

APRIL 2007

Toward a Sustainable Community

Sherrie Gruder

A new resource is available local governments and community members entitled *Toward a Sustainable Community: A Toolkit for Local Government*. This toolkit provides ideas and descriptions of specific actions that a local government can take to transform itself into a model of sustainable practices. These are practices that can result in cost savings and increased employment, as well as enhance environmental quality and community well-being. *Toward a Sustainable Community* will help communities thrive today while preserving the ability of future generations to have quality of life as well.

The toolkit describes fundamental steps a municipality can take to initiate a sustainable community program. And it provides specific information about how local government can lead by example in the areas of energy, buildings, transportation, procurement, investments and human resources. The Appendices include sustainable community resolutions from seven Wisconsin municipalities as models. Currently, nine WI municipalities have passed such resolutions and have adopted the Natural Step as their guiding framework.

Toward a Sustainable Community is posted as a pdf on the SHWEC website at www.shwec.uwm.edu. There is a companion document with live links to all the footnotes and references as well as a brochure describing the publication and how to order hard copies. Get to all three by clicking on publications and entering "sustainable" in the search box. Direct links to the publications are www.shwec.uwm.edu/sustk and www.shwec.uwm.edu/sustklinks.

The Toolkit was developed by UW-Extension and 1000 Friends of Wisconsin and was funded, in part, by Focus on Energy and by the Solid and Hazardous Waste Education Center. It is a project of the UW-Extension Sustainability Team. To order hard copies of the Toolkit, contact the Center for Land Use Education, 715 346-3783 or email landcenter@uwsp.edu.

Source Separated Organics

Steve Brachman

The recent Associated Recyclers of Wisconsin conference highlighted several efforts to recover source separated organics. One effort led by the Food Pantry of Waukesha captures unused food stuffs from restaurants, institutions, and area businesses. With the need to feed 5,500 people, the challenge is great. In 2006, over 100 businesses donated \$400,000 worth of food to 60 receiving agencies.



Many lessons were learned in this effort, including:

- the need for a lead agency
- the need for expert coordination to facilitate waste exchange
- the need for good training and publicity
- businesses need ongoing persuasion to make food donations despite WI. Stat. 895.57, which provides civil liability exemption for food donations.

In the Western Lake Superior Sanitary District in Duluth, source separated organics have been collected since 2001. Both residential and commercial food wastes, including fish waste, are being collected. In 2006, a mandatory requirement for commercial source separation of organics was passed. Currently, 3,000 tons of compost is produced annually utilizing an aerated static row process. Since there is no fee for tipping organics, hauler incentives are good in encouraging this effort.

John Jaimez, the organics coordinator for Hennepin County, MN described his county's efforts. Working with 35 schools and 33 cities, the county has an ambitious program that accepts all food scraps and soiled non-recyclable paper. The motivation for this effort is to meet the state's mandated 50% recycling rate. Since organics and non-recyclable paper make up 25% of the waste stream, this goal will soon be realized. Hennepin County offers a number of incentives to encourage organics recycling, including tax exemptions for source separated material and a reduced tipping fee of almost \$20. Additionally, communities benefit from this effort because they can reduce their level of trash service while deriving significant greenhouse gas offsets and avoiding fertilizer usage.

The City of Wayzata, with 1,250 households, is the pioneering community in Hennepin County. Curbside organics collection uses 38 gallon carts as well as a kitchen bucket, and has resulted in 12% reduction in municipal solid waste as well as a 23% increase in recycling. Finally, the county has coined aggressive educational campaigns to encourage increased participation including such slogans as "How low can we go" and "No paper in trash".

