Take a Lesson From Your Local School District When It Comes to Water and Electrical Efficiency

By Jim Hartman

Conservation Corner – August 2015

Most people are unaware that the Ashland School District excels not only in academics, but in its resource conservation efforts as well. The District has been very fortunate to have Gary Sisk as Director of Facilities and Maintenance since 2009. Gary and his staff have saved the District thousands of dollars. The district's energy conservation efforts serve as a shining example that can also assist to guide the average Ashlander in saving both resources and money as well. Each year the District spends over $600,000 on energy and is one of the top 25 water users in the City. Gary is a no-nonsense efficiency enthusiast who has advanced many positive initiatives.

A big part of the summer season is to make sure each irrigation system is working properly. Don Harding (AKA "Sprinkles") is the irrigation expert who spends most of his time, April through September, constructing, repairing and operating the irrigation systems at all District grounds. Mulch is also added around most plantings to reduce evaporation and suppress weeds. If you see some plants suffering in your yard, check the irrigation system and consider adding more mulch.

Gary has worked hard to reduce irrigation while keeping sporting fields green for the students and the community. Since short mowing stresses out grass and increases evaporation Mr. Sisk has the fields cut high at 3.5 inches. To promote deep root growth, watering is done for longer periods of time and fewer days per week. You can do this with your lawn too. Grass areas that are not next to buildings and not used for sports are allowed to turn brown before watering. The idea is to keep grass and trees alive with a minimum amount of water. The exception to this are the playground fields far from the school buildings at Bellview, Walker and Lincoln schools. These areas receive no watering since they are very weedy and not used by students during the summer. Here the District is responding to the City's request to voluntarily reduce watering where ever possible to avoid having to implement mandatory restrictions.

The District has continually worked to find ways to lower their electrical lighting needs. About ten years ago they upgraded all T12 fluorescent lights to T8 (saving about 40% of the energy to operate). The District also installed many motion sensors which resulted in significant savings. The current strategy for reducing electrical costs has centered on replacing Compact Fluorescent Lights (CFLs) when they fail with the more efficient LED lights Most of the savings come not from the efficiency difference (which is only 25%), but from the fact that LED lights last 22.5 years. With LED, it is not necessary to replace the light or ballast, as compared to CFLs which may require 5 replacements over the LED's lifetime. This is especially important when the bulb is in a hard to reach spot, such as a stairwell or high in an auditorium. This means you save big on labor costs to replace bulbs, on the bulbs and ballasts themselves, and on disposal costs. While CFLs were a big improvement over incandescent, proper disposal of CFLs costs more. You should consider LED lights at home if you are tired of changing light bulbs in challenging locations or tired of going to the store to buy new CFLs. LED light prices continue to drop.

The District has a future electrical challenge that you may be familiar with at your own home or office. The EPA's guideline for indoor temperatures in the summer is 75 to 78 degrees, yet this

leads to many complaints. Staff and students need to be educated about the potential cost savings and dress appropriately. Roughly one third of summertime electrical use is from air conditioning. It is crazy to have to wear a sweater inside during the summer because the air conditioner is set to 68. For every degree you dial the air conditioner up in the summer, you save 3%.

Thanks to Gary and his staff the total usage numbers for electricity and water are trending downward. Expect this to continue. Indeed, I would be surprised if any other district can compete with Ashland when it comes to conservation. Gary's system comes down to common sense: Maintain your equipment and consider full life cycle costs when purchasing.

Picture Caption: Since short mowing stresses out grass and increases evaporation Mr. Sisk has the fields cut high at 3.5 inches.

Jim Hartman is a member of the City's Conservation Commission. For 21 years he has taught environmental science and worked on conservation issues with the Ashland School District.