
Committee Meeting

of

ASSEMBLY ENVIRONMENT AND SOLID WASTE COMMITTEE

Assembly Bill No. 121

(The "Smart Container Act")

LOCATION: Committee Room 9
State House Annex
Trenton, New Jersey

DATE: May 12, 2008
2:00 p.m.

MEMBERS OF COMMITTEE PRESENT:

Assemblyman John F. McKeon, Chair
Assemblyman Reed Gusciora, Vice Chair
Assemblyman Peter J. Barnes III
Assemblyman Matthew W. Milam
Assemblywoman Valerie Vainieri Huttle
Assemblyman John E. Rooney
Assemblyman Daniel M. Van Pelt



ALSO PRESENT:

Carrie Anne Calvo-Hahn
Office of Legislative Services
Committee Aide

Kate McDonnell
Assembly Majority
Committee Aide

Thea M. Sheridan
Assembly Republican
Committee Aide

Meeting Recorded and Transcribed by
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(This is an excerpt from the Assembly Environment and Solid Waste Committee meeting of May 12, 2008, pertaining to the Assembly Bill No. 121.)

ASSEMBLYMAN JOHN F. McKEON (Chair): We're going to get right into the matter at hand.

Assemblywoman, I'm just going to give everybody--

Okay. We are now going to discuss the Smart Container Act. I'm going to defer on any personal comment other than to note that Assemblywoman Vainieri Huttle has been dogged in both her research, her determination, and her working among her colleagues regarding -- to something that she very much believes in.

And as much as-- We have very, very busy times in front of us, particularly this time of year, as we get closer to July 1. We're pleased to take some time to talk about this very important issue.

Assemblywoman.

ASSEMBLYWOMAN VAINIERI HUTTLE: Thank you, Mr. Chairman.

First of all, thank you for posting this on the agenda for discussion. Only, today certainly opens up the dialogue, and I'm anxious to listen to the concerns that we have on this important piece of legislation before us.

But I do want to thank the people who are here on their own time, on their own dime, who have traveled from quite a distance to testify. So I thank you very much for the support.

As we all know, mandatory recycling in New Jersey is in effect for decades. But unfortunately, rates in New Jersey have dropped to about 33 percent. And the increased use of plastic water bottles-- As many as 70 percent of these bottles do not get recycled. They end up in our landfills; they're in incinerators; clogging up our waterways, our streams, our parks, our beaches.

Eleven states right now have a deposit -- so-called *deposit bill*. These 11 states are enjoying recycling rates two to three times greater than New Jersey. Nearby New York, Delaware, Vermont, Connecticut, Massachusetts, and Maine have deposits, and so does Michigan.

This piece of legislation would require a \$0.10 deposit on all beverage containers. It would also go-- The unclaimed deposits would go into a fund, which I think -- especially in today's dire need of the budget -- I think it's a win-win for the State of New Jersey.

Seventy-five percent of the unclaimed deposits will go toward environmental projects and educational programs, and 25 percent would go to help small businesses. And this is where I feel there's a need to work with -- and there's a need to overcome the myths versus the facts.

A couple of myths -- and I just want to state some facts. Increased recycling means municipalities will save money by reduced tipping fees for trash. Deposits mean reduced government costs for container recycling, which would be done by retailers and redemption centers. I got a phone call already from California. They have redemption centers already set up in the states that have these deposits. This could help the small business owner. What it is, is a reverse vending machine. New Jersey could certainly lead the way with the best container recycling

bill in the country. Right now, as we speak, the national container recycling legislation is -- has been introduced in the House. New Jersey certainly can afford to have this bill.

As they say, a picture is worth a thousand words. No, this (indicating) is not my opponent -- some say I'd like to bury him in trash -- but this is a picture that was taken in Hackensack at a park cleanup. Just think of all of these bottles that do not get recycled. Think of the opportunity to fundraise for community outreach with Scouts, with environmental groups, with charities.

Someone said the other day at the dinner table, in the '40s there used to be a nickel on deposits. This was \$0.05 in 1940. We're talking about \$0.10 in 2008, 60 years later -- a small price to pay to help clean up the environment, to help New Jersey on the forefront--

I don't want to take up too much time, but I do want to say that if this-- This certainly is a step in the right direction for New Jersey, and I'd like to hear the testimony. I would like to work with any of the people who have concerns. And we will address these issues. And hopefully we will come up with a great bill to help the environment here in the state and put the Garden State back where it belongs.

And with that, Mr. Chairman, I would like to hear the testimony. And I thank you again for listening and opening up the discussion.

Thank you.

ASSEMBLYMAN McKEON: Thank you very much.

And for all my colleagues: Of course you're always welcome to ask witnesses questions, but if that's not necessary, then of course -- even

though this is not for action, I'm going to give us all a time to sum up, if you will, at the conclusion of today's testimony, as far as your thoughts -- having the opportunity to hear that.

As it has long been the priority of the Sierra Club, I'd like to give Mr. Jeff Tittel, along with David Yennior of the Club, the honor of being called first to talk about this potential--

J E F F T I T T E L: Well, thank you.

And I remember when it used to be \$0.02. And so I had this system where I could have-- Every nine bottles of soda I had I got a free one, and I kind of liked that as a kid. But that was quite a while ago. It was even better when I'd take them from my grandparents, and they'd give me their collectables too.

ASSEMBLYMAN McKEON: I forgot how old you were, Tittel.

MR. TITTEL: Yes, it's amazing.

I just wanted to start off and say that when you look at what happens in New Jersey every year with our throw-away society, we're trashing ourselves. And years ago, when other states were dumping in New Jersey, there was a State Senator who said we should change our name from the Garden State to the *Trash State*, because of New York City and Philadelphia trying to dump on us. Instead of them dumping on us, we're dumping on ourselves.

I just want to throw a couple of statistics out at you. Every year, the county prisoners in New Jersey go around and pick up more than 6 million pounds of bottles, and cans, and plastic bottles along our roadways. If it wasn't for them, New Jersey would be out of compliance in its Coastal Zone Management Plan, because we'd be choking up all our

waterways and all our storm drains. We're still choking up quite a bit. And if you go on the Passaic River, kayaking on any given day, you'll find that your path will sometimes be blocked by hundreds of feet of bottles that just collect near eddies and places where the moving water kind of stays for a bit.

If you look at Michigan-- In Michigan, people return 97.3 percent of their containers, or bottles and cans. In New Jersey, according to the most recent statistics, 50 percent of our aluminum gets returned and 30 percent of our plastic. A lot of counties, like Hunterdon County, don't even recycle plastics. I know that because I am there now.

So we believe that not only will this help create jobs and protect the environment, but it will be a good thing when it comes to global warming. And when you think about the amount of energy that it takes in plastic -- to make plastics, and the hydrocarbons that are involved, and the fact that this country throws away 80 billion water bottles a year with very few of them ever getting recycled, and you think about how much -- why the price of gasoline is where it's at, beside some of the other reasons -- that's part of it.

When you think about the amount of energy it takes to process aluminum-- Some of the studies-- The statistics show that it takes 20 times the energy to process aluminum to make cans from bauxite than it is from taking an aluminum can and just reprocessing it, and making a new can. And refilling bottles is the same way.

So when you think about the mining of sand and other things, not only does it save energy because we're recycling, but it also saves landfill space, which is one of the biggest sources of global warming and greenhouse

gases. It saves towns money from tipping fees at \$50, \$60 a ton. Soda bottles and that add up.

There's also another problem when you look at plastics, as they don't really break down -- the plastic -- but they will disintegrate into pieces. And one of the things that they've been finding in studies is that they've been killing sea mammals -- seals in particular -- with water bottles inside them. The pieces of plastic are being taken into birds' nests and being fed to the young, because some birds mistake them -- especially sea birds -- with fish eggs. And it's been killing pelicans at a very high rate. And there are a lot of studies on that.

So there are so many reasons why to do it and why this is the right thing. And from the business side, we get to repeal the litter tax, so they might like that. Just kidding.

And I just wanted to end with, this is not a tax. This is a deposit system. And by putting a bounty on trash, it makes sure our state will be cleaner and a lot greener. If some people want to say there's a tax involved, well I guess there's a tax on being a slob or being lazy, throwing soda bottles out of your windows or throwing your bottles into your trash. And those people should be taxed, because we believe in polluter-pay, and they're a polluter, and they cause a great harm to our environment from so many different ways.

So I hope you consider this bill. And we'd love to work to make sure this bill can happen in the next session.

ASSEMBLYMAN McKEON: Thank you, Mr. Tittel.

Mr. Yennior.

DAVID YENNOR: Mr. Chairman, this is a real honor to be here.

I'd like to compliment Assemblywoman Huttel for her leadership on this bill.

I'm the Recycling Issues Coordinator for the New Jersey Sierra, a volunteer, a retired probation officer from the State of New Jersey. And I first-- After my retirement, I first became aware of the floatables in the Passaic River, in particular, which is a particular problem because there's a highway that goes along next to it -- Route 21. And people do throw the bottles out -- particularly the water bottles, which are not covered in New York or most of the other states. And when it rains, the floatables go right over into the river, causing a big problem. So much so that a regatta was cancelled in the Fall, in Rutherford. They just had too much stuff out there. And the Passaic Valley Sewage Commission spends a lot of time and money cleaning up the river because of this problem.

So we really have a situation where throw-away beverage bottles and cans have become a big environmental problem for New Jersey's waterways and parks. And volunteer recycling, as Jeff said, is not working. The recycling rates are going down. And the Smart Container Act provides a real answer to the problem. It will actually, as said, increase recycling rates, supplement current municipal recycling, reduce the tax burden in municipalities with lower tipping fees.

I've gone to New York and looked at reverse vending machines. They're so simple. It makes it so easy for people to go to the entrance of the store, shove the bottles in, get a little ticket. You take it-- And even if you're not buying anything, you can get your money, or you can use it toward a purchase. It brings people back into the store.

Maine -- I went up to Maine on vacation in September. And beside the fact that it was so clean -- and I believe because they have deposits up there on containers -- more containers-- They do water bottles up there, and wine bottles. And you see people standing in the beginning of the stores shoving in the wine bottles. And you're like, "Wow, that guy really drinks a lot. But at least he's an environmentalist, because he's getting his money back." (laughter)

But interestingly--

ASSEMBLYMAN McKEON: Jeff, how many of those do you have to drink before you get one free? (laughter)

MR. TITTEL: I figured out if you do-- Two cases of Budweiser get you a six-pack. (laughter)

MR. YENNIOR: You could always buy Ripple.

In conclusion, this Legislature has a chance to look at a situation that they haven't looked at for over 20 years. I know they tried to put deposits -- back in the '80s. It failed. There was a lot of industry lobbying going on, and the industry won out.

Well, hopefully now, because of this Committee and this Legislature -- different climate -- maybe the environment can win out.

ASSEMBLYMAN McKEON: Sir, thank you very much.

Seeing no questions, I'm going to call the next up as a panel, Barbara McConnell, of the New Jersey Beverage Association; Kevin -- is it Diegly (indicating pronunciation)?

A S S E M B L Y W O M A N B A R B A R A W. M c C O N N E L L:
Dietly. (indicating pronunciation).

ASSEMBLYMAN McKEON: Dietly -- okay, thank you -- of Northbridge Environmental; Sandy Huber, from Clean Communities; and-- Do we have enough-- We just have two seats.

ASSEMBLYWOMAN McCONNELL: And Mitch Klein, with Krasdale.

ASSEMBLYMAN McKEON: Yes, I had Mitch.

ASSEMBLYWOMAN McCONNELL: Oh, I'm sorry.

ASSEMBLYMAN McKEON: I just didn't know if there was enough room for the four of you.

ASSEMBLYWOMAN McCONNELL: Should we testify, and then we'll get up and let the next two come up?

ASSEMBLYMAN McKEON: That would be fine.

ASSEMBLYWOMAN McCONNELL: Mr. Chairman, members of the Committee, my name is Barbara McConnell, and I feel like I have spent a lifetime talking about the bottle bill, tracking bottle bills, and looking at the 11 states across the country that do have a bottle bill.

We meet today to discuss Assemblywoman Vainieri Huttel's Smart Container legislation. And I hope the panel of speakers that we have assembled here can provide you with some compelling arguments as to why this legislation should not be passed, why it is not the solution to New Jersey's solid waste or litter clean-up problems, and why the two programs that we currently have in place are effective.

It was in the late 1970s and early 1980s when I was a member of the State Legislature. The environmental groups came to me asking me to sponsor a bottle bill. They provided me with some of the very same arguments that you heard today.

I did sponsor a bottle bill. And as the dialogue began, and I began to look at both sides of the issue, it became clear to me that a bottle bill was not an effective solution for New Jersey's serious solid waste dilemma and our shrinking landfills.

In the first place, a bottle bill would only address about 4 percent of the entire solid waste stream. It is one of the most expensive collection systems -- redemption systems in existence. A bottle bill imposes an unfair burden on retailers, and consumers, and especially the small businessperson. A bottle bill does nothing to spread that burden across the entire universe -- the homeowner, municipalities, counties, and individuals -- but rather places an unfair burden on the retailer and the consumer here. Nor are bottle bills an effective solution for litter.

So it became apparent to me that what we needed was a more comprehensive approach to our solid waste and to the litter issue. So we coalesced one of the most impressive coalitions that I've ever had the privilege to work with. It included members of the Legislature; it included members of the recycling community that existed at that time; and yes, indeed, it did include members of the retail food industry, the beverage industry; and also manufacturers of some of our materials, like the aluminum, glass, and plastics industry.

We came together in a sincere effort to determine what could be effective. And out of that deliberation came two programs that this Legislature enacted into law. One was the mandatory recycling program that's in existence today -- curbside recycling program, which requires municipalities to identify three materials or more for recycling. That program became a real leader in the nation. And in its early days, for the

first few years -- because there was some funding associated with it that would go back to municipalities and counties to help strengthen their infrastructure for education, for marketing, for helping to build up markets -- New Jersey was recycling at a rate of over 50 percent of their materials, higher than any other state in the country.

It wasn't until 2003, when that funding lapsed-- It wasn't repealed, it simply lapsed. And a lot of municipalities then simply did not have the resources to continue to do their collection, and our rates fell to a little over 33 percent. In spite of some testimony that has been given here-- Because I think sometimes, when you look at percentages, you're comparing apples and oranges. Thirty-three percent -- and you will hear from Kevin Dietly, who is a real expert on bottle bills across the states and this issue -- 33 percent that we're recycling now is higher than the national average.

The second prong to our approach-- So we put recycling into effect -- very effective. Other states looked at us -- looked to us as a model and a solution. And this came on the heels of New York passing a bottle bill. So New Jersey was under tremendous pressure at that time.

I'd also like to point out that there were several municipalities -- the city of Trenton, for instance -- that put this on the ballot, on referendum, to enact a bottle bill in their communities. It failed at the voter level 85 to 15 percent.

The second approach was, the environmentalists came to us and said, "Okay. The comprehensive recycling program sounds like a good idea. Let's give it a chance. But what are you going to do about litter?" So then industry came together-- And I resent remarks -- by saying that it was industry coalition that defeated it. If it hadn't been for industry coming

together, and really caring about the environment, and putting their money where their mouth was, we wouldn't have these two programs that we have in effect today.

It was industry that came together and said, "Litter is not just about bottles, and cans, and plastic water bottles. It's about a lot of other materials out there: cigarettes, and paper, and packaging, and that kind of thing." We did a litter survey. We identified 15 litter-generating products. Industry volunteered to impose a small tax on themselves at the manufacturing, distributors, wholesale, and retail levels. Today, that tax -- it's known as the Clean Communities Program -- is bringing in over \$15 million a year. The moneys go back to municipalities for pickup and removal of litter. You will hear from Sandy Huber in just a moment about the success of that program.

That's where we are today. And as you know, it was just this year that the Governor signed into law Assemblyman McKeon's and Senator Smith's Recycling Enhancement Act, which again will provide some resources back to municipalities and counties to reinvigorate their recycling programs. As Senator Smith said, "We are poised for a recycling renaissance. And we are hopeful that two years from now, we will see New Jersey as the nation's leader in recycling that it once was."

Members of the Committee, I urge you to -- let's continue to work with these two programs that are in place. We will come back. The State of New Jersey, this Legislature, the business community has worked long and hard to make these programs successful. We will continue to do it. We didn't just get out of a bottle bill and offer these two other

programs. We have continued to nurture, support financially, and to make a real commitment to continue to see these programs become successful.

If you enact a bottle bill, you'll be putting into place a dual system that will be costly and that will take needed revenues out of municipal recycling systems. And you'll hear more about that later.

I urge you to oppose this legislation.

Thank you.

ASSEMBLYMAN ROONEY: I have a question.

ASSEMBLYMAN McKEON: Sure, you can ask Ms. McConnell a question.

ASSEMBLYMAN ROONEY: Barbara, your number on the 4 percent -- that it would only eliminate 4 percent of the trash -- can you elaborate on that?

ASSEMBLYWOMAN McCONNELL: Four percent-- There's only about 4 percent of the solid waste that's contained in a bottle bill -- that comes under a bottle bill.

Is that correct, Kevin?

KEVIN DIETLY: Right.

By weight, the composition of the waste stream -- if you look at just municipal solid waste, beverage container materials, total, are about 4 percent of that by weight, about 5 percent by volume.

ASSEMBLYWOMAN McCONNELL: So you have a costly bottle bill and 96 percent of the solid waste that's not being addressed.

ASSEMBLYMAN ROONEY: Thank you.

ASSEMBLYMAN McKEON: Thank you very much.

MR. DIETLY: Thanks, Mr. Chairman.

ASSEMBLYMAN McKEON: Yes, please.

And in the same way we gave the Sierra Club a little deference knowing their depth of knowledge and passion, I did the same knowing Ms. McConnell as both a historian of all of this, as well as a wellspring.

So for everybody else--

ASSEMBLYMAN ROONEY: And a former legislator.

ASSEMBLYMAN McKEON: And a former member of the governing body.

If you -- all of you -- I don't mean to just pick on you. On a going-forward basis, I'm going to try to have you sum and limit it.

Thank you.

MR. DIETLY: I understand.

Thanks, Mr. Chairman, members of the Committee.

My name is Kevin Dietly. I'm a Principal at Northbridge Environmental Consultants, in Westford, Massachusetts. I'm an economist and have studied deposit laws and other solid waste programs around the country. My firm focuses on economic and financial analysis of environmental issues. So that's kind of my focus on this bill today.

I'd like to talk about a few basic issues that I'd like to highlight as far as the impact that deposit laws have in general; and understanding the fact that I make these observations as a result of research that I have conducted in deposit -- in every state in the U.S. So I would welcome questions and to explore further some of the issues.

I think the first thing that I'd like to emphasize is that deposit laws do have an adverse effect on the existing recycling programs that are out there. Once the infrastructure is in place in communities to recover

materials, communities become very dependent on revenue from beverage container materials in particular to keep those programs funded and viable. It happens that aluminum and PET beverage containers in particular are kind of the lifeblood of many of those programs. They represent a significant share of the revenues that those programs can make from recycling. Aluminum happens to be the most valuable commodity in the waste stream. By focusing a program like a deposit law on those most valuable commodities, you extract a lot of that value from the recycling system.

Now, communities are going to continue to recycle the same way they are now, even if there's a bottle bill. The same trucks need to go up and down the same streets, they need to visit all the same houses, and all the same processing infrastructure has to be in place. But what's been created is a second, duplicate infrastructure on the side to just handle the beverage containers. So there's no effect on communities' cost, but they're having the revenue taken away from them, because those beverage container materials are being run through a separate system.

If you just calculate the total amount of materials that's reported by DEP for being recovered in 2005 -- just based on the aluminum and plastic alone, it's about \$70 million in revenue that would be lost to communities that would be channeled over into the redemption system. So the undermining impact on existing recycling systems is a significant factor.

The second thing that Barbara mentioned is the impact on costs. And Mitch Klein will be up in a minute to talk a little bit about the operation of deposit systems. And we could sit here all afternoon and talk about the operation, and the function, and the logistics of deposits. And

I've been at all levels with it; so has Mitch. It's important to understand though that the operation and recycling mechanics of a deposit are very different than what you're accustomed to in a community recycling format.

At the household level, or the drop-off facility, you take commodities, you sort by commodities, or you put everything together and have it sorted later. And you're dealing with aluminum, glass, and plastic. When you're in a redemption environment, and you're at a store, you're putting aluminum cans in an aluminum can machine; or if you're at a counter at a small store that can't afford machines, you're handing individual bottles and cans over the counter to an individual standing back there and putting them into cardboard boxes and bags that have to be kept separate, sorted, and then picked up later by somebody else. It's a very different way of handling materials and commodities. It's a very labor-intensive way, it's a very space-intensive way, it's a very time-intensive way, and it turns out to be a very energy-intensive way, because there are a lot more people moving around, handling small amounts of material instead of handling it all at once, more efficiently, in the community setting. So the impact on operating costs is significant. It costs at least triple to recover materials through a bottle bill than it does through a curbside program. And that's just based, say, on the New York or Massachusetts kind of law, where only beer and soda containers are affected. If you consider the broader deposit laws, like Maine, where water bottles and juice are included, it costs much more than that. It's a much higher multiple because of the expense.

The third thing I want to talk about is the issue of revenue that the Chairman -- the sponsor spoke of. The notion that somehow, by

imposing deposits, the State can create windfall for itself, in terms of unclaimed deposits, is one that really needs to be looked at hard.

First of all, this bill has very high deposits -- \$0.10 deposit on smaller containers, \$0.20 on containers that are 24 ounces and above. Those are the highest deposits that will be in place in any state in the U.S. Michigan has a \$0.10 deposit. Michigan also has very high return rates because of that \$0.10 deposit. There are two reasons behind that.

The one important reason to understand about why Michigan has such a high return rate is the amount of fraudulent redemption that occurs. Michigan does not have a lot of border population. Toledo and South Bend is about as big as they get on their south border. They're fortunately protected by the Great Lakes.

But in research that has been done in southern Michigan, if you take apart one of those reverse vending machines, and you look at how many of the cans in those machines came from outside of Michigan, it's on the order of a third. So a lot of the return rate numbers that you see in a place like Michigan, or even in a place like the southern tier of New York, where it borders Pennsylvania, is coming from someplace else.

You set up a law in New Jersey with the highest deposit in the region, and a very populated border, and lots of opportunities for people to purchase containers outside of New Jersey to avoid the \$2.40 per case deposit, and then bring them back in New Jersey to earn a \$2.40 refund, you've got a pretty significant mechanism for fraud and a pretty good way of erasing any windfall money that might accrue to the state.

If you look at the experience of states in trying to reap windfalls from unclaimed deposits-- Maine thought that would be a good idea back

in 1990, when it expanded its bottle bill to include noncarbonated beverages. Within five years, they had to amend their bill to not take the unclaimed deposits, because they were in an overredeemed situation. They had distributors who were redeeming 150, 200, 250 percent of the containers they sold. So the existence of that money is really a fiction. That money isn't going to be there. It's going to be eroded by fraud.

Those are really, I think, the basic operating concerns that we have with the deposit system in general. There are a lot of unique features of this bill, there are some unprecedented features of this bill compared to other deposit laws in this country. But the impact on existing recycling programs, the expense, and the fraud are really ones that I would highlight.

Thank you very much. I appreciate the opportunity to testify.

ASSEMBLYMAN McKEON: Thank you very much, sir.

ASSEMBLYWOMAN VAINIERI HUTTLE: Through the Chair, if I may, just one comment on the fraud. The bottles here would be bar-coded and only be redeemed if they were New Jersey bought, New Jersey sold. And so that would be, hopefully, to combat the fraud.

MR. DIETLY: And if I might respond to that: The idea of the implication -- that is, every beverage container that would be sold in New Jersey would need to have a unique bar code on it that would indicate it was a New Jersey beverage -- which means that every beverage manufacturer literally in the world would need to produce beverage packaging for the state of Rhode Island. (*sic*) Maybe a way to control fraud--

ASSEMBLYWOMAN McCONNELL: State of New Jersey.

ASSEMBLYMAN McKEON: New Jersey.

MR. DIETLY: I'm sorry. The state of Rhode Island?

It's definitely a way to consider controlling fraud, but probably not something that's very practical, from an operating standpoint.

New Jersey is a good-size state. But whether a juice manufacturer that makes a small amount of product and sells some -- or maybe doesn't sell some in New Jersey -- is going to want to create a New Jersey-specific package is pretty difficult to imagine. And then consider the entire distribution and retail network out there. Wal-Mart is going to have to have a separate part in their warehouse for all their New Jersey packages. ShopRite is going to have a separate part for all their New Jersey packages, on down the line. It becomes rather impractical. And that only works if you're using a reverse vending machine to return a container. If you return it over the counter, or you're at a redemption center where there is no machine, the bar code doesn't scan. So the bar code is irrelevant to whether or not the container is redeemed. So I'm not sure that creates a practical solution to the fraud issue.

ASSEMBLYMAN McKEON: I can hear the radio now, Assemblywoman. You're taking away Coca-Cola from the entire state.

ASSEMBLYWOMAN VAINIERI HUTTLE: I'll hold my comments until after the testimony.

Thank you.

ASSEMBLYMAN McKEON: All right.

ASSEMBLYWOMAN McCONNELL: You have testimony you could--

MR. DIETLY: I will submit written testimony.

Yes, I have it.

ASSEMBLYMAN GUSCIORA: The \$70 million figure that you cite as a loss to the local municipalities -- is that a New Jersey figure?

MR. DIETLY: It is. I just took the most recent tonnage off the DEP Web site for aluminum and plastic containers, and adjusted the plastic containers number down to just include beverage.

ASSEMBLYMAN GUSCIORA: How much, over all, do the municipalities get from the recycling program?

MR. DIETLY: I don't have the answer to that. You probably-- I mean, I don't know that number exists.

ASSEMBLYMAN GUSCIORA: Well, are you extrapolating the 70 percent based on proportion estimated in the waste stream?

MR. DIETLY: No, the 70 million is just simply the market value of the commodities that were recovered in 2005 that are beverage container materials. As a percentage of how much total revenue communities make, I've seen research to suggest that it's anywhere from 30 to as much as 70 percent of the revenue that they make. It depends a lot on the communities. There are others today who, I think, can testify to specific counties or communities in New Jersey and how it will affect them. But again, the research that I've seen suggests it's anywhere from 30 to 70 percent of the revenue they earn on commodities.

ASSEMBLYMAN GUSCIORA: Is that part of your written testimony?

MR. DIETLY: It is. And also in my testimony, Assemblyman, is some information from recyclers in neighboring states where there have been discussions about expanding bottle bills to include, say, water bottles or other beverages. And they've quantified the impacts on their operating

revenues. The recycler in New York City, for example, estimated that they would lose about \$3.1 million a year if New York expanded its bottle bill. And they felt-- They pushed back on the city signing a long-term contract if the bottle bill were going to be expanded, because they said they were counting on that revenue to capitalize some of their investment. If that revenue was gone, it sort of changes the rules of their investment in the recycling system.

ASSEMBLYMAN GUSCIORA: If it's not part of your testimony, I'd appreciate it if you could supply us the background material on that 70 million.

MR. DIETLY: I will.

ASSEMBLYMAN GUSCIORA: Great.

ASSEMBLYMAN McKEON: Thank you both very much.

Seeing no other questions--

I don't know if it's Mr. Huber -- Sandy Huber -- Ms. Huber, and Mr. Klein.

Welcome to the two of you.

S A N D R A H U B E R: Thank you.

I'm deferring to the gentleman.

M I T C H K L E I N: Okay.

Good afternoon, Chairman, members of the Committee.

My name is Mitch Klein. I'm Vice President of Government Relations for Krasdale Foods. We service approximately 4,000 retail outlets in seven states. One of them is in New Jersey. While we are very much interested and concerned about the environment, we feel this bill falls far short of generating any revenue for the State. And with skyrocketing costs

on fuel and things like this, this will raise the price of juice products and things to consumers in New Jersey \$0.15 to \$0.30 per unit. That's exclusive of the deposit which, while you do get it back, it is an out-of-pocket--

ASSEMBLYMAN ROONEY: Can you turn off one of those? (referring to PA microphone) I think both of them are on. You're getting feedback. Can you turn one of them off?

MR. KLEIN: No.

ASSEMBLYMAN ROONEY: It's not on? Something is wrong.

MR. KLEIN: Maybe I talk to loud.

ASSEMBLYMAN ROONEY: That was you, Reed. You had yours on.

ASSEMBLYMAN GUSCIORA: No, I'm off.

ASSEMBLYMAN McKEON: Maybe it's me.

ASSEMBLYMAN ROONEY: Try again.

MR. KLEIN: The deposit still is an out-of-pocket expense at the time for the consumer when they leave the store. The deposit is also contrary to New Jersey WIC policy, which prohibits a WIC recipient to pay any type of deposit on products that come in and out of the stores.

I want to talk a little quickly about reverse vending machines. Reverse vending machines are basically machines that will read your bottles, but they work on a circular tumbler. If you open your refrigerator when you get home or walk into the food aisle, you will notice that there are a tremendous amount of bottles today that are square, octagon, rectangular. Those will not go through an RVM machine properly. They will not be able to be read.

Interestingly, New York -- which does have the bottle bill -- downstate, 98 percent of the stores that are in the bottle bill do not have RVM machines. They are manually read. People look at the bottles and judge from that point on.

