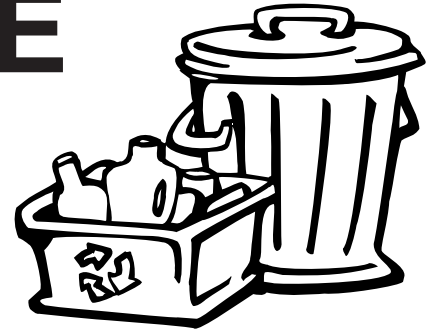




REUSABLE NEWS



First EPA Satellite Forum a Success

In September, EPA brought solid waste management information down to earth through a satellite broadcast that reached over 1,000 people at more than 100 sites across the nation. Local elected officials, solid waste planners, public works and recycling managers, finance officers, and citizens gathered at down-link sites in 23 states to learn from five national experts about pay-as-you-throw (PAYT) and full cost accounting (FCA). (See related articles on pages 8 and 9.)

One of the thorniest issues facing communities today is how to provide municipal solid waste (MSW) services in the face of increasing costs. Two tools that communities can use are PAYT and FCA. At the satellite forum, panelists provided an overview of how communities are using

(Continued on page 8)

Reducing Waste Has Global Benefits

As part of a comprehensive strategy to reduce greenhouse gas emissions, EPA is working to promote source reduction and to boost the recycling of paper and other wastes.

EPA's efforts are part of President Clinton's 1993 Climate Change Action Plan. Overall, the plan seeks to decrease annual emissions of greenhouse gases (see sidebar on page 2) by 106 million metric tons. Waste reduction is an important component of the plan. The plan strives to reduce municipal solid waste generation by five percent while at the same time increasing recycling rates by five percent over expected levels for the year 2000. EPA estimates that these actions alone could prevent more than 5



million metric tons of greenhouse gases from entering the atmosphere every year.

Waste reduction efforts can help:

- **Save energy/decrease emissions.** Source reduction reduces the overall need for virgin and recycled feedstocks, thereby lowering the energy needed to acquire and process raw and

(Continued on page 2)

WasteWi\$ Celebrates a Successful First Year

The results are in! In the first year after the program was launched, WasteWi\$e partners have achieved impressive waste reduction results. Collectively, these companies conserved nearly a quarter of a million tons of material through waste prevention and collected almost 1 million tons of

material for recycling in 1994. In addition, WasteWi\$e partners helped create stronger markets for collected recyclables by purchasing 23 different kinds of recycled products.

The goal of the WasteWi\$e program is to assist companies in

(Continued on page 3)

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Accounting • Pay-As-You-Throw •
Resources • Landfill Extension •
Using Less Stuff



Reducing Waste Has Global Benefits

(Continued from page 1)

recyclable materials. When energy demand is decreased, fewer fossil fuels are burned and less carbon dioxide is emitted to the atmosphere. Making goods from recycled feedstocks often requires less processing and energy than using virgin materials.

■ **Reduce methane emissions from landfills.** Source reduction and recycling (including composting) divert organic wastes from landfills, reducing the methane they would otherwise generate during decomposition. Methane is a potent greenhouse gas that contributes to global climate change.

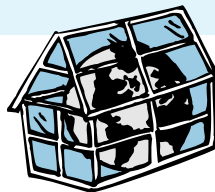
■ **Increase storage of carbon in trees.** Paper waste reduction and recycling reduce the harvest of trees. Forests store large amounts of carbon that would otherwise enter the atmosphere and contribute to the greenhouse effect.

EPA is calculating the greenhouse gas emissions associated with source reduction, recycling (including composting), incineration, and landfilling. When this research is complete, EPA will be able to estimate the reductions in greenhouse gas emissions achieved through source reduction and recycling of specific materials, including certain papers and plastics, metals, yard trimmings, and food scraps. EPA plans to use this information to target existing voluntary waste reduction programs and design future initiatives.

EPA has already launched several programs to encourage waste reduction and reduce greenhouse gas emissions, including:

- **WasteWi\$e**, a voluntary program to encourage business and industry to reduce, recycle, and buy recycled.
- **The Chicago Board of Trade** program to develop a national on-line commodity exchange for recycled materials.
- Outreach and education programs to encourage communities to adopt **unit-based pricing** (“pay-as-you-throw”) for municipal solid waste.
- Outreach and technical assistance to encourage solid waste planners to use **full cost accounting** systems to facilitate the use of good waste management practices, including source reduction and recycling.

What Are Greenhouse Gases?



Greenhouse gases absorb and trap heat that is given off by the earth's surface after being warmed by the sun. This “greenhouse effect” occurs naturally and keeps the earth warm enough to support life. Without greenhouse gases, the average temperature on earth would be 5° F instead of the current 60° F. Many scientists believe, however, that excess greenhouse gases in the atmosphere could lead to global warming and climate change.


The potential climatic changes resulting from greenhouse gas emissions include flooding of cities and land near coasts due to the melting of polar icecaps, inland drought, geographic shifts in agricultural zones, and reduction in the size of some ecosystems, which could result in the extinction of species.

