American Littoral Society Shore Stewards
Fact Sheet – *Conserving Water*

QUICK TIPS FOR CONSERVING WATER (from NJDEP)

- Install water conserving toilets, showerheads and faucet aerators in the bathroom and kitchen (available at most home improvement stores as well as some supermarkets);
- Turn off faucets when not in use, such as brushing your teeth or washing the dishes;
- Run washing machines and dishwashers only when they are full;
- Use a broom to sweep the sidewalk, rather than a hose;
- Water lawns only as needed. In New Jersey, usually one inch of water per week is all that is needed to maintain a healthy lawn. Irrigation timers should be set to water in the early morning (before 10 am) and should be turned off during and after rainfall;
- Water lawns (and outdoor plants) in the early morning hours (before 10 am) for shorter, more frequent periods to allow time for the soil to absorb the water and enable roots to grow deep, while avoiding rot and encouraging drought tolerance;
- Use mulch and native plants to conserve water in the garden;
- Use a rain barrel to capture water from a downspout to use later for watering gardens and plants;
- Use soaker hoses or drip irrigation to water trees, gardens and flower beds;

Here are things you can do to conserve water at home:

- Take shorter showers and save 5 to 7 gallons of water per minute;
- Fill the tub halfway and save 10 to 15 gallons;
- Don't use the toilet as a wastebasket;
- Position your downspouts so rain water runs onto the lawn or into the garden, not down the driveway;
- When running tap water to get it hot, divert the initial cool water into a pot or bucket, then use it to water the plants;
- Check your water meter or bill to see how much water you are using. Each of us should be able to get by comfortably on 50 gallons per person per day;
- Repair leaky faucets.

How using water hurts our local waterways – Our waterways have evolved over millennia based on a certain amount of water flowing into them. As we use more water and diminish the amount flowing into waterways the salinity is affected as well as the amount of minerals and sediment flowing into the water. These changes can affect the entire ecosystem of the river and change the mix of life that can survive. Image the extreme case that we use all the water flowing into our local waterways so the inflow slows to a trickle!

Also, as we draw water from aquifers at a faster rate than it is naturally replenished the groundwater level drops. This can have a number of adverse effects including changing the environment for the ground plants and causing more salt water to infiltrate into the groundwater.

The Southern Water Pollution Control Facility (SWPCF) is a secondary wastewater treatment facility located in Stafford Township, Ocean County, NJ. The plant is designed to treat domestic and light industrial waste at a rate of 20 million gallons a day. After receiving treatment, the plant's effluent is disinfected and discharged to the Atlantic Ocean via an outfall pipe, which extends out into the ocean 5,000 feet. This is water that could be flowing into local rivers, streams or aquifers.

Recognizing that awareness is the first step in any conservation effort, here are some facts that should make you think twice before you turn on the spigot:

- Up to 90 percent of water used to sprinkle lawns can be lost to the atmosphere through evaporation. Trickle irrigation can be more effective. This is a slower process where water oozes from holes in a hose that is right near ground level.
- Approximately two-thirds of residential interior water use is for toilet flushing and bathing. The use of water-saving toilets, shower heads, and faucet aerators can cut this usage in half.
- A garden hose discharges up to six-and-a-half gallons of water per minute under standard household water pressure.
- Hot water leaks not only are a waste of water, but a waste of the energy (and the money) used to heat that water.
- A top-loading clothes washer uses between 40 and 55 gallons of water per load. Front-loading models use roughly half that amount. Make sure they're full before turning them on.
- A dishwasher uses between eight and 12 gallons of water per load. Again, only run full loads.

…Delaware River Basin Commission

Trickle Irrigation for garden or lawn

Trickle irrigation is a method in which water drips into the soil from perforated tubes or emitters.

Advantages

- *Economy of Water Use*. The greatest advantage of trickle watering is its low water use.
- *Fewer Weeds Germinate*. Water is directed only to the lawn.
- *Easy to Operate*. Once the system is installed, it is simply a matter of opening a valve to water the entire garden.
- *Less Energy for Pumping*. The trickle system requires much lower operating pressure and lower flow rate.
- *Fewer Leaf Diseases*. The leaves are not wetted which discourages fungus and bacterial plant diseases.
- *Allows Work in the Garden While Watering*. Water is not spayed into the air.
- *Uniform Watering Pattern*. Interference from the wind results in uneven watering with overhead sprinkling.
- *Minimal Contamination of Groundwater Supplies*. With the limited volume of soil irrigated, leaching of fertilizer salts into the groundwater supply is largely eliminated.
- *Laborsaving*. You do not have to shut off the faucet and move the hose.
- *Savings of Insecticides and Fungicides*. Pesticides are not washed from the foliage as in overhead irrigation.

