



# LINK

**The Newsletter of the Great Lakes Regional  
Pollution Prevention Roundtable (GLRPPR)**



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## **MNTAP REPORTS 2007 ACHIEVEMENTS**

MnTAP recently prepared their 2007 Environmental Benefits Report, which highlights successes for the past year. Among these successes, MnTAP facilitated pollution prevention and energy efficiency projects through their intern program, materials exchange, and site visits/teams.

During the summer of 2007, MnTAP sponsored nine intern projects. In addition to supporting those projects, MnTAP staff continued to work with intern companies from 2004 through 2006. This work resulted in pollution prevention of 33,400 pounds of waste, conservation of 4.4 million gallons of water, and energy reduction of 12.8 million kWh and 99,400 therms. These reductions equate to first-year savings of \$992,000 for the companies.

The Minnesota Materials Exchange Alliance, which includes MnTAP and seven local exchange sites, exchanged 426,800 pounds of waste. These exchanges saved companies \$252,000.

MnTAP staff members continued to conduct site visits, resulting in a reduction of 1,186,300 pounds of waste, conservation of 2.5 million gallons of water, an energy savings of 4.4 million kWh and 286,200 therms, and a cost savings of \$679,600.

Energy efficiency efforts have been thoroughly integrated into MnTAP's pollution prevention technical assistance services. Of the total reductions realized through intern projects and site visits, energy conservation resulted in the reduction of 17,092,400 kWh and 385,600 therms, with corresponding carbon dioxide emission reductions of 42 million pounds per year and cost savings of \$402,400.

## **BENCHMARKING MINNESOTA'S ETHANOL INDUSTRY**

MnTAP recently conducted a study of Minnesota dry mill ethanol facilities to develop benchmarks relative to energy use, air emissions, water quality, and water use. Ethanol Benchmarking and Best Practices summarizes the variability across Minnesota ethanol plants in terms of resource efficiency.

This study was developed to provide examples of pollution prevention and energy efficiency best practices that have been implemented at ethanol plants rather rapidly, and have resulted in significant change, particularly in newer facilities. Overall, the report provides information regarding the production process, determines the potential for improvements in the use of resources including energy and water, and evaluates the opportunities to reduce environmental impacts.

MnTAP will use the information about the challenges faced by dry mill facilities when attempting to conserve resources as an educational tool for those outside the ethanol industry. Additionally, MnTAP is targeting ethanol plants for technical assistance efforts and intern projects to help the plants begin achieving their resource reduction goals.

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## REDUCING WATER USE TO AVOID SAC AND WAC CHARGES

McLean Thermal of Champlin, Minnesota, designs and manufactures cooling systems for electronic enclosures. During 2006, the manufacturer was given the opportunity to avoid one-time service availability (SAC) and water access charges (WAC) of \$23,500 if they reduced water usage by at least 700,000 gallons per year. The company also was facing increased chemical and labor costs associated with the frequent replacement of their cleaning chemicals. McLean determined that the costs of not reducing water and chemical usage were too great.

In 2007, McLean hosted an MnTAP intern who researched ways of reducing heat, chemical, and water waste on the paint line pretreatment processes. McLean believed that finding a better system to handle the soils accumulation in the cleaner stage would reduce the frequency of the tank cleaning and extend the life of the cleaner. Additionally, finding a better use of the rinse water also had potential to reduce water and sewer costs.

To realize water savings, the MnTAP intern investigated ways that McLean Thermal could reuse water in the cleaning process, discontinue using city water in one stage of the process, and reduce the tank cleaning frequency. The intern also worked with McLean to extend the life of its bath in the cleaning process by adding a new filtration system. Finally, the intern investigated the temperature of the iron-phosphatizing bath and determining it was higher than necessary, recommended lowering it to reduce energy use and costs.

By implementing the procedural and equipment changes from the MnTAP intern project, McLean Thermal anticipates an annual reduction of 1,380 gallons of chemicals, nearly 1.9 million gallons of water, and 2,600 therms of natural gas. Additionally, the company will avoid one-time SAC and WAC charges of nearly \$25,000 and will continue to realize an annual cost savings of \$20,000.

The full summary of this intern project is available on MnTAP's Web site at <http://mntap.umn.edu/paint/pretreat.htm#07IS.McLean.2007.pdf>.

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## NEW HOUSEHOLD AND CONSUMER P2 FACT SHEETS

The Ohio EPA Office of Compliance Assistance and Pollution Prevention has recently completed seven household and consumer fact sheets regarding typical wastes found in a home.