The Smart Container concept of having a separate UPC will create a cost in New Jersey that will be unseen anywhere else. Every time you have a separate UPC for an item, it generates a separate slot in a warehouse. I am not the largest wholesaler in the country. But alone, I will have to have almost 400 separate slots in a warehouse, which will generate over 30,000 square feet of additional space needed. We all know what space costs -- 30,000 square feet of additional space to satisfy the State of New Jersey for a UPC smart code, which cannot be read unless you have an RVM machine, or if you give a clerk and a pad of paper with probably 10,000 UPCs. So when you bring your bottles, you can manually look them up. It would take you literally hours to redeem it. And for those stores who do have RVMs, I would have to first go to the RVM. And then when I was done with that -- my square bottles -- I would then have to have somebody look up those types of codes. From a cost containment, it is really an expensive issue to look at from that perspective.

New York, currently, overredeems 200 percent when it comes to bottles. Actually, people in New York would applaud this bill, because all the transhipped bottles currently that are coming from New Jersey into New York -- into the cities -- would now flow back into New Jersey. Because the people who are bringing the bottles in for a nickel now will reverse everything and bring it back into New Jersey for \$0.20. That is an

incredible amount of money. We have people who literally do nothing but bring bottles back and forth as a form of income.

If we take a look at the issue of sanitation -- and I looked at the picture before of all the bottles and things like that. The people who collect all these bottles don't clean them, don't wash them out, and bring them back into the store for a -- their deposit. You don't leave medical waste in an operating room. Why would you want us to put garbage in our supermarkets where our food is kept? These bags come in currently-- Right now, there are hundreds of bottles in a bag, and they're stored in a dark, dry, warm basement directly next to the fresh food supply that ultimately goes downstairs, up onto the shelf. I would challenge anyone in this room to take one of those bags, bring it home, ask your spouse if you could leave it in the pantry overnight. The answer would be no. But these stores would have to collect it. And again, in New York, we collect between 70 and 100 of them before they pick them up. There is no infrastructure in New Jersey for people to pick up these bottles. These bottles will sit in the store for approximately 21 days, which is where they sit in New York right now. The chance of infestation or contamination of your food product consistently would go up.

I did submit testimony. And as a matter of time I will stop, unless someone has some questions.

ASSEMBLYMAN McKEON: Thank you very much. We've heard another good piece of information for all of us in our evaluative process.

Ms. Huber.

MS. HUBER: Mr. Chairman, members of the Committee, I'm Sandy Huber, Executive Director of the New Jersey Clean Communities Council.

I am very proud to be here and to be able to represent the Clean Communities program in New Jersey. It's one of the most popular programs ever administered by the State of New Jersey. It's money the towns use, appropriately, for cleanups, enforcement, education; and it effectively reduces litter.

However, I will at this point talk about the program since the passage of the bill in 2002 and the funding of the Clean Communities Council. Clean Communities Council receives \$300,000 -- in the new bill, \$375,000 -- to carry out a program of public information and education.

In 2004, we conducted and released a litter survey. It was conducted by GBB consulting firm in Fairfax, Virginia, and the International Research Institute.

The findings were that a bottle bill is not an effective way to reduce litter in New Jersey. A visual litter survey means a crew of people -- men, women -- went out and counted litter on the streets of New Jersey. Over 21 percent of that litter counted was packaging, and only 9 percent bottles and cans. The Clean Communities program addresses all 15 categories and many forms of litter.

It also indicated that litter is found in our densely populated areas or urban areas. So in 2003-04, the Clean Communities Council set up an urban cleanup team project. And this was with a limited amount of money. We wanted to put some money into urban areas to promote urban education, to draw attention to the litter problem in a simple way. We

carry out at least one volunteer cleanup every year -- many cities, more than one, depending on the amount of money they receive -- garner the support of public officials, volunteers, partners, community organizations. Fifteen towns are part of the urban state -- urban cleanup team. And that includes cities such as Trenton, Newark, New Brunswick, Bayonne, Jersey City, Camden, Atlantic City, to name a few.

A real positive result of that project is our Kids for Clean Communities, Clean Teens program. We have marvelous education programs, not only in urban areas, but all over the state as a result of the Clean Communities funding.

ASSEMBLYMAN McKEON: May I ask you a question, Ms. Huber?

MS. HUBER: Yes.

ASSEMBLYMAN McKEON: I'm sorry. Are you presupposing that the Recycling Enhancement Act -- this bill will be further amended to take away the resources that are filtered to Clean Communities? I'm not quite understanding what you're--

MS. HUBER: I understand that there is a provision that is in this new proposed bill for Clean Communities. I'm not sure that the funding would be enough to handle the program.

ASSEMBLYMAN McKEON: Excuse me, if I can.

MS. HUBER: Go ahead, please.

ASSEMBLYMAN McKEON: Let me clarify this point, as it relates to the bill that's now been in effect for all of 30 days, give or take -- that provision is in the bill.

MS. HUBER: Right.

ASSEMBLYMAN McKEON: However, should this matter move for the sake of going through the process beyond the informational hearing today, the primary sponsor may be looking to amend it to preclude that change.

UNIDENTIFIED SPEAKER FROM AUDIENCE: Mr. Chairman, there's also preemption language--

ASSEMBLYMAN McKEON: I'm sorry. I apologize.

Thank you.

I just want-- That, I think, is ultimately the intention.

So I appreciate your testimony. But I think we're all very mindful of the wonderful work Clean Communities does, as it relates to the recent passage of the Legislature to continue to send funding to enhance all of their efforts.

So could you wrap up your testimony, please?

MS. HUBER: I certainly will.

Again, just to conclude, thousands and thousands of volunteers are participating in the Clean Communities program. We address more than just bottles, and cans, and plastic. And we really feel this is a wonderful alternative to the bottle bill.

ASSEMBLYMAN McKEON: I appreciate it.

Thank you for your help with our special recycling program in my own community. I appreciate it.

MS. HUBER: Yes.

ASSEMBLYMAN McKEON: Okay, thank you.

Dave Pringle, from New Jersey Environmental Federation.

Hello, Dave. I haven't seen you for a long time. Where are you at?

And Mike Pisauro, from NJEL.

Mike, I haven't seen you for at least 10 minutes. (laughter)

DAVID PRINGLE: Thank you, Mr. Chairman.

I think I'm finally old now, because they say if you stay around long enough, you'll see the same things over and over again. And my first issue that I worked on, professionally, was the bottle bill back in 1988, for New Jersey PIRG. And Rob (indiscernible) was my boss -- and specifically the Mercer County Bottle Bill. We did -- Mercer County has a county executive, and so the people in Mercer County have the right to issue a referendum. And so we made an effort to get that done, and we did a bang-up job. We ended up not getting it done, but we were outspent 40 to 1, and it was remarkably close considering we were outspent 40 to 1.

And I hear the same arguments.

ASSEMBLYMAN McKEON: You sound like Hillary now. Come on.

MR. PRINGLE: There you go.

I'm hearing the same arguments now, and one I was going to make a joke about, but the previous witness just set me up for it.

The industry, in 1988, ran an add that said the bottle bill causes AIDS. That sounds funny, but we just heard that the bottle bill is going to cause disease. And I don't know about the rest of you, but I'm not aware of any epidemics going on in California, or Michigan, or New York, or Massachusetts. So I would ask the industry to back up that statement

with some kind of documented evidence of all the epidemics going on because of the bottle bill.

I was very disappointed to hear the Clean Communities Council raise issues with this. It doesn't have to be an either/or. The Clean Communities is a good law. I'm glad it's here. I'm very unhappy how it came to be, which was-- It was a brilliant move by the industry to prevent the bottle bill from happening. They're not mutually exclusive. They can, and should go hand in hand.

And there has been a lot of testimony today. I'd just like to leave it at that and say that the Environmental Federation -- which has spent as much, if not more, energy on solid waste issues over the last 20 years than any environmental group -- thinks the bottle bill is a very important piece of legislation. It's a very logical next step, in addition to Clean Communities, to address the solid waste issue in and of itself, but also given the global warming challenges that we face today.

Thank you.

ASSEMBLYMAN McKEON: David, thanks.

Michael.

M I C H A E L L. P I S A U R O JR., ESQ.: Thank you, Mr. Chairman.

Again, I'm here on behalf of the New Jersey Environmental Lobby. I'd like to help support this bill.

There have been multiple studies on the issue. I mean, we're looking at a recycling rate, overall, of 30-some percent here in the state, and we have to improve it. Getting 80, 90 percent of the bottles out of the waste stream-- That, in and of itself, is a worthwhile goal. It helps reduce

the need for energy in producing new bottles. Also, the Government accounting office -- or Accountability Office has indicated that those communities that both have a curbside program as well as the deposit bills are not finding that it is a detriment to the curbside program, but they work hand in hand.

So with that being said, again, I'd like to thank the sponsor. And I look forward to this bill becoming law.

Thank you.

ASSEMBLYMAN McKEON: Mike, thank you very much.

I need to just step out for a second.

But John Holub, of the New Jersey Retail Merchants Association; and Clark Martin, of the Beer Wholesalers Association of New Jersey.

Reed is just going to take over for a moment. I will be right back.

ASSEMBLYMAN ROONEY: Clark, did you bring any samples? We could use one right now.

CLARK MARTIN: My name is Clark Martin. I represent the Beer Wholesalers of New Jersey.

My client chose today to go to Washington, D.C. So if you're going to ask me how many cases of beer are sold in New Jersey, that's going to have to wait for the next hearing.

I was thinking as I was listening to all this that the most popular movie out this weekend is *Iron Man*. And if I have to take the message to the New Jersey working man that a case of beer is going to cost them \$2.40 more, plus whatever markup -- so you know there is a markup

of about 15 percent -- so the case of beer is going to cost at least \$2.50 or \$2.65 more, I hope you give me one of those *Iron Man* suits, seriously.

We just don't see how it works. We know where it starts. It starts with us giving the State of New Jersey \$2.40 a case, or \$1.20 a case, or \$3.00 a case, depending on how big the case is. So that's where it starts. How we get the money back-- You think we can mark it up and people will buy beer here instead of some other state? I don't know.

But we have grave concerns about this. And I will just stop there. I know that you do want to know some of the facts and figures of how many bottles we sell a year. And I will have that for you at the next--

ASSEMBLYMAN GUSCIORA: Thank you.

Mr. Holub.

J O H N H O L U B: Thank you, Mr. Vice Chair, members of the Committee.

My name is John Holub. I'm President of the New Jersey Retail Merchants Association.

My comments will be very brief. I think some of my colleagues have already made a lot of the points that I would have.

But I would just like to begin and thank the Assemblywoman. A few weeks ago we had an excellent meeting with you. And we do appreciate your offer to continue to work with us. I think you were very open to our concerns, and we do look forward to continuing to work with you on this very important issue.

But we do -- for the sake of informing the Committee -- we do have several concerns. The ones I just kind of want to highlight that maybe haven't been necessarily addressed are-- You know, first and foremost, this

will create a significant burden to retailers, mainly because it makes us garbage collectors or, probably more appropriate, recyclers. And there is a cost associated with creating infrastructure to collect, and to store, and to recycle these bottles.

As part of the Retail Merchants Association, we have one group under our umbrella -- the New Jersey Council of Chain Drug Stores. Pharmacies, I think, play an important and critical role in the health-care delivery system in the state. And granted, there might not be any documented health concerns of the storage of these bottles, but I think there is a potential for health problems and health concerns. And, quite frankly, I don't know if my pharmacies want to take that risk. We're in the health-care business, we're not in the recycling and garbage collection business. So I think the health issue is a very valid concern, and that should be considered.

Also too, there was one person who talked about how this is going to lower the cost to local and State governments. I know there have been some discussions about that. I don't think the cost of recycling disappears. I really think it's just being merely shifted to retailers. So I really think there's an unequal burden being placed squarely on the shoulders of retailers just simply because we sell this product and offer it to the consumers. So that is a concern.

Also, I think -- and hopefully Assemblyman Gusciora would agree with me. I think this bill is slightly inconsistent -- somewhat inconsistent with -- where I think the direction where we might be going with a lot of environmental policies in the State.

We worked very closely with the Assemblyman just this past year on electronic waste. And the model that was agreed upon by retailers, by the environmental community was a producer-responsibility model. That placed more responsibility on the person whose name was on the product. And a lot of the reasons-- There was an advanced recovery fee. And I believe that was rejected mainly because of the burden -- the unfair burden that was placed on the retailer to have to collect that fee and then remit it back to the State.

And so I think there are very similar parallels between the advanced recovery fee and a deposit bill. We'd have to collect the fee, we'd have to redeem it to people. So there is a significant cost associated with the retailers in doing that and being involved in that process.

Lastly, and just one kind of big-picture item I think I just want to touch on, is that I really think the bottom line of all this is that this is really, ultimately a consumer behavior aspect. I know in a perfect world, we could have tons of money, and educate the consumer, and everything would be recycled. But I think environmental awareness, I think we could all agree, is at an all-time high right now. It's cool to be green now, I think it's safe to say. And I think we need to capitalize on that. I think we have an existing structure, an existing mechanism in place. I'm not-- I would freely admit I'm not the most green person, but I'm pretty vigilant. Every other week I put my green can and blue can out behind my house, and I'm very vigilant recycling. And I think there's an opportunity here, specifically with the trash tax that was passed last year. There is some money available. I think we need to maybe focus our efforts on an existing structure that has already been created. We've got a couple of dollars to start working on it

and educating people to hopefully boost those recycling rates that weren't bad at one point. They've dropped considerably in recent years. But I think we can get back up to that. And I think we need to capitalize on the environmental awareness that's out there right now.

So with that, I'd be happy to answer any questions.

ASSEMBLYMAN GUSCIORA: No further questions.

Thank you very much Mr. Holub.

John, work on your greenness. (laughter)

I'd like to call up Betty McLaughlin, from the Container Recycling Institute; and Al DuBois, from Clifton, New Jersey.

B E T T Y M c L A U G H L I N: Good afternoon.

Is this on? (referring to PA microphone)

ASSEMBLYMAN GUSCIORA: If it's red, it's on.

MS. McLAUGHLIN: It's red; it's on.

My name is Betty McLaughlin, and I'm the Executive Director of the Container Recycling Institute. We are a small, nonprofit organization that was founded in Washington, D.C., back in 1991, and we're now located in Glastonbury, Connecticut, just outside of Hartford. We serve as the national clearinghouse for information about beverage container recycling and wasting. And we're submitting-- I have submitted written testimony, which I will summarize. And if people have questions, I'd be happy to answer them.

What we do is analyze beverage sales in the United States and then state by state, using information that is reported to the Beverage Marketing Corporation in New York City. And we index that information to U.S. Census data in order to get state-by-state information to be able to

determine beverage sales. And then we communicate with departments of conservation or environmental protection to determine recycling rates in the various states, to get a picture of what is available to be recycled through container deposit legislation or, frankly, any other method that might capture beverage containers.

It's a tremendous amount of waste and also a tremendous amount of valuable material, which is why we focus on beverage containers. It's aluminum, plastic, glass, all of which are highly recyclable and desirable by processors who want to put this material back into the marketplace for -- as recycled content for new products. So there's a real need to capture this material and to capture it, frankly, at a much higher rate than we're doing in the U.S. and here in New Jersey, as well.

We have done these beverage market data analyses. There's a copy of it in your -- in my testimony. It's the last page. This is the New Jersey-specific data, which I think you might find surprising -- that of the beverages that you're considering in this legislation -- we're talking about almost 6 billion containers that you could be capturing. And, again, your current rate of 33 percent -- you could be doing significantly more with your \$0.10 deposit.

In the 10 states that have a \$0.05 deposit, we see about a 66 to 70 percent return rate. And people have already said that in Michigan, it's well over 90 percent, fraud notwithstanding. It's still a significant return, much greater than anybody gets in any kind of a curbside program.

The other thing that's really important to remember about the curbside programs -- and this varies from place to place, and state to state. But in many cases, a curbside program is funded by taxpayers. And with a

container deposit system, it's obviously not funded by taxpayers, it's privately funded, which is good for the people who have to make tax policy and maybe have to raise taxes in order to continue to fund the program.

But it's also really important for processors and end users, again trying to keep that loop for getting the recycling really recycled and reused, as opposed to just collected and then maybe discarded elsewhere, because it isn't fit for being recycled after all.

But it's important for the processors who want to purchase this material to know that there's going to be this steady supply of material. It's important for them to be able to make infrastructure investment and to just make a business plan, to know that they're always going to have this material coming in. We know that municipalities, that have to juggle a lot of different services that they provide, are torn and oftentimes have to either curtail or suspend the recycling program. When you have the privately funded system, that's never going to happen. So you're always going to have this material coming in. And that's, again, very important for infrastructure investment.

I do have a bunch of numbers in my testimony, which I hope you'll take a look at. The important one for New Jersey, again, is that 6 billion unit number.

The second page of my testimony is a short summary of the growth in the beverage market that we've seen in the last few years. From 2000 to 2006 you see a tremendous jump there. And I think what that-- The reason this is included is just to demonstrate that we simply need to do a better job of capturing this material. We certainly need to do much better

than what we have been doing with just trying to rely on a curbside program.

I had the opportunity, last week, to sit on a panel at the National Solid Waste Management Association's waste expo in Chicago with a representative from the American Beverage Association, which is formerly the National Soft Drink Association. And in that presentation that was made last week, the representative mentioned that they estimate -- and I don't know how they estimate it -- but they estimate that two-thirds of the material that they put into the waste stream of their beverages are consumed at home, which means one-third is consumed away from home, which is why it is really important to have the beverage container deposit system, as opposed to trying to rely on curbside to capture all this. Because if you're not at home and near your curbside bin, you're not going to get your containers in there.

So looking at the national sales average, even if you take the two-thirds number -- which, again, I don't know where they got that from, but it's their own number -- you're talking about 75 billion containers, nationwide. So that's a tremendous number of containers that need to be captured with some other system other than relying on curbside. And, again, the container deposit system will do that for you, because people have the incentive to bring it home -- or if you get it to a recycling center, back to a retailer. Because it has that nickel or dime associated with it. And it's not trash. That's part of the reason that we want to have the deposit associated right with the container itself -- to send the message to people that this isn't trash. It's valuable material that needs to be captured and recycled.

Again, we need to be thinking about this in a 21st century way. This is not about-- It does avoid landfill space, and it keeps the streets clean, and so forth. But it's about much more than that. This is really a system for providing manufacturing with raw materials.

And so the notion that it's trash or dirty in some way is something that we need to dispel. We need to get customers and consumers to stop thinking that way and to start thinking about it in terms of resupplying the manufacturing base with raw materials and commodity-grade raw materials. And you get that when you keep your materials separated, not commingled at the curbside, and available for processors to purchase clean material that they can then reuse.

Again, very important for climate change and energy consumption. It takes 95 percent less energy to make an aluminum can out of a recycled can than from virgin materials. That's a significant, significant gain for climate change.

I can tell that my clock is ticking, so I want to make sure that I cover the things that I want to.

Again, I don't want to get too much into the litter problem, because a lot of people have already spoken about it. But again, that \$0.05 incentive is truly enough to make some people decide not to throw it away at all. And it's certainly enough for somebody else to come pick it up. So it's not designed to cover all the litter problems, it just addresses the beverage container litter. But it does it in a very good way. We find that in states where they have container deposits, the only bottles and cans that stay on the street any length of time are the ones that don't have deposits.

You will hear a lot about costs. And it's very difficult to get into all of the costs, especially in five minutes or less. But I would urge you to take a look at the -- what is referred to by the industry and recyclers as the *BEAR report*. It's a report that was done in 2002. It's about beverage container recycling. And it was a cost assessment -- kind of a value chain assessment of all the different aspects of beverage container recycling. It was Businesses and Environmentalists Allied for Recycling. Coca-Cola and some other big material processors, and environmentalists, and a whole host of people worked on this for a number of years. And there are a lot of cost numbers in there.

What they basically found was, for -- I think it's one-and-a-half cents more per six-pack, you could recycle two-and-a-half times the material if you use container deposit legislation and the reverse vending machines. So it really is a very effective way to recycle a tremendous amount of material that we really do need to recycle.

So I will just leave you with the final thought that this container deposit legislation does ensure that very high participation rates -- 70 to 90 percent. It generates a very high-quality material, which is what the processors want, and it does it at no cost at all to taxpayers.

Thank you.

ASSEMBLYMAN McKEON: Thank you very much, Ms. McLaughlin.

Mr. DuBois.

ALFRED J. DuBOIS JR.: Good afternoon.

I'd like to thank everyone for inviting me here today, especially the Assemblywoman and her legislation, which I totally believe in.

My name is Al DuBois. I'm with the City of Clifton -- Recycling and Clean Communities Coordinator.

I don't know if Sandy is still here, but Sandy has recognized our program probably 10 years out of the 20 years Clean Communities has been in existence. The United States EPA has recognized our program for the past 10 years also. And I--

They asked for 20 handouts, and I gave everyone this document that was produced by the EPA 10 years ago -- as Clifton being one of 18 model communities in the nation for collecting materials. Since that time, we have been a model community for waste prevention, reusability, refillability. We get awards each and every year in Washington for our source reduction programs. I just wanted to make that point so we have an understanding that I've worked with colleagues here on both ends. And it's very difficult to try to take sides here on such important issues.

But Clifton has the track record, and Clifton has the facts. We need a bottle bill. Not only do we need a bottle bill, but we need to go further in time. We're getting more bottles that will be refillable and reusable in the supermarkets.

Right now, ShopRite has a section in the store where you can refill your water bottle. You come in and you pay \$1.09 for the first bottle. And when you bring it back, you pay \$0.39. That is the way to go. You've eliminated the need for the ongoing, single-serve containers that get out there, and are collected, and then recycled.

Now, 20 years ago we passed a law stating that recycling was necessary, and it was going to solve all our problems. A year ago the State came out and stated clearly in their own document -- the Solid Waste

Management Amendment Plan -- that from the disposal capacity crisis of the mid-1980s, the dissolution of regulatory flow control of the mid-1990s, and the failing recycling rates over the past several years-- So it's clear that DEP has stated that 20 years of mandatory recycling has failed. That's a fact. So let's thank the Assemblywoman here for trying to present something that we need as a step in the right direction.

Not only has recycling failed, but recycling is not a panacea, because recycling takes energy. If we all watched Al Gore's movie -- and his Nobel Peace Prize on the environment -- it takes energy -- a lot of energy to recycle. And if we keep utilizing single-stream containers, we're going to utilize a lot of energy. We're not going to have much of an impact on climate change or global greenhouse gas emissions. That's a fact. So the bottle bill is a step in the right direction on how to collect these materials and utilize them properly.

I've heard a lot of different things today, so I'll try to comment on some of them as best I can. Recycling is costly. I run a program. As I said, Clifton has been recognized for years. We receive \$450,000 to \$500,000 a year in revenues from the sale of recyclable materials -- source-separated recyclables. We market everything as a commodity -- glass separated by color.

Most of the state collects glass commingled. In those -- in collection of that glass commingled, that glass goes to certain processors. That glass is kept commingled because it cannot be separated, and it cannot be recycled. It is crushed and is mostly utilized as landfill cover. So we're not recycling any of that glass. Sometimes they'll use it for glassphalt, and sometimes they'll try some other experiments in utilizing it for drainage

ditches or some other means. But primarily, if you go to the facilities that I went to -- some of the big facilities -- it's used as landfill cover. So we're not recycling. Yet, the documentation shows that we're recycling. It's claimed as a beneficial reuse, it gets tonnage credits, and it's even utilized in the numbers that they're stating as far as reducing our greenhouse gas emissions. So we're not doing any of that.

ASSEMBLYMAN McKEON: Mr. DuBois, I appreciate the-- I've heard of your program. You're a great example of a wonderful public official. But I'd like you just to do your best to wrap up now. I'm going to lose a lot of my Committee members shortly.

MR. DuBOIS: You would like me to wrap up?

ASSEMBLYMAN McKEON: If you could. I've got two more witnesses.

MR. DuBOIS: Have I expended my time?

ASSEMBLYMAN McKEON: That would be yes. (laughter)

MR. DuBOIS: All right.

ASSEMBLYMAN McKEON: Take another two minutes.

MR. YENNIOR: (speaking from audience) Industry officials got many more minutes.

ASSEMBLYMAN McKEON: Sir, if you're going to be spoken to, then please be recognized by the Chair. Don't do that again.

MR. DuBOIS: All right. I just ask that you recognize that we have a track record, that the facts are there, that we probably need additional serious dialogue among everyone here for further understanding.

However, for environmental reasons, the bottle bill is the way to go, as the next step. And not only is the bottle bill -- but we need to go

beyond the bottle bill to refillables. The DEP has clearly stated for 20 years it's a failure. As Clean Communities Coordinator, there's a tremendous amount of litter still in certain locations. It's gotten a little better. However, the litter does consist of bottles and cans. In order to control that, we need a system to build on.

And just to quote DEP -- and this is in the forward. They have stated in the forward -- not only did they state that it failed, but they also later on state that the plan -- solid waste management -- is designed to be a living document.

And I think we should look at that. That will prompt additional dialogue and development of additional initiatives to enhance solid waste management and recycling opportunities in the state. I think the Assemblywoman has done that. I think we need to build on that as best we can.

Thank you.

ASSEMBLYMAN McKEON: Thanks.

And, again, you have a nice reputation. I hear good things about the programs in Clifton all the time.

MR. DuBOIS: Thank you.

ASSEMBLYMAN McKEON: Thanks for coming here, sir.

Two more witnesses, Mr. DeFeo and Mr. Brill.

And for the gentleman from the Sierra Club, I didn't mean to give you a hard time. But at the end of the day, it's not a matter of quantity, it's a matter of quality. So hopefully give us some credit to siphon through some of that.

WAYNE DeFeo: Good afternoon, Mr. Chairman.

ASSEMBLYMAN McKEON: Speaking of all kinds of quantity, here's DeFeo now.

MR. DeFEO: I'm going to be brief, I promise. And I even cut out Mr. Brill in the spirit of being brief. I've eliminated him from our testimony.

ASSEMBLYMAN McKEON: Thank you.

MR. DeFEO: Not personally, just generally.

I'm here today representing the Association of New Jersey Recyclers. We are the only statewide organization committed to recycling improvement throughout New Jersey.

To be very, very brief, first and foremost, let's talk a little bit about the bottle bill and what it means. The bottle bill will go after the most valuable commodities in the recycling stream. Aluminum -- in one of our counties that I work with to enhance their program -- amounts to about 1 percent, 1.5 percent by weight of all the recyclables, but 18 to 20 percent of all the revenue. You go after that at a rate of 90 percent, think of the impact.

What does that mean? A huge cost to taxpayers. We don't eliminate the curbside program, we don't eliminate the drop-off center, we add a third program. I'm schooled as an environmental scientist, but I've learned to become an economist. If I add more programs to do the same job, I add cost. It's a simple enough field. Or I compete-- When I compete for the same dollar, I add cost.

So a bottle bill's impact: negative on the economy, negative to the taxpayer, negative to municipal budgets.

Additionally, both the Clean Communities Act and the bill that we worked so long and hard on to pass -- the Recycling Enhancement Act -- have drop-dead provisions. If this bill is to go forward and pass, all that tax money is lost. And that tax money is assessed against generators of solid waste and litter-generating products. It seems to me if we want to disincentivize -- is that the right word? -- the generators of solid waste and litter, we make it more expensive. We've done that. After -- I hate to think -- how many hours we sat in committee working on that.

We talk a little bit -- and briefly talk about emissions and greenhouse gases. The bottle bill, as it's designed here today, will increase greenhouse gas emissions simply because it requires another infrastructure. More infrastructure means more miles traveled, more miles traveled means more emissions. It's a negative bill to the environment.

You heard some comment on take-away bottles. In programs I've worked on now throughout the country -- especially at universities in New Jersey and New York, also at public schools in New Jersey, and in State buildings I might add -- we have more than doubled the rate of recycling, not through a bottle bill. We put out recycling containers and simply made it convenient to recycle. A bottle bill is a step backward three decades.

Recycling, today, is moving toward making it easier to recycle. Some of you probably live in communities with what we call *single stream*, meaning put cans, bottles, and paper together. The more we make a program easy for people to engage in, the more likely they are to engage in the program.

So what do we want to do? This bill would take us backward; and force people, and force manufacturers, and force business providers, and, most importantly, the consumer to pay a third tax -- possibly -- to increase road miles, to increase effort. And I hate to say, we are not a society that likes to increase effort, but we are a society that does not like increases in our effort.

After three decades of moving toward making recycling easy for people to engage in, and simple, this is a huge step backward for you to consider.

And lastly, I will again only comment one more time -- because I know it's late. There are markets for glass today. We currently have a market at \$72 a ton in one of my programs that I'm working with. So markets for glass have increased. And in terms of the take-away and PET bottles-- Everyone is worried about water bottles. One of the programs we worked on -- a mechanic in the shop, through an investment of \$150,000 capital, is generating over \$10,000 a month in revenue for the program. That's a pretty good return on investment. I'd take that any day of the week.

Thank you very much for your time. I'm open to any questions.

ASSEMBLYMAN McKEON: Mr. DeFeo, thank you.

I'm going to--

ASSEMBLYMAN ROONEY: Yes, quick question.

Aluminum and-- How much are you getting for aluminum per pound?

MR. DeFEO: Aluminum, right now, is upwards of \$0.70 a pound.

ASSEMBLYMAN ROONEY: Because Reed Gusciora had a question earlier. I think this is the right person to ask. Thirty cents a pound?

MR. DeFEO: Seventy.

ASSEMBLYMAN ROONEY: Seventy cents a pound.

Thank you.

MR. DeFEO: All time high.

ASSEMBLYMAN McKEON: Are you good, John? (affirmative response)

Mr. DeFeo, thank you.

Thanks very much to all of the witnesses. We, I know, all collectively found you incredibly knowledgeable and compelling in both your passion, as well as your knowledge on the subject.

I can speak personally to note that I'm leaving with seven or eight inches of documents from all of the testimony, some of which were summarized. But we'll get a chance to review it again. This is one of those topics where certainly you're going to be able to get through all this.

