MARBLEHEAD WATER AND SEWER COMMISSION

THE FLOW N' GO

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DROPS TURN INTO PENNIES WITH A DRIPPING FAUCET

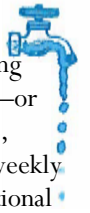
Do you have a dripping faucet in your kitchen? If the answer is "yes," just pull a chair up next to your sink, have a seat and become hypnotized staring at each drop of water on its journey from faucet to sink. There is something quite mesmerizing about this. Then close your eyes and visualize the drops turning into pennies with each 'clank' as it hits the sink and flows down the drain.

You may not think that those pennies dripping from your faucet could add up to many dollars on your water and sewer bill but trust us, they do. A single dripping faucet can waste 75 to as many as 1,000 gallons or more of water per week, depending on the rate of flow.

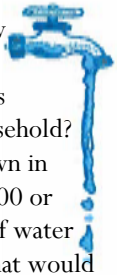
If your faucet has a slow, steady drip like this illustration, you are wasting around 75 gallons a week. Since Marblehead measures water and sewer usage in cubic feet, this would convert to just over ten cubic feet of lost water.

How much money does this equate to? At the current conservation water rate of $5.15 per 100 cubic feet, you would be sending about 52 pennies down the drain each week. And then there is the sewer charge of about 95 cents on that water, based on the current lower tier rate of $9.45 per hundred cubic feet.

This slow, steady drip would cost about $1.47 a week for a total of just over $17.64 on your quarterly bill.



If your faucet has a fast drip, like that shown here, you would be wasting in the vicinity of 200 gallons a week—or 26.74 cubic feet. At the current rates, this would add about $3.91 to your weekly water and sewer expense, or an additional $46.92 for the quarter.



Do you even want to know how much water a faucet with a steady drip—more aptly a stream like this illustration—would cost your household? If you are standing up, sit back down in that chair. A drip like this uses 1,000 or more gallons (133.69 cubic feet) of water for each week that it continues. That would mean that you would be paying $19.52 a week, or $234.24 a quarter, for water that you are losing down the drain.

Gazing at those drips has suddenly become more startling than mesmerizing.

If you have a faucet that resembles any of those here, it's time to find a different way to put yourself in a state of relaxation. Just think how many massages $234.24 would buy every three months.

(Material from the MWRA was used for this article.)

FROM TOILET TO TAP: IS SEWAGE THE SAVIOR FOR THE WORLD'S WATER SUPPLY?

There is currently a global water shortage. According to a study published in National Geographic, "[B]y 2025, an estimated 1.8 billion people will live in areas plagued by water scarcity, with two-thirds of the world's population living in water-stressed regions."

If steps aren't taken today to conserve water and create more water sources, the situation will only get worse. It is estimated that there will be about 1 billion more mouths to feed worldwide by 2025. Water demand is projected to grow by 55 percent by 2050.

The water shortage isn't confined to remote sections of the world. It exists right here in the United States.

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TIP OF THE QUARTER

Keep Our Harbors Drug-free

Prescriptions and over-the-counter drugs flushed down the toilet can pass through sewer treatment systems and enter our waterways, impacting aquatic life and organisms.

Over time, these medications can build up in fish and other marine life and end up entering the food chain where humans can unknowingly be consuming these drugs.

Unused medications should be turned in to the Marblehead Police Department which will dispose of them properly.

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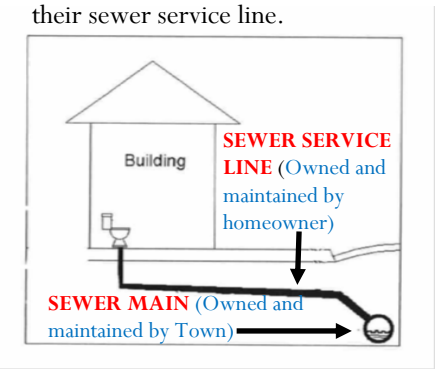
WHEN TO CALL IN THE EXPERTS FOR A CLOGGED DRAIN IN YOUR HOME

The October-December, 2019, issue of *The Flow N' Go* featured an article on last summer's sewer backups in Melrose and how service lines that were blocked by grease contributed to raw sewage backing up into homes.

Since that article was published we have received several calls asking how a homeowner can tell if a backup is caused by hair accumulation in a sink drain or by a major grease or other build-up in their sewer service line.



(The service line is the pipe that connects the house to the Town's sanitary sewer main. The service line is owned and maintained by the homeowner.)

There are warning signs that a sewer service line (as opposed to an individual drain pipe) may be clogged.

The most obvious indication would be having multiple drains backing up at the same time. If there is sewage bubbling up in the toilets, sinks, and washing machine, then chances are very likely that you have a clogged service line.

Since plumbing fixtures on lower levels of a home are closer to the service line, a backup would most often be noticed first in the basement.

If water backs up in unusual places when using a plumbing fixture, this may also indicate a blockage in your service line. Does water start to gurgle up in the tub when you flush the toilet? When you use the washing machine, does the shower drain or toilet start to overflow? When you use the bathroom sink, does the toilet water rise or bubble up?

These occurrences suggest that water is trying to leave but is blocked by a service line clog so the water goes back up, into the house, instead of going out.

If your blockage meets the criteria above, you will likely need to call in a professional to determine what is causing the blockage and to clear the service line. You can start with a plumber but a major clog may require the services of a drain cleaning company that would use a fiber optic camera to look into the line to identify the reason for the blockage.

Hopefully, this information will be of assistance when determining if a backup will be an easy fix that you can do yourself or if it will require the attention of an expert.

The easiest way to avoid this from happening? Don't pour grease, oil, or other fatty substances down the sink and don't flush non-degradable materials down the toilet. Remember, these so-called flushables are not flushable!

FROM TOILET TO TAP: THE ULTIMATE EXAMPLE OF RECYCLING

(Continued from front page)

While our country isn't as water-stressed as others, we are all too-familiar with the droughts that California experiences on an almost-annual basis. And the water shortage is predicted to spread.

It is expected that in just five decades, the central and southern Great Plains, the southwest and central Rocky Mountain states, California, and areas in the south and Midwest are likely to experience significant water shortages.

How can we help? Past issues of *The Flow N' Go* have urged our customers to practice water conservation. While every effort to save water helps, what we can do as individuals is, literally, a drop in the bucket.

That is why water stress must be addressed on a global basis. To that end, one method to create a new water source is catching traction around the world: Recycled water.

Recycled water can be used for most water demands, as long as it is adequately treated to ensure water quality appropriate to its intended use.

Most recycled water projects are developed to treat waste water (ie: water from sinks, washing machines and—yes—even toilets) for non-potable (non-drinkable) use such as agriculture. But some areas of the world are turning their sewage into drinkable water.

The Republic of Namibia located in southern Africa has been recycling sewage into drinking water for nearly 50 years. The city-state of Singapore in Asia gets 30 percent of its drinking water from treated wastewater.

Closer to home, the Orange County, California, Water District has a facility that recycles used waste water and returns it to the drinking water supply. It recently increased its production to more than 100 million gallons per day, enough water for 850,000 people. And the water quality exceeds all state and federal drinking water standards.

Benedito Braga, a past-president of the World Water Council, claims that, "[T]he quality from sewage is very good, as good or better than the tap water in any city in the developed world."

Of course, there is the "yuck" factor. But a study conducted by researchers at the University of California, Riverside found that, in a blind taste test, more people preferred the taste of recycled waste tap water over conventional tap water.

Could this ultimate form of recycling, referred to as 'Toilet to Tap,' be the solution of the world's water problems?