



POLLUTION PREVENTION VIEW

VOLUME 10, ISSUE 1 NEWSLETTER FROM THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION WINTER 2010

Green Up Time

Spring is just around the corner! And with the season comes the “greening” of turf as towns prepare for the many different team sports held on municipal recreation fields.

Traditionally “greening up” refers to applications of conventional fertilizers that produce a rapid color change of turf from dull brown to bright green. But is there a “greener” way to manage playing fields? A number of Connecticut municipalities have said “yes.” They are greening their fields with organic techniques, avoiding toxic chemicals like pesticides, and relying on non-petroleum sources of nutrients, like leaf compost.

The Connecticut Department of Environmental Protection (DEP) has been providing towns with information and assistance on greening turf through organic land care (OLC) techniques. OLC is a whole system approach that relies on reinvigorating soil health so that turf can be managed without conventional fertilizers and pesticides.

DEP’s goal is to help municipalities maintain quality turf while complying with the pesticide prohibition on K-8 school grounds now scheduled to go into effect in July 2010.



The Town of Wethersfield topdresses their recreation fields with compost.

DEP’s Office of Pollution Prevention began its efforts in 2006, distributing over 1,000 copies of its “Organic Land Care” video to towns and individuals. From 2007 through 2009, DEP partnered with the Connecticut Northeast Organic Farming Association (CT NOFA) to conduct pilot projects with the towns of Manchester and Watertown, documenting the transition from conventional to organic

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Green Up Time

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turf management. Manchester was successful at implementing the organic approach due to its ability to purchase organic fertilizers and compost teas and apply quality compost made at the town landfill. The town stopped using conventional pesticides on the soccer field during the three-year pilot project and reduced the use on the adjacent two fields. Watertown eliminated the use of pesticides on Deland Field, a five-acre field with three baseball diamonds during its two-year pilot project.

Last year, three workshops on organic land care were co-sponsored with the University of Connecticut Plant Science Department and CT NOFA. Over 30 officials from 21 towns attended along with 15 private landscapers. Workshop participants received a free soil test of a municipal field and were educated about soil testing and how to interpret the results. The attendees learned how to develop a practical organic land care plan within the town's budget and took a field trip to Wethersfield's compost facility for a demonstration on compost screening and topdressing. A follow-up survey indicated that the participants' knowledge of compost improved as a result of the workshops and that they will use a number of OLC practices at their municipal fields.



Workshop attendees watch a demonstration of compost spreading equipment.

For more information about OLC or to watch the video at www.ct.gov/dep/p2, go to "Organic Land Care for Municipalities"

If You Can Measure It, You Can Manage It

When was the last time you looked over your electric bill? Any idea how many kilowatt-hours (kWh) you used last month or what three items in your home use the most energy? Most of us have no idea! But one of our P2 View readers knows a lot about his home energy uses and now lives by the motto "If you can measure it, you can manage it."

Gene and Diane DeJoannis live in a 1,900 square foot home and have reduced their energy use dramatically with the help of a "smart meter." They are now using about 2,200 kWh a year, while the average Connecticut resident uses almost five times that amount. We interviewed Gene on just how he did it:

Gene, can you tell us how this all started?

It started more than 10 years ago when CFLs (compact fluorescent light bulbs) first came on the market. I put together a spreadsheet that tracks monthly electric and gas use and used it to observe what happened to our electric use as we made changes. From 2001 to 2008 our usage was about 3,500 kWh per year. We've now replaced all of the standard (incandescent) light bulbs throughout the house with CFLs and went with Energy Star appliances. We got down to 3,000 kWh per year (250 kWh per month), but we weren't satisfied with that; we thought we could do more.

Did you find additional ways to reduce your home electricity usage?