ASSEMBLYMAN ROONEY: Couple comments.

ASSEMBLYMAN McKEON: I can see you waving there, John.

ASSEMBLYMAN ROONEY: I know.

ASSEMBLYMAN McKEON: As I promised everybody-- I'm going to start with the sponsor -- will give us all a chance to sum up ourselves as to our thoughts at this point. We don't have any date specific to relist this on Committee for action, but rather we're going to take this all

in again, to our value, to process and see where we go with this particular piece of legislation.

Again, Assemblywoman, with my great compliments--

ASSEMBLYWOMAN VAINIERI HUTTLE: If I may yield to my colleagues first-- So I will listen to their sentiments first.

ASSEMBLYMAN McKEON: You want to go last?

ASSEMBLYWOMAN VAINIERI HUTTLE: Thank you.

ASSEMBLYMAN McKEON: Okay. That would be fine.

Assemblyman Van Pelt, if you would like to be heard.

ASSEMBLYMAN VAN PELT: Sure, Chairman.

I will keep my remarks brief. And as I digest the information in the testimony, the only concern that I would have on its face value is, while I appreciate the intent of the legislation, I think any time -- especially in this day and age, where you're advocating the role of government, when we can't manage the government we already have effectively, I have concerns with.

That's it. Thank you.

ASSEMBLYMAN McKEON: Thank you very much, Assemblyman.

Assemblyman Rooney.

ASSEMBLYMAN ROONEY: Thank you.

Mine won't be as brief.

There are some questions I have about the bill, and they're rhetorical, so you don't have to answer right now.

There are two questions -- whether it's *R* or *R*. Is this bill for revenue, or is it for recycling. For revenue, I don't think it's going to

accomplish what you're asking it to do for the simple reason, if people-- In my town, in my district, people are not going to pay this. You know exactly where I live, four blocks from my house is the Rockland County line. When you're looking--

I looked at your picture, and I noticed in that picture, most of those bottles -- over half of those bottles are water bottles. And in New York, it's not a deposit item. So people who are buying water bottles are still going to go up to New York and buy it there and possibly throw it on the road.

The other problem that you have is that \$0.10 on a container and \$0.20 on a container basically will force people in my district to go across the border, again. You are going to devastate the businesses, whether they be the ShopRites in my own town, or whether they be the small mom and pop shops. They're going to lose all of the revenue and all of the business from people coming into their stores. Because a nickel a bottle or nothing a bottle, versus \$0.10 and \$0.20 bottle is -- it's a no-brainer. People are going to go to New York and purchase that. So I have a specific problem in my district.

What we're really looking at is the 35 percent recycling that you claimed earlier. There's one way to increase that. You've got to enforce the recycling laws in New Jersey. I think we've talked about my *shake and take* bill. The shake and take basically says that if the garbage man comes to your house to pick up garbage -- and they're usually in those closed, black, plastic bags -- I know they are at my house. He grabs it-- And he usually grabs it and throws it in the truck. He shakes it -- in my town, that's in the contract. He shakes it. If he hears bottles, or if he hears

aluminum cans, or if he even sees the outline of a plastic bottle, he leaves it. If he sees paper, if he sees grass, he leaves it. And the person calls up the borough hall and says, "Hey, why didn't they pick up my garbage?" And at my borough hall, they have a script. "Well, do you have this, this, this, this, or this in your garbage?" And the person says yes. And they say, "Well, you're not going to get it picked up until you take those items out." If you do that, there's only one time that person has to call the borough hall to ask about their garbage being picked up. They learn. They learn by experience. So that's the way to enforce it.

The other thing is that, there are a lot of cameras out there on lampposts today. Why aren't we looking at the cameras and looking for the people who are throwing these things by the side of the road? If it's coming out of a car, they can take a car and actually see the license plate -- that they went through a red light, or they were speeding, or something like that. Why don't we enforce the laws on littering? That's what we have to do. These are the kinds of things that we need to do to increase recycling and to stop people from littering.

Barbara McConnell had sponsored that bill.

Well, Barbara, you and I are similar. Because when I was Chairman of the Solid Waste Committee, I sponsored the bill too. And I saw that this wouldn't work. It devastates small businesses. They don't have the ability to take these bottles back. So I've got major, major problems.

I believe in the environment. But the way to increase recycling is get it at the source. Make sure that people are recycling at the source.

Another interesting thing, for the person from the Recycling Council. Somebody said soft drinks recycled -- two-thirds of them are home, one-third is away. I'd be happy if we could get two-thirds of those. Those are soft drinks. Hard drinks, on the other hand, are basically consumed at home, or consumed in restaurants, or bars, or whatever. That's a fact. So that's 100 percent that can be recycled. Recycling is easy if you push people.

And somebody also said people are lazy. I think it was Wayne. They're lazy. They don't like to have it difficult. Well, it's not going to be difficult. The thing is, force them into doing it, make it-- And I know from my experience as Mayor, when you're looking at aluminum at \$0.70 a pound, when you're looking at \$72 a ton, it's very beneficial to the municipality to get that. You're going to be taking that away from the municipalities. The ones who are doing a good job are now going to lose that revenue.

So I think that this is the wrong idea. It was wrong when Barbara McConnell sponsored it, it was wrong when I sponsored it. And, Ms. Huttle -- we're friends, I hope. And it's wrong when you're sponsoring it. This is not the way to go. Let's go with a better plan for recycling.

Thank you.

ASSEMBLYMAN McKEON: Thank you, Assemblyman.

Assemblyman Reed.

ASSEMBLYMAN GUSCIORA: I don't think there's any question that this bill will help clean a litter problem. But the question that remains in my mind is whether this hinders or helps, whether it augments

the recycling -- existing programs. And that's the one question I need to resolve.

ASSEMBLYMAN McKEON: Assemblyman Barnes.

ASSEMBLYMAN BARNES: No comments or questions, sir.

ASSEMBLYMAN McKEON: Thank you.

Matt.

ASSEMBLYMAN MILAM: No comments.

ASSEMBLYMAN McKEON: And now, with no further ado.

ASSEMBLYWOMAN VAINIERI HUTTLE: Do you have any comments?

ASSEMBLYMAN McKEON: I'll finish. How about that?

ASSEMBLYWOMAN VAINIERI HUTTLE: Thank you, Chairman.

First of all, I just want to clarify, it's \$0.10, not \$0.20. There will be an amendment that will be less complicated. It will be \$0.10 on all beverages.

And secondly, the shake and take system-- I think Mr. Rooney's shake and take system-- I don't know how you implement this going door to door. I think it takes much more personnel power to do that, much more time.

But aside from that, I just want to go over the actual funds of the unclaimed deposits, which is quite an incentive for the State of New Jersey to look at in this state today. We're looking at either \$40 million to \$50 million in unclaimed deposits. This is statistically proven if you take Michigan at \$27 million and New York at \$80 million. And when you said New York doesn't have plastics, that's the incentive here, of the additional

incentive, when we do recycle the plastics. Plastics, with the increase of water consumption here in New Jersey, is clogging up of the waterways, and the pathways, and the parks, and so on.

And I do respect, from 1988 -- and everything that was done in the '80s. But the difference is 20-somewhat years now, today, presently. I think there's much more awareness, there's much more opportunity for green jobs, and as we heard from Sarah -- I'm sorry, from Betsy -- there's also the aluminums and the taking of the recycling -- the aluminums -- and how influential, and how important it is -- of taking that back into the state to recycle that.

With all that's being said, we're still looking at reducing tipping fees when it comes to municipalities. We didn't talk about the cost in reduction because they're not taking as much excess trash into the incinerator or landfills.

So I listened to both sides. I really haven't heard solutions, though, from the other side. And I'm looking forward to working with all sides to come up with a compromise and come up with solutions. Because we both -- we all agree that recycling is down, and we need a way to enhance our recycling. So, right now, this is a great step to solve that problem.

And I appreciate the opportunity and the dialogue, Mr. Chairman.

Thank you.

ASSEMBLYMAN McKEON: Thank you very much.

And, again, I compliment you very much on all of your hard work and continued efforts as it relates to increasing recycling.

Just one or two general comments I have. One is that, with the Recycling Enhancement Act just having been passed and literally being in effect just for several weeks now-- Although I don't speak for Senator Smith, I can assure you -- who is my colleague as the principal sponsor on the Senate side -- and I on the Assembly side -- having worked long and hard to get to that point, there's nothing that I would move forward out of this Committee that would not give that a chance to move forward and see if it could accomplish much of what we thought that it would in advancing it for a long time. So that's first and foremost.

Second, as it relates to what my colleague, the Assemblywoman, just stated: Notwithstanding whatever good things will happen from the Recycling Enhancement Act, and that extra money for enforcement and for education, that's just part of the solution. And this is the first person -- albeit with an old idea, if you will -- or one that was -- or a recycled idea, no pun intended -- the only one I've thus far heard that might be a way to effectively address supplementing it to get us to the point of, not only to remove the tonnage from the solid waste stream -- I would agree that it's not a lot of pounds, per se, just by the nature of the composite -- but to get them out of the parks, to get them out of our estuaries, and rivers, and oceans; and leading to all the environmental and biological hazards that come along with that, that just maybe defy monetary quantification--

So I think that it's a very good idea to vet this and to talk about it. Because we certainly need to do more than we're doing now. And to all of those from the industry who were very learned in what they had to say, we're challenging you. If you don't want to be told what to do, tell us what

we can do to make up the difference. We're looking forward to hearing from your input.

And to those in the environmental community -- understanding that we need to -- the future is now-- In that regard, we're challenged to move sooner than later to continue to supplement our efforts to enhance recycling.

Thank you, everybody, for all your time.

This meeting is adjourned.

(MEETING CONCLUDED)

APPENDIX



**SIERRA
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NEW JERSEY CHAPTER

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www.SierraClub.org/NJ

Contact: David Yennior, Recycling Issues, at 973-844-1384 or dyennior@msn.com

The Smart Container Act (SCA), A121 was introduced in the NJ Legislature on 1/8/08. The Primary Sponsors are Assemblywomen Valerie Vaineiri-Huttle, Linda Greenstein, and Linda Stender. Co-sponsors are Assemblywomen Nilsa Cruz-Perez, Sheila Oliver, and Joan Voss.

The SCA places a 10¢ deposit on all plastic, glass, and aluminum beverage containers, as well as a 20¢ deposit on containers 24 oz up to 3 liters. Michigan has 10¢ deposits and has an astounding 97.3% recycling rate. NJ's plastic recycling rate is a dismal 30% and 50% for aluminum. Sadly, the rest of these recyclables go to our landfills and incinerators.

While eleven (11) states have deposit programs, with the SCA New Jersey can enact a model container deposit bill for the US. The SCA will reduce litter along roadsides, in our parks, waterways, and on beaches while funding environmental projects with unclaimed deposits.

Unclaimed deposits amounted to \$84.7 million in New York, \$28.5 million in Massachusetts, and \$23.5 million in Michigan. A reasonable projection for NJ might be \$50 million as the SCA covers water bottles, unlike NY, MA, and MI. The SCA would create a win, win situation.

NJ, a coastal state, has a responsibility to prevent plastic waste from polluting our waterways, precious Jersey Shore, and the Atlantic Ocean. Scientists have recently discovered a sea of plastic in the Pacific Ocean twice the size of the US that is being ingested by marine animals.

A National Bottle Recycling Climate Protection Act of 2007 H.R. 4238, imposing a 5¢ deposit on all bottles and cans in the US was introduced in the House of Representatives in November 2007, but NJ will be exempt if the SCA is in place.

Bottle bills help stem greenhouse gas emissions and energy wasted by the growing tide of disposable beverage containers. Last year in the US, 80 billion plastic water bottles went to landfills, incinerators, or became litter according to the Container Recycling Institute. Twenty times more energy is required to produce a new aluminum can than a can from recycled aluminum. Aluminum, plastics, and glass are valuable commodities, the bulk going to waste.

The SCA will provide enumerable fundraising opportunities for charitable or non-profit groups, increase jobs in the private sector, while reducing government and the tax burden on NJ residents. A container deposit is not a tax since it is fully refundable to the consumer.

The New Jersey Chapter of the Sierra Club, on behalf of our 23,000 members and environmental activists, wholeheartedly endorses the Smart Container Act. We ask for a speedy adoption of this important legislation.

Sierra Club: For Our Families, For Our Future

REMARKS BY
BARBARA MCCONNELL
ASSEMBLY ENVIRONMENT AND SOLID WASTE
COMMITTEE
A-121

CHAIRMAN MCKEON AND MEMBERS OF THE COMMITTEE, I SPEAK TO YOU TODAY AS A FORMER MEMBER OF THE STATE LEGISLATURE, AND AS SOMEONE WHO HAS SPENT A LIFETIME WORKING FOR, AND REPRESENTING THE FOOD AND BEVERAGE INDUSTRY.

WE MEET TODAY TO DISCUSS A-121 - A PROPOSED FORCED DEPOSIT BILL, AND WE HAVE ASSEMBLED A PANEL OF SPEAKER THAT WE BELIEVE WILL PROVIDE THE COMMITTEE WITH SOME COMPELLING REASONS WHY THIS LEGISLATION SHOULD NOT BE ENACTED.

IN THE LATE 1970s and early 1980s, NEW JERSEY WAS FACED WITH A CRITICAL SOLID WASTE PROBLEM, WITH VERY LITTLE INFRASTRUCTURE OR LAWS IN PLACE TO DEAL WITH THIS PROBLEM.

AS A MEMBER OF THE STATE LEGISLATURE, THE ENVIRONMENTAL GROUPS CAME TO ME AND ASKED THAT I SPONSOR A "BOTTLE BILL". THEY ARGUED THAT IT WOULD BE THE SOLUTION TO NEW JERSEY'S SOLID WASTE PROBLEM, AS WELL AS AN EFFECTIVE SOLUTION FOR LITTER. I LISTENED TO THEIR SIDE OF THE ISSUE AND INTRODUCED LEGISLATION. IT SOON BECAME CLEAR TO ME THAT A "BOTTLE BILL" WAS NOT THE SOLUTION FOR THE FOLLOWING REASONS:

- A BOTTLE BILL WOULD ONLY ADDRESS LESS THAN 4% OF NEW JERSEY'S SOLID WASTE;
- BOTTLE BILLS ARE ONE OF THE MOST EXPENSIVE REDEMPTION SYSTEMS IN EXISTENCE;
- BOTTLE BILLS IMPOSE AN UNDUE BURDEN AND COST ON RETAILERS;
- IN NEW JERSEY AT THAT TIME, THE LEGISLATION I HAD SPONSORED WOULD HAVE COSTS OVER \$60 MILLION DOLLARS, WHICH WOULD HAVE ULTIMATELY BEEN REFLECTED IN HIGHER COSTS FOR THE RETAILER AND THE CONSUMER; AND
- BOTTLE BILLS ARE NOT AN EFFECTIVE SOLUTION FOR LITTER.

IT BECAME APPARENT TO ME THAT NEW JERSEY NEEDED TO FIND A MORE COMPREHENSIVE SOLUTION TO SOLID WASTE AND LITTER.

OTHERS AGREED, AND IT WAS THEN THAT COUNTY RECYCLERS, FOOD AND BEVERAGE RETAILERS, LEGISLATORS, AND THE BUSINESS COMMUNITY, CAME TOGETHER WITH ONE OF THE MOST DIVERSE AND DEDICATED COALITIONS I HAVE EVER WORKED WITH. WE LOOKED FOR A SOLUTION THAT WOULD ENCOMPASS A LARGE PERCENTAGE OF WASTE, A SOLUTION THAT WAS CONVENIENT FOR THE HOMEOWNER; ONE THAT INCLUDED AN EDUCATION COMPONENT AS TO THE IMPORTANCE OF EVERY INDIVIDUAL TO "RECYCLE" AND PLAY THEIR PART IN OUR ENVIRONMENT; AND ONE THAT WOULD BE COST EFFECTIVE.

IT WAS THROUGH THE COALITION'S WORK THAT THE LEGISLATURE IN 1984 INTRODUCED, PASSED, AND MADE A COMMITMENT TO TWO IMPORTANT LAWS. 1) NEW JERSEY MANDATORY RECYCLING ACT WHICH HAS RESULTED IN EVERY COUNTY AND MUNICIPALITY HAVING A CURBSIDE COLLECTION SYSTEM WITH THREE OR MORE MATERIALS BEING RECYCLED; AND 2) PASSAGE OF THE CLEAN COMMUNITIES ACT, WHICH IDENTIFIED OVER 15 MATERIALS IN THE LITTER STREAM THAT SHOULD BE TARGETED, PICKED UP AND REMOVED.

INDUSTRY VOLUNTARILY AGREED TO PAY A SMALL TAX ON THESE 15 MATERIALS AT THE MANUFACTURING, WHOLESALE AND RETAIL LEVELS.

THE RECYCLING PROGRAM IN ITS FIRST YEARS WAS A HUGE SUCCESS RESULTING IN OVER A 40% TO 50% RECYCLING RATE UNTIL THE 2005 WHEN FUNDING RAN OUT FOR SUPPORT MUNICIPALITIES AND COUNTIES WITH INFRASTRUCTURE, MARKETS AND EDUCATION -- AND ENFORCEMENT, AND THE RECYCLING RATE DROPPED TO 33.8% - STILL ABOVE THE NATIONAL AVERAGE.

AS YOU KNOW, JUST THIS YEAR, LEGISLATION WAS PASSED SPONSORED BY SENATOR SMITH, AND ASSEMBLYMAN MCKEON THAT WOULD ESTABLISH A "RECYCLING ENHANCEMENT FUND". SENATOR SMITH SAID, "WE ARE POISED FOR A **RECYCLING RENAISSANCE** -- AND ARE VERY HOPEFUL THAT TWO YEARS FROM NOW WE ARE GOING TO SEE NEW JERSEY AS THE NATION'S LEADER IN RECYCLING AS IT ONCE WAS."

TWO YEARS AGO, THE CLEAN COMMUNITIES ACT WAS RE-AUTHORIZED, AND IT CONTINUES TO BE A TREMENDOUS SUCCESS, WITH INDUSTRY STILL HELPING TO NURTURE, SUPPORT, AND PAY FOR THIS PROGRAM.

NEW JERSEY'S TWO PROGRAMS ARE VIEWED BY THE REST OF THE NATION AS SUCCESSFUL PROGRAMS. WITH NEW FUNDING IN PLACE FOR THE RECYCLING PROGRAM, IT PROMISES TO HELP TOWNS AND COUNTIES TO RE-INVIGORATE THEIR COLLECTION SYSTEM, THEIR INFRASTRUCTURE, EXPAND RECYCLING IN SCHOOLS, PARKS, TRANSPORTATION HUBS, BUSINESSES, LANDLORDS, IN ORDER TO IMPROVE RECYCLING RATES.

THE NEW JERSEY LEGISLATURE DETERMINED IN 1984 THAT A 'BOTTLE BILL' WAS INEFFECTIVE, BURDENSOME ON A FEW, AND COSTLY TO ALL TAXPAYERS IN THE STATE. IN FACT, AS YOU LOOK AROUND THE NATION, AND AS THE BOTTLE BILL STATES SEEK TO "EXPAND THEIR BOTTLE BILLS", IT IS NO LONGER VIEWED AS AN ENVIRONMENTAL SOLUTION, BUT RATHER IT HAS BECOME ALL ABOUT "MONEY" – WHO GETS TO KEEP THE UNCLAIMED DEPOSITS. **THAT'S WRONG BECAUSE IN THE END IT IS THE CONSUMER AND THE RETAILER THAT PAYS THAT COSTS.**

FOR THIS LEGISLATURE TO ENACT A BOTTLE BILL AND IMPOSE A **DUAL, COSTLY, COLLECTION** SYSTEM TO OUR EXISTING PROGRAMS WOULD NOT ONLY TAKE

VALUABLE MATERIALS OUT OF OUR MUNICIPAL AND COUNTY RECYCLING SYSTEMS, ENCOURAGE FRAUD, BUT IT WOULD LIKELY IMPOSE AN ADDITIONAL \$100 MILLION IN COSTS AND AN ADMINISTRATIVE NIGHTMARE ON RETAILERS AND CONSUMERS.

AND, IN CLOSING, IT IS IMPORTANT TO NOTE THAT THE LEGISLATURE INCLUDED LANGUAGE IN BOTH NEW JERSEY'S RECENT *RECYCLING ENHANCEMENT ACT*; AND THE RE-AUTHORIZATION OF THE "*CLEAN COMMUNITIES ACT*" THAT IF A "BOTTLE BILL WERE EVER ENACTED, FUNDING FOR THESE TWO VITAL PROGRAMS WOULD BE REPEALED.

I RECOGNIZE THAT THE LEGISLATURE COULD "REPEAL" THAT LANGUAGE OUT OF THOSE TWO STATUTES, BUT TO DO SO WOULD BE GOING BACK ON YOUR WORD, AND AN ACT OF BETRAYAL TO THE MANY BUSINESSES IN NEW JERSEY AND THE NATION WHO FOR YEARS HAVE BEEN PAYING THESE TAXES IN ORDER TO SUPPORT THESE TWO VALUABLE PROGRAMS.

I URGE THIS COMMITTEE TO **NOT** VOTE FOR THIS LEGISLATION. LET'S CONTINUE TO WORK TOGETHER TO MAKE NEW JERSEY'S RECYCLING PROGRAM AND CLEAN COMMUNITIES PROGRAM THE SUCCESSFUL AND EFFECTIVE PROGRAMS THEY WERE INTENDED TO BE.

Statement of Kevin Dietly In Opposition to A-121: Assembly Environment and Solid Waste Committee

Chairman McKeon and members of the Committee, my name is Kevin Dietly and I am a Principal at Northbridge Environmental Management Consultants in Westford, Massachusetts. I am here today to speak to the Committee about Assembly Bill 121 – a measure that would establish an untested beverage container deposit program in New Jersey. I have worked on the implementation and analysis of deposit laws in the US and abroad for more than 20 years. I have also focused more broadly on the operation of other types of recycling and waste management systems. As an economist, my interest is primarily on the costs and benefits of deposits and other recycling systems. I am here representing the American Beverage Association.

I do not believe that a beverage container deposit program is an efficient or sustainable way to increase recycling or reduce litter. Research and experience with these programs bear this out. I would like to address several specific concerns with deposits in general and the particular impacts of this bill on New Jersey:

- **Undermining existing recycling programs.** Deposit laws take revenue away from existing recycling programs and could jeopardize their existence. New Jersey residents would then face higher local taxes and fees to offset the loss of revenue from scrap material. I estimate that this bill would cost recyclers \$70 million per year in lost revenue, plus the loss of revenue from the new waste disposal surcharge.
- **Raising costs.** Deposits are the most expensive way to recycle or clean up litter. Redemption and collection systems are labor intensive, requiring multiple handling of containers and are much less efficient than more comprehensive recovery systems.
- **Encouraging fraud.** Illegal redemption is common in deposit states and would reach new heights under the proposed bill because of the high deposit and incentive for empties to flow in from all neighboring states. Exposure from fraud then subjects the state to significant liabilities and would reduce or eliminate funding promised in the bill.
- **Losing business.** Imposing a deposit raises prices to consumers, as does the implementation of the costly redemption system. Since retailers bear the brunt of those new costs, consumers will see the result in still higher prices at the store. This will drive business out of state as it has in other deposit states. Research suggests that food retailers in border counties would lose more than 5% of total retail sales to neighboring states.
- **Increasing emissions.** More recycling offers greater environmental benefits, but not if the recycling system itself is inefficient and creates adverse environmental impacts. Additional consumer and commercial vehicle traffic to redeem and collect containers means significant new energy use and greenhouse gas emissions.

Building on the success and investment in New Jersey's existing recycling and litter control systems offers a far more effective and sustainable approach to improving waste management.

7x

Provisions of A-121

The proposed law draws elements from deposit programs in place in eleven other US states – all but one of which were adopted more than 20 years ago. The bill is unlike any other deposit law however and contains some unique provisions.

Most beverages in glass, plastic, or metal containers smaller than one gallon would carry a deposit – 10¢ if the container were 8 oz up to 24 oz and 20¢ if the container were 24 oz or larger. Beverages include beer, soft drinks, water, juices, teas, sports drinks, and coffee drinks; milk, wine, and spirits are excluded. Only Michigan and California (on larger containers) have 10¢ deposits; other states' deposits are 5¢. No US state has a 20¢ deposit on any containers.

Beverage distributors would register with the state treasurer and then each quarter pay the *prospective* deposit value on all containers to be sold in the next quarter. It is unclear how these estimates are to be derived or if they are to be reconciled against actual sales later on. Distributors would presumably pass these charges on to retailers who would, in turn, pass them on to consumers. No state requires distributors to advance deposits on one quarter's estimated sales – this represents a roughly \$100 million loan to the state for which distributors would not be compensated.

Beverage retailers would be required to accept any deposit container (except for alcoholic beverage containers if they do not sell alcohol) and pay the refund to the consumer. Retailers must also submit monthly reports to the state to receive refunds and must arrange for the recycling of the collected material. No state requires all retailers to accept all types of containers for refund. Also, with some exceptions in Hawaii and California, no state requires retailers to report to and collect refunds from the state.

From the state fund of deposits collected from distributors, the state would retain up to 1% for administrative costs, pay out refunds monthly to retailers, and redistribute any unclaimed deposits – 25 percent to retailers and redemption centers in proportion to the number of containers redeemed and 75 percent to the Clean Communities Program Fund. As noted below, I expect that New Jersey would have little or no unclaimed deposits to distribute.

Deposit Systems Are Not Efficient or Sustainable

Enacting a beverage container deposit law means that new infrastructure for redeeming, transporting, and processing beverage bottles and cans must be established. That system is separate from and, in many cases, duplicates existing recycling infrastructure. This separate recovery system has adverse impacts on existing recycling systems, has high operating costs, creates incentives for fraudulent behavior, hurts local businesses, and produces additional vehicle emissions associated with redemption. I will address each of these briefly below.

1. Undermining Successful Recycling Programs

A deposit program in New Jersey would compete with existing recycling programs. Tens of millions of taxpayer dollars have been invested in these systems, which capture a wide range of materials from paper products to cans, bottles, and organic wastes. These programs focus on collecting commodities, not just certain types of packaging or materials. Handling materials in

bulk, without the sorting, separating, and counting that is required in a deposit system, makes for a much less expensive and far more efficient recycling infrastructure.

Unfortunately, deposit systems target some of the most valuable commodities in the waste stream – aluminum cans and plastic bottles. These materials may provide as much as 70 percent of the revenue earned in a community recycling program. If these beverage container materials were diverted to a competing recovery system like a deposit/refund system, communities would lose that revenue and would need to cut back on recycling, or cut other programs to keep the recycling program operating.

Major recycling interests have recently announced their opposition to legislation to expand existing deposit programs in Connecticut, Massachusetts, and New York because of this issue. For example, FCR Recycling (headquartered in Charlotte and the operator of three facilities in New Jersey) determined that a planned expansion of Connecticut's bottle bill to include noncarbonated beverages would cost it \$900,000 per year in lost revenue in the state – some of which it shares with local communities and some of which offsets the cost of major investments made in Connecticut recycling infrastructure. FCR and the Connecticut Resource Recovery Authority (the state agency that oversees solid waste infrastructure) both oppose the expansion proposal. FCR has computed similar exposure to its operations and client communities in Massachusetts, totaling \$1.6 million per year.

Similarly, New York City's recycling contractor announced last year that it could not meet the financial obligations of its long term recycling contract with the City if additional aluminum cans and PET bottles were included in the deposit system and removed from the curbside program. The firm estimated an annual revenue loss of \$3.1 million per year from the expanded bottle bill.

The City of Columbia, Missouri made history in 1982 when it adopted the country's first municipal container deposit ordinance. Twenty years later it made history again, when residents overturned the ordinance in a referendum that was backed by the City's recycling program. Including the beverage containers in the municipal recycling program enabled Columbia to expand and upgrade its recycling program, operate more efficiently, and grow its recycling tonnage significantly since repeal.

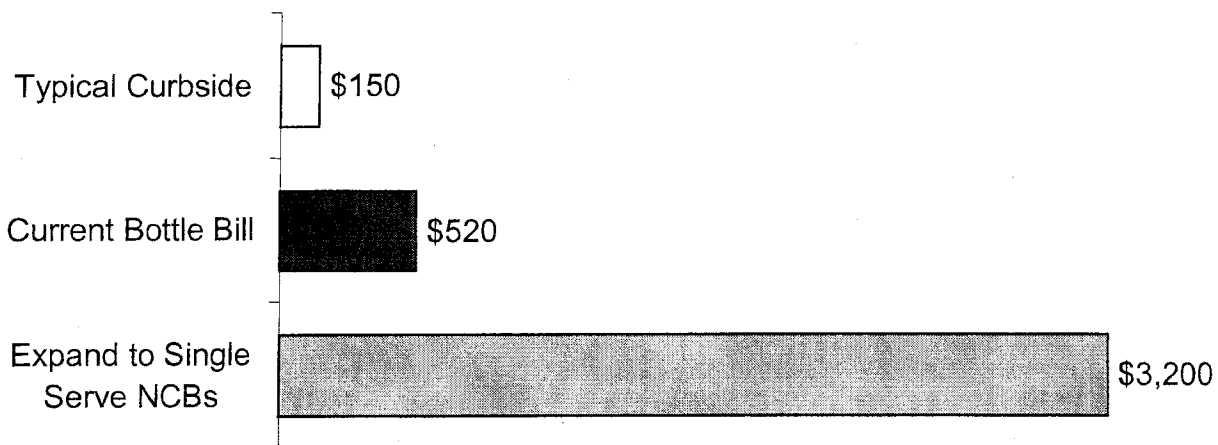
Based on the tonnage of aluminum and plastic containers recycled in New Jersey in 2005, we estimate the market value of beverage container material recycled at about \$70 million per year for recyclers in the state. Adopting a deposit law in New Jersey would transfer that revenue from existing recycling programs to the new redemption system. The high costs of that system would absorb the revenue from those materials, leaving communities with a large gap to fill in their annual recycling budgets.

