

# WATER: USE LESS, PAY LESS

A Public Service Advisory

## The Churchill Area Environmental Council

2300 William Penn Highway, Pittsburgh PA 15235 Summer, 2008

[www.CPEG-Inc.com/CAEC](http://www.CPEG-Inc.com/CAEC)

This year the Water Authority raised rates 15%. Alcosan sewage bills are up 9%. On top of that, each municipality levies a surcharge of \$2 to \$4 per 1,000 gallons to pay for repairs and upgrades to local sewer systems as mandated by an EPA Consent Order in our area. The point is - wasting water is costly and conservation "pays." Here are some ways you can save.

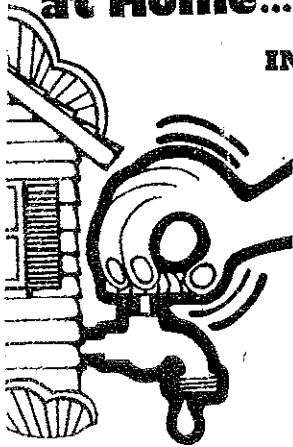
### **NEAR THE WATER METER:**

- Install a water pressure reducing valve (e.g. Watts Regulator, \$50 at Home Depot plus installation). Reducing pressure cuts flow rate, giving better faucet control and less waste from spillage and overflows. It also reduces wear on hoses, joints, and plumbing fixtures.
- The location and operation of the main water valve to the house should be known to all occupants in case of a burst pipe. Hang a sign on it. Shut this main valve if you leave the house for extended trips (especially during winter months) and drain the pipes by opening a faucet at the lowest level of the house (consult a plumber if you need help).

### **THROUGHOUT THE HOUSE:**

- Repair leaks at faucets and hose connections, indoors and outside. Replace worn washers, o-rings, packing, and faulty fixtures.
- Install low-flow aerators on all faucets. These inexpensive, screw-on, mesh devices break up water flow and reduce water usage significantly.
- Locate and label shut-off valves for washing machines, sinks, and hot water tanks so they can be turned off quickly in emergencies.
- Insulate hot water pipes and water heaters to avoid having to run the water until it comes up hot. (This also saves on energy bills.)

## **Water Conservation at Home...**

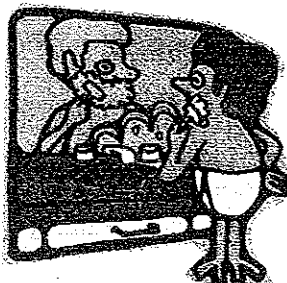


### **IN THE KITCHEN:**

- Use dishwashers only for full loads, with somewhat less detergent than recommended. Set the machine at "low water – short cycle – low energy" as appropriate to the model. Scrape dishes, instead of rinsing them, before loading the dishwasher.
- Soak heavily soiled pots and pans several hours or overnight (a few drops of vinegar will help the process) before washing.
- Washing dishes, produce, or fabrics by hand is best done in a dishpan (not under running water). Save rinse water for other cleaning purposes.
- Use in-sink garbage disposals sparingly, if at all. Compost plant scraps; wrap animal scraps and put them in the garbage can.
- Defrost frozen foods in the refrigerator, overnight, instead of under running water. Or, use the defrost setting of your microwave oven.
- For drinking water, keep a bottle or carafe in the refrigerator instead of letting the tap run until the water is cold.
- Collect clean water from dehumidifiers, drinking glasses, etc. for washing and cleaning uses. Refuse water re-fills unless you plan to drink them. Water from pet dishes, dropped ice cubes, and aquariums can be mixed as a natural fertilizer for watering plants.
- Select proper size cooking pots. Large utensils may require more cooking water than necessary. In general cook food in as little water as possible. Try steaming vegetables (this also saves nutrients) or microwaving briefly (only a few drops of liquid needed).

### **IN THE BATHROOM:**

- Install a low-flow, adjustable showerhead for a satisfying, water saving shower (\$70 plus installation for the Kohler Master).
- Take 2-3 minute showers. Turn water off while lathering. Short showers use much less water than baths. If you bathe, fill the tub to 1/3 its depth. Bathe small children together. Clean the tub with residual bath water before emptying it. Reserve some of the bath water for house and car cleaning or to pre-soak heavily soiled clothes.
- When replacing an old toilet consider an ultra low-flush model (ca \$200-\$300 plus installation for a Toto Drake or Kohler Santa Rosa) that uses only 1.6 gal/flush). These newly engineered toilets really work! In older toilets, insert plastic containers filled with water into corners of the



tank. Do not block any part of the flushing mechanism and never use bricks (they can flake and form clogs). Never flush unnecessarily. Dispose of medications and tissues in the trash.

- Use a container or sink stopper when shaving. Do not shave with the water running.
- Brush teeth using short bursts of water to wet or clean the brush. Use a cup for rinsing.

