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The City of Toronto is a leader in recycling. All containers, paper, and organic waste (food scraps, animal waste) is collected from each residence at the curb. The remaining waste has been transported to a landfill in Michigan. In the next few years, the city will no longer have access to the Michigan landfill, and is looking at different options for waste management. We thought this op-ed letter to the Toronto Star, written by Patrick Moore, a Greenpeace co-founder, was right on target. Mr. Moore gave us permission to reprint his letter in WasteWatch.

February 26, 2007
Waste not ...
PATRICK MOORE

While it may be a long way from sexy environmental solutions like hybrid cars and gently spinning turbines of pastoral wind farms, the importance of managing our waste is a central piece of Canada's sustainability puzzle. The fact is, there is a real need for Canadians to update their views on waste and what we should do with it.

After all, we produce more than 30 million tonnes of waste in a year. Thirty-one per cent of it comes from the residential sector while 69 per cent comes from the industrial, commercial and institutional sector and the construction and demolition sector. We need to take better responsibility for it.

The first view we should update has to do with the word "waste" itself. There is value to be found in the so-called waste stream – not in all circumstances, but enough to require a flexible, holistic approach to maximize the stream's value.

Integrated waste management (IWM) is a new take on dealing with unwanted waste. The notion is that we need to combine waste streams, waste collection, diversion and disposal methods so that we can achieve environmental benefit, economic value and community acceptance.

For example, the majority of a typical waste stream contains glass, metals and carbon-based organics (wood and paper,

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Recycling Survey Reveals Surprising Results

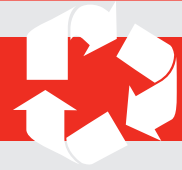
As you may know, we've invested a lot of effort and money on recycling programs over the past few years. Are these programs working?

Pinnacle Communications in Baltimore developed a telephone survey to measure the recycling programs' effectiveness. The random survey was recently concluded and the results in some areas are surprising.

Pinnacle's team of researchers spoke with 698 residents from each of our member counties and Baltimore City. The number of surveys conducted in each municipality was determined by population. The average respondent was the head of the household, and 41-60 years of age. Most respondents (65 percent) were female. Homeowners comprised 90 percent of the respondents, and 65 percent were married.

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Recycling Survey Reveals Surprising Results



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The participants were asked a series of questions relating to waste management and residential recycling. The responses were separated by municipality in order to learn about and provide specific details to each jurisdiction.

Overall, the survey results indicate that residential recycling in our member jurisdictions is highly visible and successful. The respondents reported that 69 percent of recyclables generated in the home are placed curbside.

When asked if they believe their individual recycling efforts make a difference, an astounding 79 percent feel that they do. When asked if they believe there is a landfill space problem in Maryland, 46 percent of those surveyed said “yes,” 25 percent said “no,” and 27 percent were unsure. Overall, 65 percent agree that recycling reduces garbage collection costs.

When asked about their motivation to recycle, 72 percent reported that the motivation is generated within their own households, while 47 percent are

inspired because of neighbor or peer pressure. When asked if reducing their volume of garbage generation is a factor in recycling, 54 percent of those who responded said it is, while 43 percent said it is not a factor. Most respondents reported that recycling is easy, with 77 percent saying that recycling is convenient, 70 percent finding the schedule easy to follow and 73 percent finding the collection frequency adequate.

Another goal of the survey was to find out how the general public feels about recycling bins or containers. Over half (55 percent) of the respondents prefer a container larger than the standard 18 gallon bin, while 20 percent feel their current container size is adequate. When asked about the features of containers, 67 percent prefer a container with a lid, and 68 percent prefer wheels. Other interesting results: 69 percent do not believe storing recyclables causes odors or attracts pests, and 67 percent have found a convenient place to store their recyclables.

The survey included several questions to determine the effectiveness of current

recycling education materials. When asked if they open mail received from their municipality, 76 percent said they do, and 39 percent recalled receiving recycling education material during the past year. On average, 67 percent believe that the educational material they receive is adequate. Interestingly, if you have ever wondered if the general public believes that recyclables collected are in fact being recycled, our survey results showed that 72 percent believe that they are.