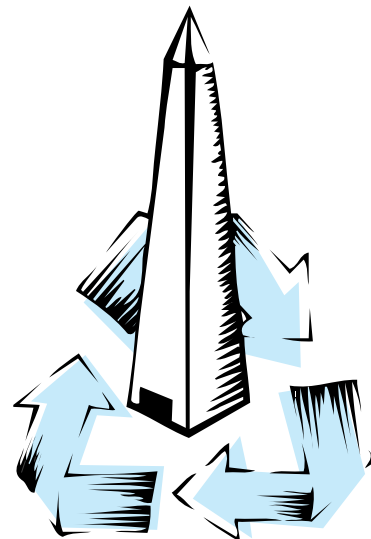
Some greenhouse gases occur naturally, while others are the result of human activities. Greenhouse gases have varying abilities to trap the earth's heat. The major greenhouse gases include carbon dioxide, methane, nitrous oxide, and chloro- and hydro-fluorocarbons.

National Park Service Closes the Loop on Used Oil

In a ceremony celebrating the use of re-refined oil in federal government vehicles, the National Park Service became the first major federal agency to use re-refined oil in its fleet. The ceremony, held on the grounds of the Washington Monument on September 26, 1995, consisted of a symbolic “changing of the oil.” The Director of the National Park Service, Roger Kennedy, and the Chief Executive Officer of Safety-Kleen Corp., which is collecting and re-refining the Park Service's oil, changed the oil in a Park Service vehicle to re-refined oil. Federal Environmental Executive Fran McPoland presided over the event.

As part of President Clinton's Executive Order 12873 on Federal Acquisition, Recycling, and Waste Prevention, all federal agencies are now required to use re-refined engine oil in passenger vehicles and light-duty trucks (see *Reusable News*, Spring 1995, for more information on this Executive Order).

For more information about the Park Service's use of re-refined oil, contact Don Filsoof of the National Park Service at 202 619-7060. 



WasteWi\$e

(Continued from page 1)

**WASTE
Wi\$E**



implementing cost-effective actions to reduce municipal solid waste, with a special emphasis on reducing waste at the source (waste prevention). Partners set goals to prevent waste, recycle, and buy or manufacture recycled products and then report their progress each year. These actions conserve materials and energy and reduce global warming gases and other emissions.

About one-third of the partners are Fortune 500 service or manufacturing firms. Spanning 35 different industry sectors, ranging from aerospace companies to grocery stores, WasteWi\$e partners are located nationwide and employ over 4.6 million people.

In addition to the partners, 30 WasteWi\$e endorsers—trade asso-

ciations and other membership-based organizations—joined the program. Endorsers champion the WasteWi\$e program to their member companies and share waste reduction information.

After one eventful year, WasteWi\$e salutes the achievements of its partners. While each partner made significant contributions to waste reduction, here are a few notable achievements:

- Through waste prevention actions, the Pepsi-Cola Company, Chrysler, Stone Container, and Xerox Corporation each eliminated 45 million to 100 million pounds of waste in 1994.
- The Procter & Gamble Company designed new packaging for cooking oil that will eliminate 2.5 million pounds of plastic and 1.3 million pounds of corrugated per year.
- NYNEX cut paper and postage costs by \$2.5 million in 1994 by printing customer telephone bills

on both sides of the page.

- Crown Cork & Seal Company, a packaging manufacturer, eliminated 48 million pounds of steel and aluminum by lightweighting its cans.
- Several partners used their substantial purchasing power to buy a variety of recycled products: *American Airlines*—\$79 million; *Bell Atlantic Corporation*—\$41 million; *DuPont*—\$80 million; *McDonald's Corporation*—\$309 million; and the *Walt Disney Company*—\$30 million.

EPA congratulates its WasteWi\$e partners on their outstanding achievements and hard work. EPA looks forward to working with existing and new partners to build on this success for even greater waste reduction results.

For more information on WasteWi\$e, call 1-800-EPA-WISE. To receive the *First Year Progress Report*, call the RCRA Hotline at 800 424-9346 or TDD 800 553-7672.

EPA Joins 2,100 Recyclers at NRC Congress

EPA sponsored 12 sessions at the 14th annual National Recycling Coalition (NRC) Congress on September 10-13, 1995. Held in Kansas City, Missouri, this year's Congress drew approximately 2,100 representatives from federal, state, and local governments and private sector organizations. EPA's sessions addressed a variety of hot topics in solid waste management, including measuring recycling rates, source reduction, and full cost accounting.

Pre-Congress sessions provided an opportunity to discuss issues in more depth than regular sessions. Enrollment was limited to 40-60 attendees per session in order to enhance participants' interaction with panel members and each other. The sessions were as follows:

- In **Full Cost Accounting (FCA) for Solid Waste Management**, a panel of state and local government representatives presented an overview of current FCA practices. Speakers explained the status of their programs and the success and obstacles they have experienced to date.
- **Measuring Recycling Rates** presented a panel of representatives from state governments and associations to discuss recycling rate measurement practices. Panelists described their views of a uniform methodology, including the advantages of keeping states from reinventing the wheel and providing opportunities for comparisons among states.
- **Reducing the Office Paper Pileup** provided an overview of prac-

tical implementation issues and priorities of paper reduction programs. Speakers also discussed behavioral approaches that companies can use to encourage employees to prevent paper waste and presented case studies of EPA's Paper-Less Office Campaign and AT&T's paper reduction program.