REI Grant Projects 2007

Joe Van Rossum

Wisconsin's Recycling Efficiency Incentive (REI) Grant program continues to reward local recycling programs for collaborative efforts to improve recycling programs and reduce program cost. To qualify for this Department of Natural Resources (DNR) Grant program a Responsible Unit (RU) enters into a cooperative agreement with one or more RU's to achieve at least one of the following efficiencies:



- Collection and transportation of recyclables
- Sorting of recyclables at a materials recovery facility
- Comprehensive program planning
- Educational efforts about recycling

RUs may also qualify for the grant through the consolidation of two or more RUs into a single RU. For additional information about this program contact Candice Sovinski, DNR Recycling Grants Manager, (608) 264-9207 or visit the grant webpage at:

www.dnr.state.wi.us/org/caer/cfa/Grants/Recycle/efficiency.html

Below are examples of some of the activities Responsible Units have undertaken to qualify for the REI grant. For more information about a specific example or contact information please contact Joe Van Rossum, (608)262-0936 or vanrossum@epd.engr.wisc.edu.

Adams, Vernon, Jackson, and Monroe Counties worked together to provide area wide educational program for school districts through a contract with Midwest Recycling Association. MRA provided educational programs to school districts and youth groups within these counties. This joint effort also resulted in the development of a business recycling tool-kit. Combining resources allowed these four counties to contract for professional services they ordinarily would not have been able to afford. Contact: Myrna Diemert, Adams County

Burnett and Washburn County cooperated in the planning, design and implementation of a portable baling system to be used at various recycling drop-off locations for the baling of cardboard. This new system is expected to save \$23,000 per year in hauling costs, and the baled OCC can be now sold to generate revenue.

Contact: Rick Schneider, Northwest Regional Planning Commission

Recycling away from home was the focus of a project by **Chippewa County** and the **City of Cornell** to share recycling bins for use at community events. Chippewa County advertised local event recycling in local newspapers to educate the public of the "Recycle Away from Home" campaign. The agreement allows the City of Cornell to use the County's Xstream recycling bins rather than purchasing them.

Contact: Renee Yohnk, Chippewa County

Oneida County and the **City of Rhinelander** worked cooperatively to provide mobile collection of universal wastes including computer components, CRTs, dry and wet cell batteries, PCB ballasts, and fluorescent light bulbs. This project also included an educational component comprised of press releases and a newspaper article informing residents about the importance of properly handling and recycling of these items.

Contact: Bart Sexton, Oneida County

The **City of Beloit** and the **Town of Beloit** hosted spring and fall compost bin sales to encourage residents to recycle yard waste on-site. The bins were also made available outside of the spring and fall drives. The residents from both communities have responded well to this effort.

Contact: Beatrix Lengjak, Town of Beloit

Fifteen communities in **Winnebago County** authorized the County's Solid Waste Department to purchase and distribute a DNR produced DVD featuring "Burn Barrels: A Tradition to Discard" and "Too Valuable to Waste." The videos are intended to raise awareness about the benefits of recycling and the harm burn barrels do to human health and the environment.

Contact: Jennifer Semrau, Winnebago County

Pepin County contracted with **Dunn County** for services of a Recycling Education Specialist to develop and distribute educational materials to the owners, managers and tenants of apartment buildings. Even though Pepin County has a limited number of these buildings, the County's recycling coordinator did not have time and resources to adequately reach out to these residents. The REI grant funds have enabled Pepin County to tap into the resources of neighboring Dunn County. This REI project builds upon a previous project by Dunn and St. Croix Counties.

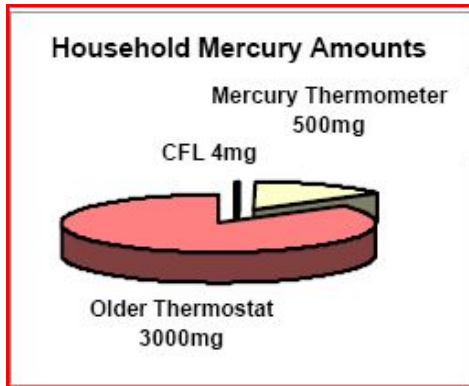
Contact: Terry Mesch, Pepin County

Portage County along with the Towns of **Carson**, **Eau Pleine**, and **Linwood** worked together to educate citizens about the importance of proper tire management and conducted various tire collections to qualify for REI grant funding. This effort helped to reduce accumulated "tire piles" that could potentially have impacted public health and the environment. The grant funds enabled the participants to offer tire recycling at a reduced cost to ensure citizens would have an affordable outlet for waste tires.

