

## HOW TO SAVE MONEY ON YOUR WATER BILL

**A**s water professionals we've heard it many times, "I have my own water well on my property so I don't pay for water" which is quite inaccurate. Those who own their own well are forgetting about the powerful "electric-gobbling" pump at the bottom of their well. Well pumps use a lot of energy to pump water



out of the ground and into people's homes. If you don't check your home for water leaks or "running" toilets (see below) you will have a much higher electric bill than is necessary. The more often your well pump runs the higher your electric bill will be and dripping faucets, leaks and running toilets will keep your well pump very busy!

Regardless of whether you have a public water supplier like BCRA or a private water well it saves you money to be proactive. Simply put, less water usage equals more money in your pocket each month. Additionally water leaks in basements and crawl spaces can cause serious damage to your home and possibly health issues due to mold.

Routinely checking your home for leaks is easy. A leak in your living areas will be quite visible either by having water on the floor or discoloration on your drywall due to a leaky pipe inside the wall. However crawl spaces, basements, garages and even some outdoor sheds can have leaks that go undetected and these areas should be inspected quarterly. A visual inspection of these areas is necessary.

For those who receive their water from a public water supplier, a good habit to get into is reviewing your water bill to review the gallons used each billing cycle. For most homes the water usage does not change much from bill to bill. Keep in mind that normal increases will occur like filling a swimming pool or excessive landscape watering (seasonal). However after such events your bill should return to normal usage.

<b>BRODHEAD CREEK REGIONAL AUTHORITY</b> 410 MILL CREEK ROAD EAST STROUDSBURG, PA 18301 (570) 421-3232 OFFICE HOURS: 8:30 A.M. - 5:00 P.M.			<b>UTILITY BILL</b>		<b>PLEASE RETURN THIS TOP PORTION WITH YOUR PAYMENT. WHEN PAYING IN PERSON, PLEASE BRING BOTH PORTIONS OF BILL WITH YOU.</b>		
<b>Account Number</b> 00000-0		<b>Name</b> WALTER WATER		<b>Service Address</b> 22 AQUIFER LANE			
<b>Service/Description</b>		<b>Amount</b>		<b>Service Period</b>		<b>Meter Reading</b>	
				<b>From</b> 01/01/14	<b>To</b> 04/01/14	<b>Previous</b> 2149000	<b>Current</b> 2171500
				WATER UNITS = 1.00		SEWER UNITS = 1.00	
				<b>USAGE (from above) = 22,500</b>			
				<b>AVERAGE GALLONS PER DAY = 250</b> (Divide usage above by 90 days or 22,500/90 = 250)			
				<b>AVERAGE GALLONS PER PERSON PER DAY = 50</b> (Divide average gallons per day by the number of people living in your home. We used five people on our example.)			
<b>Due Date</b>	<b>Pay After Due Date</b>	<b>Pay By Due Date</b>					

A typical family of five may use 22,500 gallons per quarter (assumes 50 gallons per day per person for 90 days,  $50 \times 5 \times 90 = 22,500$ ). If your bills consistently show a pattern usage of around 22,500 gallons and then you get a bill showing that 26,000 gallon were used it would be wise to start looking for a possible leak.

How many gallons of water per day should a person use? Most people seem to know that all life on this planet needs water to survive but few seem to give water the respect it deserves. The U.S. is fortunate that it has an abundance of fresh water but that should not be a license to use it unwisely. Ideally not more than 75 gallons per day per person is recommended and 50 gallons per day per person is a good goal to shoot for.

By far, the most common culprit to unnecessary water usage is the proverbial “running toilet”. A running toilet is hard to detect because quite often the water being lost cannot be seen or heard. Toilets have two main components, the tank (top half) and the bowl (bottom half). If a toilet is functioning properly the water fills the tank to a preset level. That water is in standby mode until someone pulls the handle. The water is released from the tank through the flapper valve (that’s the big round rubber thing located on the bottom of the tank) into the bowl. The water in the bowl is pushed away into the drain and replaced by the fresh water that was in the tank. The tank refills itself to the proper level and waits until someone again pulls the handle.



When toilets malfunction two things can happen. If the flapper valve doesn’t hold then water constantly passes through the tank to the bowl and out the drain. If water is being lost through the flapper valve, the tank will continually try to fill itself and never shutoff.

The other issue is if the tank level is set too high. The tank will have too much water which feeds into an over-flow tube which then goes into the bowl and out the drain. A malfunctioning toilet can waste half a gallon of water per minute or 720 gallons per day!

The good news is ANYBODY can test a toilet. If a toilet is malfunctioning the water from the tank is continuously draining into the bowl. To test this carefully remove the tank lid and add a few drops of food coloring to the water in the tank. Do not flush and wait 15 minutes. If the colored water in the tank appears in the bowl then the toilet is malfunctioning. The colored water should stay in the tank until the handle is pulled. Easy, right? Again the water in the tank should stay in the tank so if you see colored water in the bowl then you have a malfunctioning toilet and it should be fixed as soon as possible.

The next notable water waster is a common misunderstanding of lawn watering. Of course broken and misaligned sprinkler heads like the ones shown here should be fixed immediately. Business owners should be aware that this situation is actually a liability as it can contribute to slip-n-falls. However many homeowners and even some landscapers don't understand that grass absorbs water through its root system. If water doesn't soak into the ground then it cannot be stored into the root structure. Watering in the summer between 9am and 5pm is very wasteful because most of the water will evaporate before it can soak into the ground. Lawn watering is most efficient at dawn or dusk and only for a few hours max.



Another important issue is lawn height. Leave the putting green at the golf course. Healthy lawns should be cut at around three inches tall. The photo below shows how the root system for grass is proportional to grass height.

The taller the grass the greener it will be. Taller grass has a large root system which can store more water. The taller blades provide shade and burn protection from the sun. Lawns that are cut short are VERY susceptible to infection from a number of diseases and the small root system provides very little water storage.



One option for homeowners is to purchase “no mow” grass seed. The name is a little misleading as you may have to mow two or three times per year but no mow grass seed is very hearty and engineered to only grow to a maximum height of about three inches. This option can save a bundle of cash for those who pay for lawn mowing services and it saves a great deal of time for those who mow their own property.



If you take a lot of pride in your lawn then don't underestimate the power of science. Watering your lawn any more than is necessary is without question wasteful. Homeowners can purchase a very accurate moisture meter for less than \$10 which also works very well for indoor plants or container gardening.

You can save money with certain appliances like dishwashers and washing machines. If you own a dishwasher with a “speed” cycle (that's the star button on this machine) you can save water and have your dishes done in about 1/3 the time. Some washing machines have settings that will shorten wash time and use less water too.



Low flow devices like shower heads are very inexpensive and can offer huge cost savings.

Some small changes on your part can really add up over time. An average monthly water savings of \$25 adds up to \$300 per year and items like a moisture meter, low-flow showerheads and food coloring to test your toilet are all inexpensive items that will definitely pay for themselves.

For more information and ideas for the home please visit our educational website [www.DrWaters.org](http://www.DrWaters.org) .