EPA also sponsored three sessions on source reduction that focused on ways manufacturers are reducing the packaging and toxicity of their products as well as reusing products in manufacturing designs. In addition, EPA conducted a session that highlighted local government reuse programs, which are helping reduce the amount of waste communities send to disposal. In another source reduction session, representatives from private and public sector groups discussed the latest steps businesses and local governments are taking to reduce the amount of direct mail they receive.

Additional EPA sessions provided opportunities to address other issues of concern on both national and local levels. In one forum, nationally recognized speakers discussed the most critical issues facing recycling today. Topics included environmental labeling, flow control, market development policies, and economics of recycling programs. National attempts to characterize the MSW stream, as well as approaches and obstacles to developing a national MSW/recycling database, were the focus of another session. Finally, an overview of regional, state, and tribal efforts to implement EPA's Jobs Through Recycling program was presented.

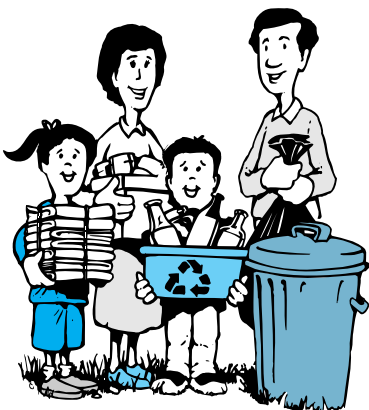


COME FULL CIRCLE



There's no doubt about it: people like recycling. A recent public opinion poll shows that both consumers and business executives want to expand recycling. According to the same poll, 19 out of 20 Americans already recycle at least one item, and nearly three-quarters of those surveyed are in favor of local mandatory recycling ordinances.

Community officials want to encourage and accommodate the increased demand for recycling, but they also have to find ways to pay for it. The long-term sustainability of recycling in a community depends upon an efficient and cost-effective program. Different communities have found different ways to make their programs work. The communities highlighted here are just two of many that are successfully providing cost-effective recycling services to citizens and small businesses.



One Allentown resident does his part in contributing to the city's high recycling rate.



Allentown Hauls in the Savings

Allentown, Pennsylvania, is proving that a cost-effective recycling program is possible. What's the secret? Volume.

From 1988, when recycling drop-off facilities were first offered, until 1994, when drop-off and curbside programs collected a full range of recyclables, the city's municipal solid waste decreased by 40 percent (63,200 tons to 38,500 tons). That's even with a 10-percent increase (3,700) in the number of households and small businesses in the city's collection system during the same period. The high participation rate (94 percent) accounts for the large amount of recyclables collected, according to Betsy Levin, manager of the Bureau of Recycling and Solid Waste.

To encourage participation, the city takes the recycling message to school classrooms and teacher training sessions. It also encourages recycling through contests, parades, street banners, and newspaper advertisements, as well as through educational brochures that are sent to all residents. The city also makes special efforts to communicate with its substantial Spanish-speaking population (13 percent).

The high participation rate (94 percent) accounts for the large amount of recyclables collected.

Banning yard trimmings from trash pickup in 1991 and offering a composting program also diverts a substantial amount of tonnage from the landfill. Residents can choose between leaving trimmings on their lawns or paying \$1.00 per bag to have trimmings collected for composting.

The city's hauler offered free collection service for yard trimmings if the city banned these materials from the landfill. Because the city contracts for three years at a fixed price for the collection of trash and recyclables, the hauler has an inherent interest in shifting the bulk of the materials

collected from trash to recyclables (one hauler collects both). Although the hauler doesn't earn revenues on recyclables (the city does), it saves money by avoiding tipping fees at the landfill if trash tonnage diminishes. The less trash the hauler takes to the landfill, therefore, the more money the hauler can make during the life of the contract. With decreased trash tonnage, the hauler also started using smaller trucks, which are less expensive to operate and maintain.

While the city can make money from the sale of recyclables (over \$200,000 in 1994) during the life of the contract, it also realizes savings in the cost of the collection every three years, with the start of a new contract. At that time, the city bids on a lower trash tonnage and will pay less money than the previous contract. The city's cost savings are then passed along to residents. "Our contractor has an incentive to be our partner, and the outcome is that we all save money," explains Levin.

For more information, contact Betsy Levin of Allentown's Bureau of Recycling and Solid Waste at 610 437-7582.

It Only Takes One to Tango in Loveland

In many communities across the country, solid waste managers are turning to "co-collection" as a way to streamline their services. Co-collection means using one set of trucks to collect both trash and recyclables, instead of having two separate fleets. One community that is using co-collection with success is Loveland, Colorado. This city of 45,000 people is saving \$100,000 a year on its recycling program by using this system.