Contact: Meleesa Johnson, Portage County

Compact Fluorescent Lamps (CFLs) update

Steve Brachman



Major efforts to convert businesses and residences from incandescent lighting to fluorescent lighting have been underway in Wisconsin for some time. Now that more and more CFLs are being installed, a number of questions have been raised regarding their use and end of life management. Here are a few FAQs that we have been dealing with of late:

Do CFLs contain mercury?

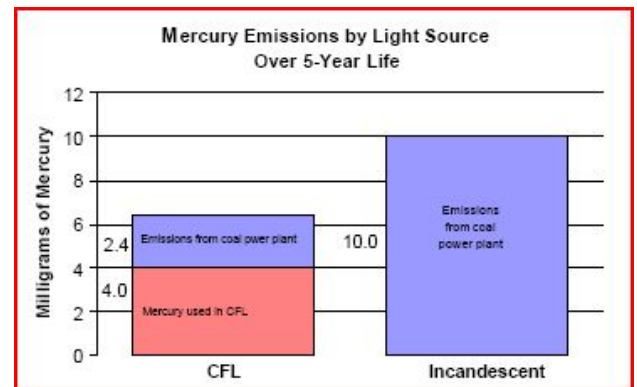
Yes, all energy efficient lighting contains some amount of mercury, though manufacturers have been working hard to reduce the quantity. A typical CFL contains 4mg of mercury and we recommend that all mercury containing products be properly recycled.

Is the mercury in a CFL a bigger problem than the energy savings from its use?

No, especially if the bulb is properly managed at the end of its useful life. CFLs actually prevent mercury from entering the air, particularly in Wisconsin, due to our heavy reliance on burning fossil fuels such as coal. A CFL uses 75% less energy than an incandescent bulb and lasts at least 6 times longer, while a power plant emits 10mg of mercury to run an incandescent bulb vs. 2.4mg of mercury for a CFL.

How do I properly dispose of my CFLs?

The best way to manage CFLs at the end of their useful life is to recycle them. Ideally, we recommend that you save the original packaging and place the bulb in it for proper transport and to prevent breakage. If not available, place the bulb in a sealed plastic bag; then take the bulbs to your local Household Hazardous Waste (HHW) collection site or Clean Sweep program as you would for used motor oil or household chemicals.



Wisconsin Companies Spotlighted for Environmental Performance

Jack Annis



The Federation of Environmental Technologists (FET) announced winners of the 21st Annual Governor's Award for Excellence in Environmental Performance at the "Environment 07" Conference in Milwaukee on March 14.

The award winners for 2007 are: GE Healthcare Renewable Resources of Oak Creek; Miller Compressing Company of Milwaukee, and the Polaris Company of Osceola, Wisconsin. A brief summary of award winning efforts follows. The entire award narrative and contact information for each company is available by requesting a copy of the Governor's Award Brochure from FET at www.fetinc.org

GE Healthcare Renewable Resources was recognized for extensive take-back and recovery and recycling program for used electronic equipment that GE manufactures to support the medical diagnostics industry. In 2005, GEHC recovered and recycled about 12 million pounds of equipment which increased to 15 million pounds in 2006 after it moved to the Oak Creek location. In addition to diagnostic equipment, computers, workstations, servers and related support equipment are also recycled after being reviewed for serviceable parts that can be reused in older systems. The metals and other materials recovered from the scrapped equipment essentially fund the operation.

Miller Compressing was recognized for many improvements in operations in recent years. The main project recognized in the award included their efforts to improve the quality of the scrap materials they recycle as the 15th largest recycler of metals in the US. While reducing overall wastes from incoming nonconforming materials by 67% they also were able to eliminate 100% of the hazardous waste they were generating, saving \$50,000 annually, according to their citation. In addition they completed a project to clean and recycle process water used in a heavy media separation process at the facility in Milwaukee.