2. High Costs

Deposit/refund systems are the most expensive way to recycle beverage containers or to control beverage container litter. Northbridge research and studies by others consistently show that actual deposit system costs far outweigh the cost of recovering containers through curbside or other conventional recycling programs. For "traditional" deposit programs that include only beer and soft drink containers, the cost of recycling is three to four times higher per ton of material than for curbside programs. Where traditional deposit programs have expanded to include noncarbonated beverages as well, their costs soar even higher.

The figure below illustrates the cost per ton to recycle through a typical curbside recycling program (net of scrap revenue) compared to the current deposit law in Massachusetts (beer and carbonated soft drinks only) and a proposed expansion of the Massachusetts law to include single-serve, noncarbonated beverages. The incremental recycling resulting from expansion would come at a cost of several thousand dollars per ton. The data were derived from Northbridge studies of the Massachusetts deposit law and costs experienced under the Maine deposit law, which includes all noncarbonated beverages as well.

Net Cost Per Ton - Massachusetts Bottle Bill Analyses



The reason for the high cost of deposits is the multiple handling of containers required to make a redemption system function and the inherent inefficiencies of handling these bottles at retail locations. As there is little or no funding provided for independent redemption centers, New Jersey retailers would handle virtually all returned containers. In small and medium sized stores, this means redeeming cans and bottles individually by hand, with consumers handing them over a counter to an employee that counts them and manually sorts them for subsequent collection.

Automated redemption of containers (using reverse vending machines) reduces this sorting burden, but replaces much of the labor cost with capital and maintenance costs. These systems are affordable only where a large number of returns are handled (such as in supermarkets). Stores still need to renovate their facilities to accommodate the machines, lease the equipment pay for maintenance contracts, and supply labor to clean and empty the machines on a regular basis.

These redemption systems are very costly to operate. A recent state-funded study in Vermont documented costs at some redemption centers of more than 6¢ per container and average costs of 3.4¢. These estimates do not include the cost to collect the containers from the site. Redemption centers routinely claim that the fees they receive (ranging from 1¢ in Iowa to 3.5¢ in Vermont and Maine) are far from adequate to cover their actual costs.

While the bill promises funding from unclaimed deposits to fund redemption at retail stores and to add to the Clean Communities Fund, little if any funding will be available. In Michigan where 10¢ deposits are levied on beer and soda, the funding for retailers under a similar formula is only about 1/10 of 1¢ per container. With a much more populated border and deposits on many more products, the burden on stores will be much greater and the available revenue even lower.

Redemption is only the front-end of the system, however, since the sorted materials must then be collected, consolidated, processed, and marketed. Under this bill, individual retailers are left with the responsibility of ensuring that the collected containers are recycled. This requires establishing contracts with haulers to drive to every retail location, collect containers, transport and process them, and provide documentation to the retailer that the containers were recycled. No other deposit law in the US requires all retailers to perform this function.

The inefficiency of thousands of retailers forming relationships with dozens of recyclers and hauling companies would drive up the cost of this system and add to the environmental impacts that deposits would have on New Jersey. The value of these commodities would be more than consumed by the costs of collecting, processing, and transporting the materials around the state. Of course these collection and processing steps duplicate the capacity that already exists in local and commercial recycling systems in the state.

Programs like California's redemption system that are based on centralized funding and an independent redemption network have lower operating expenses, but this is largely offset with other costs of supporting the program including administrative oversight and subsidies for various program stakeholders.

From a litter control perspective, deposits are much costlier than other forms of litter control – even paid collection programs. Research summarized in a recent journal article and reviewed in New Jersey's 2004 litter survey suggests that deposits cost three to four times as much as a paid pickup program and nearly 20 times as much as a comprehensive system that combines cleanup, prevention, and outreach efforts.¹

3. Fraud

Establishing a refund value, in this case 10¢ to 20¢, creates an incentive for individuals and businesses to defraud the state. It is a simple matter to bring a container from outside a deposit state and redeem it in the deposit state – this practice occurs every day on both a small and large scale. Organized fraudulent redemption occurs throughout the deposit states and is most severe where the deposit is highest (Michigan at 10¢) and where the state is surrounded by nondeposit states.

Neighboring New York has a 5¢ deposit on beer and soft drinks only while Pennsylvania has no deposits. A 10¢ to 20¢ deposit in New Jersey would attract empty containers from both states. The payment of refunds on those fraudulent returns will come out of the state fund and ultimately out of consumers' pockets.

With so much of New Jersey's population near state borders, the opportunities to purchase beverages outside the state and return them in New Jersey adds to the potential fraud problem.

¹ "Sweating the Litter Things," *Resource Recycling*, May 2005, p. 29.

These out of state purchases would not generate revenue for the state fund (no deposits collected), but the returns would draw down the fund balances, leaving the state with little or no money.

The Department of the Treasury would need to develop a system for tracking and managing deposit receipts and, more importantly, refund payments disbursed to virtually every beverage retailer in the state. Because of the high deposit and the resulting fraud, it is likely that New Jersey would pay out all or nearly all of the deposit revenue collected, leaving the state exposed to funding excess refunds out of the general fund. Maine encountered similar over-redemption in the mid-1990s and amended their law to transfer the risk of over-redemption back to distributors.

Massachusetts has probably done the most research on fraud and state estimates peg the amount of fraud at up to 11 percent of all containers redeemed for refund. In certain parts of the state, fraudulent returns may account for as much as 30 percent of returns. Yet Massachusetts is largely surrounded by states with similar deposit laws. The potential impact of fraud for a state like New Jersey is much greater, especially given the high deposit value proposed.

Beverage companies in border areas of many deposit states routinely experience redemption rates of over 100 percent: they pay out more refunds than they collect as deposits. The proposal in New Jersey would shift that financial risk onto the state and increase the incentive for fraud by making the deposit so large.

As an aside, the proposed solution to fraud in the bill, embedding the refund value in the bar code of the container, would be as ineffective as it is impractical. This would theoretically require every beverage manufacturer in the US and abroad to produce labels and containers for sale only in New Jersey: a highly unlikely proposition. Further, this "solution" only works if the returned containers are redeemed through a reverse vending machine, which automatically "reads" bar codes on containers to verify that they are eligible for redemption. Containers redeemed manually would *not* be scanned by bar code readers, so the bar code would have no effect on fraud.

4. Lost Sales

A price increase of \$2.40 per case on soda, beer, or water will drive consumers across state lines to shop. In states with deposits on beer and soda only, food stores in border counties have lost 4.6 percent of their total sales through a combination of higher prices and lost business to neighboring states.² The impact in New Jersey would be much more severe because many more products are subject to deposits and the price impact would be 10¢ or 20¢ per container, not the 5¢ that is common in the existing deposit states.

Consumers do not limit their cross-border purchases to beverages; this bill would adversely affect many parts of the retail industry, its suppliers, and its employees. That means lost jobs and lost tax revenue for the state.

² University of Kentucky Center for Business and Economic Research, "The Economic Impact of a Container Deposit Program in Kentucky," March 1999.

5. Increased Vehicle Emissions

Deposit/refund programs shift most beverage container recycling over to a separate system. Instead of recycling by leaving containers with other recyclables at the curb or taking them to a dropoff center with other recyclables, consumers must travel to stores or designated redemption centers. Even where redemption centers are located at food stores, this may mean additional travel that would be costly in terms of time spent, miles driven, gas used, and increased emissions and greenhouse gases. In a state survey, 1/4 of consumers redeeming containers at grocery stores in Massachusetts had driven out of their way to return containers.

Furthermore, additional trucks must be put into service to make the rounds of retail stores and redemption centers to collect empty containers, all while local recycling programs continue their truck routes to handle the remaining recyclables.

The environmental consequences of this additional travel can be significant. A June 2007 study on the costs of the Vermont redemption system calculated the incremental impact of that state's deposit program on fuel consumption and GHG emissions (CO₂).³ Using research from Massachusetts consumers, the study estimated that Vermonters drove 7.6 million miles per year to redeem containers. This does not include the impact of additional truck traffic to travel to these redemption centers, collect the empty containers, and transport them to processing facilities. Where recycling takes place today in municipal and commercial programs, the vehicles are already making the trip to haul other commodities; in the case of a new redemption system, the trips would all be incremental to what is occurring today.

Better Ways

New Jersey has strong recycling and litter control infrastructure and programs, but there is always room for improvement (such as the passage of the disposal surcharge to provide additional, reliable funding for the recycling program). Unfortunately, a deposit/refund system would not enhance the system in place but would, in fact, compete with it and make it less efficient.

As beverage manufacturers, we acknowledge our responsibility in making sure that the packaging we produce is well-designed to support reuse or recycling and to do our part to be sure that effective recovery programs are in place.

The companies' most direct control over waste issues surrounds the packaging decisions it makes. Companies' economic and environmental interests converge in reducing the amount of packaging used and using packaging materials that are highly recyclable, since this makes it more likely that the material will be recovered. Light-weighting containers provides direct environmental benefits in reduced primary material production. Lightweighting of water bottles alone is expected to reduce use of PET by more than 100 million pounds this year. Nearly 90 percent of the industry's packaging is PET or aluminum – two of the most valuable and desirable components of the recycling stream. The high value of this material makes it an asset to local recycling programs, not a liability.

³ *The Costs of Beverage Container Redemption in Vermont*, for the Agency for Natural Resources by DSM Environmental, June 30, 2007.

The beverage, grocery, and retail industries established a partnership in 2006 with the National Recycling Coalition and EPA. This partnership funded ground-breaking research into factors that motivate consumers to recycle and participants are developing strategies for a national recycling promotion campaign based on these findings. Using the industry's marketing power and talents to promote recycling is a natural role for the industry.

A second component of the partnership's work is demonstrating best practices through support of model cities programs. The first model city project begins next week in Hartford, Connecticut; in fact, new recycling carts are being distributed to households beginning today. The grant from the partnership will enable the City to convert part of its curbside program to single-stream collection. At the same time, recyclers and the state have committed to widespread investment in single-stream elsewhere in the state to enhance participation and make recycling simpler, more efficient, and more effective.

The beverage industry also continues its on-the-ground involvement with recycling programs that dates back 30 years. The beverage industry has provided funding to communities for recycling equipment, sponsors recycling events and litter cleanups, and has supported promotional campaigns. We are developing an initiative to support pay as you throw programs and will be launching a website with resources on the issue soon.

Meanwhile, individual companies are investing in environmental projects related to recycling (e.g., the Coca-Cola bottle-to-bottle PET recycling plant in Spartanburg, SC), water efficiency, and energy reduction (e.g., Pepsi is the largest corporate purchaser of green power based on use of renewable energy).

Conclusion

A deposit system like the one outlined in A-121 is the wrong policy direction for New Jersey. Focusing time and resources on updating and enhancing the existing infrastructure that reaches more of the waste stream (will do far more for the environment.

Incurring the high economic and environmental costs of a bottle bill would be counterproductive, especially given the bureaucratic and costly system that would have to be created to handle a few percent of the state's waste. This particular bill compounds these fundamental problems with an untested redemption scheme that will burden consumers, damage local businesses, and expose state and local governments to significant financial risk.

Testimony of Mitch Klein
Before the
Assembly Environment Committee
May 12, 2008

Dear Chairman and members of the Committee:

Good afternoon, my name is Mitch Klein; I am the Vice President of Government Relations for Alpha 1 Marketing Corp. / Krasdale Foods in New York. Our company, a family owned business will celebrate its 100th birthday next year. We are the last wholesale grocer in New York City as well as the largest employer in the South Bronx. We supply C-Towns, Bravo Supermarkets as well as thousands of independent grocers in the New York / New Jersey metro area.

On behalf of the 3,827 retailers we represent I appreciate the opportunity to share their views and concerns on how expanding the bottle bill will affect their business as well as ours and ultimately have a negative impact on the consumer.

Comments on – New Jersey Bottle Bill A.121

Consumer Issues:

Dramatic Cost Escalation on Top of Already Skyrocketing Food Price Increases.

For families and individuals, the collection and subsequent redemption of these bottles will become a laborious task. With food prices escalating dramatically last year, the increase in the cost of goods for these beverages to comply with this bill if it becomes law will add at minimum .15 to .30 per container. The higher figure is probably more realistic. With the dramatic escalation in food prices already this year, this change will seriously hurt the consumer.

Currently all these bottles can be put out for curbside pick up and recycled by the consumer.

Rarely, if at all will anyone find a 46 oz. can of juice sitting by the roadside. You will find though all the chain coffee containers and sandwich wrappers.

If the state was interested in litter this is what needs to be addressed.

WIC

Since juice products are included in this bill they will also require a deposit. Under the WIC program a WIC recipient is to receive product and deposits are not allowed to be applied.

How will the WIC recipient then receive these products? Ultimately if it's incorporated into the cost the state will be paying for it.

In addition, cost containment has become a critical factor for WIC. If juices escalate up to .30 per unit, this will hurt the program and again the state will bear the expense and ultimately the WIC consumer will suffer.

Retailer Issues:

RVM's

While larger stores (in bottle bill states) utilize RVM's smaller stores do not.

There is also a cost for an RVM. In many cases smaller stores will not be able to utilize this equipment. Stores not utilizing this equipment will be forced to maintain bulky UPC printouts to manually look up each bottle to see if it qualifies.

Many of today's bottles are not round. Since the RVM works on a circular tumbler these bottles will not be able to be handled thus forcing the larger stores with the RVM's to also have these massive printouts to check what the RVM can not handle. Now the consumer will have to go to two lines in these larger stores to redeem their bottles.

This will create an extremely time consuming process to check in consumers and their returns in both small and large stores.

A unique bar code will also require a unique slot within a warehouse, where it is stored. Double slotting for hundred's of items is not in anyway practical or even feasible. There is no warehouse today that has this space available to handle this provision in the bill.

Besides the impractical concept to double slot, the cost, which would be passed on to the consumer would dramatically raise costs on products in an already troubled economy.

The concept of a "smart container code" is anything but smart, for it will be unique to NJ and result in significant cost increases in products to consumers who can already recycle these products now.

Smart Container Fund – Separate UPC's

The new bill requires that products covered under the bottle bill that are for sale in New Jersey have a unique UPC code just for New Jersey.

Since most of the products are manufactured out of the state, it would take some time for all bottlers to change labeling in the first place. In addition, handling costs for the manufacturer would also increase. They will now have to handle the same item differently for NJ as opposed to the balance of the country.

The distributor will also now be faced with double slotting. Instead of having one slot for a 64 oz. apple juice, we will need two. One would now be for NJ product; the other slot would be for the balance of the states.

A slot is approx. 25 sq. ft. We have 274 items which would be affected if this bill became law. This equates to 6,850 sq. ft. additional space needed to address these items. Support space for these products; travel aisles, reserve locations and loading will equate to approximately 10,000 additional square feet. Warehouse space per sq. ft. is approx. \$7.00. Here alone, just for us is a cost of \$117,950.00. Tracking, inventory accuracy, etc. can only be controlled by having a unique item in a slot. A similar expense will be added from the manufacturer. These costs will be passed on to the retailer, who in turn will increase the cost of the product to the consumer.

If the average sale of these items is 20,000 cases per week, the cost increase for additional spacing requirements for these products is approximately .12 per case. This would be on top of the documented cost increase of approximately .15 per item for new items brought into this bill, described in this memo.

This additional slotting is also based upon the assumption that a grocery distributor also has approximately 300+ slots not being used.

On top of this will be the expense to now re-slot the warehouse. The costs of construction and or re-slotting are not included here.

Smart Container Fund – Over Redemption

Realistically this just will not work. In neighboring NYC the redemption rate of bottles is 200+% in supermarkets. With many companies using the same UPC for their products regardless of the state they are shipped to, the .10 and .20 deposit will turn NJ into a garbage magnet.

Currently most of the over redemption in NY occurs from transshipped NJ containers into NY for .05 deposit.

NY will truly applaud this bill, because the bottles that are currently being transshipped into NY will cease and all other bottles will now find their way to NJ for the significantly higher redemption value.

Handling Fee for Retailers

The handling fee to retailers as well as the fund to the administration works on paper only. Neither retailers nor the state will derive any income. Once redemption occurs the money in the fund disappears. By offering the most lucrative redemption rate bottles will flow in from all bordering states. If downstate NY experiences a 200+% redemption rate, think what NJ will attract by doubling and quadrupling the redemption rate.

Container Redemption

The bill requires a retailer to redeem any bottle presented to them for redemption, even if they do not sell them. The retailer is left with the extremely difficult of contacting a manufacturer that they do not have a business relationship with in the first place to seek reimbursement. How do they deal with foreign companies?

There are no provisions for what happens when a manufacturer does not pay nor can NJ enforce payment from out of state companies. The retailer is again the entity left without protection and at an economic disadvantage. Ultimately this will result in even further increases in food prices as retailers look to cover these hidden costs.

Distributors Estimate Sales

Since many of the supermarkets in NJ are serviced by out of state suppliers, how will NJ get these companies to comply with reporting on sales for the ensuing quarter? Nor is it realistic for a wholesaler to know what an outside chain will be promoting for the entire quarter.

The upfront deposit also puts a significant financial burden on the distributor for having to put this money upfront. The cost of this out of pocket expense will also translate to an increase to the retailer for this upfront expenditure.

Infrastructure

There is absolutely no infrastructure in place at this time to address how all these products get removed from retailers. Wholesalers will not pick up the garbage with their grocery trucks.

A separate hauler will be needed to pick up, sort and return these products to the originating vendor. This above the deposit, cost for the smart container bar code, over redemption, etc., is another significant cost factor that will add to the cost of goods for NJ consumers?

In the case of imported products, the return of these containers becomes an absurd exercise. Once again in the long run it will be far cheaper to leave them at curbside. Containerized overseas freight (even if its garbage) is still very expensive.

Loss of Sales

Retailers who have the misfortune of being on the borders of neighboring states will lose considerable volume as shoppers now cross the borders to other states to shop. This will certainly not help in anyway the struggling economy which already exists in NJ.

Sanitation

Of extreme importance is the issue of sanitation at store level. It is a fact that bottle returns in NY contribute to insect and rodent infestation at store level. The supermarket is a place where consumers want to be confident that the food they purchase for their families is maintained at the absolute highest level. Introducing the storage of garbage which will in many cases be stored in the basement next to shelf stock supply is only inviting trouble.

This bill increases the cost to the retailers and consumers to accomplish something that already exists – curbside recycling.

Consider the fact that the very popular 24 pack of water which currently is on sale for \$3.99 will now cost a minimum of \$7.59 under the regulations of this bill.

The supermarket business operates on incredibly low margins. Any increase in cost is passed on to the consumer. This bill will have a major impact on families as they face up to a 30% increase on hundreds of items at retail.

It is incredulous that the NJ legislature can propose a bill that will further erode the economy, dramatically increase prices at retail when a program for recycling already exists.

Legislators need to concentrate on ways its retailer community can be more competitive and dynamic in business. There must come a point in time where the legislature gives us tools to be more effective, earn more and cut our costs as opposed to just increasing our expenses.



Testimony in support of A121, The Smart Container Act

Betty McLaughlin
Executive Director, Container Recycling Institute
May 12, 2008
Trenton, NJ

I am the Executive Director of the Container Recycling Institute (CRI), a non-profit organization that was founded in Washington, DC in 1991. CRI is now located outside of Hartford, CT in Glastonbury. CRI serves as the national clearinghouse for information on beverage container sales, recycling and wasting. We submit this testimony in support of New Jersey's efforts to enact container deposit legislation.

CRI analyzes beverage sales in the United States, and packaging and recycling trends for these beverage containers. In 2002 we created our "Beverage Market Data Analysis" using market data reported to the Beverage Marketing Corporation by the beverage industry itself. We use unit (container) sales data, gallonage data, and US Census population to calculate sales in the United States, and in each of the fifty states individually. BMC receives its data from beverage producers and makes this information available about one year behind real time, therefore, 2006 data was available in late December of 2007. We purchased this data in March, and our in the final stages of preparing our 2006 BMDA. However, we do have some preliminary figures that will prove useful to your discussions of beverage container deposit legislation.

Our research shows that in 2005, beverage sales in plastic containers, both PET and HDPE was 74 billion units; in 2006, this number jumped to 81.4 billion. Looking just at plastic water bottles, there were 31.6 billion units of sold in 2005 and 37.7 in 2006, growth in sales of about 20% more. (Note that these figures include a few billion units in larger sizes, 2 gallons and up. These figures will be adjusted downward slightly when our report is completed, but the majority of these sales are in smaller PET bottles.) Non-sparkling water sales in containers 1 gallon and less sold in 2005 was 29.8 bill. In 2006 that number spiked to 35.8 billion.

Our preliminary research for New Jersey indicates that non-carbonated plastic beverage sales grew from 1.47 billion units sold in 2005 to 1.7 billion sold in 2006. That is growth of 221 million units in just one year. Given New Jersey's population of 8.66 million, on a per capita basis, every man, woman and child bought 25 more plastic bottles in 2006 than in 2005. By contrast, carbonated plastic beverage sales saw almost no change, and in fact shrunk slightly from 697 million sold in 2005 to 695 million sold in 2006. This loss of market share can be attributed to declining interest in carbonated beverages overall. The beverage industry recognizes that consumers are opting for the so-called "New Age" beverages. This is important to remember as you progress through your legislative process as there may be a temptation to only apply the deposit and redemption system to carbonated beverages.

NATIONAL BEVERAGE PACKAGING MARKET VOLUME BY PACKAGE TYPE (in millions of units)

TYPE	2000	2005	2006
Cans	100,284.0	100,494.3	102,339.1
Plastic	46,560.6	73,996.9	81,347.2
Glass	36,715.0	38,498.3	39,395.5
Paper	16,516.5	14,684.6	14,514.5
Sub-total	200,076.0	227,674.2	237,596.3
Aseptics	2,628.0	2,705.0	3,361.4
Pouches	2,700.0	3,632.3	2,808.3
Total	205,404.0	234,011.5	243,765.9

Note that this includes about 20 billion sold for dairy. Our preliminary US Total BMDA figure, without dairy is 224,734 million (225 billion) sold in 2006, vs. 214,495 (215 bill) sold in 2005.

This phenomenal growth in the beverage sector demonstrates the need for a better way to manage packaging waste, and to capture the valuable resources that are used to create these packages. The resources themselves have value, and the amount of energy represented by each of these packages is extraordinary. Since plastic, glass and aluminum are valuable and highly recyclable, it is a national embarrassment that we aren't capturing and reusing this material at significantly higher levels than we are. EPA has recognized recycling as an important tool in reducing our carbon footprint and combating climate change.

The American Beverage Association, the industry trade group for non-alcoholic carbonated and non-carbonated beverages (formerly the National Soft Drink Association) estimates that a full one-third of beverages are consumed away from home (*source: presentation to the National Solid Waste Management Association Waste Expo May 6, 2008*). While this number may be higher, even that rate is a staggering amount of containers that simply are not captured by an at-home curbside recycling program. Using a financial incentive of the deposit as proposed in A121 dramatically increases the likelihood that these containers consumed away from home will be captured for recycling.

The ten states in the US with five-cent deposits have average redemption rate for deposit containers between 66 - 70% - double the national average for these containers. Michigan, with a ten-cent deposit, achieves a rate over 95%. And it is important to understand that the national average includes these superior return rates that the eleven deposit states achieve, bringing the "average" higher than it would be without these states' success. These redemption rates reflect a decline from about 80% a decade ago, due to the obvious decline in the value of a nickel, but it is remarkable that even at its lessened value, this small financial incentive is enough to encourage consumers to return their empties for the refund. It also continues to function well as a deterrent to littering.

Decades of success in deposit states have proven that container deposits work. They provide an effective financial incentive for consumers to participate in materials recovery. Consumers realize a direct benefit from their positive action – more than just "feeling good" or knowing that they are "doing the right thing," they are getting the message: "These glass, plastic, and aluminum cans and bottles are not trash. They are valuable scrap materials that manufacturers want back." That message is important in these times when we are trying to get consumers, producers and

policymakers to consider and understand the global consequences of extracting, transporting and manufacturing virgin materials into new products. Far more energy is consumed and more greenhouse gases emitted using virgin materials than when using recycled materials for products. The public needs to stop associating empty bottles and cans with trash, and the financial incentive achieves that objective. A direct return that demonstrates the value of the empty container is a better educational tool than the mixed message sent by programs that give consumers coupons to encourage them to go buy more things as a reward for recycling.

Another important feature of recycling through a container deposit system, or “redemption recycling” is that this superior system uses no tax dollars to achieve its remarkably high return rate. Curbside recycling systems are usually fully funded or subsidized using taxes. Drop-off centers are customarily provided by municipalities when recycling services are privately contracted. Only container deposit legislation is fully funded with private money needing no tax dollars or tax increases to support it. This is important not just for elected officials who are reluctant to raise taxes. It is vital to processors and end users of recycled materials. They need to know that collection of material will be constant and reliable, and not subject to volatile municipal budgets. Without assurances that material will be available, processors and end users cannot be expected to make infrastructure investments and commitments to use recycled material. Without all three components - collection, processing and end users - there is no recycling.

Another positive gain realized by municipalities is the reduction in litter associated with container deposit legislation. You are likely to hear testimony that beverage containers are “only” a small percentage of the total litter problem. Pay close attention to how that percentage is calculated. Statistically, ten bio-degradable paper gum wrappers and ten plastic water bottles are an “equal” amount of litter if you count individual units, but no rational policy maker who was responsible for budgeting funds for picking up litter would consider them equal. Deposits are a deterrent to littering, and even when deposit containers are littered, someone usually picks these containers up for the refund. This practice saves municipalities the cost of litter pick up as well as the disposal costs for the litter collected. Because of the nature of the product – beverages – these containers are far more likely to be littered as they are consumed on the go, away from home, and while people are traveling in vehicles.

That same attribute explains why beverage containers are better suited for deposit/refund collection systems than curbside collection. These products are often consumed when people are at work, at school, at the gym, at recreational events, or grabbed on the go from a nearby convenience store or deli. These containers rarely make the trip home to a curbside bin, and businesses, schools, sports arenas, etc. are not inclined to add the expense of an additional collection system just to subsidize the profits of the beverage industry. The deposit system provides a financial incentive for recycling, and an infrastructure to do it that is not otherwise available.

Across the U.S., recycling rates have fallen even as access to curbside recycling programs has tripled. In 2002, the multi-stakeholder BEAR report found that the average beverage container recycling rate in the non-deposit states was 22% in 1999, in contrast to the average of 72% in the bottle bill states. They found that a combination of recycling methods operating in the nation’s 10 deposit states (note study pre-dates Hawaii’s law) recovered an average of 490 containers per capita at an average unit cost of 1.53 cents, compared to 191 containers per capita at an average unit cost of 1.25 cents in non-deposit states. In other words, at an additional cost of just over one and one-half pennies per six-pack, the recovery rates in bottle bill states are more than two and a half times higher

than in states without bottle bills.ⁱ And remember that these costs are borne by consumers of the product, not the general taxpayer.

Hawaii passed comprehensive legislation in 2003; California, Maine and Oregon have all updated their original laws to include non-carbonated beverages, and New York, Connecticut, Iowa, Massachusetts, Michigan and Vermont all proposed legislation to update their container deposit legislation. Legislators from Arizona, Arkansas, Colorado, Illinois, Indiana, Kansas, Maryland, Minnesota, Nevada, New Hampshire, North Carolina, Pennsylvania, Rhode Island, South Dakota, Tennessee, Washington, West Virginia, Wisconsin and Guam have proposed new deposit laws.

Container deposit legislation ensures **high participation rates** and generates **high-quality commodity-grade material** suitable for manufacturing new bottles and cans **at no taxpayer expense**. It controls litter. It is a superior collection system for beverage containers that are consumed in high volumes away from curbside collection opportunities.

ⁱ "Understanding Beverage Container Recovery: A Value Chain Assessment Prepared for the Multi-Stakeholder Recovery Project, Stage 1." Businesses and Environmentalists Allied for Recycling (BEAR), a Project of Global Green USA, January 16, 2002.