In 1992, Loveland was at a turning point. The city wanted to find

an economically feasible way to start a curbside recycling program. At the same time, Loveland's trash collection trucks were worn out. This scenario provided an opportunity to completely revise the city's solid waste collection system. Mick Mercer, streets and solid waste manager for Loveland, weighed the city's options.

Mercer estimated the size of the crew and the number of trucks and stops needed to serve the city's 15,000 households for both a separate and a co-collection system.

For a separate collection system, he determined:

- It would take five trucks to collect trash.
- It would take three additional trucks to collect recyclables.
- Each truck would have a one-person crew.
- Trash and recycling trucks would run identical routes.



Loveland's co-collection trucks pick up both trash and recyclables.

For a co-collection system, Mercer determined:


- The city would need only four collection trucks.
- Each truck would have a two-person crew.

Trucks equipped to collect both trash and recyclables were more expensive than traditional trash collection trucks, but the need for fewer trucks (four as opposed to eight) more than made up the dif-

ference in cost. In fact, the total cost for co-collection trucks came out \$350,000 less than the total cost for separate trucks. Mercer spread those savings over the life of the trucks and added savings in operating and maintenance costs (such as insurance, fuel, and depreciation) and found that the co-collection system would cost \$100,000 less per year to operate than the separate system. Actual operation of the system bears out Mercer's original estimates from 1992.

A key factor in the success of Loveland's co-collection system is the location of the materials recovery facility (where the recyclables are dropped off)—right next to the landfill. Since the co-collection trucks are emptied about twice a day, the co-location of the facility and landfill saves a considerable amount of time and transportation costs.

Not only does this program save real dollars and cents, but it has environmental benefits as well. "Having trucks pass through neighborhoods once per day instead of twice cuts down on air pollution and wear and tear on the streets," Mercer points out.

For more information, contact Mick Mercer of Loveland's Streets and Solid Waste Department at 970 962-2529. 

FOCUS ON RECYCLED



1



2



3

Her hair color came from a bottle.

So did her dress.

Recycle #1 plastic bottles and they can be made into things like backpacks, tennis shoes, and yes, even high fashion.

From the trendy streets of New York to the rugged backcountry of the Rockies, everyone who's anyone is wearing the latest in "green" garments. This year's fall fashions are classy and trashy at the same time. Why? They're made out of waste.

In recent years, designers have ventured into new territory—recycling collection and processing facilities, to be specific—to find the *crème de la crème* in reusable materials. One of the most sought after recyclables, and the most recycled plastic nationwide, is polyethylene terephthalate (PET), which is looking more smashing than ever. It is being fashioned into evening gowns, sweaters, shoes, and even long johns.

Traces of the couture of the '50s, the hippie look of the '60s, the sequined disco-wear of the '70s, and punk from the '80s are returning in current fashions, but the '90s are sure to stand out in fashion history as the decade that gave solid waste a second life.



Posh Plastic

Before a plastic soda bottle or other PET container can find a new life as an article of clothing, several steps must occur. The following describes this journey.

Consumption and Collection

The story begins on an ordinary market shelf where PET bottles of soda, juice, water, salad dressing, cough syrup, and other edible and inedible products stand and await their ultimate purchase. Once the contents are imbibed, ingested, or otherwise used by consumers, the plastic bottles are dropped into recycling bins or at collection sites.

Recovery

Plastics processors buy PET containers from collection and processing facilities. They are sorted by color and type and then are cleaned, purified, and chopped into flakes by a machine that automatically de-caps and de-labels the bottles. The flakes are melted and then solidified into superfine fiber that can be spun into thread. (At this point the fiber is virtually the same as virgin polyester fiber.) The thread is compressed, spun onto large spools, and shipped to a fabric manufacturer where the adventure continues.

Fabric Manufacturing

Once the recycled plastic fiber arrives at a fabric mill, it is knitted, dyed, and finished just like virgin plastic fiber. The amount of recycled fiber used in the fabrics ranges from 50 to 100 percent.

Clothing Manufacturing

Clothing manufacturers are the last link in providing a second life to PET containers. In collaboration with various fabric mills, these companies have developed trademark fabrics from which they create sweaters, jackets, hats, gloves, socks, t-shirt knits, thermal underwear, and other garments. Some of the garments are warm, fuzzy, and insulating—perfect for outfitting skiers, kayakers, mountaineers, or just the average Joe. Others are soft and smooth and elegant enough for evening wear.

Photos 1, 7, and 8: Wellman Environmental Award Winners.

Photos 2, 4, 5, and 6: Recycled long underwear, children's wear, sportswear, and shoes from the Cola to Couture show.

Photo 3: From NAPCOR educational campaign.

Speedy Recovery

Plastic recovery companies contract with materials recovery facilities or municipalities to collect plastic bottles for processing.

Companies round up bottles from all 50 states and Canada by contracting with municipalities and setting up some of their own recycling collection facilities. Most of the bottles collected are from California and nine states with mandatory bottle deposit systems.