Polaris Company was recognized for the extensive and technically difficult projects they implemented to replace liquid spray coating with powder coating of their high temperature components used on their power sports products. The powder coating project and the subsequent energy savings, water conservation and waste reductions that they achieved were outstanding. The annualized savings expected when remaining products are switched to the high temperature powder coating should exceed \$350,000 each year for the company according to their award citation.

Contact FET at www.fetinc.org for the full write-ups on these outstanding companies and if you know of a company that has excelled in environmental performance we encourage you to submit them for an award in 2008 by completing a nomination through FET by December 1, 2007.

On-Site Renewable Energy in Green Buildings

Sherrie Gruder

Buildings consume approximately 70% of the electricity produced in the US (US DOE Buildings Energy Databook, 2003). As a result, buildings, both commercial and residential, are responsible for approximately 48% of green house gas emissions in the U.S. The majority of those emissions or 30% come from burning fossil fuels to operate the buildings.

The good news is that over 50% of our energy and half of our greenhouse gas emissions can be met by energy efficiency and renewable energy* according to a study commissioned by the American Solar Energy Society entitled *Tackling Climate Change in the US* (www.ases.org , January 2007). The ASES findings are that "Of the total carbon reductions possible, 57% are due to energy efficiency and 43% are from renewables".

Therefore, architects, engineers, developers and owners can help make a significant difference by designing and building buildings that are highly energy efficient and that include on-site renewable energy as part of their integrated energy design. To illustrate how this is successfully being done in Wisconsin and the Midwest, read the On-Site Renewable Energy in Green Building: Case Study Compendium. This compendium contains 16 case studies of LEED and non-LEED green building projects. Technologies include solar electric, solar hot water, solar air, wind, geothermal heating and cooling, biomass, passive solar, fuel cell and zero net energy design.

On-Site Renewable Energy in Green Buildings: Case Study Compendium can be accessed on the SHWEC web site at www.shwec.uwm.edu and on the Focus on Energy web site at www.focusonenergy.com/reliterature. It was compiled by UW-Extension for Focus on Energy. A companion fact sheet entitled *Renewable Energy in LEED Projects* is also posted on the Focus on Energy site.

New State Wind Map

Sherrie Gruder

If you want to know whether your site is a good one for generating renewable energy from wind, new Wisconsin wind maps are now available for your use. This is a useful tool for individuals, utilities, wind farm developers, communities and wind site assessors. To view the maps go to the Focus on Energy web site:

<http://focusonenergy.com/page.jsp?pageId=1091> . For questions contact



[Focus on Energy](#), 800-762-7077

Almost all the proposed WI wind farms are clearly sited in windy areas, although that is not the only criteria. For instance, the Montfort Wind Farm is not in the top category of windy areas, but the rural Montfort community welcomed the project.

The maps were funded by a cooperative effort between Focus on Energy, We Energies and the DOA - Division of Energy.

Wisconsin Air Regulatory Update.....

Excerpts from: Kevin Kessler, Director, Bureau of Air Management

Mercury Rule: Revisions to the state mercury rule, Chapter NR 446, were presented to the Natural Resources Board at their March 2007 meeting. The proposed rule and related documents are posted at <http://dnr.wi.gov/org/aw/air/reg/mercury/camr.htm>. The proposed rule revisions adopt requirements in the federal Clean Air Mercury Rule. The DNR received a citizen petition on the mercury rules and in response to that petition, DNR is proposing that the rules do not allow Wisconsin utilities to participate in the federal trading program.

Ozone Re-designation Request: DNR is preparing a request to U.S. EPA to re-designate eight counties in southeast Wisconsin from "non-attainment" to "attainment" with respect to the 8-hour ozone standard. The draft 8-hour ozone re-designation request documents for the eight counties in the "What's New" section of the Air Management web page at <http://dnr.wi.gov/org/aw/air/>. The public hearings for these re-designations will be held in late April.

Public Comment Period Extended on BART Rules: In response to public requests, the DNR has extended the public comment period by three weeks on the Best Available Retrofit Technology (BART) rules. The revised public comment deadline is April 9th. Information on the proposed rules is available on the state administrative rules website at:
<https://apps4.dhfs.state.wi.us/admrules/public/Rmo?nRmold=683>.