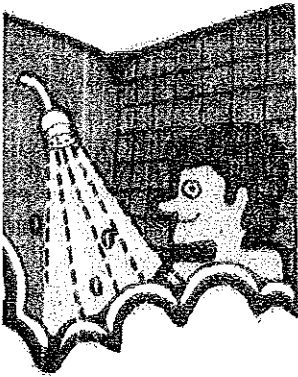


#### IN THE LAUNDRY ROOM:

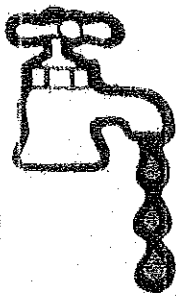
- Run clothes washers only when full, using the smallest amount of effective detergent. Pre-soak heavily soiled items in a basin. Re-set the load selector if you must wash small loads and consider using cold water only, especially for rinse cycles. Save a pail of final rinse water for the next wash load, for other cleaning needs, or to water trees/shrubs.
- When buying a new washer consider a front-loading model that uses less water and energy. Seek a machine with an “Energy Star High Efficiency” rating.
- Avoid burst or leaking hose connections. Install “braided” stainless steel connectors and automatic shut-offs (or, shut the hot and cold spigots by hand between laundry days).

#### OUTDOORS:

- Clean driveways, steps, and gutters with a broom or rake, not a hose.
- Wash vehicles in sections, using a bucket of water (saved from the laundry?) and short rinse bursts from a hose with an on-off nozzle. Or, use a commercial car wash that re-cycles water (but not water containing road salt).
- Do not buy water toys that require a constant flow of water when in use.
- Purchase an inexpensive rain gauge and install it in an open area. As long as it measures 1”/week there is no need for supplemental garden watering. When necessary, water lawns and plantings during cool, early morning hours (evening wetness promotes fungus and other disease problems; afternoon warmth leads to wasteful evaporation). Use a drip or soaker hose, applying an inch of water per week during prolonged droughts. Set a timer when watering with a “hose and rotator” system.



- Use a 3-4” layer of organic mulch, e.g., compost, chipped leaves, shredded bark, or pine needles (for evergreens only) around plantings to reduce evaporation and weeds (leave an un-mulched 6” ring at the base of trees to discourage pest animals). Avoid peat moss and cypress mulch. Use mushroom manure sparingly (it changes soil pH).
- If you have a sprinkler system, adjust the nozzles so only the planted areas of your property receive water. Turn off automatic sprinklers when rain occurs or is expected.
- Aerate the lawn by punching holes 6” apart to help water reach grass roots instead of running off the surface. Apply fertilizer sparingly. It promotes growth and increases water consumption. Use of a mulching mower conserves ground moisture and nutrients, reducing the need for fertilizer.
- Group water-requiring plants in one area for special attention during dry spells. Select “xerics” (drought tolerant species) for future or replacement plantings. These have thick, leathery, hairy, fuzzy, waxy, or gray foliage, e.g. *Yucca*, *Sedum* (stonecrop), *Artemisia* (wormwood), *Stachys* (lamb’s ears), *Achillea* (yarrow), *Epimedium* (barrenwort).
- Limit or reduce lawn size. Call the Allegheny County Extension Service (412-473-2540) for recommended, drought resistant grass varieties or check with a reputable nursery. Replace lawn areas with “islands” of small, preferably native trees, shrubs, ferns, and shade tolerant perennials or ground cover plants. A local source for plants and information is <SylvaniaNatives.com>



- Bathe or clean pets outdoors in a planted area that needs water. Encourage children to play water games in similar areas. Re-use kiddie pool water for plantings.
- Avoid ornamental fountains that spray water into the air. Trickling or cascading water is less wasteful. All ponds and water features should have recirculating pump systems and receive regular mosquito treatment (live fish or Bt-pellets [“Dunks”] available at Elmer’s Aquarium).
- Backyard pools should be covered when not in frequent use to minimize evaporation. Avoid over-filling; splash water is wasted. Check for leaks around pumps and refill devices. Consider converting the pool to a veggie/flower garden and joining a swim club.

- Collect rainwater from downspouts connected to gravity-fed rain barrels with child-safe, mosquito-screened lids and overflow ports that direct excess water away from the house foundation. Look for models made of recycled HDPE plastic, with brass spigots that fit standard garden hoses and are positioned to fill watering cans as needed (e.g. the 54 gallon Achla RB-01 barrel available on <Amazon.com> for \$128). Do not use trash cans (they will not withstand the water pressure). Disconnect and store barrels upside down for the winter. Find out more at <cleanairgardening.com> or <rainbarrelguide.com>. The Pennsylvania Resources Council conducts periodic rain barrel workshops; check <prc.org>.