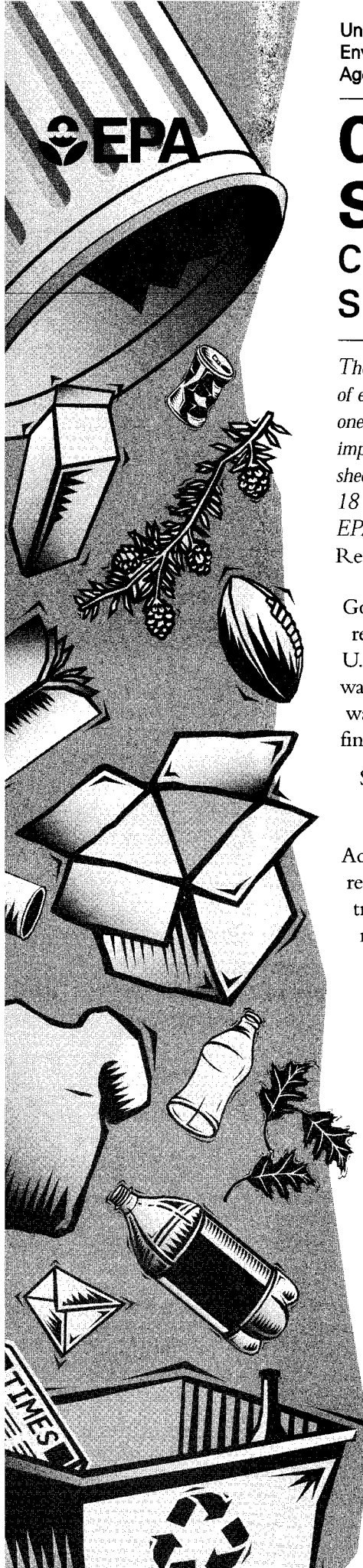
New Jersey Beverages Sold in 2005 (millions of units)

Beverage Type	Traditional Materials										Non-Traditional Materials					Total, All Materials	
	Aluminum Cans	Steel Cans	Plastic Bottles			Glass Bottles		Subtotal, Traditional Materials	Gable-top cartons	Aseptic Boxes	Foil Pouches	Subtotal, Non-Traditional Materials					
			PET	HDPE	Total Plastic	One-Way	Refillable						Total Glass				
1. CARBONATED																	
Carbonated Soft Drinks	1,722	0	678	0	678	0	16	4	20	2,420	0	0	0	0	0	0	2,420
Beer*	1,028	0	0	0	0	0	635	4	639	1,667	0	0	0	0	0	0	1,667
Domestic Sparkling Water	5	0	20	0	20	0	27	0	27	52	0	0	0	0	0	0	52
1. Subtotal, CARBONATED	2,755	0	697	0	697	0	679	8	686	4,138	0	0	0	0	0	0	4,138
2a. Non-carbonated, non-alcoholic:																	
Domestic Non-Sparkling Water**	0	0	1,059	34	1,092	0	13	0	13	1,105	0	0	0	0	0	0	1,105
Sports Drinks	0	0	96	0	96	0	0	0	0	96	0	0	0	0	0	0	96
Fruit Beverages	38	3	136	99	235	62	62	0	62	337	112	115	154	381	8	8	718
Ready-to-drink Tea	40	0	33	11	44	55	0	0	55	139	8	0	0	8	0	0	147
Energy Drinks	47	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	47
2a. Subtotal, non carbonated, non-alcoholic	125	3	1,324	143	1,467	130	130	0	130	1,724	120	115	154	389	0	0	2,114
2b. Non-carbonated, alcoholic:																	
Domestic Table Wine	0	0	0	0	0	0	91	0	91	91	0	0	0	0	0	0	91
Spirits (Liquor)	0	0	25	0	25	43	0	0	43	69	0	0	0	0	0	0	69
2b. Subtotal, Non-carbonated alcoholic	0	0	25	0	25	135	0	0	135	160	0	0	0	0	0	0	160
2. Subtotal, NON-CARBONATED	125	3	1,350	143	1,493	265	0	265	265	1,885	120	115	154	389	0	0	2,274
TOTAL	2,879	3	2,047	143	2,190	943	8	951	951	6,023	120	115	154	389	0	0	6,412

Summarized notes and sources:

*Note: Beer packaged in PET is not counted. On the national level, there were 250 million PET beer bottles sold in 2005, which is less than one half of one percent of the total packaged beer market.
 ** 1 gallon and under.
 Source (for citation purposes): "Beverage Market Data Analysis," The Container Recycling Institute, 2007.
 Sales derived from: "Beverage Packaging in the U.S., 2005," Beverage Marketing Corp., Dec. 2006; "Beverage World, May 2006, and data supplied by the Beer Institute, 2007.
 This data excludes: milk; wine coolers, champagne and sparkling wine; frozen fruit concentrates.
 U.S. Census Bureau, 2005 state pop. estimate (million): 8.7
 Complete notes, sources, and assumptions are available on request from the Container Recycling Institute.

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 See full copyright provision on Tab 1.



Cutting the Waste Stream in Half

Community Record-Setters Show How



The Waste Reduction Record-Setters Project fosters development of exceptional waste reduction programs by documenting successful ones. These programs can be used as models for others implementing their own programs to reduce waste. This fact sheet packet highlights record-setting waste reduction programs in 18 communities and summarizes information presented in the EPA report EPA-530-R-99-013, Cutting the Waste Stream in Half: Community Record-Setters Show How.

Good news for communities hoping to reduce dependence on disposal — reuse and recycling (including composting) can cut their waste stream in half. The 18 diverse U.S. communities featured in this fact sheet are recovering 40 to 65% of their residential waste. Most report 50% and higher levels. Some are also reducing their municipal solid waste (residential, institutional, and commercial waste) at high levels. One encouraging finding is these high waste reduction levels are largely being achieved cost-effectively.

Strategies driving record-setting waste reduction levels include:

► Targeting a wide range of materials

Accepting a wide range of materials increases the proportion of recoverable waste. These record-setting communities recover 17 to 31 different types of materials. Paper and yard trimmings are especially important. Paper recovery contributes 12 to 45% of residential materials diverted. Composting of yard debris diverts 17 to 43% of total residential waste in these communities.

► Composting

For ten of the 18 record-setters, composting accounts for more than half of all residential waste reduction. Fall leaf collection may be the single largest contributor to waste reduction in communities with fall seasons.

► Designing for convenience

Residents are more likely to participate if set-out requirements are uncomplicated and recyclables collection is frequent. Providing adequate containers for material storage and set-out also improves convenience. Providing both curbside collection and drop-off sites for materials gives residents more recycling options. On-site recycling at multi-family buildings makes recycling convenient to more residents.

► Using "pay-as-you-throw" trash fees

Under pay-as-you-throw (PAYT) systems, residents pay by volume or weight for trash they set out at the curb. Such fees are a direct economic incentive to reduce trash and recover as much as possible. Eleven of the record-setters use PAYT fees.

► Requiring resident participation

Local requirements and mandates encourage program participation. Eleven of the record-setters have some type of local ordinance requiring residents to source-separate or banning set-out of designated materials with their trash.

WASTE REDUCTION RECORD-SETTERS

Community	Character	Population	Residential Waste Generated (tons)	Residential Waste Reduction Level ¹
Ann Arbor, MI	Urban, college town	112,000	47,900	52%
Bellevue, WA	Suburban, urban	103,700	39,190	60%
Bergen Co., NJ	Suburban (70 towns)	825,400	1,086,060 ²	54% ²
Chatham, NJ	Suburban borough	8,300	8,010	65%
Clifton, NJ	Suburban, urban	75,000	110,930 ²	56% ²
Crockett, TX	Small rural city	8,300	2,710	52%
Dover, NH	Small rural city	26,100	9,460	52%
Falls Church, VA	Suburban	10,000	6,660	65%
Fitchburg, WI	Small rural city	17,300	4,150	50%
Leverett, MA	Rural town	1,900	650	53%
Loveland, CO	Small residential city	44,300	17,970	56%
Madison, WI	Urban, college town	200,900	88,580	50%
Portland, OR	Urban	503,000	966,920 ²	50% ²
Ramsey Co., MN	Urban, suburban, rural	496,100	673,300 ²	47% ²
San Jose, CA	Urban	873,300	1,315,440 ²	43% ²
Seattle, WA	Urban	534,700	768,020 ²	44% ²
Visalia, CA	City in rural area	91,300	50,810	50%
Worcester, MA	Urban	169,800	57,570	54%

Key: HHs = households NA = not available

Note: Waste generation and reduction levels represent the 1996 calendar year except for Ann Arbor (fiscal year 1996); Bergen County (1995), and Falls Church, Leverett, San Jose, and Visalia (all fiscal year 1997 data).

¹Waste reduction levels may differ from the EPA Standard Recycling Rate as defined in *Measuring Recycling: A Guide for State and Local Governments*. The Institute for Local Self-Reliance excluded MRF rejects from recycling tonnages and included estimates of materials collected through container deposit systems for communities in bottle bill states. Furthermore, materials recovered for reuse are included in both recycling and generation figures and backyard composting tonnage was included in the composting and generation figures for those communities that provided creditable data on the amounts of materials handled this way.

²Represents municipal solid waste (residential, commercial and institutional waste streams).

Source: Institute for Local Self-Reliance, Washington, DC, 1999.

Please Note

This fact sheet packet is based on the 171-page report, *Cutting the Waste Stream in Half: Record-Setting Communities Show How* (EPA-530-R-99-013). The report and this fact sheet were prepared under U.S. EPA grant number X825213-01-2 by staff of the Institute for Local Self-Reliance (ILSR). Please refer to the full report for detailed community profiles, specific cost information, waste reduction calculations and methodology, and a list of definitions.



Loveland's semi-automated dual-collection vehicle. Crews put recyclables into the split side-loading compartment and trash into the rear-loading packer compartment.

The methodology used in this research for calculating recycling rates refines the EPA Standard Recycling Rate as defined in the document *Measuring Recycling: A Guide for State and Local Governments* (EPA-530-R-97-011). For example, ILSR included tonnage diverted via state bottle bills, and subtracted material rejected at processing facilities from waste reduction levels. While ILSR recognizes that composting is a form of recycling, they treat it separately in this fact sheet packet so that the costs and diversion levels of recycling materials such as paper, bottles, and cans may be compared to the recycling of yard trimmings. ILSR includes both recycling and composting under the term "waste reduction."

Cost data are not meant to be comparable among communities. Rather, cost data are useful for comparing each community's program over time and within a particular year.

Contact

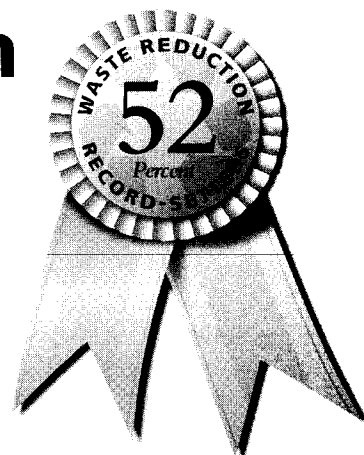
The Waste Reduction Record-Setters Project was developed by the Institute for Local Self-Reliance (ILSR) through a grant from the U.S. EPA. For more information on the project contact: ILSR, 2425 18th Street, NW, Washington, DC 20009, phone (202) 232-4108, fax (202) 332-0463, Web site <<http://www.ilsr.org>>





Ann Arbor, Michigan

52% Residential Waste Reduction



Overview

Residential waste reduction in the City of Ann Arbor has come a long way since the creation of its first community-based non-profit drop-off station in 1970. Today the city contracts with the non-profit organization, Recycle Ann Arbor, for the collection — under mandatory ordinance — of recyclables from all city households and the operation of a drop-off facility for recyclables and yard debris.¹ In addition, city crews collect yard debris at curbside seasonally. In FY96 the city diverted 52% of its residential waste through recycling (30%) and composting (23%). Per household solid waste management costs have increased by less than 10% since FY89, even though per ton trash tip fees increased more than 70% in the same period.

DEMOGRAPHICS

POPULATION: 112,000
(1994)

HOUSEHOLDS: 22,000
single-family and
duplexes; 24,000 multi-
family

Keys to High Waste Reduction

Contributing factors to Ann Arbor's waste diversion level are a state ban on landfilling yard debris, curbside collection of 24 types of recyclables coupled with a mandatory ordinance, multi-family dwelling recycling service, and the bottle bill. The state ban spurred Ann Arbor to develop a compost site, draft an ordinance requiring residents to separate "compostables" from trash, and start curbside service for these materials. Nearly one-quarter of Ann Arbor's residential waste stream is diverted through the city's composting program. City ordinance requires residents to

source-separate recyclables and compostables from trash. The city enforces this requirement by not collecting improperly sorted and prepared materials. As 52% of households are multi-family, the city recognized the importance of providing this sector with waste reduction services. Multi-family buildings receive recycling carts and can divert the same materials as do single-family homes, with the exception of motor oil and batteries.

RESIDENTIAL PROGRAM SUMMARY

	FY89	FY96
Tons Per Year	44,806	47,943
Percent Diverted	16%	52%
Recycled	16%	30%
Composted	0%	23%
Average lbs./HH/day	5.61	5.71
Net Program Costs/HH	\$72.96	77.61
Disposal Services	63.68	42.17
Diversion Services	9.29	35.44

Notes: 43,774 households served in FY89; 46,000 in FY96. 1989 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add to total due to rounding.

Source: Institute for Local Self-Reliance, 1999.

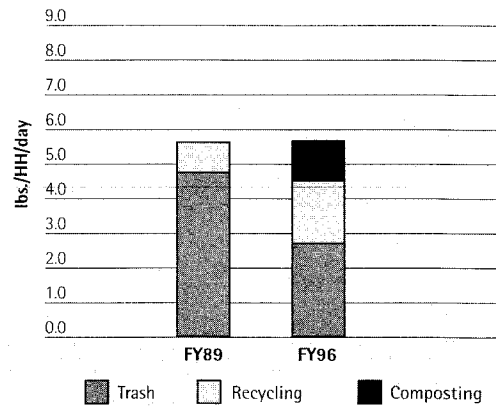
The bottle bill provides an incentive to recover designated containers. The city's waste reduction efforts are supported by city ownership of a material recovery facility and composting facility, and a comprehensive education program.



Cost-Effectiveness

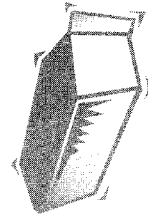
In FY96, after subtracting material revenues, the city spent \$78 per household served on trash, recycling, and yard debris services. This cost represents an increase of less than 10% over per household costs in FY89. In FY97, the average net per ton costs of waste reduction were \$71. In contrast, FY97 trash

RESIDENTIAL WASTE GENERATION PER HOUSEHOLD PER DAY



Source: Institute for Local Self-Reliance, 1999.

collection and disposal costs averaged \$86 per ton. Contracting with a nonprofit for curbside recyclables collection and operation of the drop-off facility, reduced total disposal costs, and yard debris diversion are primarily responsible for keeping the increase to a minimum.



MATERIALS RECOVERED

CURBSIDE:

- newspaper, magazines, and corrugated cardboard
- mixed paper (including paperback and phone books, office paper, mail, and paperboard)
- milk cartons and juice boxes
- steel and aluminum cans
- scrap metal (including ferrous metal, aluminum foil and pie tins, white goods, and aerosol cans)
- glass containers, dishes, and heat-resistant glass
- ceramics
- #1-#3 plastic bottles
- textiles
- household batteries
- used motor oil and oil filters
- yard waste (including leaves, grass clippings, brush, and holiday trees)

DROP-OFF:

- all materials collected in curbside recycling program plus
- hardcover books
- polystyrene
- packing peanuts
- foam egg
- cartons
- car batteries
- other materials can be (collected for a small fee)



Recyclables and yard debris set out for collection in Ann Arbor

Tips for Replication

- ▶ Keep the program easy and user-friendly.
- ▶ Include public input.
- ▶ Look for ways to cooperate with other entities.
- ▶ Use conservative projections for tonnages and market prices.

Notes:

¹Residents in multi-family dwellings can recycle the same materials at curbside as residents in single-family dwellings with the exception of used motor oil and batteries.

Contact

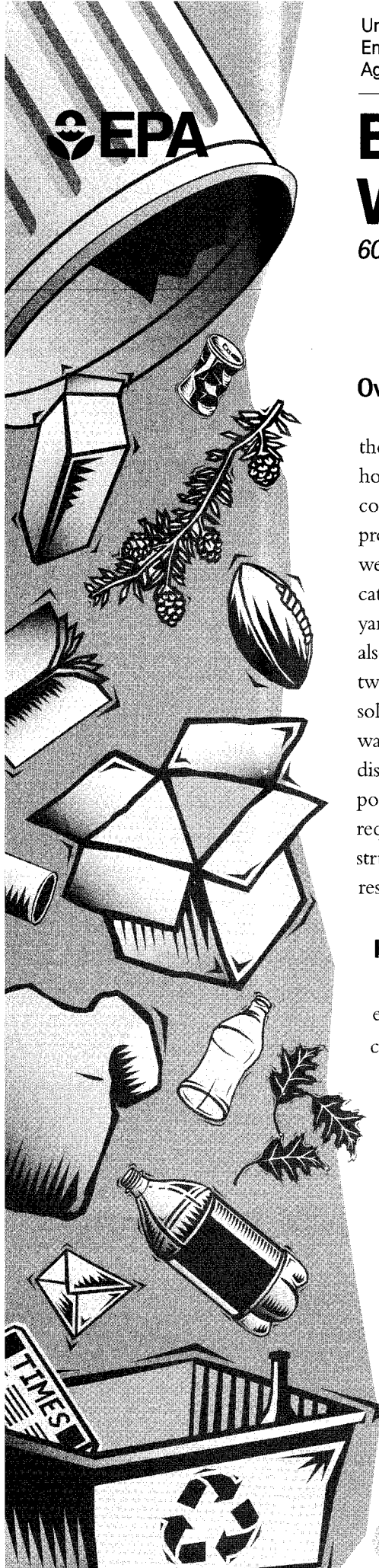
Tom McMurtrie
 Recycling Coordinator
 City of Ann Arbor Dept. of Solid Waste
 100 N. Fifth Avenue
 Ann Arbor, MI 48107

PHONE: 734 -994 -6581

FAX: 734 -994 -1816

WEB SITE: <http://www.ci.ann-arbor.mi.us>





Bellevue, Washington

60% Residential Waste Reduction



Overview

Bellevue initiated its recycling program in 1989; by 1996 the city recovered 60% of its solid waste from single-family homes (26% through recycling and 34% through composting). Bellevue contracts with one local company to provide most of its residential waste services, including weekly trash collection, weekly curbside collection of 16 categories of recyclables, and twice monthly collection of yard debris from March through November.¹ Residents can also recycle materials at county-run drop-off facilities and twice yearly special collection days offered by the city and its solid waste contractor. Since the introduction of Bellevue's waste reduction program in 1989, average per household trash disposal has decreased from 6.52 pounds per day to only 3.69 pounds per day. The city has no mandatory recycling requirements for residents, but its pay-as-you-throw fee structure for trash provides an economic incentive for residents to reduce trash disposal.

DEMOGRAPHICS

POPULATION: 103,700 (1996)
HOUSEHOLDS: 44,387 (1996); 26,026 single-family households (1-10 units), 18,361 multi-family units

Keys to High Waste Reduction

Bellevue's pay-as-you-throw trash rate structure and ease and availability of waste reduction opportunities contribute to the city's high waste reduction level.

Residents pay a monthly fee for trash removal based upon the size of the trash container they use. For instance, in 1996, weekly collection of one 30-gallon trash can costs Bellevue residents \$12.91 per month while weekly collection of one 19-gallon can costs only \$7.13 per month. As part of its convenient waste reduction program, the city's contractor provides residents with three stackable recycling bins,

RESIDENTIAL PROGRAM SUMMARY

	1989	1996
Tons Per Year	23,396	39,186
Percent Diverted	11%	60%
Recycled	6%	26%
Composted	5%	34%
Average lbs./HH/day	7.30	9.18
Net Program Costs/HH	NA	\$235.64
Disposal Services	NA	\$116.68
Diversion Services	NA	\$118.97

Notes: 17,556 households served in 1989; 23,372 in 1996. Numbers may not add to total due to rounding. 1989 program costs not available as they occurred in the private sector and are not public information.

Source: Institute for Local Self-Reliance, 1999.

weekly curbside pick-up of recyclables, and bi-weekly pick-up of yard debris. The city's yard debris program is especially effective, diverting more than one-third of the city's residential waste stream.

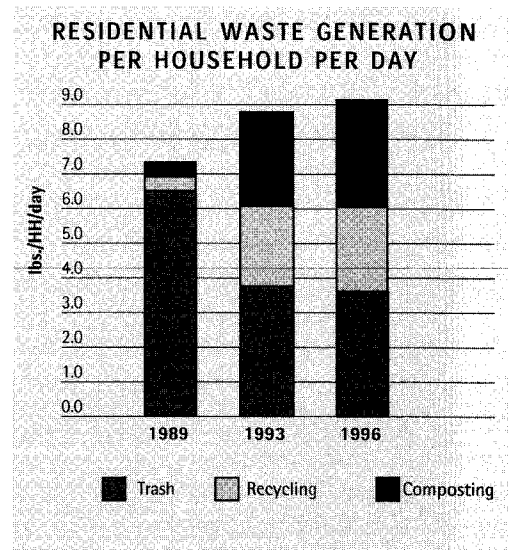
Cost-Effectiveness

Bellevue's contractor collects service fees directly from customers. The rates charged are based on the level of trash collection requested



by each customer. Direct city expenditures are limited to administration and education and publicity costs. Of total city and contractor waste management

expenditures in 1996, about 50% was spent on trash collection and disposal, 25% was spent on recycling, and 25% was spent on yard



Source: Institute for Local Self-Reliance, 1999.

debris collection and composting. Overall, trash cost \$174 per ton, recycling \$139 per ton, and yard debris recovery \$102 per ton.

Tips for Replication

- ▶ Collect mixed paper.
- ▶ Commit to and concentrate on high-quality customer service.
- ▶ Spend the extra money to make promotional material attractive.
- ▶ Continuously remind and educate the public about waste reduction.
- ▶ Raise overall environmental awareness.
- ▶ Implement a variable rate structure for trash.

Notes:

¹Yard debris collection is once monthly from December through February.

MATERIALS RECOVERED

CURBSIDE:

- newspapers, magazines, corrugated cardboard
- mixed paper (mail, office paper, phone books, paperboard, and kraft bags)
- milk cartons and drink boxes
- cans
- aluminum foil and other non-ferrous scrap
- glass containers
- #1 and #2 plastic bottles
- white goods
- yard waste (leaves, brush, grass clippings, and other yard and garden debris)
- holiday trees

DROP-OFF:

- all materials accepted in curbside program plus:
- oil filters
- household and lead-acid batteries
- tires
- household goods (textiles, working small appliances, and usable furniture)
- scrap metal
- #6 plastic food containers
- scrap lumber
- antifreeze
- fluorescent lamps and ballasts
- ceramic bathroom fixtures



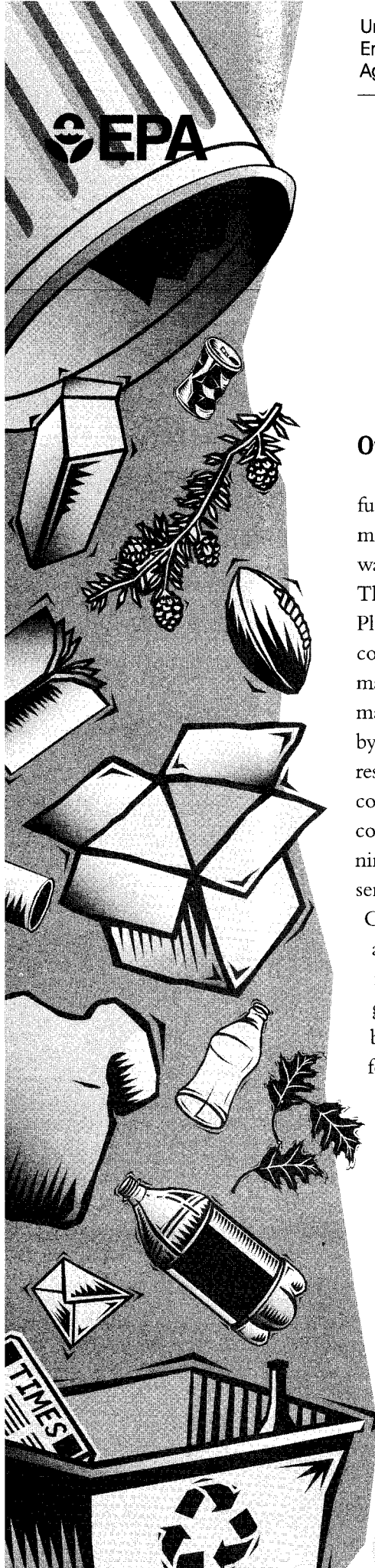
Yard debris prepared for collection in Bellevue

Contact

Tom Spille
 Solid Waste Program Administrator
 Resource Management and Technology
 Utilities Department
 City of Bellevue
 301 116th Avenue Southeast, Suite 230
 P.O. Box 90012
 Bellevue, WA 98009-9012
PHONE: 425-452-6964
FAX: 425-452-7116
WEB SITE: <http://www.ci.bellevue.wa.us/bellevue/homemap.htm>



30x



Bergen County, New Jersey

54% Municipal Solid Waste Reduction

(49% Residential Solid Waste Reduction; 63% Institutional/Commercial Solid Waste Reduction)



Overview

Bergen County provides solid waste management funding, technical assistance, education programs, and data management to its 70 municipalities. The county also owns a waste transfer station and a yard trimmings processing facility. The Bergen County Long-Term Solid Waste Management Plan mandates residential recycling of eight materials. All communities in Bergen County have passed their own mandatory recycling ordinances; some of these ordinances mandate recycling of materials in addition to those required by the county. All but seven of the municipalities provide residential trash services or hire and pay for a contractor to collect their residents' trash, residents of the other communities must contract directly with trash haulers. Sixty-nine of the 70 county communities offer curbside recycling services, and four have pay-as-you-throw trash systems. The County Solid Waste Management Plan requires commercial and institutional establishments to recycle corrugated cardboard, high-grade and mixed paper, glass food and beverage containers, aluminum cans, ferrous scrap, white goods, and construction and demolition debris and to track and report the amounts of materials recovered.

Keys to High Waste Reduction

The keys to Bergen County's high waste diversion rate are mandatory recycling; historically high disposal fees; the existence of well-established markets for recovered materials; extensive education and outreach programs; technical assistance; and the availability of a

DEMOGRAPHICS

POPULATION: 825,380 (1995)
HOUSEHOLDS: 330,473 (1996); 250,000 single-family dwellings (estimate, 4 or fewer units per building), 80,000 multi-family dwellings (estimate, 5 or more units)
BUSINESSES: 30,859 (1998)

PROGRAM SUMMARY

	1993	1995
Tons Per Year MSW¹	1,086,055	1,086,055
Tons Per Year RSW	693,840	693,840
Tons Per Year ICW	392,215	392,215
Percent MSW Diverted¹	52%	54%
Percent RSW Diverted	49%	49%
Percent ICW Diverted	57%	63%
Average lbs./HH/day²	15.21	15.21
Net Program Costs/HH	NA	NA
Disposal Services	NA	NA
Diversion Services	NA	NA

Key: MSW = municipal solid waste RSW = residential solid waste
ICW = institutional and commercial waste
NA = not available

Notes: Numbers may not add to total due to rounding.

¹In order to account for waste bypassing the county transfer station in 1995, ILSR assumed 1995 MSW, RSW, and ICW to be equal to 1993 MSW, RSW, and ICW, respectively, and added an estimated tonnage to disposal.

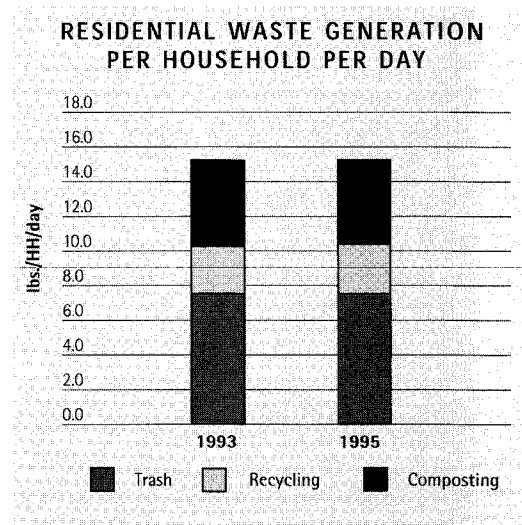
²Figures represent residential sector only. ILSR estimated households served in 1993 and 1995 as 250,000, the number of dwellings in buildings with four or fewer units.

Source: Institute for Local Self-Reliance, 1999.

yard debris management facility. Although trash tip fees dropped to \$54 per ton at the Bergen County Utilities Authority Transfer Station in 1998, from January 1990 until November 1997, tip fees at the facility were over \$100 per ton. Bergen County is home to two paper mills that create a constant demand for recovered paper. The county runs an education and outreach program that includes advertising, publications, promotions, education programs, a hotline, and a lending library. The county's 25-acre yard debris composting site composts grass clippings, leaves, and brush and sells the finished material.

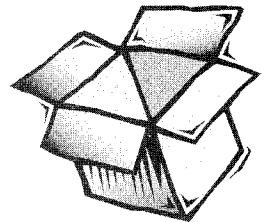
Cost-Effectiveness

The Bergen County Utilities Authority's budget for solid waste management includes its transfer station costs, hauling costs, tip fees, landfill closure costs, recycling and source reduction financial assistance programs, education and publicity costs, staff and administration costs, and debt service. The Authority's expenditures represent only a portion of the costs of waste management in the county. Each county community operates a waste management program, which is for the most part financed by community funds. In a limited survey of community recycling coordinators from Bergen County, all six



Source: Institute for Local Self-Reliance, 1999.

respondents claimed their waste reduction programs saved money or cost no more than disposal. Reasons cited for the cost-effectiveness of the programs include reduced trash costs as a result of diversion, lower labor costs as a result of waste reduction, saving on compost for city projects, free hauling and no tip fees for recyclables, and revenues from sale of recovered materials offsetting program costs.

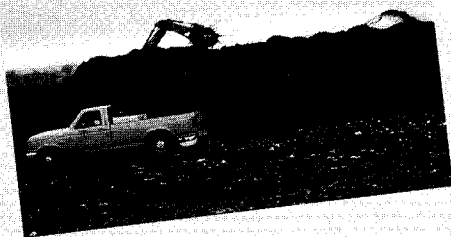


Tips for Replication

- ▶ Support community innovation with small grants.
- ▶ Make waste reduction programs mandatory.
- ▶ Design a user friendly program.
- ▶ Provide bins for curbside recycling participants.
- ▶ Be accessible.