EPA News Releases and Updates.....

EPA Announces Earliest Release of TRI Data

EPA announced March 22nd that the latest Toxic Release Inventory (TRI) full national data is available for local communities and national analysis. Facility-specific data was released last September. The TRI Data for 2005 is located at the following internet link: <http://www.epa.gov/tri/tridata/tri05/index.htm>. Approximately 95 % of the 23,000 facilities used electronic reporting which helped make the information available faster than in previous years. You can download (large file of 21 pages) by clicking on the following [Summary of Key Findings: \(PDF\)](#) to look at key findings of 005 TRI data.

TRI tracks the chemicals and industrial sectors specified by the Emergency Planning and Community Right to Know Act of 1986 and its amendments. The Pollution Prevention Act (PPA) of 1990 also mandates that TRI reports must include data on toxic chemicals treated on-site, recycled, and burned for energy recovery. For more information about TRI go to: <http://www.epa.gov/tri/>

EPA to Revise Definition of Solid Waste

March 16th EPA announced that it is proposing to modify the definition of solid waste rules to streamline regulation of hazardous secondary materials. The proposed rule would provide for the recycling of such materials as solvents, metals, and certain other chemicals. EPA estimates that streamlining the management of secondary materials in a cost efficient but safe manner will result in an average cost savings of \$107 million a year from both reduced regulatory burden and increased recycling.

The proposed rule provides exclusions for:

- materials that are generated and reclaimed under the control of the generator;
- materials that are generated and transferred to another person or company for reclamation under specific conditions; and
- materials that EPA deems non-waste through a case-by-case petition process.

The proposal also defines legitimate recycling to ensure that only legitimate recycling activity benefits from the streamlined requirements, not treatment or disposal under the guise of recycling.

EPA estimates about 4,600 facilities handling more than half a million tons of hazardous secondary materials annually may be affected by this proposed rule. The industry sectors that could be most affected are chemical manufacturing, coating and engraving, semiconductor and electronics manufacturing, pharmaceutical manufacturing, and the industrial waste management industry.

EPA is accepting comment on this proposal for 60 days following publication in the Federal Register. The docket number is EPA-HQ-RCRA-2002-0031 and is available for public viewing. More information on proposed regulation is available at : <http://www.epa.gov/epaoswer/hazwaste/dsw/abr.htm>

New Framework for Assessing Metals Risks

Many EPA programs make decisions on regulation of metals, particularly controlling releases to the environment and establishing acceptable levels in air, water, or land. EPA has developed a new document final Framework for Metals Risk Assessment which outlines key principles about metals which will be considered in conducting human health and ecological risk assessments. Topics addressed in the framework include: principles for conducting metals risk assessments, environmental chemistry and fate and transport, and assessments related to human health, aquatic life, and land issues. The framework is not a mandate on exactly how a particular program must conduct its assessments, but provides a set of key principles that will be useful in preparing assessments. To view the Framework for Metals Risk Assessment: <http://www.epa.gov/osa/metalsframework>

U.S. Aims to Accelerate Phase Out of Ozone Damaging Chemicals

March 15th EPA announced that the United States has submitted a proposal to adjust the Montreal Protocol, accelerating the phase-out of ozone damaging chemicals. The proposal includes four elements that can be considered individually or as a package:

- 1) Accelerate the phase-out date of hydrochlorofluorocarbons (HCFCs) by 10 years
- 2) Add interim reduction steps
- 3) Set an earlier baseline
- 4) Phase out the most damaging HCFCs to the ozone layer as the first priority

These proposals would accelerate existing efforts to address ozone layer protection, cleaner air, and climate change by phasing out HCFC more quickly. This year marks the 20th anniversary of the signing of the Montreal Protocol. For more information about the proposal:

