Department of Environmental Conservation sets limits on how much BOD-causing material is allowed to be in the water that leaves the treatment plant to insure that treated wastewater does not damage the oxygen balance, and hence ecology, of the Hudson River.
7. The Plant uses about 300 gallons of Sodium Hypochlorite, the chlorine solution used to disinfect the water, and about 30 gallons of the Sodium Bisulfite, the solution used to reduce the amount of chlorine in the water, per day. Orangetown is a “zero residual chlorine” facility.
8. The belt filter press, which helps remove water from the sludge, removes about 15,000 gallons of water per day.
9. The remaining sludge that shipped from the treatment plant is about 25% solid and is the consistency of cookie dough. For reference, the human body is about 25% solid. The plant produces about 15 wet tons of this sludge per day.
10. The town spends about \$1,740 on each wet ton of sludge. Comparing this to the \$75/ton disposal/landfill cost of municipal solid waste indicates how important it is to avoid using toilets as trash cans for inappropriate items like “wipes,” hygiene products, gloves or other debris that cost so much money to screen out, and causes clogs and mechanical problems.

Additional Resources

For water activities for kids of all ages visit:

EPA’s Groundwater Activities for kids K-12

<http://www3.epa.gov/safewater/kids/>

Aqua Venture Time Machine Activity, kids K-12

<http://www.wef.org/PublicInformation/page.aspx?id=141>

For more information on “Flushable Wipes”, visit :

Consumer Reports Video

<http://www.consumerreports.org/cro/video-hub/home--garden/bed--bath/flushable-wipes/16935265001/22783507001/>

Don’t Flush! Article

<http://www.care2.com/greenliving/11-things-you-should-never-flush-down-the-toilet.html>

Toilets Are Not Trashcans! Campaign by NACWA

http://www.nacwa.org/index.php?option=com_content&view=article&id=1581&Itemid=335