Yes, we did! We found an item that would measure our energy use in real time. It's a whole house electric data-logger. Every second, it sends a signal to a small table top display that lets us know exactly how much energy we are using at that moment in both kWh and dollars. It is equivalent to the "smart meters" you often

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hear about, and even lets you set an alarm for unusually high use. But that's all it does. Then it's up to you to change your habits in response to what it tells you. The one we purchased on-line is called TED ("the energy detective"). TED goes in your circuit breaker box by snapping two current transformers around the main feeder wires and connecting a couple of small wires to a circuit breaker. It's easy to do, but if you haven't worked in a circuit breaker box before, you may want to hire an electrician. There are others sold online or at the home improvement stores, ranging in price from \$50 – \$160. In fact, some seem easier to install than TED, by just slipping a sensor ring over the electric meter's glass cover. It's amazing what you can save when you are fully aware of what is going on!

What changes did you make based on TED?

We keep the TED display unit on our kitchen counter and started to notice how it changed when we turned certain things on or off. We got curious about phantom power loads ([Summer 2007 P2 View article](#)), so we unplugged devices to check those that have remote controls. When we turned our entertainment system off, checked TED, then unplugged it, we found it used 20 watts more if we left it plugged in. We changed our habits, put all TVs and remote control items on power strips and we turn the power strip off when we're not using the item. We unplugged digital clocks and any unused equipment, and we decided to live without certain items altogether. We tried unplugging our microwave, but TED didn't read any change, so we leave it plugged in. (*Editor's note: Appliances vary; your microwave may have a measurable impact.*)



It's interesting, and a bit shocking, to see what happens at night when we've got everything turned off — including heat and refrigerator. I've used a flashlight to read the TED display and our house never goes below using 90 watts —that's one-third of our monthly usage.

So, what is using electricity when everything is turned off?

For us it used to be things like digital clocks on the stove, microwave, VCR and DVD player, clock radio, and electronic gadgets that are remote control operated like garage door openers and TVs, and there's the computer. Our printer and other accessories are on a power strip, but the DSL, VOIP and Wi-Fi routers are always on. And, of course, the heating system controls are always on and the refrigerator comes on intermittently.

Are you still looking to find more ways to cut down?

Absolutely, in fact I tried out another idea this past summer. We have an Energy Star dehumidifier for the basement that increases our summer electricity usage quite a bit. This year I tried another way to dehumidify. We have a basement hot water heating zone which is typically set at 55 degrees. I turned up the temperature to 70 degrees and heat came on several times a day, making up the ground losses and raising the temperature, while lowering the relative humidity and probably evaporating moisture, too. The relative humidity stayed at 55% and we saved a lot of energy. Our gas use did go up a small amount, but we used less energy and it cost less in the end.

What advice would you give to our readers?

After about a year of paying close attention to TED, our electricity use was down 30%, and is now less than 2,200 kWh a year and costs about \$610 a year. If we can do it, so can you (although it matters how many people are in the household). Start off by seeing how many kilowatt-hours you use each month, then do some of the easy things, like changing light bulbs, unplugging things and using power strips. Consider adding a light tube skylight if you have a room that is always dark. Think about how many cell phone chargers, iPods, game systems, plasma televisions and kitchen appliances you have in your home – they all add up. Invest in a data-logger or a less expensive single appliance watt meter to help you change your behavior. Start a friendly competition with your best friends or encourage your children to compete for the lowest monthly use. Celebrate with dinner by candlelight. It's fun!

Check out:
UI's Smart Systems:
www.uinet.com
CL&P's Plan-It Wise:
www.cl-p.com
Energy Star appliances:
www.energystar.gov



Recycling Times Are A-Changin'

Connecticut may be the land of steady habits, but the way we recycle and what we put into our bins is “rapidly changing.” The State’s goal is to “reduce, reuse and recycle” 58% of our trash by the year 2024. Some of the ways we are now recycling may help us reach our goal:



Single Stream Recycling

Many towns and cities are going to single stream recycling because it is more economical for trash haulers and easier for residents. Single stream is a collection system where all paper, bottles and cans are put in the same container without being separated. Typically, when a town goes to single stream, residents are given larger containers for their recycling. When residents have larger recycling containers (regardless of the collection method), they tend to put more in it.

