

THE GROUNDWATER SENTINEL



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Saving Water Through Conservation Ordinances

With all the rain our region received this spring, it can be easy to forget that even here water is a limited resource that can become scarce with relative ease. Water shortages often result from droughts coupled with overuse, but we can also permanently lose water supplies when contamination renders the use of a water source uneconomical. (See our brief on salt in well water on page 2.) By being smarter about our water use, we can reduce the severity of these shortages and wisely manage the uncontaminated supplies we have left.

Reducing water usage falls into two general categories. **Water efficiency** uses technology that uses less water while performing the same function (such as installing a low flow shower head). **Water conservation** modifies behavior and activities to use less water (such as taking a shorter shower). Used in tandem, these techniques can save a significant amount of water.

Municipalities need to take the lead in helping residents use water wisely through education and water conservation ordinances. Education can start with letting residents know where their water comes from, what rebates are available for using water efficient products, and simple steps they can take to save water.

Water conservation ordinances are focused on outdoor water usage regardless of whether or not there is a drought. A 1995 national survey found that 30% of home water use goes towards outdoor activities, such as watering the lawn or car washing. It is estimated that of that usage, half of the water is wasted. The average family of four uses 400 gallons of water per day. By just eliminating the water wasted outdoors, that family could save 5,400 gallons of



Conserving water and using it efficiently means there is enough water for everyone now, and in the future.

water over the course of the summer months.

These ordinances are not out to ban outdoor water use, but rather to promote conservation and efficiency. An ordinance in Ringwood prevents residents from watering their lawns every single day – a practice that is unnecessary for healthy lawns. A proposed ordinance in West Milford would prohibit lawn watering between 9am and 6pm – when much of the water would be lost to evaporation and would not even help the grass.

A water conservation ordinance is not the solution to water supply issues, but it does represent low hanging fruit among a number of other water efficiency programs by targeting wasted water. In its report on the water supply crisis in the Southeast, American Rivers outlines a nine-part water efficiency program. It includes better landscaping practices, retrofitting plumbing fixtures, reducing leakage in infrastructure, and metering all water users.

As you might imagine (or already know) water conservation ordinances are not without controversy.

For starters, Americans love their green turf and this ordinance can be seen as threatening a homeowner's right to a perfect lawn. But grass does not need to be watered everyday and grass can become more drought tolerant if it is left to grow a bit taller. Aerating lawns can also promote better water infiltration which means healthy grass and less watering.

Another point of contention over the ordinance is that when water is exported out of town, those other users are not required to save water. The most direct solution would probably be for recipient municipalities to also pass their own version of the ordinance. Water conservation programs could also come through water companies that operate in many different towns. This leads into a third issue with water conservation.

Many towns (in and out of the state) that have implemented water saving programs have been so successful that water companies had to start

charging more money to make up for their shortfall in revenue. Depending on your town's situation, it might be helpful to review and reconfigure your (or your provider's) water pricing structure. American Rivers recommends a two part fee system that starts with a flat service fee that will cover fixed costs such as maintenance and operations, and then have a variable fee for volume that is priced so using more water is more expensive. This type of rate structure rewards using less water. Greensboro, North Carolina implemented such a program and was able to reduce consumption by 22% while their rate only increased by 1/3 of a cent per gallon.

In contrast, it is important to remember that the long term costs of not conserving water are ultimately based on how much new infrastructure will be needed to drill deeper wells, import, and treat more water. ♦

A-salt-ing Our Ground Water

Finding salt water in wells is not an issue limited to coastal or island communities anymore. Data collected from many wells in our region indicate there are increasing concentrations of sodium in our ground water supplies. Some communities have even closed wells because of excess sodium levels.

This sodium comes from road salt used to de-ice roads. Road salt does play an important role in keeping our streets safe in the winter, but treating water with too much sodium is very expensive. So how can a town balance these two issues?

Come to the GWPC's Ground Water Summit this October to find out! Presenters at the Summit will focus on the problems road salt poses to our ground water, water supplies, ecology, and health, and ways

to implement economical and effective solutions. Keep an eye out for a survey about your town's road salt practices from our GWPC intern who will be compiling local data to use at the Summit. We hope to see you there. ♦

Save the Date!

2010 Ground Water Summit

October 5, 2010, 8:30 am

Hanover Manor, 16 Eagle Rock Road,

East Hanover, NJ 07936



For more information on groundwater topics, educational materials ("The Groundwater Adventures of Walter Wet"), and past issues of the SENTINEL, please visit our Web site, www.passaicriver.org.

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