Most importantly, when asked if they believe in recycling, 93 percent of the survey respondents said, “Yes, I believe!”

Significantly, an overwhelming 80 percent of respondents feel that waste-to-energy facilities are a better alternative than sending trash to landfills.

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petroleum-based materials like plastics, plus food and yard waste).

Blue-box programs separate out some glass, metal and paper products from the waste stream. Composting might shrink the amount of yard and food waste. Currently, even after such diversion, more than 50 per cent of residential waste and 75 per cent of commercial waste ends up in waste disposal.

And while we all must continue reducing the quantity of materials that enter the stream in the first place and divert more (through reduction, reuse and recycling), nevertheless 30 million tonnes is a lot of material. What should we do with it?

Recovery strategies are becoming an important part of a menu of strategies for minimizing waste, whether it is achieved through composting organic waste into fertilizer, or burning waste materials or capturing gas from landfills to produce heat and electricity, also called waste derived energy.

A flexible approach to managing our waste disposal might see the recovery of energy from all carbon-based materials that are unsuitable for recycling.

In situations where burning for energy recovery is not the best approach, the methane captured from landfills can be converted into electricity or alternative

gas and used as a new energy source. In both these cases, burning for energy and converting landfill gas can provide new energy sources that offset carbon dioxide emissions resulting from traditional fossil-fuel energy sources such as coal and gas.

Given the level of public interest in CO₂ emissions reduction as a means of guarding ourselves against the effects of a warming planet, the benefits of this approach are clear.

Dr. Patrick Moore is a Greenpeace co-founder and chairman of Greenspirit Strategies Ltd. in Vancouver.

Recent Reports from Europe

German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety: Waste Incineration- A Potential Danger?

“In the eighties of the previous century, waste incineration plants (WIPs) came to be the symbol of environmental contamination. Citizens were beginning to put up a fight against the throwaway society and “dioxin spouting” on the outskirts of cities. That protest was a success. Today, more than half of all household waste (55%) is recycled as bio-waste, waste paper, waste glass, or packaging waste. Since June 1, 2005, untreated waste is no longer landfilled. And because of stringent regulations,

waste incineration plants are no longer significant in terms of emissions of dioxins, dust, and heavy metals. And this still applies even though waste incineration capacity has almost doubled since 1985 (see table).”

UMEA University (Sweden) Department of Chemistry Professor Stellan Marklund: Dioxins and the Eco-cycle

“The entire world is contaminated with Persistent Organic Pollutants (POPs) and we can find them almost everywhere from the penguins in Antarctica to the polar bears at the North Pole. They have their origin from anthro-

pogenic sources and even if most of them are regulated today, we still cannot see any decline in the environment. Sooner or later they will end up in the waste stream.

Municipal solid waste that reflects the society we are living in contains several POPs. Dioxins are one among several other groups. Regardless of whether the waste is reused or recovered as material or fuel or is composted, the aim must be to remove these pollutants from the eco-cycle and prohibit further contamination. In most non-destructive recycling methods such as composting and material recycling the dioxins remain and even concentrate.”

Waste-to-Energy in Germany

Year	Number of Waste-to-Energy Plants in Germany	Capacity, in 1,000 tons per year (1,000 t/a)
1965	7	718
1970	24	2,829
1975	33	4,582
1980	42	6,343
1985	46	7,877
1990	48	9,200
1995	52	10,870
2000	61	13,999
2005	66	16,900
2007	72	17,800

Source: Federal Environmental Agency, 2005

For more information on facilities in Europe go to www.cewep.eu.

Florida Waste-to-Energy Facility to Expand

Hillsborough County, Florida has awarded the design and construction of a 50 percent capacity expansion of the Hillsborough County Waste-to-Energy Facility near Brandon. The 600 ton per day (TPD) capacity expansion to the existing county-owned 1,200 TPD waste-to-energy facility will be built and operated by Covanta Hillsborough, Inc., an operating subsidiary of Covanta Energy Corporation.