MATERIALS RECOVERED

The County requires each community to recycle newspaper, glass food and beverage containers, food and beverage cans, ferrous scrap, white goods, leaves, and grass clippings from residential waste. Some county communities recycle additional materials such as magazines, plastics, and other paper grades.

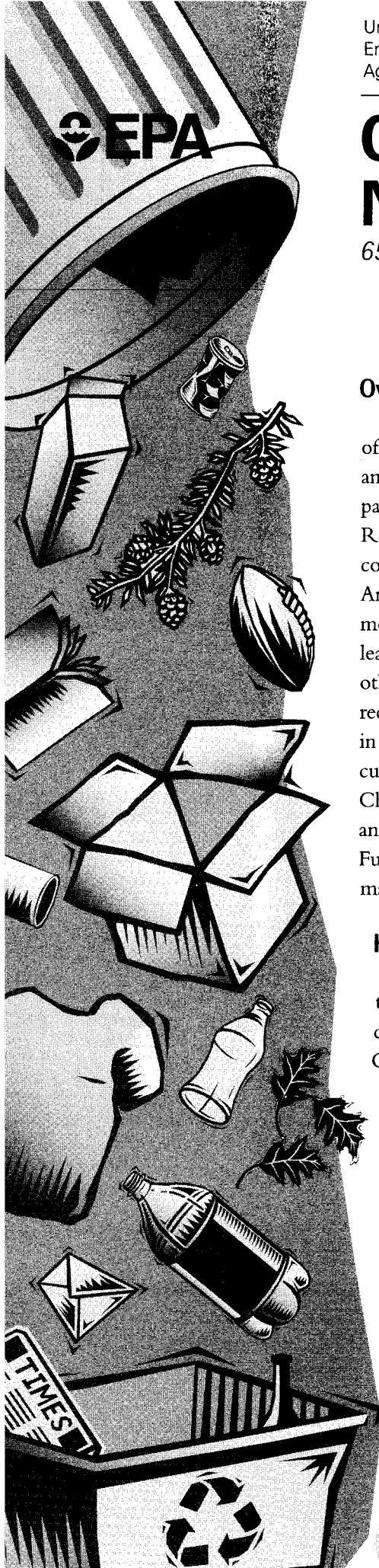


Compost piles at the Bergen County-owned compost facility

Contact

Nina Herman Seiden
 Recycling Program Manager
 Bergen County Utilities Authority
 Department of Solid Waste Planning and Development
 P.O. Box 9
 Foot of Mehrhof Road
 Little Ferry, NJ 07643
PHONE: 201-641-2552 x5822
FAX: 201-641-3509





Chatham, New Jersey

65% Residential Waste Reduction



Overview

This wealthy, tree-lined suburban community diverts 65% of its residential waste from disposal (22% through recycling and 43% through composting). The borough instituted a pay-as-you-throw (PAYT) system for trash in 1992. Residents must place their trash in special bags or the city's contracted trash collection firm will leave it at curbside. Another contractor provides curbside collection twice a month for 21 types of recyclables. The borough collects fall leaves curbside and provides a drop-off location for brush and other yard trimmings. Chatham had a successful waste reduction program that diverted 63% of its residential waste in 1991, before the PAYT system was introduced. The current system is even more successful. In 1996, the average Chatham household produced 6% less waste than in 1991 and per household trash disposal dropped by more than 10%. Furthermore, average household costs for solid waste management decreased 50% within this same time period.

DEMOGRAPHICS

POPULATION: 8,007
(1990); 8,289 (1997)
HOUSEHOLDS: 3,285
(1996) 2,735
dwellings of 3 units
or less. 550 multi-
family dwellings

Keys to High Waste Reduction

Pay-as-you-throw trash fees, a curbside recycling program that collects many materials, and a convenient yard debris collection and composting program contribute to Chatham's waste reduction program success. Chatham's trash hauler only collects trash that residents place in special 30- and 15-gallon bags. The bags cost \$1.25 and \$0.65 respectively; the price was set so bag fees cover the cost of tip fees for trash disposal. The Advanced Recycling Technology Systems, Inc. (ARTS) recycling company provides twice monthly curbside recycling for 21 categories of materials and services the borough's drop-off site. Composting of yard debris accounts for nearly two-thirds of

RESIDENTIAL PROGRAM SUMMARY

	1991	1996
Tons Per Year	8,581	8,007
Percent Diverted	63%	65%
Recycled	13%	22%
Composted	50%	43%
Average lbs./HH/day	16.85	15.81
Net Program Costs/HH	\$456.62	\$227.76
Disposal Services	\$392.81	\$158.02
Diversion Services	\$63.81	\$69.74

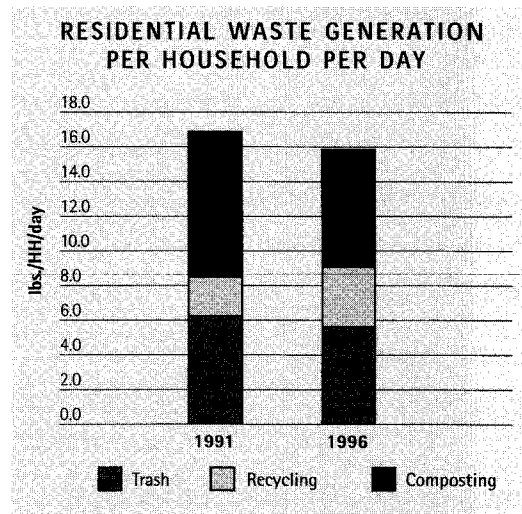
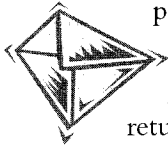
Notes: 2,750 households and 35-40 small businesses (2,790 total) served in 1991; 2,775 (2,735 households, 40 businesses) in 1996. 1991 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add to total due to rounding.

Source: Institute for Local Self-Reliance, 1999.

residential waste reduction in Chatham. Fall leaf collection accounted for about 80% of all yard waste recovered in 1996. In order to encourage residents to participate, solid waste management calendars with recycling information and drop-off/pick-up times are mailed every year to Chatham households.

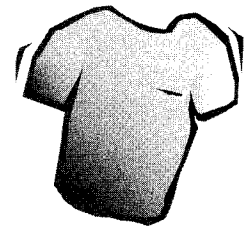
Cost-Effectiveness

Before switching to the PAYT trash system in November 1992, each Chatham household paid the previous trash hauler a flat annual fee of \$350 for trash collection and disposal, equivalent to more than \$300 per ton. The trash bag costs are now set to cover tip fee disposal costs; total per ton trash costs were \$157 in 1996. Composting collection and processing costs average \$48 per ton; recycling collection and processing, \$39 per ton. Also, the recycling contractor returns half of materials revenues to the



Source: Institute for Local Self-Reliance, 1999.

community. In 1996, these revenues defrayed recycling collection costs by 60%. Chatham's recovery rate surpassed 60% under both the old private trash collection system and the new publically contracted system but per household costs dropped dramatically when the new system was implemented.



Funding for Chatham's residential waste management program is supplied by a \$75 per household fee paid by borough residents, the cost of trash bags, and county and state funds.

Tips for Replication

- ▶ Make program participation convenient. Chatham switched to commingled collection of containers because of residents' preferences.
- ▶ Pay-as-you-throw systems encourage trash reduction.

MATERIALS RECOVERED

CURBSIDE:

- newspapers and inserts, magazines and catalogs, corrugated cardboard
- mixed paper (paper bags, phone books, paperback books, paperboard, colored and white paper, envelopes, mail, computer paper, wrapping paper, and egg cartons)
- glass containers
- cans
- juice and milk cartons
- #1 - #3 plastic bottles
- scrap metals (including aluminum foil and metal clothes hangers)
- empty latex paint cans
- aerosol cans
- household batteries
- white goods
- leaves

DROP-OFF:

- All materials accepted in curbside program (with the exceptions of household batteries and white goods)
- plus:
 - brush
 - grass clippings

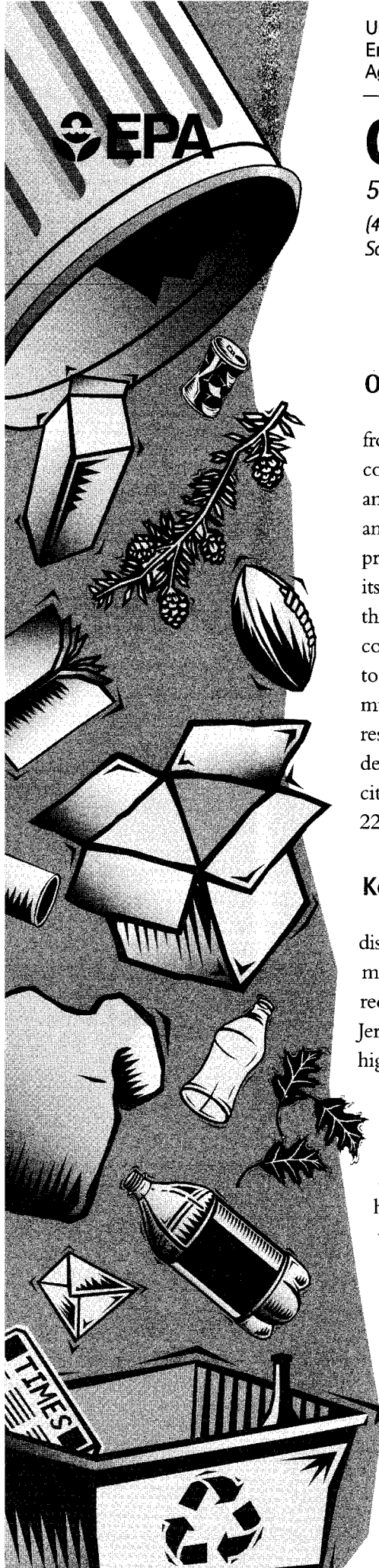


Recyclables set out at curbside in Chatham

Contact

Henry Underhill
 Town Administrator
 Borough of Chatham
 54 Fairmont Avenue
 Chatham, NJ 07928
PHONE: 973-635-0674 x108
FAX: 973-636-2417





Clifton, New Jersey

56% Municipal Solid Waste Reduction

(44% Residential Solid Waste Reduction; 68% Institutional/Commercial Solid Waste Reduction)



Overview

In 1996, Clifton diverted 56% of its municipal solid waste from disposal (38% through recycling; 18% through composting). Clifton diverted 44% of city-collected material and an impressive 68% of materials generated by businesses and institutions not served by city waste management programs. The city collects eleven categories of recyclables in its curbside program and its drop-off recycling center accepts thirteen categories of material (nine of which are also collected curbside). Residents are required by local ordinance to recycle other categories of materials, such as textiles, but must do so through private recyclers. The city also offers its residents and small businesses curbside collection of yard debris. Private trash haulers and recyclers primarily serve the city's businesses and institutions, which are required to recycle 22 types of materials.

DEMOGRAPHICS

POPULATION: 75,000
(1996)
HOUSEHOLDS: 31,000
(1996) 25,500 single-family homes and duplexes, 5,500 in dwellings with 3 or more units
BUSINESSES: 3,100
(1999)

Keys to High Waste Reduction

Clifton's waste diversion success is driven by high waste disposal fees, state and local recycling mandates, strong local markets for recycling, composting yard debris, and an active recycling coordinator. Tip fees in New Jersey have traditionally been among the highest in the nation. Waste diversion

offers many New Jersey businesses and communities a less expensive alternative to disposal. Clifton's residential recycling ordinance requires every household served by the city-operated waste management program to source-separate and recycle 18 categories of materials. Another ordinance requires Clifton businesses and institutions to recycle 22 materials. Recycling-based manufacturing is prevalent in New Jersey and Clifton is near many companies that use recyclables as raw

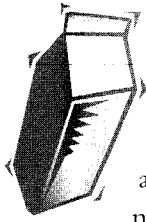
PROGRAM SUMMARY

	1987	1996
Tons Per Year MSW	110,172	110,925
Tons Per Year RSW	49,310	54,211
Tons Per Year ICW	60,862	56,714
Percent MSW Diverted	15%	56%
Percent RSW Diverted	12%	44%
Percent ICW Diverted	18%	68%
Average lbs./HH/day¹	9.83	10.14
Net Program Costs/HH¹	\$153.38	\$177.73
Disposal Services	\$144.98	\$147.64
Diversion Services	\$8.40	\$30.08

Key: MSW = municipal solid waste RSW = residential solid waste
ICW = institutional and commercial waste
Notes: 1987 dollars adjusted to 1996 dollars using the GDP deflator.
Numbers may not add to total due to rounding.
¹Figures reflect public sector collection from 26,200 households and 1,300 businesses served in 1987; 28,000 households and 1,300 businesses in 1996.

Source: Institute for Local Self-Reliance, 1999.

materials. Clifton diverts 18% of its total municipal solid waste (28% of its city-collected waste) through composting. Residents and small businesses divert materials through the



city's seasonal curbside collection programs for leaves and other yard debris and its year-round brush collection program.

Clifton's recycling coordinator has assisted local businesses in locating markets for materials, performed

waste audits, and provided advice on ordinance compliance. The coordinator also gives talks to civic groups and schools on reuse, environmental purchasing, and recycling.

Participants in the city's curbside recycling program must sort glass containers, cans, and paper products into seven streams for collection. Collection of sorted materials allows the city to market materials directly, avoiding the cost of processing and allowing the city to retain all revenue from sales.

MATERIALS RECOVERED IN PUBLIC SECTOR PROGRAM

CURBSIDE:

newspapers, magazines
 mixed paper (phone books, paperboard, mail, paperback books, hardcover books without covers, office paper)
 glass containers
 cans
 white goods
 scrap metals
 leaves, brush, grass clippings, holiday trees, and other yard and garden debris
 corrugated cardboard (businesses only)

DROP-OFF:

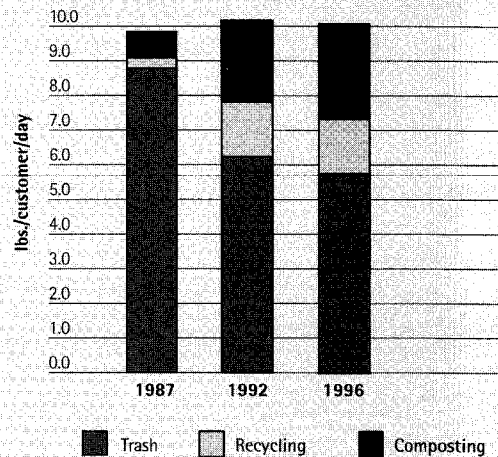
All materials accepted in curbside program (except white goods and scrap metal) plus:

corrugated cardboard (from residents)
 aluminum plates and trays
 #1 and #2
 plastic bottles
 residents can deliver car batteries for recycling to the City Garage at no cost



Recyclables set out at curbside in Clifton

PUBLIC SECTOR WASTE GENERATION PER CUSTOMER PER DAY



Note: Residential waste generation per household is not available as Clifton serves businesses on its residential routes. Figures above thus reflect pounds of waste generated per customer (8,000 residents and 1,300 businesses) per day.

Source: Institute for Local Self-Reliance, 1999.

Cost-Effectiveness

The city's solid waste management costs increased from \$153 per household in 1987 to \$178 per household in 1996. During this same time period, per ton tip fees for trash more than tripled in constant dollar value from \$36 per ton to \$112 per ton. If the tip fee in 1996 had only been \$36 per ton and all other costs stayed the same, per household costs would have been \$99. Therefore, the increase in per household costs can wholly be accounted for through the increase in trash tip fees.

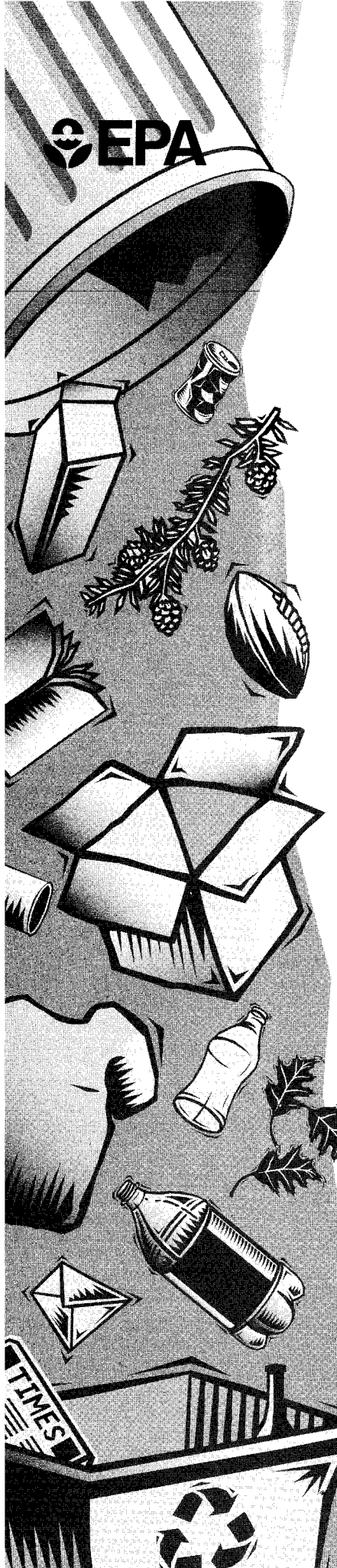
Tips for Replication

- ▶ Collect materials source-separated.
- ▶ Enforce mandatory programs in order to boost both the quantity and quality of participation.

Contact

Alfred DuBois
 Recycling Coordinator
 City of Clifton Dept. Of Public Works
 307 East 7th Street
 Clifton, NJ 07013
PHONE: 973-470-2239
FAX: 973-340-7049





Crockett, Texas

52% Residential Waste Reduction



Overview

Prior to 1992, Crockett contracted with a private company for waste collection and disposal, and no materials were recovered for recycling or composting. The city ended its contract with the private company in 1992 with the belief that city staff could provide trash, recycling, and composting services at a lower cost. City staff now provide all city residents with twice weekly trash collection and once weekly recycling and yard debris collection. City ordinance requires residents of the city to source-separate designated materials for recycling and composting. The ordinance also requires residents to use clear bags for trash, recycling, and yard debris; which allows collectors to easily identify improperly prepared materials. The city processes all recyclables and yard debris in its own facility, markets recyclables directly to end users and retains all revenue from material sales. In 1996, Crockett recycled 20% and composted 32% of its residential waste stream. The city achieved this high diversion rate at a cost similar to what it formerly paid its contractor. The net cost of solid waste services has slightly decreased from \$72 per household in 1991 to \$69 in 1996.

DEMOGRAPHICS

POPULATION: 8300 (1996)
HOUSEHOLDS: 3,292
(1996); 2,834 in
single-family
dwellings and
duplexes, 459 in
multi-family
dwellings

Keys to High Waste Reduction

Crockett's mandatory, weekly curbside recycling and composting programs; the use of clear bags for trash, composting, and recycling; and continuous resident education have contributed to the city's high diversion level. Crockett's local recycling ordinance designates 20 categories of materials that residents must recycle and requires residents to separate yard debris for recovery. The clear bags allow collection staff to see contamination in bags of recyclables and yard debris and to see if designated materials are mixed in trash set out for collection. Crews refuse collection of improperly set out materials and tag them to

RESIDENTIAL PROGRAM SUMMARY

	1991	1996
Tons Per Year	3,450	2,711
Percent Diverted	0%	52%
Recycled	0%	20%
Composted	0%	32%
Average lbs./HH/day	6.10	4.51
Net Program Costs/HH	\$71.94	\$68.71
Disposal Services	\$71.94	\$24.64
Diversion Services	\$0	\$44.07

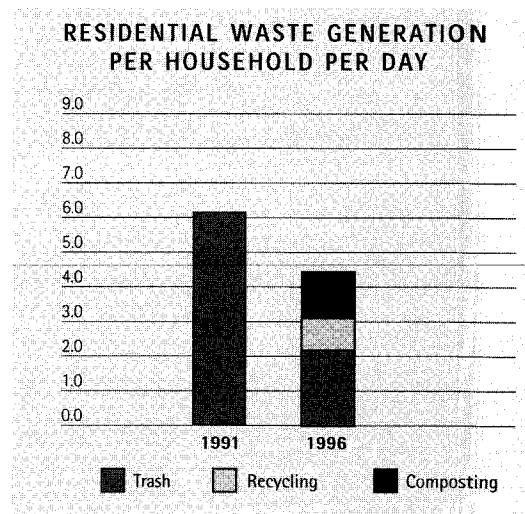
Notes: 3,100 households served in 1991; 3,293 in 1996. 1991 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add to total due to rounding.

Source: Institute for Local Self-Reliance, 1999.

explain to residents why they were not collected. These tags provide city crews opportunities to provide residents education and feedback when it is most needed. The city also publicizes waste reduction and public participation strategies using radio, newspaper, and other written materials.

Cost-Effectiveness

In 1991, the cost (in 1996 dollars) to the city to have a private company collect and dispose its trash was \$223,000 or \$72 per household. In 1996, total solid waste costs were \$250,254 but were offset by \$24,000 in revenues so that net solid waste management costs were \$69 per household. In 1996, trash collection and disposal costs were \$62 per ton, net recycling costs were \$144 per ton, and composting costs were \$78 per ton. Crockett's program cost-effectiveness is enhanced by high diversion levels, the dual-collection of recyclables and yard debris, and the city



Source: Institute for Local Self-Reliance, 1999.

processing and marketing its own recyclables. High diversion reduces the need for hauling trash to the landfill 55 miles away, especially yard debris diversion as the material is composted and used locally. City crews collect recyclables and yard debris on the same truck, eliminating the need for separate truck fleets and collection crews. By processing and marketing its own materials, the city retains all revenue from the sale of recyclables.

MATERIALS RECOVERED

CURBSIDE:

- newspapers, magazines, corrugated cardboard
- mixed paper (phone books, paperboard, office paper, envelopes, mail)
- glass containers
- scrap metal
- aluminum foil and plates
- cans including empty aerosol cans
- all plastics
- white goods not containing freon
- used motor oil
- leaves, brush, grass clippings, and other yard debris

DROP-OFF:

- all materials accepted in curbside program plus oil filters



Yard trimmings composting in piles at the Crockett Recycling Center

Tips for Replication

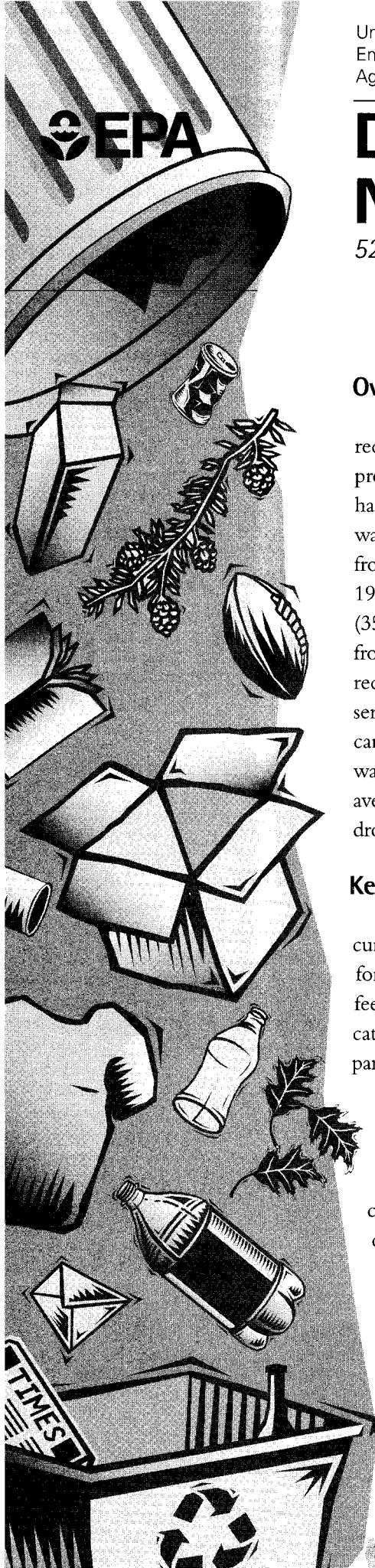
- ▶ Secure the best possible markets for recyclables.
- ▶ Use clear bags to make contamination evident.
- ▶ Be creative.
- ▶ Allow commingling.
- ▶ Build positive relationships with the public.



Contact

Buddy Robinson
 Solid Waste Director
 City of Crockett
 200 North Fifth
 Crockett, TX 75835
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FAX: 409-544-4976





Dover, New Hampshire

52% Residential Waste Reduction



Overview

In 1990, the city of Dover opened a drop-off center for recycling and a year later instituted a curbside recycling program and pay-as-you-throw trash fees. Since then the city has increased its waste recovery and reduced its production of waste. Average per household waste generation decreased from 6.2 pounds per day in 1990 to 4.7 pounds per day in 1996. In 1996 Dover diverted 52% of its residential waste (35% through recycling and 17% through composting) up from 3% in 1990. Dover residents receive weekly trash and recycling collection and seasonal yard debris collection services. The city operates a drop-off center where residents can deliver recyclables and yard debris. Dover's successful waste reduction program has reaped financial benefits as well; average per household costs for solid waste management have dropped from \$122 in 1990 to \$73 in 1996.

DEMOGRAPHICS

POPULATION: 25,042
(1990); 26,094
(1996); 27,000 (1997)
HOUSEHOLDS: 11,315 (1996);
5,641 single family
dwellings (4 units or less),
5,674 multi-family
dwellings

Keys to High Waste Reduction

The keys to Dover's waste reduction are convenient curbside residential recycling service, the city's drop-off facility for recyclables and yard debris, and a pay-as-you-throw trash fee structure. The curbside recycling program collects 20 categories of materials on the same day as trash; all participating households are given free containers for storage

and set-out of materials. Materials collected include many paper grades, clear and colored glass containers, #1 and #2 plastic bottles, juice and milk containers, and aluminum foil. The city's drop-off center accepts five recyclable materials in addition to all those collected at curbside. The center also provides a free, regular outlet for brush and other yard debris, which is only collected seasonally at curbside.

The pay-as-you-throw trash program requires all municipal

RESIDENTIAL PROGRAM SUMMARY

	1990	1996
Tons Per Year	10,838	9,462
Percent Diverted	3%	52%
Recycled	3%	35%
Composted	0%	17%
Average lbs./HH/day	6.18	4.71
Net Program Costs/HH	\$121.55	\$72.53
Disposal Services	\$121.28	\$43.78
Diversion Services	\$0.28	\$28.75

Notes: 9,611 households served in 1990; 11,000 in 1996. Dover also serves 210 small businesses in its residential waste programs. 1990 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add to total due to rounding.

Source: Institute for Local Self-Reliance, 1999.

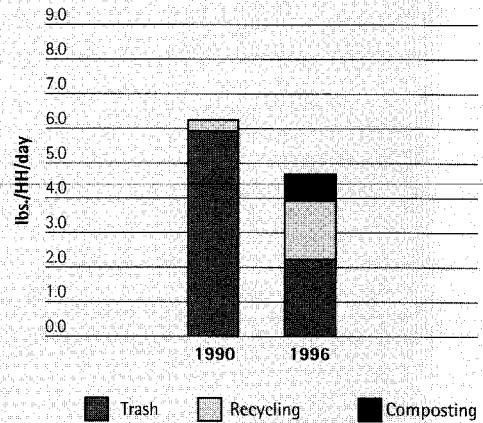
waste customers to place their trash into orange bags and tag oversized items. Untagged trash or trash set out in unauthorized containers is not collected. The trash fees provide a direct financial incentive for trash customers to divert materials through recycling or composting and to reduce their total waste generation.

Cost-Effectiveness

Dover's net residential solid waste management costs dropped from \$1.1 million in 1990 to \$798,000 in 1996 while adding more than 1,000 customers. Taking inflation into account, per household costs for solid waste management have been reduced from \$122 in 1990 to \$73 in 1996.

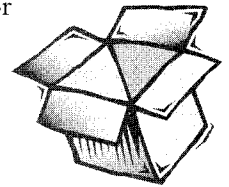
In 1996, trash collection cost \$115 per ton; and waste reduction averaged \$60 per ton

RESIDENTIAL WASTE GENERATION PER HOUSEHOLD PER DAY



Source: Institute for Local Self-Reliance, 1999.

(recycling cost \$75 per ton and composting cost \$27 per ton). Per ton trash costs have remained relatively constant since Dover instituted its recycling and composting programs and switched to a pay-as-you-throw trash system; \$111 in 1990 and \$115 in 1996. Overall budget savings have resulted from significantly lower per ton costs for waste reduction and reduced generation both for the city as a whole and per household.



MATERIALS RECOVERED

CURBSIDE:

- newspaper, magazines and catalogs, corrugated cardboard,
- mixed paper (including paperboard, mail, office paper, glossy paper, and phone books)
- juice boxes and milk cartons
- glass containers
- cans
- #1 and #2 plastic bottles
- aluminum foil
- leaves, and other soft yard trimmings (including grass clippings, garden plants, and pine needles but excluding brush and woody debris)
- large appliances and scrap metal (collected separately by appointment)

DROP-OFF:

- All materials collected at curbside (except milk and juice cartons) plus:
- brush and holiday trees
 - tires
 - automotive and other batteries
 - textiles
 - empty aerosol cans
 - oil filters
 - wood
 - construction and demolition debris

Recyclables and trash set out at curbside in Dover



Tips for Replication

- ▶ Institute a user-fee based program.
- ▶ Research the bags used in bag-and-tag system. It is important to have bags of the correct size, strength, and color.
- ▶ Talk about waste reduction plans to all groups who will listen.
- ▶ Include low-income residents in the program.
- ▶ Establish a newsletter to remind and update residents on program changes.
- ▶ Track data.