Recycle Bank

In some recycling programs in the state, the truck picking up the recyclables is able to read a computer chip on the cart which identifies the resident and records the weight. The weight is converted into points. The more the resident recycles, the more points they earn. Points can be redeemed towards goods and services offered by national and local RecycleBank partners. www.recyclebank.com

SMART (Save Money and Reduce Trash) Programs

SMART (also known as Pay-As-You-Throw) is a collection method where residents pay for trash based on how much garbage they produce. To get a better idea on how this works, think about how we pay for electricity: if you conserve, your bill will be lower than someone who doesn't. Towns that have SMART programs usually see their recycling rates increase because residents are motivated to reduce the amount of garbage they produce by recycling everything they can. www.ct.gov/dep (Type “SMART” in search box)



Expanded Bottle Bill

Did you know that as of October 1, 2009 the bottle bill expansion to include non-carbonated beverage bottles (e.g., water bottles) took effect? You may have recycled those plastic water bottles in your bin, but now Connecticut residents can redeem them just like soda bottles for five cents each.

(Note: If it's inconvenient to redeem them, you can still recycle them in your recycling bin.)

www.ct.gov/dep (Type “bottle bill” in search box)

More Plastics Added

Do you know what plastics are recycled in your town? You might be surprised to learn that many Connecticut towns now accept more than #1 and #2s (resin codes  through  are found on plastic containers).

That's good news for people who have been frustrated about not being able to recycle containers like yogurt cups or deli containers (usually #5 or #7) or are just confused about what plastics could be recycled.

What's so different now? Tim DeVivo of Willimantic Waste says some of the change is due to high tech equipment which makes it easier to sort recyclables and remove contaminants. End markets are also looking for plastics #3 – #7 to make low-grade plastic for items like pallets, packaging corners and sheeting.

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Willimantic Waste (www.williwaste.com/index.htm) collects recyclables from 45 towns and accepts plastics with resin codes #1 – #7 (no plastic bags or film), and a lot of other items that even a few years ago would not have been acceptable in most curbside recycling programs.

CRRA, (www.crra.org/) the Resource Recovery Authority in Hartford that processes trash and recyclables for 64 Connecticut towns, is installing equipment to handle sorting plastics #1 – #7. Paul Nonnenmacher of CRRA says that when the new equipment comes on-line in early 2010, all 64 towns will be able to add plastics #1 – #7 to their programs.

Not sure what you can put in your recycling cart or bin? Check with your town's recycling contact or web site to find out what your town is currently accepting for recycling. www.ct.gov/dep/recycle

Of course, just because you can recycle plastics #1 – #7 doesn't mean you should throw your reduce and reuse ethic out in the recycling bin. Plastics are petroleum and natural gas-based products that use a lot of energy and other resources in production and disposal. Some plastics can have health hazards as well. **Plastics Primer:** www.ct.gov/dph/lib/dph/environmental_health/eoha/pdf/plastics_primer0714.pdf

Reuse—The Oldest Green Collar Job

Have you ever thought of “reuse” as an industry? Well, those in it often do. The industry is made up of professionals engaged in all aspects of reuse — remanufacturing, repairing, repurposing, reusing, dismantling and ultimately, re-selling.

Last year, DEP started facilitating a group called the Connecticut Materials Reuse Network (CT MRN). The network, an off-shoot of the state-wide Solid Waste Advisory Committee, is partnering with industry, businesses and municipalities to recover construction and demolition waste through reuse and recycling. All are welcome to attend CT MRN meetings, which are held usually on a monthly schedule.

For the last year, CT MRN has focused mostly on deconstruction – part of the building materials reuse world. Deconstruction is the dismantling of a building in a way to reuse and recover as much of a building's parts as possible. Materials are sold on-site or perhaps taken to a building materials reuse center or reclaimed lumber yard depending on the material.

Connecticut has seven building materials reuse centers and two reclaimed lumber yards. Two more reuse centers plan to open for business in 2010. Reuse centers are like thrift shops, but instead of clothing and bric-a-brac, the items sold are doors, windows, appliances, lighting and plumbing fixtures and cabinets. Reclaimed lumber yards re-mill timbers deconstructed from old buildings including mills and barns. All these materials are available to homeowners, businesses and contractors.

How do I find Building Materials Reuse Centers?

CT MRN has just released “A Guide to Local Building Materials Reuse Centers” to help increase awareness of the reuse centers in the state. www.ct.gov/dep/lib/dep/reduce_reuse_recycle/brochures/building_materials_reuse_centers_mrn_brochure.pdf.

