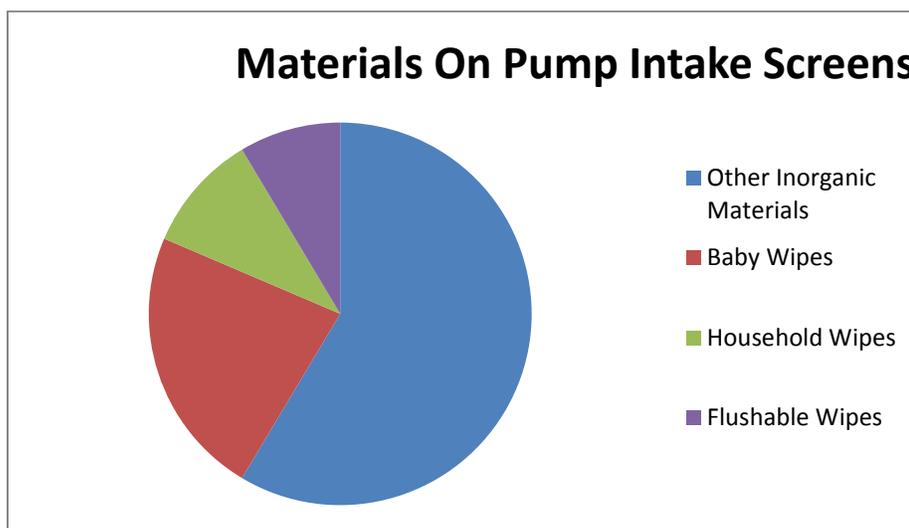


KEEP WIPES OUT OF THE PIPES

Today's vast availability of pre-moistened or treated cleaning wipes, while convenient to our busy lives, is wreaking havoc on our sewer systems. Whether they are wipes used for changing a baby, cleaning the floor, removing make-up or for other hygienic use these wipes are destroying expensive equipment, increasing the cost of maintenance and causing home owners unnecessary head aches and a financial burden of preventable plumbing repairs. *"Nonwoven wipes are changing the characteristics of the waste stream,"* Explains Wendy Barrott, the Detroit Water and Sewerage (DWSD) Wastewater Treatment Plant General Manager. *"The equipment in our sewer system and the treatment plant was not designed to handle this."*

Wipes that are marketed as 'Flushable' are not safe for Sanitary Sewer Systems. Many wipes not designed as 'flushable' are being flushed. Point of sale data shows that 40% -50% of customers who buy baby wipes don't have babies. If a wipe becomes contaminated by use, it is likely to be flushed.

The West Bloomfield Water and Sewer Utilities Department maintains 23 sewer lift stations consisting of two to three pumps each. Sewer lift stations are like elevators in a sewer system moving sewage through the use of pumps from a pipe at a lower elevation to a pipe at a higher elevation so that it can continue to flow by gravity. When a pump is clogged, it may not work as efficiently or quit working and reduce the pumping capacity at the lift station. Wet wipes retain their strength, attach to other wipes and catch on equipment. Wipes also form clumps that grow into hard masses creating blockages and damaging equipment in our sewer lift stations. Sewers need to be cleaned with high pressure water jet equipment to break apart these obstructions, and pumps have to be pulled so messy clumps can be detangled and cut away.



Field studies undertaken by associations for clean water professionals and the nonwoven wipe industry in 2011 and 2012 revealed that 40% of materials trapped on pump station inlet screens were nonwoven wipes. Baby wipes represented the largest percentage at 18%, followed by household wipes at 14% and flushable wipes at 8%.

Another major problem for sewer pipes is the flushing of dental aprons or bibs as they may be referred to. These dental bibs are made of a thicker material which is of stronger durability. These are much worse than that of the other types of wipes that are supposedly water soluble, making them an even more detrimental issue in the sewer systems. Dental bibs do not break apart even with the extreme high pressure jet cleaning systems used by today's municipal and sewer cleaning agencies. They become entangled even on the jet equipment itself.



Rob Vilee, a leader with the Water Environmental Federation, explains *“Better plumbing has also impacted our flushing habits. Low flow toilets are more powerful and capable of flushing more than older models. Wipes easily make it out of the house and consumers don’t understand where they go.”*

Many of the homes in West Bloomfield have beautiful and mature trees growing in the yards. Over the years the root systems of these trees can maneuver themselves into the privately owned sewer service line, which runs from the home out to the sanitary sewer main near the street. Wipes being flushed down the drain become caught on these tiny roots in the service line. As time goes on it can have a snowball effect, unknown to the home owner until the service line becomes fully plugged and the sewage backs up into the home. Once this occurs, the service line must be “Snaked out” and can cost hundreds of dollars for plumbers to free up the blockage and return the flow of sewage leaving the home to a normal status. After the pile of solids and roots are cut free they are then pushed into the

sewer main and the next step in the cycle continues. West Bloomfield Water and Sewer Utilities Department must then jet these sewer mains until the solids reach the Oakland County Transmission Mains. The Oakland County Water Resource Commission (WRC) must then jet or remove these solids before finally sending the waste back to the Detroit Water and Sewerage Department (DWSD).

Once Sewage hits the Wastewater Treatment Plant (WWTP), everything, including the wipes, must be dealt with. DWSD operates one of the largest WWTPs in the world treating an average of 710 million gallons of sewage each day. There are hundreds of pieces of equipment where wipes can accumulate. *“Wipes slide through the initial bar screens like snakes,”* DWSD’s Barrott explains. *“As they move downstream through the plant, they cling to everything.”* This increased cleaning takes time which translates into greater operating expenses, ultimately increasing sewer rates.

In order to help eliminate this growing problem, the West Bloomfield Water and Sewer Utilities Department is asking its residents to think before they flush. The only inorganic item that should be flushed is toilet paper. ***Remember; Keep wipes out of the pipes!***