Contact

Jeff Pratt
 Solid Waste Coordinator
 Dover Community Services Department
 Municipal Building
 288 Central Avenue
PHONE: 603-743-6094
FAX: 603-743-6096
WEB SITE: <http://www.ci.dover.nh.us>





Falls Church, Virginia

65% Residential Waste Reduction



Overview

Falls Church made a commitment to recycling in 1989 when it hired its first Recycling Coordinator. A city code, effective since 1991, requires the city to provide curbside recycling and yard debris services to all residents receiving city trash service. The city provides weekly trash and curbside recycling services, and brush, fall leaves, and bagged yard debris collection. In addition, the city operates a drop-off facility for recyclables. Falls Church's waste reduction rate increased from 39% in FY90 to 65% in FY97 (25% through recycling and 40% through composting). The biggest gain was in recycling, which rose from 10% to 25%. During the same period, per household trash disposal was cut nearly in half.

DEMOGRAPHICS

POPULATION: 9,578
(1989); 10,000 (1996,
estimate)
HOUSEHOLDS: 4,637 (1996);
2,194 single-family
households, 1,441 multi-
family units, 431
townhomes, 571
condominiums

Keys to High Waste Reduction

Collection of a wide range of materials for recovery, year-round curbside yard debris collection, and community involvement and education programs contribute to Falls Church's waste reduction success. Falls Church accepts 14 types of recyclables in its curbside collection program and three additional categories at its drop-off facility. Materials accepted include paperboard, mail, aluminum foil and scrap, and some household batteries. Falls Church has many mature lawns and trees and yard debris is a significant component of the city's waste stream. Each household generates more than five pounds of yard debris per day. The city's fall leaf collection and processing program is alone responsible for 45% of the city's total waste diversion. Falls Church operates a multi-faceted education and outreach program that includes personal contact, volunteer participation, written materials, and school and community programs. One notable program, the city's

RESIDENTIAL PROGRAM SUMMARY

	FY90	FY97
Tons Per Year	6,956	6,655
Percent Diverted	39%	65%
Recycled	10%	25%
Composted	29%	40%
Average lbs./HH/day	13.23	12.45
Net Program Costs/HH	\$372.21	\$215.21
Disposal Services	\$194.43	\$104.30
Diversion Services	\$177.78	\$110.91

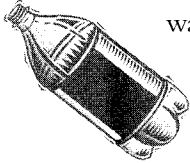
Notes: 2,880 households served in 1990; 2,928 in 1997. 1990 dollars adjusted to 1997 dollars using the GDP deflator. Numbers may not add to total due to rounding.

Source: Institute for Local Self-Reliance, 1999.

“Recycling Block Captain” program involves more than 100 community volunteers who distribute recycling information in their neighborhoods and serve as a liaison between residents and the city.

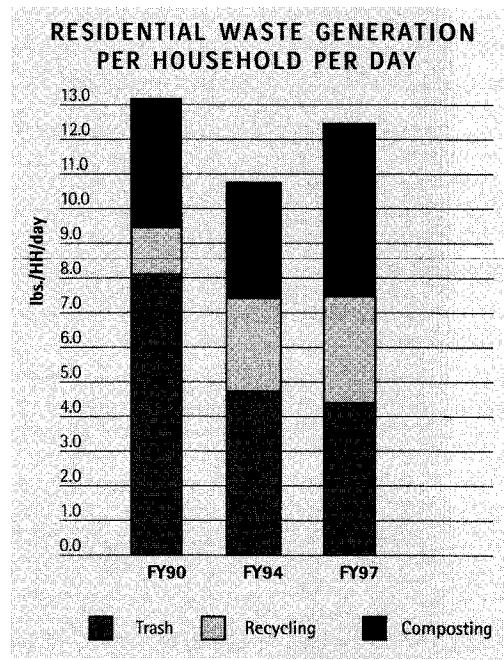
Cost-Effectiveness

Falls Church experienced a \$420,000 decrease in its solid waste management budget from FY90 to FY97. In 1996, the city spent about \$215 per household served by city waste management programs (\$104 on trash collection and disposal, \$38 on recycling, and \$73 on yard debris collection and recovery).



On a per-ton basis, trash cost \$139 and waste reduction cost \$73 (recycling cost \$62, and yard debris recovery \$80).

The city’s waste reduction program is cost-effective due to a reduction in trash routes made possible by decreased trash generation, and a fee structure whereby increased recycling does not increase costs because the recycling contractor is paid per household



Source: Institute for Local Self-Reliance, 1999.

served. Falls Church reduced trash collection from twice to once weekly in 1991, less than one year after the city started multi-material curbside recycling. As a result, the city cut trash collection labor needs by one-third. Unlike recycling, trash, brush, and yard debris costs grow as these streams increase because of tonnage-based tip fees the city pays for their management. In the 1990s, the greatest increase in the city’s diversion rate resulted from recycling.

MATERIALS RECOVERED

CURBSIDE:

- newspaper, magazines and catalogs, corrugated cardboard
- mixed paper (including mail, copier and computer paper, colored and glossy paper, envelopes, folders, note cards, paperboard, and phone books)
- glass containers
- metal cans
- #1 and #2 plastic bottles
- white goods
- brush, grass clippings, leaves, and other yard and garden debris

DROP-OFF:

- all materials collected at curbside (excluding compostables)
- plus:
- aluminum foil and pie pans
- scrap metal
- some household batteries



City workers vacuuming autumn leaves in Falls Church

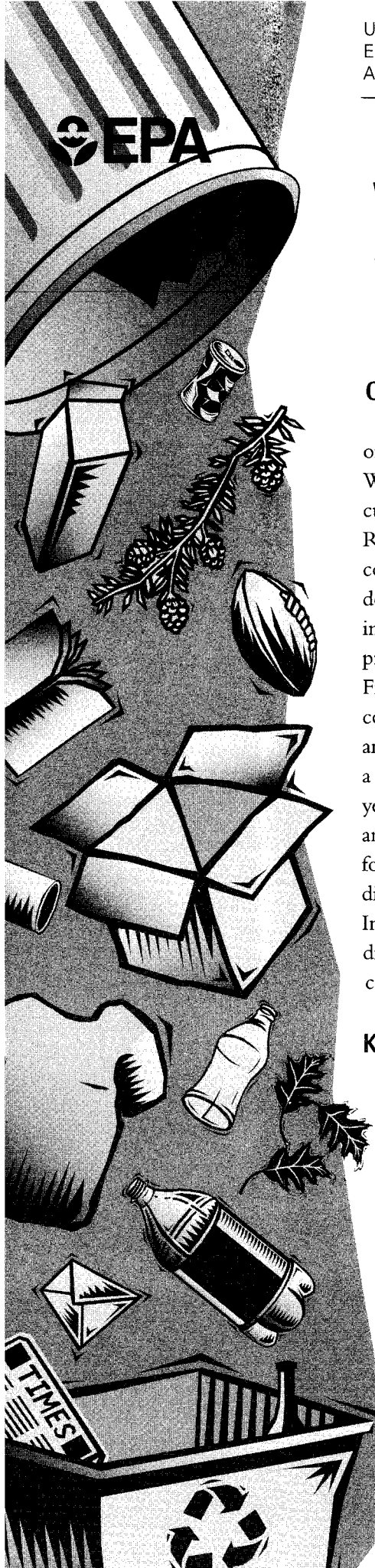
Tips for Replication

- ▶ Community involvement and encouraging volunteers are critical to keeping residents motivated and participating.
- ▶ Educate the community, especially children, because children can have a big effect on a household’s behavior.
- ▶ Recover yard debris.
- ▶ Make program participation convenient.

Contact

Annette Mills
 Coordinator
 Recycling and Litter Prevention
 City of Falls Church, Dept. of Public Works
 Harry E. Wells Building, 300 Park Avenue
 Falls Church, VA 22046-3332
PHONE: 703-241-5176
FAX: 703-241-5184





Fitchburg, Wisconsin

50% Residential Waste Reduction



Overview

Fitchburg instituted the first mandatory recycling ordinance and the first multi-family recycling ordinance in Wisconsin and was the first city in the U.S. to implement curbside polystyrene collection. The city's Solid Waste and Recycling Ordinance requires all occupants of residential and commercial property to separate 16 recyclables from trash, details proper preparation methods, requires the implementation of multi-family recycling programs, and prohibits delivery of recyclables to any disposal facility. Fitchburg contracts with a private hauler to provide trash collection and disposal, weekly curbside recycling collection, and curbside collection of non-woody yard debris four times a year. City crews collect brush from the curb eight times a year. Residents pay an annual base rate for trash, recycling, and yard debris service and pay-as-you-throw (PAYT) rates for excess trash. From 1992 to 1996, total residential trash disposal dropped despite a 20% increase in households served. In 1996, the city diverted 50% of its residential waste from disposal (29% through recycling and 21% through composting).

DEMOGRAPHICS

POPULATION: 16,254 (1992); 17,266 (1996)
HOUSEHOLDS: 6,685 (1990); 3,057 single-family households and duplexes, 3,628 multi-family units. 7,500 (1996); 3,860 units in buildings with 1-4 units

Keys to High Waste Reduction

Fitchburg achieved its high waste reduction through the recycling of many items, composting, and PAYT trash fees.

Residents can recycle 21 types of materials: 17 through weekly curbside collection, two through monthly curbside collection, one at the drop-off, and one by special appointment. Yard debris collection and drop-off programs accept leaves, grass clippings, and other yard and garden trimmings. A separate program collects and processes brush.

PAYT trash rates serve as an incentive for decreased disposal. In FY97 Fitchburg charged each household

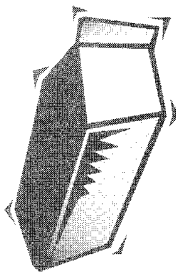
RESIDENTIAL PROGRAM SUMMARY

	1992	1996
Tons Per Year	3,644	4,147
Percent Diverted	35%	50%
Recycled	24%	29%
Composted	11%	21%
Average lbs./HH/day	6.16	5.89
Net Program Costs/HH	\$126.48	\$108.12
Disposal Services	\$72.08	\$52.51
Diversion Services	\$54.40	\$55.61

Notes: 3,243 households served in 1992; 3,860 in 1996. 1992 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add to total due to rounding.

Source: Institute for Local Self-Reliance, 1999.

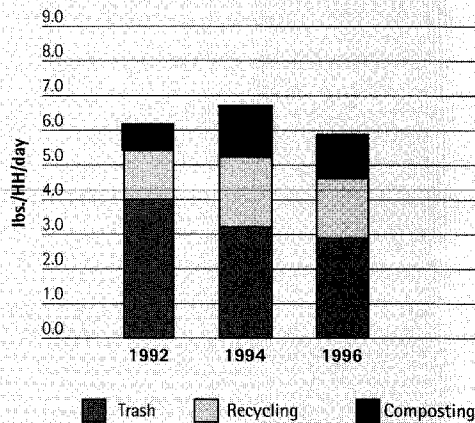
\$82 for recycling and yard debris services, and collection and disposal of one 32-gallon trash can per week. The city also provided each household with 10 tags which could be attached to extra containers of trash. The weekly collection cost of a 64-gallon container was an extra \$34.68 per year and a 95-gallon container was an additional \$60.96 annually. Additional tags for trash bags cost \$1.50 each at local retail stores.



Cost-Effectiveness

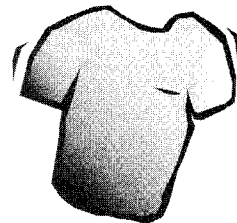
Fitchburg's net solid waste management budget rose from 1992 to 1996, but so did the city's population and number of households served. When the cost of inflation is taken into account, average per household costs for waste management services have decreased from \$126 in 1992 to \$108 in 1996. During the same period, landfill tip fees increased by

RESIDENTIAL WASTE GENERATION PER HOUSEHOLD PER DAY



Source: Institute for Local Self-Reliance, 1999.

17% in real dollars. On a per-ton basis, trash cost \$100 and waste reduction cost \$101 (recycling cost \$117 per ton and yard debris recovery \$78). Fitchburg's low-cost drop-off composting program helps the city contain costs. In 1996, residents delivered 534 tons of yard debris (13% of their waste stream) to the city drop-off site. City staff land spread the material over city land, avoiding higher cost processing of the material.



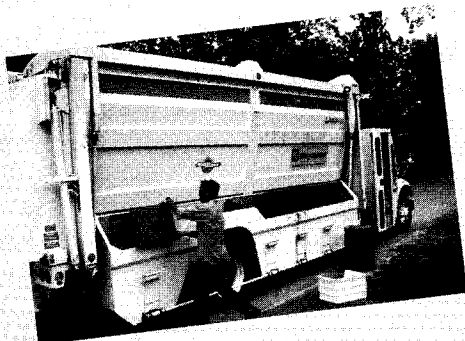
MATERIALS RECOVERED

CURBSIDE:

- newspaper, magazines and catalogs, corrugated cardboard
- mixed paper (including mail, white paper, brown paper bags, paperboard, and phone books)
- cans
- glass containers
- all plastic containers and #4 plastic container lids
- rigid and foam polystyrene
- reusable household items (e.g., clothing, books, small appliances, housewares, and toys)
- white goods
- grass clippings, leaves, brush, holiday trees, and other yard and garden debris

DROP-OFF:

- all materials accepted at curbside except:
- cans
- glass containers
- plastics
- reusable items
- white goods



Recycling collection truck in Fitchburg

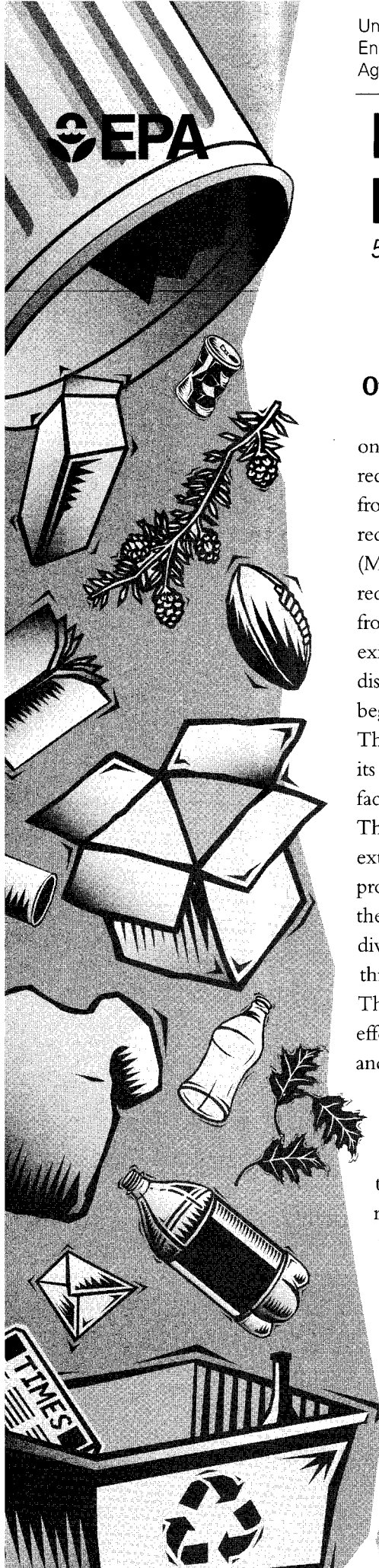
Tips for Replication

- ▶ Listen to your line employees. Workers know the system and its strengths and weaknesses.
- ▶ Get your hands dirty.
- ▶ Don't reinvent the wheel. Talk with other recyclers when faced with problems. Most likely someone else has encountered a similar problem and can offer advice.
- ▶ Optimize. Never stop striving to improve; there's always room for improvement.

Contact

Kevin Wunder
 Project Manager
 Public Works Dept., City of Fitchburg
 2377 South Fish Hatchery Road
 Fitchburg, WI 53711
PHONE: 608-270-6343
FAX: 608-275-7154





Leverett, Massachusetts

53% Residential Waste Reduction



Overview

Leverett's recycling system, like its trash program, operates on a drop-off basis. In 1988, the city enacted a mandatory recycling bylaw which banned recyclable paper, glass and cans from its landfill. In 1990, Leverett began shipping its recyclables to a state-developed materials recovery facility (MRF) in Springfield, Massachusetts, and in 1993 revised its recycling bylaw to ban all materials accepted at the MRF from disposal with trash. Recycling extended the life of the existing landfill by two years and reduced hauling and disposal costs after the landfill closed in 1993 and the city began disposing its trash in a landfill 27 miles from town. The town's Recycle/Transfer Station is located on the site of its former landfill. Residents can drop off recyclables at this facility for free but must pay a per-bag fee for their trash. The Recycle/Transfer Station is also the home of Leverett's extensive reuse program. The town has no organized program for the management of yard debris but it has banned these materials from disposal. In FY97, Leverett residents diverted 53% of their residential waste from disposal — 31% through recycling and 23% through yard debris diversion. The town's current waste management program is cost-effective compared to the costs of operating its own landfill and disposing of all the town's waste.

DEMOGRAPHICS

POPULATION: 1,908
(1996)
HOUSEHOLDS: 650 (1996);
all single-family homes
and duplexes

Keys to High Waste Reduction

Leverett's yard debris disposal ban, the acceptance of 25 materials for recycling and reuse, and pay-as-you-throw (PAYT) trash fees have contributed to Leverett's 53% waste reduction level. The town's disposal ban forces residents to manage their own yard debris. In the past the city has sold reduced price compost bins (120 bins in 1996) and provided those residents who purchased them

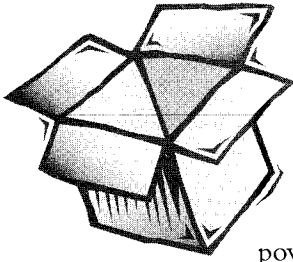
RESIDENTIAL PROGRAM SUMMARY

	FY87	FY97
Tons Per Year	NA	652
Percent Diverted	0%	53%
Recycled	0%	31%
Composted	0%	23%
Average lbs./HH/day	NA	5.50
Net Program Costs/HH	\$84.46	\$50.81
Disposal Services	\$84.46	\$39.37
Diversion Services	\$0.00	\$11.44

Notes: 651 households served in FY89; 650 in FY97. 1986 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add to total due to rounding.

Source: Institute for Local Self-Reliance, 1999.

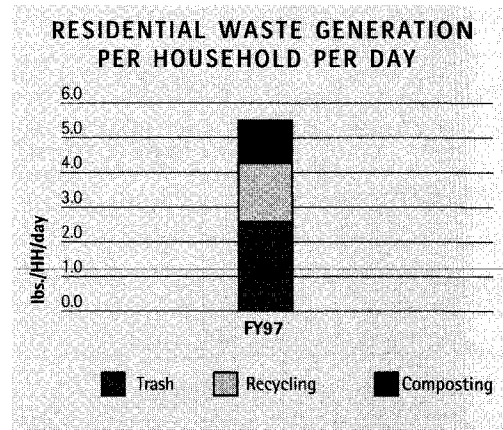
with instruction booklets. The Recycle/Transfer Station accepts all materials processed at the Springfield MRF and provides recycling and source reduction opportunities for other goods. Most of the structures at the town's Recycle/Transfer Station are devoted to reuse; the most active is the "Take it or Leave it." At this facility, residents have moved items such as hand and power tools, small and large appliances, exercise equipment, toys, furniture,



housewares, building materials, and even a snowblower into the reuse stream. The second most popular component of the town's reuse operations is its clothes bin where residents can deposit their own unwanted clothing or take items left by other residents. Residents must pay per-bag fees for the disposal of all waste. In FY97, disposal fees were \$1.50 per 30-gallon bag and \$0.75 for 15-gallon bags.

Cost-Effectiveness

In FY97, Leverett's gross costs for residential waste management were \$37,600.



Source: Institute for Local Self-Reliance, 1999.

Of this, about 72% was spent on trash collection and disposal and 28% was spent on recycling. On a per-ton basis, trash cost \$91 and recycling cost \$51 (\$36 with material revenues). Leverett pays an average of \$58 per ton in landfill tip fees, while the town pays no tip fees for delivering recyclables to the MRF. The town's PAYT trash fees, lack of tip fees for recycled materials, and reuse programs have contributed to the cost effectiveness of its waste management program. In FY87, before the town expanded its waste reduction program, waste disposal cost \$84 per household. The town's current costs for waste management are only \$58 per household (\$53 per household when revenues from recyclables are included).

Tips for Replication

- ▶ Don't waste time reinventing the wheel.
- ▶ People have to live with your recycling/reuse program. Make it as easy, and as *useful to them*, as possible.
- ▶ Try not to get too caught up in the numbers game (recycling rates); focus on how to help your community deal with the waste issues that are or will be important to them. The recycling rate will take care of itself.

MATERIALS RECOVERED

DROP-OFF:

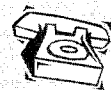
- newspaper, magazines, corrugated cardboard
- mixed paper (including paperboard, mail, office paper, phone books and other books, and kraft paper bags)
- juice and milk boxes
- glass containers
- cans
- all plastic bottles, tubs, trays, and jars
- lead-acid batteries
- household batteries
- textiles
- reusable goods
- white goods
- paint
- scrap metal



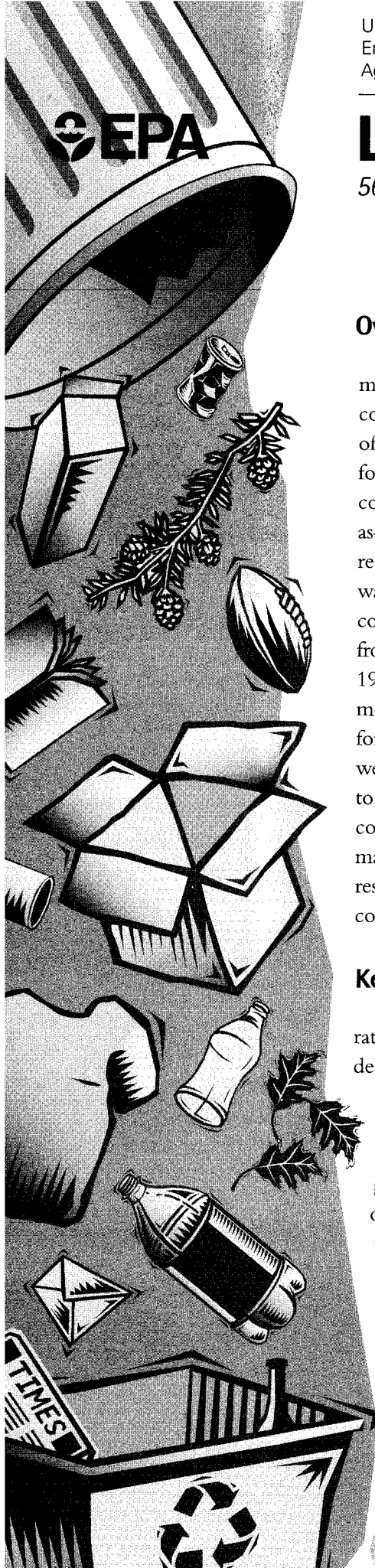
Leverett's "Take it or Leave it," a shed at the Transfer Station where residents can donate or pick up reusable goods.

Contact

Richard Drury
 Recycling Coordinator
 Town of Leverett, Town Hall
 Leverett, MA 01054
PHONE: 413-367-9683
FAX: 413-367-9611



4/10



Loveland, Colorado

56% Residential Waste Reduction



Overview

In the early 1990's, Loveland overhauled its waste management system in response to rising worker compensation insurance rates and aging trash trucks in need of replacement. The city instituted a dual-collection system for trash and recycling and a separate system for curbside collection of yard debris. In addition, the city instituted pay-as-you-throw (PAYT) trash fees to encourage waste reduction. In 1996, the city diverted 56% of its residential waste from disposal; 19% was recycled and 37% was composted. Average trash landfilled per household dropped from 6.6 pounds per day in 1989 to 2.6 pounds per day in 1996 — a 60% reduction. Residents pay a mandatory flat monthly fee for recycling and composting services plus a fee for each bag of trash disposed. They can also subscribe to weekly curbside pick-up of yard debris or take the material to a central drop-off site. A drop-off site for recyclables not collected at curbside is also available. The new waste management system, fully implemented citywide in 1993, results in fewer staff injuries, integrates recycling with trash collection, and contains costs.

DEMOGRAPHICS

POPULATION: 37,352
(1989); 44,300 (1996)
HOUSEHOLDS: 17,476
(1996); 15,220 single-family households, 2,256 multi-family units

Keys to High Waste Reduction

Keys to Loveland's high diversion rate are PAYT trash rates, convenient collection of recyclables, and diversified yard debris recovery. PAYT trash fees encourage participation in curbside and drop-off waste reduction programs.

Residents must either buy a stamp (\$0.85 for 30 gallons or \$0.45 for 13 gallons) to place on their own trash can or bag, or they must purchase special trash bags printed with the city logo (\$1.00 for 32-gallon blue bags and \$0.55 for 15-gallon green bags). The city's weekly curbside recycling program accepts eleven different materials. The city provides recycling bins to participating households and requires minimal

RESIDENTIAL PROGRAM SUMMARY

	1989	1996
Tons Per Year	15,680	17,973
Percent Diverted	0%	56%
Recycled	0%	19%
Composted	0%	37%
Average lbs./HH/day	6.63	5.86
Net Program Costs/HH	\$63.16	\$85.48
Disposal Services	\$63.16	\$40.36
Diversion Services	\$0	\$45.12

Notes: 2,880 households served in 1990 ;2,928 in 1997. 1990 dollars adjusted to 1997 dollars using the GDP deflator. Numbers may not add to total due to rounding.

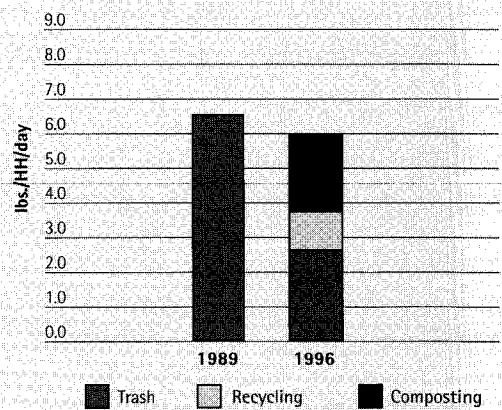
Source: Institute for Local Self-Reliance, 1999.

sorting of materials by residents (two major segregations are required: paper and commingled containers). Loveland residents have a variety of options for diverting their yard debris from disposal. They can subscribe to the seasonal curbside collection service, which operates from April through November at a cost of \$4.25 per month; use the city's drop-off site; or handle their own materials through mulch mowing and home composting. In 1996, drop-off accounted for two-thirds of yard trimmings collected for composting in the city program.

Cost-Effectiveness

In 1996, the city spent about \$1.45 million to provide trash, recycling, and yard debris services to 16,422 households — about \$90 per household served. Materials revenues reduced this by \$81,000 to \$1.40 million (or \$85 per household served). Per household costs are higher under Loveland's current waste management system than they were before the

RESIDENTIAL WASTE GENERATION PER HOUSEHOLD PER DAY



Source: Institute for Local Self-Reliance, 1999.

changes (\$63 in 1989; \$85 in 1996). However, residents receive more services than before, and waste reduction may also ensure future cost-effectiveness for Loveland's waste management systems as it cushions Loveland against expected increases in landfill tip fees.¹ The city estimates it saves \$100,000 per year through its dual-collection system as compared to separate trash and recycling collection.

MATERIALS RECOVERED

CURBSIDE:

newspapers, corrugated cardboard
brown grocery sacks
glass containers
cans
scrap metal (including aluminum foil, pie, food trays, white goods, and aerosol cans)
narrow-necked #1 and #2 plastic bottles
grass clippings, leaves, brush, and other yard and garden debris

DROP-OFF:

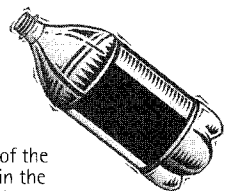
magazines and catalogs, mixed office paper, phone books
motor oil, antifreeze, transmission fluid
automotive
batteries
fluorescent tubes
grass clippings, leaves, brush, and other yard and garden debris



Loveland city staff use a unique dual-collection vehicle to collect trash and recyclables.

Tips for Replication

- ▶ Be prepared for resistance to change. Try to anticipate likely questions.
- ▶ Enact PAYT trash fees.
- ▶ Do your own homework to fit program to your community.
- ▶ Sell program to those active in the community.



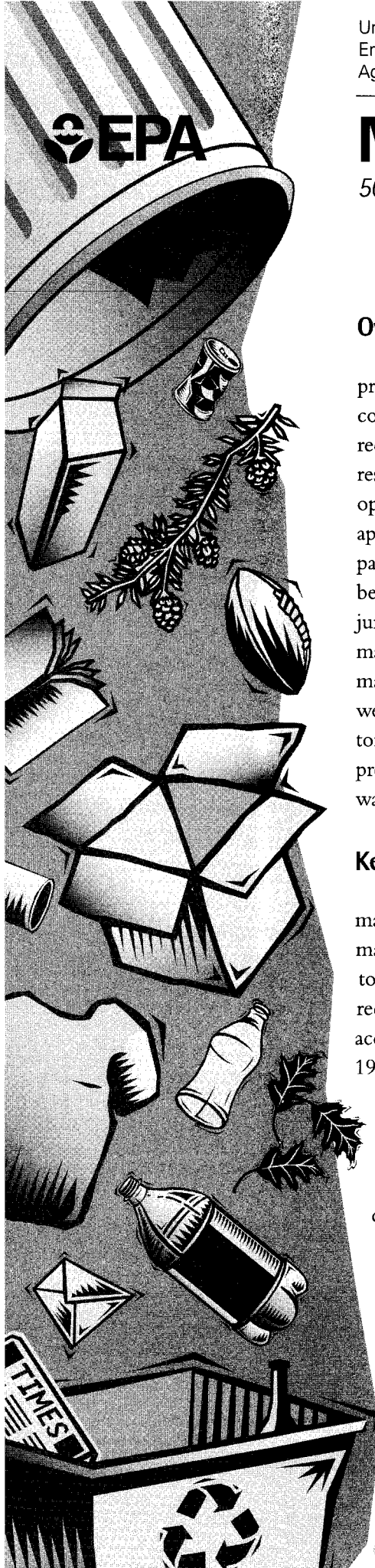
Notes:

¹At \$10 per ton, Loveland pays the lowest tip fee of the record-setters profiled (and among the lowest in the country). If tip fees had been just \$25 per ton in 1989, per household costs for solid waste management would have dropped between 1989 and 1996.