For more information about CT MRN, contact Sherill Baldwin at sherill.baldwin@ct.gov or (860) 424-3440. To check out Connecticut's Solid Waste Management Plan, go to www.ct.gov/dep/swmp.



An assortment of doors and windows for sale at the ReStore in Salem, CT

What's **NEW** in P2?

Earth Day Turns 40

Since the first Earth Day in 1970, Connecticut has made great progress in cleaning up our air and water, preserving open space and initiating state-wide programs like recycling and pollution prevention. The 40th Anniversary of Earth Day provides an opportunity to focus our attention on our environmental successes and the challenges we still face.

Working in cooperation with a coalition of environmental advocacy groups, DEP is planning to celebrate this milestone in a special way. Details of the Earth Day “agenda” are still being developed, but you can expect to see events at the State Capitol, outreach to schools, outdoor activities and more. DEP will soon launch a special “Earth Day” feature on its web site, providing information so that you can join in the celebration.

Stay tuned — www.ct.gov/dep/earthday.



St. Vincent's Medical Center “Goes With the Flow”



Can you imagine what 1,000 empty, plastic water bottles looks like? You'll soon be able to see them “up close and personal” and glued to a display in the main lobby of St. Vincent's Medical Center (SVMC) in Bridgeport. One thousand bottles of water is about how many they sold *each day* at the hospital – 350,000 per year — and most of them probably ended up in the trash. What a waste!

Kerry Eaton, chief administrative officer at SVMC thought so, too. “Since there's extremely safe, great-tasting water available at the turn of the tap throughout our hospital, we felt the right thing for St. Vincent's to do would be to switch to tap water.” So, as part of their continuing efforts to reduce waste and prevent pollution, they recently announced that as of Feb. 1, 2010 they will no longer sell water in plastic bottles.

The hospital is partnering with the local water utility, Aquarion Water Company, in a campaign called “Go With the Flow” to emphasize the quality of the water already available from the tap and fountains at the hospital. Along with the “1,000 bottles” display, the hospital's Food and Nutrition staff and Green Team have been putting up signage and creating activities to educate staff, patients and visitors on the benefits of eliminating water bottles from the campus.

As part of their greening efforts, SVMC uses environmentally preferable cleaners throughout the hospital and is also an EPA WasteWise partner.

Hospitals “Wise-Up” about Waste

EPA's WasteWise program helps all kinds of businesses (including hospitals) reduce waste through prevention, recycling and better purchasing decisions. Four of Connecticut's acute care hospitals are WasteWise partners. For more information on this program and DEP's work with CT hospitals, visit www.ct.gov/dep/p2.

Ask Eartha

A friend gave me hand-me-down clothes in great condition for my daughter. Unfortunately they were stored in mothballs and I can't seem to get the smell out. Do you have any ideas? Also, what do you recommend instead of mothballs for storing clothes?



No one seems to like the smell of mothballs. Moths are smart to avoid them — and people should too! Mothballs used to be made of naphthalene, a highly toxic chemical. Now most mothballs are made of paradichlorobenzene, which is also a hazardous chemical. Another traditional component of mothballs is camphor, which comes from the wood of the laurel tree. However, most of the camphor used in today's mothballs is a synthetic fragrance, which also can contain toxic chemicals.

The warning on a box of mothballs states “Avoid prolonged breathing of vapor.” Yet if you use them, you can't avoid being exposed. The volatile paradichlorobenzene goes directly from a solid form to a gaseous state, permeating your stored clothing and your home. It can cause headache, swollen eyes, loss of appetite, nausea, severe irritation to your nose, throat and lungs, depression, and injury to your liver or kidneys if exposed to it over a long period of time. The

Jeannie N., Middletown, CT

chemical doesn't dissolve easily in water and can accumulate in the fatty tissues of animals and humans. It is very hard to completely remove mothball smell from clothing. Because of the volatile nature of the chemical in mothballs, you should first hang the clothing out in the sun on several breezy days to help the fumes dissipate.