Under the terms of the extension operations and management agreement,

Covanta will operate both the expansion and the original facility, which Covanta has been successfully operating since 1987, for another 20 years. The facility serves as an integral component of the comprehensive solid waste management plan of Hillsborough County. As outlined in the terms of the extension agreement, Covanta will operate and maintain the expanded facility through 2027 to deliver county residents with environmentally sound waste disposal and clean, renewable energy.

The county's decision to expand reinforces the strategic role waste-to-energy plays in recovering energy and materials from the waste stream to further reduce reliance on landfilling. Hillsborough County recognizes that climate change is a real and growing challenge, and data has shown that modern waste-to-energy facilities such as this one reduce greenhouse gas emissions by preventing methane production from waste landfills and offsetting the use of fossil fuels for energy production.

State Denied Regulatory Control of Rail Transfer Stations

In the Spring of 2005 we reported on a growing trend in the Northeast involving the placement of transfer stations next to railroads in order to circumvent environmental regulations and permitting requirements. In 2005, the State of New Jersey fined the New York Susquehanna & Western Railway Corporation, a rail trash-transfer operator, \$2.5 million for four facilities it operated in Hudson

County, alleging the operator failed to cover trash piles, failed to keep transfer stations clean, and failed to control insects, rodents, odor and dust. A federal judge ruled last month in favor of the company, concluding that New Jersey had overstepped its bounds by trying to extend state control to trash-transfer rail facilities. The state plans to appeal the decision.



EPA's Landfill Methane Outreach Program Conference

On January 23 and 24, the EPA's Landfill Methane Outreach Program (LMOP) held its 10th Annual Conference and Project Expo at the Marriott Waterfront Hotel in Baltimore. This national conference attracted attendees from all over the United States and Canada.

Presentations highlighted the latest developments in landfill gas-to-energy projects, including the financing of landfill gas projects, development of landfill

gas recovery projects in developing countries, biodiesel, high BTU projects using pressure swing absorption technology, pipeline safety, and estimating gas generation. Case studies of several landfills that received SWANA Excellence Awards were also presented. Speakers included leading experts in the LFG arena who provided important information to those considering development of a project.

In conjunction with the conference, LMOP

hosted a Project Expo featuring information about a number of landfills that have strong potential for development of gas-to-energy projects, and landfills that already have exceptional projects in place. The Expo also featured numerous exhibits of industry consultants and vendors.

Many presentations from this and previous conferences can be found online at www.epa.gov/lmop/conf/index.

Plug-In To eCycling Partners

Plug-In To eCycling is a voluntary partnership between EPA and consumer electronics manufacturers and retailers to offer consumers more opportunities to donate or recycle - to "eCycle" - their used electronics.

Plug-In To eCycling:

- Provides consumers with information on how and where they can donate or to safely recycle old electronics, namely televisions, computers and cell phones.
- Facilitates partnerships with communities, electronics manufacturers, and retailers to promote shared responsibility for safe electronics recycling.
- Establishes pilot projects to test innovative approaches to safe electronics recycling.

Recycle your used electronics with our Plug-In Partners. Partners design and implement various approaches – either national or regional in scope – to give consumers eCycling options. They may:

- Offer online take-back or trade-in programs;
- Create partnerships with local organizations to facilitate collections;
- Host collection events at retail locations; or
- Support local recycling events with cities and municipalities.

For more information on reducing waste from electronics, please visit EPA's eCycling web site. Plug-In To eCycling is one component of EPA's Resource Conservation Challenge (RCC), a national effort to conserve natural resources and energy by managing materials more efficiently. It is also part of EPA's Product Stewardship Program.