CLOTHES: *Wearing Waste*

On the Runway

Plastic bottles are going on tour! To remind people to recycle their PET bottles, the National Association for Plastic Container Recovery (NAPCOR), a nonprofit trade association, has embarked on an awareness campaign in the form of a fashion show.

The “Cola to Couture” fashion show kicked off at the National Recycling Coalition’s (NRC’s) annual meeting in Portland, Oregon, in 1994. Recycling personalities modeled dresses, sweaters, long johns, and shoes made from recycled plastic. After the NRC event, NAPCOR took the show on the road, bringing it to communities nationwide. To date, it has worked with more than 10 cities, helping them establish and promote PET plastic recycling.

Once a community decides to implement PET recycling, NAPCOR provides educational tools, such as brochures, television and radio public service announcements, newspaper print ads, and billboard signage. Before the footlights dim this year, NAPCOR will target at least seven more communities.

For more information, contact Quinn Davidson at NAPCOR at 704 358-8882.



Retailers to Remember

Patagonia, Eastern Mountain Sports, L.L. Bean, Timberland, Bass, and Reebok are just some of the manufacturers that are making clothes out of recycled plastic.

The amount of fabric needed to produce a fleece sweater requires the use of about 25 one-liter soda bottles. For thermal underwear, about 10 recycled bottles are needed. Patagonia alone utilized 8 million soda bottles to produce their Fall 1994 recycled clothing collection. Eastern Mountain Sports offers about a dozen recycled-content products.



Fabric Flash

Companies and consumers alike agree that there are no differences between recycled-content and virgin fiber PET clothing. Both are found to be just as soft, can be washed and dried in the same manner, have the same expected lifespan, and cost the same. Regardless of their origin, both types of fabrics have been designed to be lightweight, warm, water repellent, breathable, and durable.



Fashion Students Design for the Environment

To inspire fashion students to focus on the future and to evaluate the role fashion can play in protecting the environment, Wellman, Inc., sponsored an awards competition for students at the Philadelphia College of Textiles and Science and the Fashion Institute of Technology.

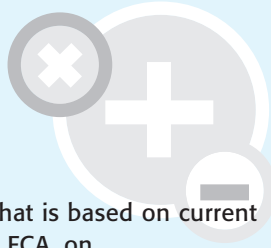
Students at both schools were invited to submit clothing designs using Wellman’s recycled plastic fabric. Though students had free rein to design any type of garment, the one criterion was that each garment had to be created with at least 70 percent recycled fabric.

Forty-seven students entered, and 56 garments (from evening wear to children’s clothes) were paraded down the fashion runway. International media coverage of the display helped send the message that “apparel can be both beautiful and environmentally responsible.”

For more information, contact the Eco-Spun Hotline at 212 642-0793.



Full Cost Accounting = Full Information



First EPA Satellite Forum a Success

(Continued from page 1)

these tools and answered questions from call-in viewers.

Panelists agreed that while recycling is beneficial, it is not the panacea to waste management problems. Waste prevention, on the other hand, gets to the root of the issue. PAYT is a great way to help residents understand the link between the amount of trash they generate and the costs of disposal. "People learn that there is no trash fairy taking garbage away for free," explained panelist Bob Lilienfeld, an independent consultant and editor of the *ULS Report*.

PAYT programs also are appealing because they give people control over their bills and their waste reduction activities. "The government does not have to make rules like 'thou shalt use a mulch mower' or 'thou shalt buy concentrated orange juice,'" remarked panelist Lynn Scarlett, vice president of the Reason Foundation, a public policy research organization. "Individuals can reduce waste in ways that fit their lifestyles."

But not everyone wants PAYT to be part of their lifestyle, panelists cautioned. People are creatures of habit, and "if you mess with people's garbage or change the way you bill them, people take it personally. People like their garbage system the way it is," warned panelist Jim Morris, the associate director of Continuing Education at Rutgers University. Communities have found, however, that planning, education, and community involvement have turned skeptical citizens into ardent supporters.

Take Seekonk, Massachusetts, for example. Panelist Pat Vieira is currently chairperson of the Seekonk Board of Selectmen. Vieira explained how Seekonk gradually phased in PAYT. First, the board pulled funding for the MSW program out of the tax base and

Recycling, composting, household hazardous waste, residential and commercial trash collection, leaf collection, landfill operation....the list of municipal solid waste services provided by communities can seem endless. Because there are so many program options and the cost of providing services is continually on the rise, communities must constantly reevaluate their costs. To maximize efficiency and remain sustainable, communities need to know the nitty-gritty cost details of how much each service costs.

To help foster a better understanding of the actual costs of municipal solid waste (MSW) management, EPA and a workgroup of representatives from national and state organizations in the solid waste arena are promoting **full cost accounting** (FCA). Though the term may sound technical, the concept is simple. FCA involves identifying all of the components of running a solid waste program in a local community and determining the costs associated with each component. Once all of the costs are laid out on the table, managers can make more informed day-to-day decisions, better assess the appropriate mix of solid waste services for a community, decide between providing the services in-house or contracting with a private firm, and better prepare for the future.