Even after this process, you may still have some odor. It may help to wash the clothing in hot water with ½ cup Borax with your regular amount of laundry detergent and then use ½ cup vinegar in the rinse cycle (only if the fabric is washable). Hang the clothes back outside to dry. Don't put clothes in the dryer until the smell is gone since it may set the odor in certain fabrics.

How do I keep moths away without the mothballs?

Moth larvae eat wool clothing and blankets so storing and maintaining your clothes correctly will prevent any damage.

- Occasionally air items in the sun and brush them off.
- Make sure that your clothes and blankets are clean and dry



Dispose of your unwanted mothballs at a household hazardous waste collection. For more information, go to www.ct.gov/dep/recycle.

before you store them. Moths seem to be attracted to human scents.

- Washing kills moths in all stages of their development, as does running through a hot dryer.
- If the item of clothing is not washable and you see moths, freeze the item for two days in the freezer.
- Store out-of-season clothing and blankets in well-sealed containers.
- Purchase natural moth repellents by mail or at a health food store.
- Make your own herbal moth repellents by putting dried lavender or equal parts dried rosemary and mint in a sachet bag or in a piece of cheesecloth or lightweight cotton fabric gathered together with a string.
- Store with cedar chips or blocks. (Don't place the cedar directly on the clothes or it could cause staining.) Cedar blocks need periodic “refreshing” by sanding them when they lose their scent.

Eartha answers selected environmental questions. Email your question to judith.prill@ct.gov and watch future issues for your answer.

P 2 C A L E N D A R

A SELECTION OF ENVIRONMENTAL EVENTS

Homeowners Workshops on Organic Lawn Care

These free workshops located in various towns are offered by the Northeast Organic Farming Association (NOFA). For more information: (203) 888-5146 or www.organiclandcare.net

March 4 Wallingford Senior Center, 6:30–8 pm

March 6 Southington Library & Museum, 10–11:30 am

March 20 Milford Library, 10:30 am–12 noon

March 22 Case Memorial Library, Orange, 7–8:30 pm

April 9 Ansonia Nature Center, 7–8:30 pm

April 17 Ives Memorial Library, New Haven, 1–2:30 pm

April 21 Cheshire Public Library, 7–8:30 pm

March 6, 2010

Sustaining Connecticut: Growing Local, Eating Healthier, Living Smarter

Manchester Community College, Manchester, CT

Celebration of local organic farming, gardening, landscaping and sustainable lifestyles featuring more than 30 workshops, vendor and exhibit area, keynote speech, potluck lunch, children's program, and hands-on cooking demonstrations. <http://ctnofa.org>

March 6, 2010

Earth Charter Summit

Gelston House, East Haddam

Gala affair featuring a panel discussion about the Transition Town initiative. Keynote speaker is James Howard Kunstler. www.earthcharterct.org

March 10, 2010

CT Community Gardening Assoc. Annual Meeting

UCONN New Haven County Extension Office, North Haven, CT

Features panel discussion on "The Value of a Community Garden: To a Family the Community and the Environment." Contact Cordalie Benoit at (203) 770-0146.

SoundWaters Winter/Spring 2010 Lecture Series

These programs are free and include lunch or reception. For details or reservations, email soundbusiness@soundwaters.org or call (203) 406-3336.

February 25 *Getting Rid of E-Waste*, Purdue Pharma, Stamford

March 24 *Going Green at Stamford Hospital*, UCONN Stamford

Mid-March 2010

Long Island Sound Citizen's Summit

Housatonic Community College, Bridgeport, CT

Save the Sound and the Long Island Sound Study are sponsoring the annual Long Island Sound Citizen's Summit. Stay tuned for details! www.cfenv.org

March 18, 2010

3rd Annual Statewide Smart Growth Conference

Capitol Community College, Hartford, CT

Workshops on current smart growth topics with keynote speaker David Owen, author, *Green Metropolis*. www.1000friends-ct.org

April 5, 2010

3rd Annual Global

Environmental Sustainability Symposium

Central CT State University, New Britain, CT

Workshops, presentations, eco-fair and entertainment with a focus on transitioning to a greener economy for a sustainable future. Free and open to the public. www.ccsu.edu

Need help planning an Earth Day event? www.earthday.net



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