Disadvantages

- Trickle irrigation requires some time for initial installation.
- It is more expensive than most sprinkler systems.
- The tiny emission holes can become clogged with soil particles, and sometimes algae or mineral precipitates will block these holes.
- Insects and rodents may damage the trickle line emitters.

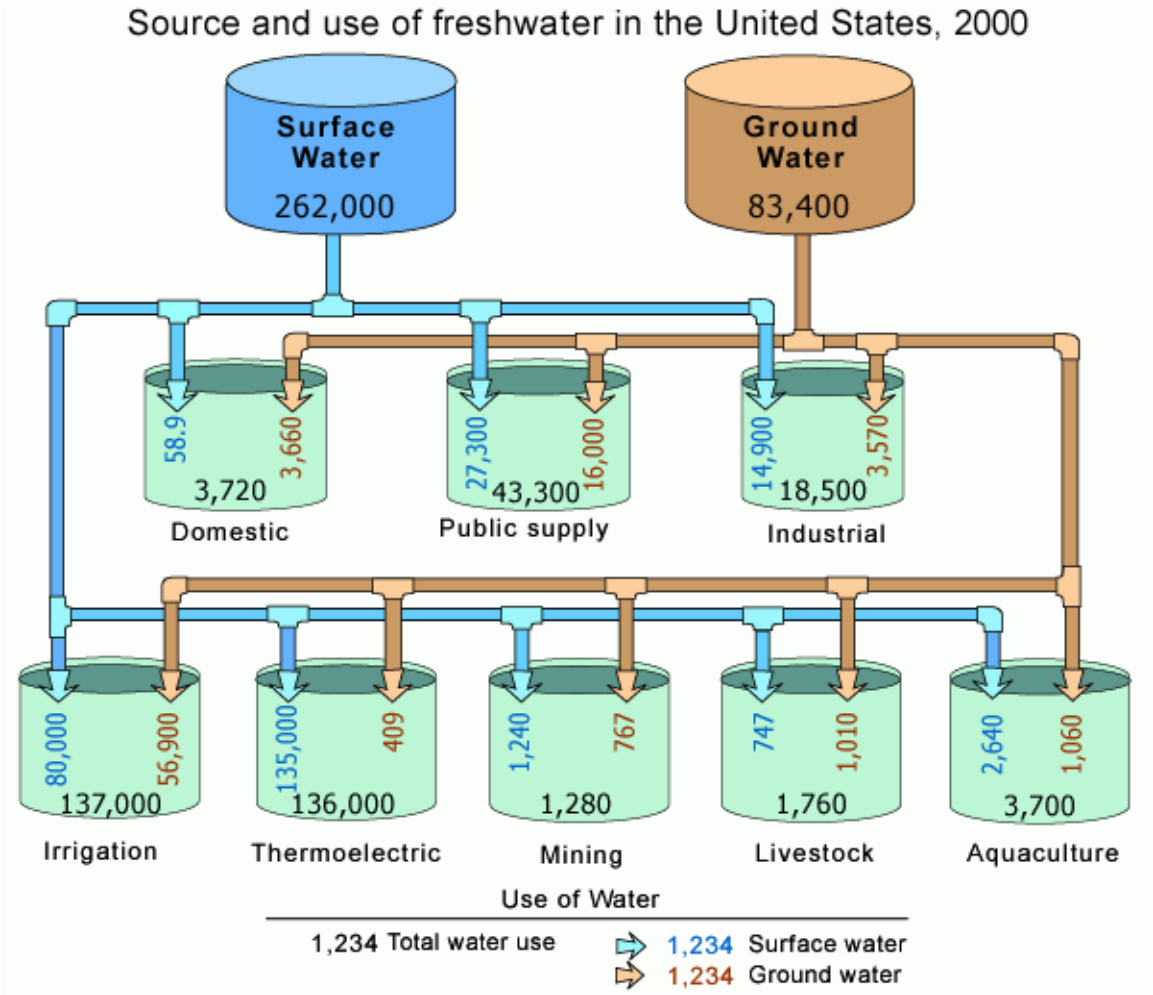
… Cornell Cooperative Extension

Web site reference for trickle irrigation:

http://counties.cce.cornell.edu/suffolk/grownet/home-gardening-general/trickle.html

Web site reference for fresh water usage:

http://www.freshwater.org/water_facts.html



Scale in millions of gallons per day