Handling Used Oil from Your Home (HC1)

[www.epa.state.oh.us/ocapp/p2/pdf/HC1web.pdf](http://www.epa.state.oh.us/ocapp/p2/pdf/HC1web.pdf)

Handling Gasoline, Kerosene, Diesel Oil and Heating Oil from Your Home (HC2)

[www.epa.state.oh.us/ocapp/p2/pdf/HC2web.pdf](http://www.epa.state.oh.us/ocapp/p2/pdf/HC2web.pdf)

Household Batteries (HC3)

[www.epa.state.oh.us/ocapp/p2/pdf/HC3web.pdf](http://www.epa.state.oh.us/ocapp/p2/pdf/HC3web.pdf)

Lead-Acid Batteries Generated from the Home (HC4)

[www.epa.state.oh.us/ocapp/p2/pdf/HC4web.pdf](http://www.epa.state.oh.us/ocapp/p2/pdf/HC4web.pdf)

Pesticides (HC5)

[www.epa.state.oh.us/ocapp/p2/pdf/HC5web.pdf](http://www.epa.state.oh.us/ocapp/p2/pdf/HC5web.pdf)

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Storing and Disposing of Paint from Your Home (HC6)

[www.epa.state.oh.us/ocapp/p2/pdf/HC6web.pdf](http://www.epa.state.oh.us/ocapp/p2/pdf/HC6web.pdf)

Electronic Equipment from Your Home...Don't just throw it Away (HC7)

[www.epa.state.oh.us/ocapp/p2/pdf/HC7web.pdf](http://www.epa.state.oh.us/ocapp/p2/pdf/HC7web.pdf)

Additional information is available by contacting the Ohio EPA Office of Compliance Assistance and Pollution Prevention at 800-329-7518.

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## MARK YOUR CALENDARS!!

The 2008 Spring GLRPPR Meeting will be held in conjunction with Region 7's meeting in Omaha, Nebraska on April 9 - 11. For meeting updates, visit <http://p2ric.org/Roundtable/2008SpringAgenda.cfm>.

## THREE NORTHWEST INDIANA COMMUNITIES COMMIT TO CLEAN COMMUNITY CHALLENGE

Three Northwest Indiana communities are improving municipal operations to further protect the environment. La Porte, Crown Point, and Michigan City are taking the CLEAN Community Challenge.

CLEAN is the Indiana Department of Environmental Management's (IDEM) Comprehensive Local Environmental Action Network. Each of the three communities will implement quality of life plans that achieve greater environmental protection; increase government efficiency while reducing costs; and improve environmental awareness and communication throughout local government.

"These communities are reducing their environmental impact significantly," said IDEM Commissioner Thomas Easterly. "Their work is exemplary."

Each community's quality of life plan identifies at least five environmental improvement initiatives they will work on during their three-year designation.

- Michigan City's environmental improvement initiatives include: a tire retread program to reduce waste tires; installing salt spreader controls for more efficient use of road salt and salt brine; improved salt storage and spreader loading practices; signage to increase awareness of storm water outfalls; non-motorized pedestrian trail development; and, development of a forestry program to plant 250 trees annually.
- Crown Point's environmental improvement initiatives include: cardboard and fluorescent bulb recycling for city operations; improving containment procedures for used batteries, antifreeze, oil, radiators, and mosquito control products; developing educational materials to increase the residential recycling rate; and, implementing an environmentally-preferable purchasing program to increase the purchase of environmentally-friendly products by 10 percent.
- La Porte's environmental improvement initiatives include: increasing annual leaf recycling by 10 percent; decreasing fossil fuel usage by 15 percent; reducing consumption of natural gas and electricity by 5 percent; purchasing 10 percent more environmentally-friendly products; and, implementing employee training to improve the management of chemicals.

CLEAN Communities receive plaques and street signs denoting their status as CLEAN communities. In addition to public recognition, the communities will have greater opportunity to obtain grants and loans from IDEM and partnering state agencies, including the Indiana Department of Natural Resources, the Indiana Department of Transportation, and the Indiana Finance Authority.

More about the environmental efforts being made by these and other communities is on the Web at [www.cleancommunities.IN.gov](http://www.cleancommunities.IN.gov).

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## IDEM AWARDS POLLUTION PREVENTION GRANTS AND OFFERS MORE

The Indiana Department of Environment (IDEM) is supporting leaders in pollution prevention by awarding over \$120,000 of grant money to Indiana organizations.

The Indiana Pollution Prevention (P2) Grant Program, an initiative of Governor Mitch Daniels, encourages Indiana organizations to implement pollution prevention projects at facilities or in communities.

The grants, ranging from approximately \$15,000 to \$60,000, will help the recipients reduce volatile organic compound (VOC) emissions, distribute reusable grocery bags, and reduce waste generation from metal finishing processes.

The following is a description of the projects being funded during this grant round:

- Church Brothers Collision Repair (Marion County): \$63,584 to convert four of its locations to use a waterborne basecoat instead of a higher volatile organic compound(VOC) content coating, reducing the amount of VOC emissions.
- The Muncie Sanitary District (Delaware County): \$45,000 to purchase and distribute reusable grocery bags and to measure the amount of disposable bags that are saved at local grocery stores.
- Nimet Industries, Inc. (St. Joseph County): \$14,933 to purchase an Electroless Nickel Dialysis in order to reduce waste generation from their metal finishing processes.

Projects that are eligible for P2 grants include: manufacturing processes such as switching to powder coating; changing product design to produce less waste; changing a process so less cleaning solvent is required; and implementing green purchasing programs in schools or municipalities.