FCA is different from other local government accounting systems. Many communities use "cash flow account-

ing," a system that is based on current outlays of cash. FCA, on the other hand, takes into account all resources used or committed to the solid waste program. For example, FCA includes the costs of siting and constructing solid waste facilities, operation and maintenance, including salaries, benefits, and overhead (indirect) costs, as well as landfill closure and postclosure.

As of 1994, four states (Indiana, Florida, Georgia, and North Carolina) passed laws that require all local governments to use FCA for MSW programs. A number of communities in other states use it voluntarily. Other communities are expressing a growing interest in learning how it is accomplished.

In July, 150 solid waste managers attended an FCA workshop at the Association of State and Territorial Solid Waste Management Officials' annual conference. At the September American Public Works Association Exposition, local public works officials from across the United States and Canada gathered to discuss the benefits of FCA. Also in September, EPA sponsored an FCA workshop at the National Recycling Coalition's 1995 Congress, attended by over 90 people. Finally, the FCA message was broadcast nationwide at an EPA satellite videoconference (see article on page 1). EPA will use the information gleaned from these events to develop technical assistance and guidance materials.

Full Cost Accounting Workgroup

EPA has been working with the Solid Waste Association of North America, the U.S. Conference of Mayors, the Maryland Department of the Environment, the American Public Works Association, the National Recycling Association, and the International City/County Management Association to develop several outreach materials, including a primer, resource guide, slide show, and a handbook. A handbook is currently available (see box on page 9 to order).

charged residents a flat fee to cover the cost of service. After receiving complaints that the flat fee was not equitable, the town adopted a two-tiered system: a flat fee to cover fixed costs of providing service and a variable fee to cover disposal costs. The town has raised sufficient funding for the services provided, trash tonnage has decreased significantly, and recycling tonnage has increased. Because changes were made slowly and citizens were educated along the way, residents understood and appreciated the program changes.

Seekonk's success with PAYT depended in large part on having an FCA system in place. "We knew our full costs and were able to build our PAYT program based on that knowledge," Vieira explained. FCA can provide a sound foundation for any PAYT or solid waste program.

"Full cost accounting is not an end in and of itself," explained panelist Norm Crampton, executive director of the Indiana Institute on Recycling. "It is a means to an end." It can be used to improve the efficiency of programs, to keep them sustainable in the long run, and to determine exactly how much money to charge residents to cover the costs of the services the community provides.

Stay tuned for information about future satellite forums on these topics. 🗑️

Resources

To order EPA's guides, *Pay-as-you-throw: Lessons Learned About Unit Pricing* (EPA530-R-94-004) or *Full Cost Accounting for Municipal Solid Waste Management: A Handbook* (EPA530-R-95-041), call the RCRA Hotline at 800 424-9346 or TDD 800 553-7672. In the Washington, DC, area, call 703 412-9810 or TDD 703 412-3323.

For more information on PAYT, call Jan Canterbury at EPA at 703 308-7264. For information on FCA, call Angie Leith at EPA at 703 308-7253.

Waste Not, Pay Not

More and more communities—over 3,000 nationwide—have begun charging residents for trash collection based on the amount of waste they put out at the curb. Called pay-as-you-throw (PAYT) or unit-based pricing, these programs offer residents a financial incentive to reduce the amount of waste they generate: the less they throw out, the less they pay. As a result, residents start purchasing products with less packaging or in bulk, recycle and compost more, and seek out other ways to generate less waste and save money.

To inspire communities around the country to take a new look at managing waste, EPA is taking the pay-as-you-throw message on the road. EPA is sponsoring a series of workshops and satellite forums (see article on page 1) to introduce communities to the pay-as-you-throw concept and how it can be designed and implemented.

PAYT Partners

ICMA, NCSL, and CONEG also have organized several events to promote pay-as-you-throw. ICMA and CONEG each have held a series of workshops over the past year and plan to host more in 1996. CONEG also has produced a pay-as-you-throw package that includes a workbook (hard copy or on disk), worksheets, a slide show with talking points, and an informational brochure. NCSL has been providing pay-as-you-throw information to state legislators by organizing special presentations at regularly scheduled meetings. NCSL also has made pay-as-you-throw available on LEGISNET, an online database accessible by most legislatures and legislative staff.

For more information, contact James Connell at ICMA at 202 289-4262; Deb Starkey at NCSL at 303 830-2200; and Anne Matheis at CONEG at 202 962-3539.

In September, EPA held two workshops in Washington, DC, and in Boston, Massachusetts. Both events were well attended—approximately 110 local government representatives participated.

They discussed the real-life "ins and outs" of conducting pay-as-you-throw, including describing the various obstacles faced in developing programs and the many solutions found.

Together with the International City/County Management Association (ICMA), the National Conference of State Legislatures (NCSL), and the Conference of Northeast Governors (CONEG) (see sidebar), EPA also is implementing a full-fledged publicity campaign to spread the word about pay-as-you-throw to municipal solid waste planners and the public. EPA will publish articles and public service announcements in trade publications, develop a series of pay-as-you-throw fact sheets, and exhibit at industry and environmental conferences. EPA also prepared a tool kit for interested solid waste planners that includes manuals, videos, slides, worksheets, and sample workshop agendas for communities to use to run pay-as-you-throw workshops.