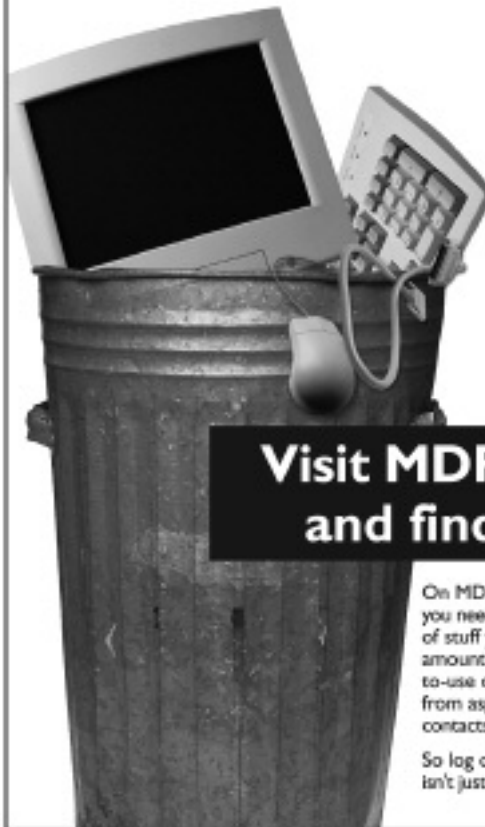
Many manufacturers and retailers have already committed to collecting, reusing, or recycling old electronics. EPA recognizes the following Plug-In To eCycling partners for their efforts:

Best Buy	Sony
HP Invent	Samsung
Lexmark	Rethink
Sharp	Cingular
Philips	JVC
Toshiba	Panasonic
Dell	Staples
Intel	Apple
Office Depot	NEC

If you are a current partner and would like to post media coverage of your Plug-In To eCycling event, please contact Verena Radulovic at (703) 605-0760.

**Just because you're
throwing it out doesn't
make it trash.**

eCycling

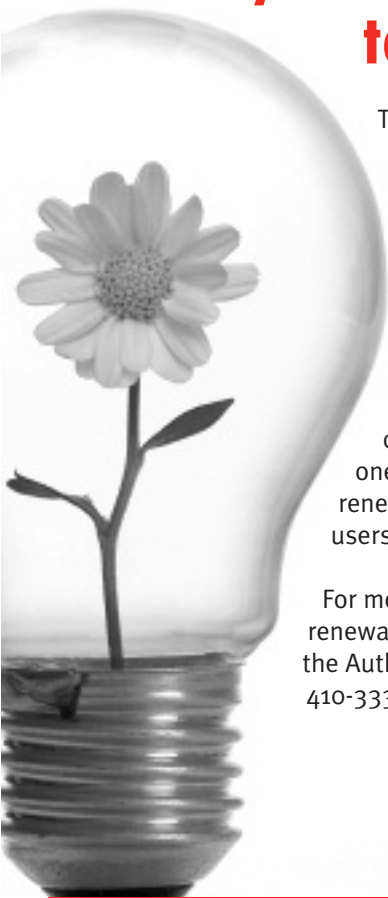


**Visit MDRecycles.org
and find out how.**

On MDRecycles.org, you'll find everything you need to know about reducing the amount of stuff you throw away and increasing the amount of stuff you recycle – plus an easy-to-use directory of recyclers of everything from asphalt shingles to zip-lock bags, and contacts for local, state and federal resources.

So log on today and find out why recycling isn't just doing good – it's doing good business.

Authority Sells "Green Power" to Mittal Steel



The Authority sold 12,500 Renewable Energy Credits (RECs) generated at the Montgomery County Resource Recovery Facility to Mittal Steel's Sparrows Point facility. The RECs being purchased, which are certified by PJM's Generation Attribute Tracking System (GATS) and by the State of Maryland, make Mittal Steel one of an increasing number of renewable energy or "green power" users in the state.

For more information on RECs or renewable energy, please contact the Authority's Steve Blake at 410-333-2730.

MARK YOUR CALENDARS

JUNE
Annual
MRC & SWANA
Conference
June 6-7
College Park, MD

It's that time of year again. Mark your calendars for the 3rd Joint Maryland Recycling Coalition (MRC) & Solid Waste Association of North America's (SWANA) Mid-Atlantic Chapter Conference. The Conference will be held at the Stamp Student Union at the University of Maryland, College Park on June 6-7, 2007. Among other things, you'll learn what's happening with the funds collected from computer manufacturers; how to re-invigorate your recycling program, what is RecycleMania and how to "Buy Your Way to a Clean Environment." Solid waste topics range from alternative energy to new conversion technologies and the coming carbon economy. You may get to tour a "Green Building" and find out why so many businesses are considering the benefits. Plan to come and network with your colleagues.



WASTEWATCH

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