Applications and more information are available on the Web at [www.idem.IN.gov/prevention/p2grants](http://www.idem.IN.gov/prevention/p2grants) or by calling 800-988-7901.

Indiana's Pollution Prevention program encourages and helps projects that conserve energy, reduce waste and prevent pollution. Indiana businesses and organizations are encouraged to apply for grants. Most grants require a 50 percent match. Reduced match requirements are available for women and minority business enterprises, small businesses, and members of the Environmental Stewardship Program and the Indiana CLEAN Community Challenge.

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## WESTCHESTER COUNTY'S AIRPORT ENVIRONMENTAL MANAGEMENT SYSTEMS



Ten years ago, Westchester County was one of over 80 governmental agencies and environmental groups to sign an historic Memorandum of Agreement to protect New York City's drinking water supply for 9 million New Yorkers without compromising the economic vitality of the watershed communities.

New York City's drinking water supply watershed provides water to one of the most important cities in the world and to many Westchester communities. Because water quality issues go beyond the political or geographical boundaries of any one municipality or agency, many governmental agencies must work together to protect water quality throughout the watershed.

The New York City watershed covers an area of over 1,900 square miles in the Catskill Mountains and the Hudson River Valley. The watershed is divided into two reservoir systems: the Catskill/Delaware watershed located west of the Hudson River and the Croton watershed, located east of the Hudson River.

The Kensico Reservoir is located in Westchester County and is the final stop for 90% of New York City's drinking water supply before it enters the water tunnels that carry it to household faucets.

## Coming Soon...Spring 2008 Edition

The LINK spring 2008 article solicitation will be sent to GLRPPR members via e-mail on or about March 3; articles will be due March 31. Send article ideas or questions to Wayne Duke at [wduke@wmrc.uiuc.edu](mailto:wduke@wmrc.uiuc.edu).

The two reservoir systems deliver approximately 1.4 billion gallons of water each day to the people in New York City, areas of Orange, Putnam, and Ulster Counties, and much of Westchester County. The Westchester County Airport Environmental Department coordinates with the New York City Department of Environmental Protection (DEP), which is charged with protecting the water quality of the Kensico Reservoir along with the rest of the New York City water supply system.

About one third of the northern portion of the airport is located within the Kensico watershed; therefore, the airport's water quality protection program is critical.

Westchester County Airport is the third in the nation to be certified by the ISO 14001 Standard. The airport's ISO certified Airport Environmental Management System (AEMS) includes all activities at the airport, a 703-acre facility owned by Westchester County, providing corporate aviation, light general aviation, and commercial airline services with related aviation support facilities.

A significant part of the AEMS is the plan to protect waterways surrounding the airport from polluted runoff caused by chemicals such as fuel, oil, grease, and de-icing fluid. To minimize these potential environmental impacts, the county installed AbTech Industries' catch basin inserts in the critical storm drains. The program started in 2002 with 18 Ultra-Urban® Filters. Because of the success of this pilot program, there are 54 in place today. The catch basin inserts that have been installed in critical storm drains surrounding the airport use a filtration material, called the Smart Sponge®, which comprises a blend of polymers that effectively absorbs contaminants from water.

Smart Sponge technology has a unique molecular structure based on polymer technologies that are chemically selective to hydrocarbons. Polymers are composed of molecules that chemically react to form large molecules. The non-leaching Smart Sponge permanently bonds with oil, gasoline, and grease, transforming these liquid petroleum hydrocarbons into a manageable solid waste that forms a gel-like structure. The filtration material is recyclable and provides a complete, closed-loop solution for removing pollutants from water. The filter comes in two standard designs; one a modular unit geared toward curb inlet openings, and the other, a single unit designed for typical drop-in catch basin drains.

The Smart Sponge® technology comprises a blend of polymers that effectively absorbs contaminants from water. The county targeted critical storm drains—curbside, roadside, along taxiway areas, and on the open tarmac. When spills occur within these areas, the filters are used as a first line of defense. Each filter can handle 5 to 8 gallon spills, which suits the airport's needs because most spills at the facility are less than five gallons.

Michael Parletta, Westchester County Airport's Environmental Officer said that another advantage of the filters is that they are easy to replace and easy to monitor. "We can physically see the filters and can determine the remaining capacity by lifting them out, cleaning out the sediment, and weighing them."

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## **GREEN 4-H CENTER OPENS ON OHIO STATE CAMPUS**

On January 2 faculty, staff and student workers began moving into the new Nationwide and Ohio Farm Bureau Ohio 4-H Center on the Ohio State University campus. The first stand-alone 4-H center on a university campus, the facility was built to the specifications of the national Leadership in Energy and Environmental Design program and is the first "green" building on the OSU campus. The building's green features include a geothermal heating and cooling system, reflective roof, recycled materials, and a building and window design that will rely heavily on natural light. Officials estimate that the 4-H center will save 30 percent on heating and cooling costs. The official ribbon-cutting ceremony and building dedication is set for April 4, 2008. Additional information is available by contacting the Ohio EPA Office of Compliance Assistance and Pollution Prevention at 800-329-7518.

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### **FINE PRINT**

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