Why the emphasis on pay-as-you-throw? Such programs directly support the highest priority components of EPA's solid waste hierarchy: reducing, reusing, and recycling, "the three Rs." Studies indicate that some communities have achieved waste reductions of 25-45 percent after adopting pay-as-you-throw. The source reduction, recycling, and composting that result from pay-as-you-throw, in turn, produce several specific benefits, often called "the three Es": 1) environmental benefits since less waste means less natural resources and landfill space are used, and less greenhouse gases are emitted (see related article on page 1); 2) economic benefits since less money is spent by citizens and communities on waste collection and disposal; and 3) equity benefits since citizens who generate less waste no longer subsidize their more wasteful neighbors.



RESOURCES

Waste Reduction Makes Cents



Two new EPA booklets are hot off the presses! Free copies of either booklet can be obtained by calling the RCRA Hotline at 800 424-9346 or TDD 800 553-7672. In the Washington, DC, area, call 703 412-9810 or TDD 703 412-3323.

Spotlight on Waste Prevention (EPA530-K-95-002) explains the concept of waste prevention and its environmental benefits. Although most Americans are familiar with recycling, fewer people understand what waste prevention, or source reduction, really means. This 16-page brochure explains how waste is produced during

each step in the life cycle of a product, from raw materials acquisition to disposal, and how consumers can take steps to help prevent that waste. Preventing waste helps conserve natural resources, lessen the burden on landfills and combustors, and reduce the environmental impact from raw material extraction, energy usage, and pollution from manufacturing. Waste prevention also can help save money. The booklet provides over 20 real-life examples that illustrate how waste prevention activities have helped businesses, industry, the government, and consumers save money and help the environment. In addition, it describes EPA's waste prevention activities, which include WasteWi\$, a program that helps companies prevent waste and cut costs, as well as its efforts to promote pay-as-you-throw in communities.

Recycling Means Business (EPA530-K-95-004) introduces EPA's strategy for expanding markets for recycled materials. In addition to its environmental benefits, boosting recycling markets has many economic advantages. These include business expansion, jobs, and other economic growth. For example, strong recycling markets can increase the revenues paid to communities for their recyclable materials, create jobs in communities across the country, and could enable the recycling industry to become a major sector of the national economy. The booklet discusses how EPA's strategy will foster the market development of recycling by encouraging partnerships among economic development professionals, financial institutions, and recycling businesses; using the federal government's purchasing power to create a demand for recycled materials; and creating networks of information supporting markets for recyclable materials and recycled products.



Kits for Communities

Every year, Americans discard more than 8 million old or broken "white goods"—dryers that don't dry, washers that don't wash, freezers that can't freeze, and ovens that won't heat. People also replace older appliances because they want the convenience of newer features or to reduce energy consumption. To encourage local officials, recycling coordinators, and community educators to implement



white goods recycling, Keep America Beautiful, Inc. (KAB) compiled a **Kit for Household Appliances and the Environment** (\$22). Included in the kit is a short guide that describes the process of appliance recovery and three options for community programs for managing appliances: 1) run programs themselves, 2) work with private companies in partnerships, and 3) cooperate with local electric utilities. KAB produced this document with the help of EPA, the American Iron and Steel Institute, the Association of Home Appliance Manufacturers, the Institute of Scrap Recycling Industries, and the Steel Recycling Institute.

In addition to the guide, the kit also includes a camera-ready brochure about white goods recycling, which communities can use in conjunction with their recycling program. A short slide show with a script that communities can use to make presentations to government



Small Landfills Granted Extension

officials, civic clubs, schools, and the public is also included. It illustrates how white goods can be recovered and the benefits of doing so.

KAB also prepared a **Close the Loop, Buy Recycled Community Education Kit** (\$48) to help communities start buy-recycled programs. The kit includes a manual for businesses, institutions, governments, and consumers to help them get a campaign started. The manual presents case studies of lessons communities have learned about starting a program and examples of activities that different groups have conducted. The kit also includes two versions of a radio public service announcement (PSA), camera-ready art for print ads about buying recycled, a camera-ready logo sheet and brochure, and a video on the importance of buying recycled featuring Carol Browner.



Some communities are already using parts of this kit. One community worked with grocery stores to have the radio PSA played over the store's public announcement system. Other communities have worked with utility companies to get the ads printed on the back of utility bills and on paper bags at grocery stores. The kit encourages communities to think creatively about buying recycled.

Both kits can be ordered from KAB at 9 West Broad Street, Stamford, CT 06902, 203 323-8987. Payment must be received in advance.

For more information, contact Susanne Woods at KAB at 203 323-8987.