<http://www.epa.gov/ozone/intpol/montprotocolamend.html>

EPA Seeks Public Comment on Lead-Safe Work Practices

EPA is also seeking public comment by April 16th on the proposed work practice standards to reduce exposures to lead hazards in light of two new lead dust studies. Once the agency reviews the public comments, it will determine if any changes to the proposed rule are warranted. The studies include "Characterization of Dust Lead Levels after Renovation, Repair, and Painting Activities," by the EPA and a second study conducted by the National Association of Home Builders, "Lead-Safe Work Practices Survey Project." For more information about the two new studies on lead-safe work practices:

<http://www.epa.gov/lead/pubs/renovation.htm>

EPA Seeks Data for Remaining Air Toxics Risks from 22 Industry Sectors

On March 26, 2007 EPA announced that it is soliciting public comment on data the agency intends to use in analyzing risks from air toxics emitted from 22 industrial sectors. EPA will use the data to conduct risk analyses to determine if additional standards are needed to address remaining risks from the 22 sectors. In addition, EPA will perform a technology review for each sector. Following review of comments received, EPA plans to update the data, as appropriate, and estimate remaining risks. EPA will accept comments for 60 days following publication of the notice in the Federal Register. For more information go to:

http://www.epa.gov/ttn/oarpg/t3/fact_sheets/RTRphsIIanpr.html

EPA Performance Track Program Reaches 470-Member Mark

EPA announced March 6, 2007 that 55 new facilities have joined the National Environmental Performance Track program. The partnership program recognizes facilities that set three-year goals for continuous improvements in environmental performance beyond their legal requirements, have internal systems in place to manage their environmental impacts, engage in local outreach about their performance and publicly report results.

Since the 2000 inception of the program, membership has grown to 470 members in 46 states and Puerto Rico. To date, Performance Track members have collectively reduced their water use by 3.5 billion gallons, reduced their greenhouse gas emissions by 88,000 metric tons of carbon dioxide equivalent, and conserved more than 14,000 acres of land while helping to protect their local and national environment.

Performance Track facilities must meet all environmental regulatory requirements and typically make four additional commitments to the environment (small facilities make two). For more information on the Performance Track program: <http://www.epa.gov/performance-track> and for information on the new Performance Track members: <http://www.epa.gov/performance-track/round13PTFacilities.htm>

Small Businesses: Big Payoffs in New Technologies for America

EPA recently announced \$2.52 million in contracts to 36 small businesses to develop new technologies that will protect human health and the environment. Recipients of the awards will research issues that range from protecting the Great Lakes to homeland security to nanotechnology and more. The awards were given to businesses in 22 states under EPA's Small Business Innovation Research (SBIR) program. SBIR was established to ensure that new technologies are developed to solve priority environmental problems. EPA is one of 12 federal agencies that participate in the SBIR program. EPA will be accepting new applications from March 15 to May 23, 2007. For more information go to:

<http://www.epa.gov/ncer/sbir> and for a list of all SBIR awards and more information about each project: <http://www.epa.gov/ncer/sbir/07awards>.

Events, Training, Workshop and Tour Opportunities

April 19, 2007; **Wisconsin DNR Solid Waste Interested Parties Meeting** –10:00 am to 3:00 pm, Lussier Family Heritage Center at 3101 Lake Farm Road, Madison. The DNR will provide interested stakeholders information related to the Waste and Materials Management Program. Contact: Jack Connelly, Solid Waste Program Coordinator 608-267-7574.

May 3-5, 2007; **ASHRAE Region VI Chapter 2007 Regional Conference**, Monona Terrace, Madison. Technical program open to all building industry professions. Opportunity to learn from the leading industry experts in sustainable design and energy efficiency.
<http://www.ashraemadison.org/crc2007.htm>

May 14-16, 2007; **DECON '07 The Buildings Materials Reuse Association** Conference, UW Campus, Madison. Talks and discussion on deconstruction, building materials reuse, and C&D debris recycling.
<http://www.union.wisc.edu/bmra/>

June 15-17, 2007; **MREA 18th annual Renewable Energy and Sustainable Living Fair**, Custer, WI. For more information or to resister go to http://www.the-mrea.org/energy_fair.php or contact the Midwest Renewable Energy Association at 715-592-6595 Fx: 715-592-6596 info@the-mrea.org