The **ReTAP Tool Kit** was released recently by the Recycling Technology Assistance Partnership (ReTAP). A joint project of the Clean Washington Center in Washington and the National Recycling Coalition in Alexandria, Virginia, and supported in part by EPA, ReTAP provides information on how to design and implement recycling technology assistance services to organizations that help companies process or use recycled materials. The tool kit is tailored to organizations that assist small- and medium-size manufacturers by providing technical tips on how to use recycled materials in manufacturing operations.

The tools include checklists, guidelines, models, procedures, and protocols, as well as design and implementation guides for each of the six aspects of technology assistance: strategic planning, developing resources, program development, service delivery, marketing, and program evaluation. Protocols, for example, provide questions for service providers to answer as they evaluate a facility or plant to help determine areas of improvement for the manufacturer. The tool kit will be expanding continually, incorporating new tools tested by experts in the field.

Tool kit training workshops are being conducted throughout the United States. Workshops are geared towards market development organizations, technology extension centers, economic development departments, the research community, trade associations, business assistance services, and industry.

For more information, contact Alison Watkins of the National Recycling Coalition at 703 683-9025.


About 800 small municipal solid waste landfills located in arid or remote regions have been granted a two-year extension for complying with RCRA Subtitle D regulations by an October 2 rulemaking. Most of these facilities are located in western states and Alaska.

Affected landfills are those that dispose of 20 tons or less of waste per day, receive less than 25 inches of rainfall, have no other practicable waste disposal alternative, or are not able to transport waste during all times of the year due to remote and climatic conditions.



In a future related rulemaking, states and tribes that operate these landfills might be allowed additional flexibility in complying with Subtitle D regulations, specifically in regard to groundwater monitoring. These jurisdictions may consider alternatives that are lower in cost than traditional monitoring but that are still able to detect contamination on a site-specific basis.

This extension will allow states and tribes extra time to evaluate landfill closure or continued operation after EPA issues the ground-water monitoring rule. States and tribes can explore the feasibility of using alternative technologies or waste management options and try to overcome some of the challenges posed by the unique geological and climatic conditions in which these facilities are located.

For more information, call Allen Geswein or Andy Teplitzky at EPA at 703 308-7261 and 703 308-7275, respectively. 

Using Less Stuff



To put it simply, waste reduction means Using Less Stuff. That's the theme of the *ULS Report*, a free

bimonthly waste reduction newsletter published by Partners for Environmental Progress.

The newsletter is written in an easy-to-read style that mixes entertainment with information. Recent articles include "How To Be an Eco-Friendly Couch Potato," "Putting Packaging on a Diet," and "A Toast to Compost." Regular features include shopping tips, a reader question-and-answer section, and a column by a "garbologist."

Partners for Environmental Progress, based in Ann Arbor, Michigan, is a "nonorganization," according to its founder, president, owner, sole employee, and editor, Bob Lilienfeld. By that, he means that it acts as a catalyst to join organizations together.

As an independent consultant, Lilienfeld had connections in many places. Over the years, he has come in contact with many companies seeking help in managing their waste. He's also discovered a number of companies or local organizations with advice to

'Tis the Season to Prevent Waste

Each year, from Thanksgiving to New Year's Eve, Americans generate 25 percent more trash than any other five-week period during the year. Holiday parties generate tons of food scraps. Millions of trees and trimmings are left at the curb for disposal. Gift-giving produces mounds of boxes, paper, packing materials, and yes, even unwanted presents!

To promote waste prevention during the holiday season, Partners for Environmental Progress and seven other national and local environmental organizations sponsored a nationwide awareness campaign. The first annual ULS (Use Less Stuff) Day was held on November 16, 1995, a week before Thanksgiving. On that day, and in the weeks preceding it, the sponsoring organizations publicized the idea of waste prevention and provided how-to information to the public.


The *ULS Report* issued a "38 Days, 38 Ways Proclamation" that provided consumers with helpful tips for preventing waste. To prevent food waste, the report provides guidelines on the realistic amounts of holiday items people consume. It also suggests wrapping gifts with old maps to save paper and ways to curb unwanted catalogs and other mailings.

The sponsoring organizations were the Office of Solid Waste at EPA, The National Audubon Society, Keep America Beautiful, Inc., The California Integrated Waste Management Board, Chicago Clean Streak, the National Pollution Prevention Center for Higher Education at the University of Michigan, the University of Arizona/Bureau of Applied Research in Anthropology Garbage Project, and Foodchain. For more information about this campaign, call Lisa Morgan, the public relations representative for Partners for Environmental Progress, at 212 727-1239.

share. Through Lilienfeld, these companies are finding each other.

As an example, a chemical company approached Lilienfeld to ask how it could ensure that the products made from its plastic resin are recycled. Around the same time, a plastic cup manufacturer that sells polystyrene cups at a ballpark wanted to set up a recycling program. Lilienfeld got the chemical company, the cup manufacturer,

the park people, the waste haulers, and a plastics recycling company together. Not only did they figure out a way to "close the loop" on recycling the cups, but they also found a market for the recovered polystyrene: as plastic pens that are sold at the ballpark to fill out score cards. Now, the program is self-sustaining.

For a free subscription to the *ULS Report*, call 313 668-1690. 



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