Contact

Bruce Philbrick, Solid Waste Superintendent
Mick Mercer, Manager of Streets & Solid Waste Services
Solid Waste Management Utility
City of Loveland
105 West Fifth Street
Loveland, CO 80537
PHONE: 970-962-2529
FAX: 970-962-2907





Madison, Wisconsin

50% Residential Waste Reduction



Overview

In 1968 Madison began the first curbside recycling program in the United States. This pioneering program collected only newspapers; now the city collects 13 types of recyclables weekly at the curb. The city also offers its residents seasonal curbside collection of yard debris and operates drop-off sites for yard debris and large items such as appliances. The city's diversion rate has grown as program participation has become mandatory and more materials have been targeted for recovery. The city's waste diversion rate jumped from 18% in 1988 to 34% in 1989, when the city mandated that all businesses and residents source-separate materials for composting. When cardboard and containers were added and recycling became mandatory in 1991, the tonnage of materials recycled more than doubled from the previous year. In 1996, the city diverted 50% of its residential waste; 16% through recycling and 34% through composting.

DEMOGRAPHICS

POPULATION: 191,000
(1989); 200,920
(1996)
HOUSEHOLDS: 82,949
(1996); 40,314 single-
family households, 42,635
multi-family units

Keys to High Waste Reduction

Yard debris recovery, the collection of a wide range of materials through a convenient curbside program, and mandatory source-separation of designated materials are keys to Madison's waste reduction success. The city's yard debris recovery program is the heart of its waste reduction efforts, accounting for 67% of materials diverted from landfills in 1996. The city collected half of these materials through its fall leaf program and a quarter in its seasonal curbside brush collection program. Residents delivered the remaining materials to the city's drop-off sites. Madison collects all residential recyclables at the curb and operates two drop-off facilities that accept appliances and scrap metals. Residents commingle recyclable containers in clear plastic bags and bundle paper products separately. In 1989, Madison enacted a recycling ordinance mandating all businesses and residents of both single- and

RESIDENTIAL PROGRAM SUMMARY

	1988	1996
Tons Per Year	71,640	88,583
Percent Diverted	18%	50%
Recycled	5%	16%
Composted	12%	34%
Average lbs./HH/day	8.19	8.38
Net Program Costs/HH	\$162.55	\$174.79
Disposal Services	\$132.97	\$103.20
Diversion Services	\$29.58	\$71.59

Notes: 47,945 households served in 1988; 57,949 in 1996. 1988 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add to total due to rounding.

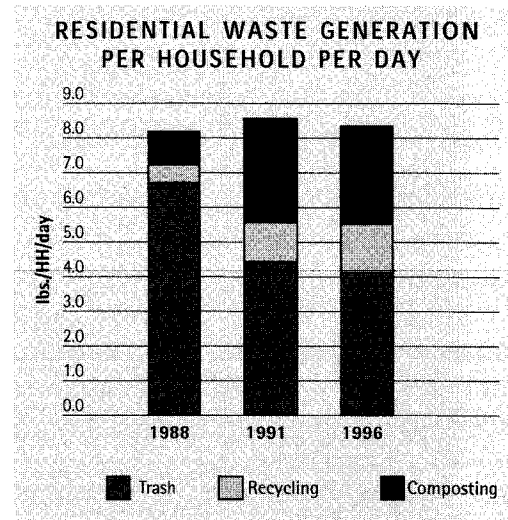
Source: Institute for Local Self-Reliance, 1999.

multi-family households source-separate designated materials. The city can issue tickets to residents that fail to recycle but has not done so although it has ticketed residents for scavenging recyclables and illegal trash dumping.



Cost-Effectiveness

The cost-effectiveness of Madison's solid waste management program is enhanced by high diversion levels, low diversion costs for yard trimmings, the use of large capacity clear bags for recycling, and a revenue-sharing contract with the materials recovery facility. High diversion levels allowed the city to decrease the number of trash routes serving residents and helped to hold landfill tip fees in check. The city's yard debris management program diverts 34% of its residential waste stream at a lower per-ton cost than recycling or disposal. The large 30-gallon bags that residents use for recyclables avoid the cost of



Source: Institute for Local Self-Reliance, 1999.

purchasing bins and allow some residents to set out recyclables every other week. Under its MRF contract, the city receives 80% of revenues from the sale of recyclables. The city also reduced costs by closing its drop-off site for recyclables. In 1996, the city spent about \$10.7 million for trash, recycling, and yard debris services — about \$185 per household served. Material revenues from recycling reduced this by \$550,000 to \$10.1 million — \$175 per household served. Madison's per household waste management costs rose 8% from \$163 in 1988 to \$175 in 1996. The increase can wholly be explained by rising disposal fees, which more than doubled during the same period.

Tips for Replication

- ▶ Don't fudge numbers in order to sell your solid waste management program.
- ▶ Know your markets.
- ▶ Not collecting a material is better than collecting it for recycling and then landfilling it.
- ▶ Build political support.

Contact

George Dreckmann
 Recycling Coordinator
 Street Division
 City of Madison Dept. of Public Works
 1501 West Badger Road
 Madison, WI 53713
PHONE: 608-267-2626
FAX: 608-267-1120



MATERIALS RECOVERED

CURBSIDE:

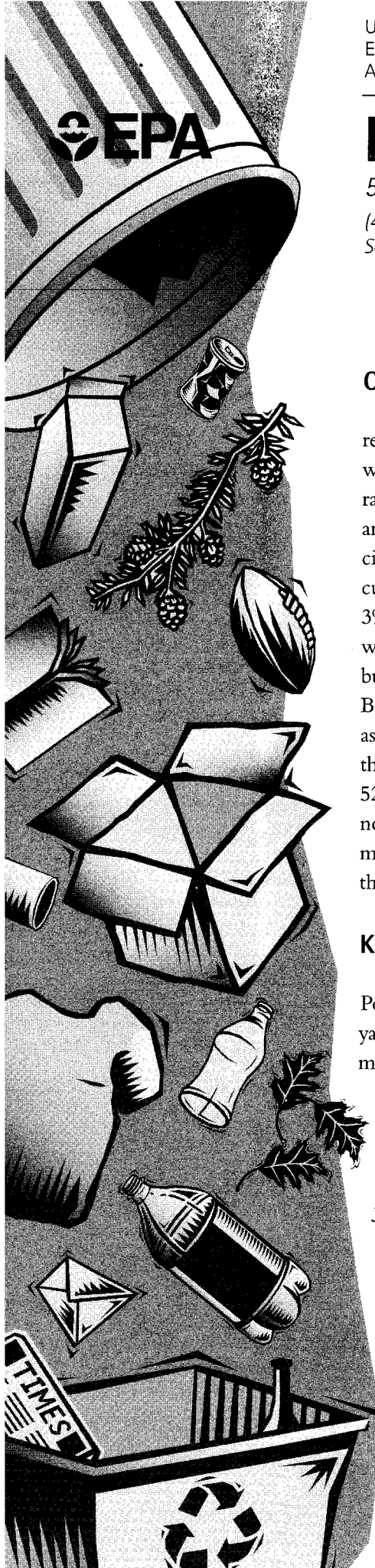
- newspaper, magazines and catalogs, corrugated cardboard
- brown paper bags, phone books
- glass containers
- cans
- #1 and #2 plastic containers
- appliances
- scrap metal
- tires
- brush, holiday trees, grass clippings, leaves, and other organic yard and garden debris

DROP-OFF:

- leaves, brush, grass clippings, and other yard trimmings
- used oil
- appliances
- other large items



Brush collection in Madison using tow-behind brush chipper.



Portland, Oregon

50% Municipal Solid Waste Reduction

(40% Residential Solid Waste Reduction; 52% Institutional/Commercial Solid Waste Reduction)



Overview

In 1992, Portland switched to a franchising system for residential waste management. Waste management companies were required to institute pay-as-you-throw (PAYT) trash rates, weekly same-day collection of 18 recyclable materials and trash, and biweekly yard debris collection. In 1996, the city diverted 40% of its residential waste — 21% through curbside recycling, 17% through yard debris programs, and 3% through the state bottle bill. In addition to its residential waste diversion program, Portland requires each of its businesses to recycle 50% of their waste. The Portland Bureau of Environmental Services (BES) provides businesses assistance in meeting this requirement. In 1996, the first year the requirement was in effect, Portland businesses recovered 52% of their waste; only 7% of businesses reported they did not recycle. In 1996, Portland diverted 50% of its total municipal solid waste (36% through recycling and 13% through composting).

DEMOGRAPHICS

POPULATION: 437,319
(1989); 503,000
(1996)

HOUSEHOLDS: 198,368
(1996); 130,755 single-
family households, 59,613
multi-family units

BUSINESSES: 50,000

Keys to High Waste Reduction

Key strategies contributing to Portland's high diversion rate are the city's yard debris management program, mandated recycling in multi-family and commercial sectors, PAYT residential trash fees, convenient curbside collection of recyclables, and Oregon's bottle bill. State Law requires each jurisdiction to offer weekly collection of yard debris or an approved alternative program. Portland's biweekly program meets this requirement. Portland residents divert 17% of their waste through this curbside program, private composters, and the city's fall leaf collection program. Multi-family complexes must recycle newspapers

PROGRAM SUMMARY

	1992	1996
Tons Per Year MSW	NA	966,921
Tons Per Year RSW	136,929	172,830
Tons Per Year ICW	NA	794,091
Percent MSW Diverted	NA	50%
Percent RSW Diverted	29%	40%
Percent ICW Diverted	NA	52%
Average lbs./HH/day¹	6.14	7.10
Net Program Costs/HH¹	\$240.55	\$210.83
Disposal Services	\$186.56	\$143.52
Diversion Services	\$54.00	\$67.30

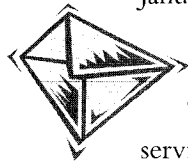
Key: MSW = municipal solid waste RSW = residential solid waste
ICW = institutional and commercial waste
NA = not available

Notes: 1992 dollars adjusted to 1996 dollars using the GDP deflator.
Numbers may not add to total due to rounding.

¹Figures represent single-family residential sector only and exclude self-haul recyclables. 122,245 households served in 1992; 129,698 in 1997. Costs represent fees paid to haulers by residents, not costs to the city of Portland. 1996 figures are actual expenditures, 1992 figures are based on costs assuming all households subscribed to weekly 32-gallon trash collection service.

Source: Institute for Local Self-Reliance, 1999.

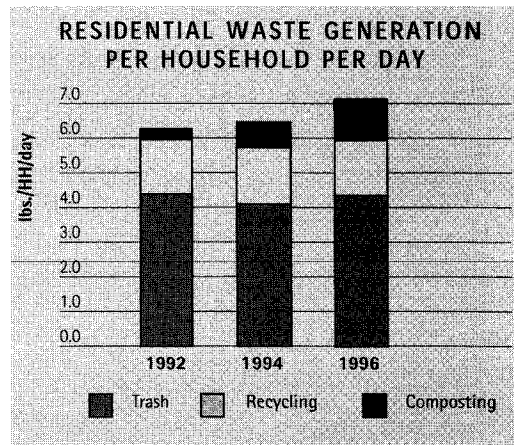
and scrap paper along with three of the following additional materials: corrugated cardboard, magazines, tin cans, glass containers, or plastic bottles. A city ordinance effective



January 1996, requires all Portland businesses to recycle 50% of their waste. Portland instituted PAYT trash rates in 1992. The city sets the rates charged for each service level. To encourage residents to reduce waste, a 20-gallon "mini-can" service, the lowest service available, is priced below the cost of service at \$14.80 per month and fees for service levels above 60-gallons of trash per week include a disincentive premium. Portland residents receive weekly curbside collection of 18 recyclable materials; the city requires haulers to collect residents' recycling and trash on the same day. In 1971, the state enacted a 5¢ deposit on most carbonated beverage containers. In 1996, Portland diverted 2% of its waste through this deposit system.

Cost-Effectiveness

Net costs households pay for residential solid waste management services decreased from

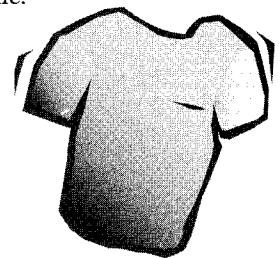


Source: Institute for Local Self-Reliance, 1999.

\$241 per household in 1992 to \$211 per household in 1996.¹ Improved collection efficiency and a drop in average trash can weights reduced trash management costs from \$187 per household to \$144 per household. Net diversion costs have increased from \$54 per household in 1992 to \$67 per household in 1996, representing a 25% cost increase while per household diversion increased 59%.

Tips for Replication

- ▶ Institute PAYT trash rates, which encourage customers to reduce waste and increase diversion.
- ▶ Know the public and conditions in your jurisdiction and plan accordingly.
- ▶ Be responsive to the public.
- ▶ Focus on convenience.



Notes:

¹Portland residents pay franchised haulers directly for services. Reported costs represent cumulative payments by customers to haulers for waste services.

MATERIALS RECOVERED

CURBSIDE:

- newspaper, magazines and catalogs, corrugated cardboard
- mixed paper (including mail, paperboard, kraft paper bags, paper egg cartons, and phone books)
- milk cartons and aseptic containers
- glass containers
- aluminum cans and other clean aluminum
- all plastic bottles
- ferrous cans and lids
- ferrous and non-ferrous scrap (limited amounts)
- used motor oil
- aerosol cans
- leaves, grass, brush, and other yard debris

DROP-OFF:

(varies by site)



Trash and recyclables set out at curbside in Portland

Contact

Solid Waste and Recycling Specialist
 Portland Bureau of Environmental Services
 1120 SW 5th, Room 400
 Portland, OR 97204
PHONE: 503-823-5545
FAX: 503-823-4562
WEB SITE: www.europa.com/environmentalservices/gar.htm





Ramsey County, Minnesota

47% Municipal Solid Waste Reduction



Overview

In 1996, Ramsey County diverted 47% of its municipal solid waste from disposal (39% through recycling and 8% through composting). The 17 communities reporting data to Ramsey County each operate their own municipal solid waste (MSW) management system. County MSW activities include providing grants, technical assistance, and educational resources; ownership of a material recovery facility and a network of yard trimmings drop-off and processing facilities; and tracking data about waste management activities. The county requires trash haulers to charge both residential and commercial customers pay-as-you-throw (PAYT) trash rates and directs municipalities to assure curbside recycling is available to all residents.

Keys to High Waste Reduction

Ramsey County's 47% waste reduction level is due to commercial sector recycling, PAYT trash fees, state disposal bans, and residential recycling requirements. The county supports business recycling through the Ramsey County Business Waste Assistance Program, which provides technical assistance to help reduce waste. Residential and business waste reduction is encouraged through PAYT trash fees. Haulers must charge PAYT rates but these rates often vary among haulers and by neighborhood. In Saint Paul, the largest community in Ramsey County, trash haulers offer residents four levels of PAYT service ranging from low-volume/senior rates to unlimited/full service. A Minnesota Statute effectively bans leaves, grass clippings, garden debris, and tree and shrub waste from state landfills and incinerators. Recovery of this material accounted for 8% of Ramsey County's MSW in FY96. The state also prohibits many other materials such as tires, and major appliances from disposal. Ramsey

RAMSEY COUNTY

POPULATION: 496,068
(1996)

HOUSEHOLDS: 197,500
(1996, est.); ~138,250
single-family dwelling
(three or fewer units per
building), ~59,250 multi-
family dwellings

BUSINESSES: 14,417
(1996, est.)

SAINT PAUL

POPULATION: 270,441
(1996)

HOUSEHOLDS: 100,327,
73,745 in 1-11 unit
properties, 26,582 in
apartment complexes with
12 or more

BUSINESSES: 7,794
(1996, est.)

PROGRAM SUMMARY

	1991	1996
Tons Per Year	483,929	673,298
Percent Diverted	41%	47%
Recycled	32%	40%
Composted	9%	8%

Notes: Figures above cover Ramsey County total MSW. Numbers may not add due to rounding. Per household generation and cost data not available because the county does not track data according residential versus institutional/commercial origin.

Source: Institute for Local Self-Reliance, 1999.

County directs municipalities to ensure that curbside recycling is available to all residents. In Saint Paul, for instance, the city contracts with the Saint Paul Neighborhood Energy Consortium and the Macalester Groveland Community Council to provide residential recycling services.

Saint Paul's residential recycling program serving single-family homes includes a unique program for durable household goods. Residents simply bag reusable household durables (such as textiles, books, working small appliances, and toys) for donation and set them out with their recyclables. Recycling contractors collect these reusable items on the same truck as recyclables. Goodwill processes the goods for sale in its retail stores.

Cost-Effectiveness

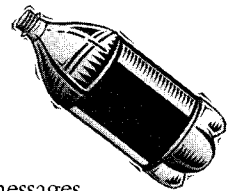
According to a study performed by the Saint Paul-Ramsey County Department of Public Health, Ramsey County's single-family households spent approximately \$237 in 1996

for regular municipal solid waste services. Trash collection and disposal was \$196 per household; yard debris management was \$3.70 per household; recycling collection and processing was \$28 per household; and administration and education was \$4.61 per household. PAYT trash rates and low-cost drop-off yard debris collection help residents keep costs in check.

Since 1987, Saint Paul Public Works has coordinated a neighborhood clean-up program for hard-to-handle household discards (such as tires, furniture, appliances, concrete, and brush). The program offers an inexpensive disposal option for citizens and maximizes recovery of the materials dropped off. The city's 1996 expenditure of \$108,700 was a fraction of what residents would otherwise have paid for disposal of items accepted at clean-ups. The program recovered over 1,800 tons of materials in 1996, saving an additional \$75,000 in disposal fees.

Tips for Replication

- ▶ Talk to your customers and give the public feedback.
- ▶ Keep promotion simple and targeted to your audience. Repeat messages in a variety of media.
- ▶ Offer consistent, dependable, and cost-effective recycling service.



MATERIALS RECOVERED

CURBSIDE COLLECTION IN SAINT PAUL:

- newspaper, magazines and catalogs, corrugated cardboard
- mixed paper (mail, office paper, paperboard, and phone books)
- cans
- glass bottles and jars
- durable household goods (including textiles, books, working small appliances, hardware and tools, unbreakable kitchen goods, games, toys)
- yard debris collection (for an extra fee)

DROP-OFF COLLECTION IN SAINT PAUL:

- plastic containers
- hard-to-handle materials at annual neighborhood clean-up events (such as tires, furniture, appliances, concrete, brush)

DROP-OFF COLLECTION IN RAMSEY COUNTY:

- grass clippings, leaves, and other soft-bodied yard debris



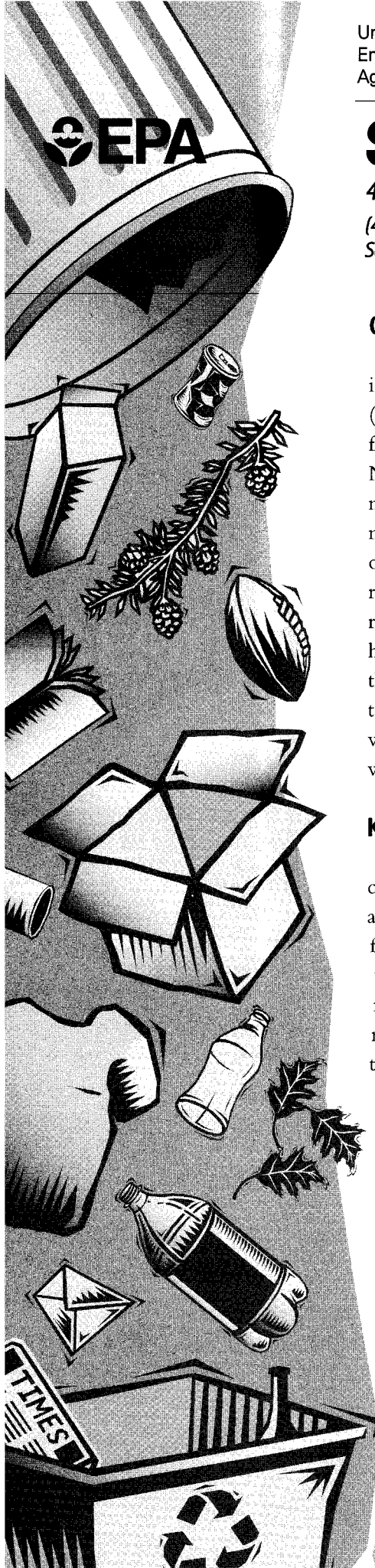
Recyclables set out at curbside in Saint Paul

Contacts

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Hatti Koth
 Recycling Outreach Coordinator
 The St. Paul Neighborhood Energy Consortium
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 Saint Paul, MN 55104
PHONE: 651-222-7678
FAX: 651-221-9831

Rick Person
 Solid Waste and Recycling
 800 City Hall Annex
 Saint Paul, MN 55102
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FAX: 651-298-4559



San Jose, California

43% Municipal Solid Waste Reduction

(45% Residential Solid Waste Reduction; 42% Institutional/Commercial Solid Waste Reduction)



Overview

Prior to implementation of the Recycle Plus Program in 1993 — part of San Jose's Integrated Waste Management (IWM) Program — residents set out unlimited trash for a flat monthly fee and recycled only five material categories. Now they can set out more types of recyclables (including mixed paper, corrugated cardboard, mixed plastics, scrap metals, and textiles), multi-family dwellings (MFDs) are offered recycling and yard debris collection services, and recycling contractors are paid per household *and* per ton recycled.¹ As a result, from 1992 to 1996, the single-family household participation rate increased from 66% to 83% and the single-family waste reduction level increased from 33% to 55%. In FY97, San Jose diverted 45% of its residential waste and 42% of its commercial waste. Overall diversion was 43% (34% was recycled and 9% was composted).

DEMOGRAPHICS

POPULATION: 849,363
(1996), 873,300
(1997)

HOUSEHOLDS: 259,365
(1993), 269,340 (1996);
188,900 single-family
households, 80,440 multi-
family units

BUSINESSES: 27,000

Keys to High Waste Reduction

- Key elements of the IWM Program are weekly residential curbside collection of 19 categories of recyclables (available to all MFDs too),² pay-as-you-throw (PAYT) fees for single-family household trash pick-up, weekly year-round residential yard trimmings collection, and financial incentives for businesses to recycle and reduce waste. To encourage participation, the city provides three yellow stacking bins to single-family households and sets of three 96-gallon recycling carts to MFDs. PAYT trash fees are an economic incentive to divert materials from the trash through recycling and composting. Yard trimmings account for about two-thirds of material recovered. The city's unique "loose-in-the-street" collection system allows residents to set out more yard debris than would fit in a typical cart. (MFDs also have curbside yard trimmings pick-up.) In order

PROGRAM SUMMARY

	FY93	FY97
Tons Per Year MSW	NA	1,315,436
Tons Per Year RSW	283,000	433,576
Tons Per Year ICW	NA	881,860
Percent MSW Diverted	NA	43%
Percent RSW Diverted	33%	45%
Percent ICW Diverted	NA	42%
Average lbs./HH/day¹	8.61	8.82
Net Program Costs/HH¹	\$206.85	\$187.03
Disposal Services	\$142.78	\$81.95
Diversion Services	\$64.07	\$105.09

Key: MSW = municipal solid waste RSW = residential solid waste
ICW = institutional and commercial waste
NA = not available

Notes: 1992 dollars adjusted to 1996 dollars using the GDP deflator.

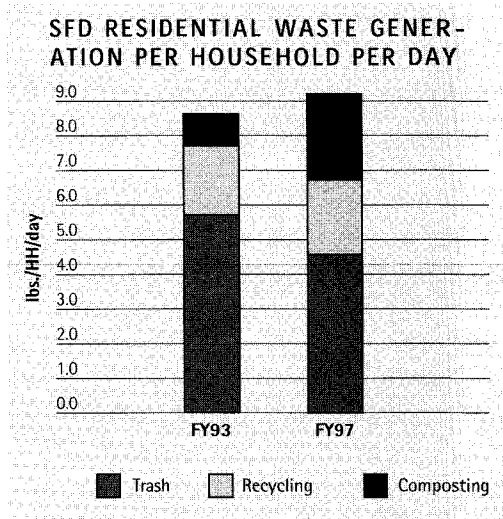
¹Figures reflect residential sector only. FY93 tonnage data represents 180,000 single-family dwellings only; multi-family dwellings were included in commercial service at that time. In FY97, 269,340 single-family dwellings and multi-family dwellings were served.

Source: Institute for Local Self-Reliance, 1999.

to encourage waste reduction among businesses, San Jose charges trash haulers serving businesses fees of more than \$3 per cubic yard for trash; in contrast, recycling collection firms pay no fees for commercial recyclables hauled.

Cost-Effectiveness

The financial elements of the IWM Program are varied and complex. There are numerous funding sources, multiple programs serving a variety of customers, and oversight of more than 25 residential and commercial contracts. All of the city's fees encourage maximum waste reduction. Its recycling contractors, for instance, receive additional payments for each ton they actually market to an end user. As a result, recycling costs were \$206 per ton in FY97, more than twice as high as per ton trash or yard trimmings management costs.³ However, the net cost of single-family residential waste services has remained relatively stable (\$207 per household



Source: Institute for Local Self-Reliance, 1999.

in FY93 compared to \$210 in FY97). The city spends less per household for the provision of trash services to MFDs compared to single-family dwellings so that net program costs per household for all 270,000 San Jose households averaged \$187 in FY97.

Tips for Replication

- ▶ Set up a cost structure that encourages recycling and waste reduction (for households, for businesses, and for contractors).
- ▶ Know customers and implement a program that balances needs of city and customers.
- ▶ Create a relationship with haulers that is conducive to continuous improvement.
- ▶ Pilot programs and collect data (put reporting requirements in contracts).

Notes:

- ¹The contractor serving MFDs is paid per ton only, not per household.
- ²Residents in multi-family dwellings can recycle the same materials at curbside as residents in single-family dwellings with the exception of used oil.
- ³The city has since renegotiated its contracts with its haulers to reduce recycling costs.

MATERIALS RECOVERED

CURBSIDE:

- newspaper, magazines and catalogs, corrugated cardboard
- mixed paper (including mail, colored and white paper, envelopes, bags, egg cartons, paperboard, and phone books)
- glass containers
- cans
- juice and milk cartons
- plastic bottles/jugs and polystyrene packaging
- scrap metals (e.g., aluminum foil and plates, small metal appliances, hub caps, metal pots)
- textiles
- used motor oil
- grass clippings, leaves, brush, and other yard and garden debris
- holiday trees
- bulky goods (collected for a small fee)



Recyclables set out at curbside in San Jose

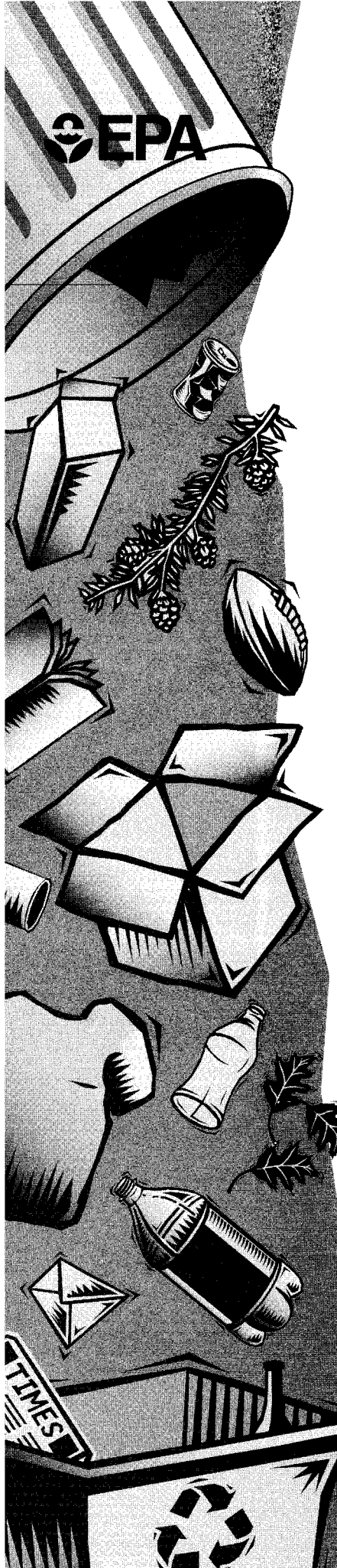
DROP-OFF:

the city operates no public drop-off facilities

Contact

Ellen Ryan
 Program Manager
 City of San Jose Environmental Services Department
 Integrated Waste Management Program
 777 North First Street, Suite 450
 San Jose, California 95112
PHONE: 408-277-5533
FAX: 408-277-3606
RESIDENTIAL WEB SITE: www.recycleplus.org
COMMERCIAL WEB SITE: www.sjrecycles.org/business/





Seattle, Washington

44% Municipal Solid Waste Reduction

(49% Residential Solid Waste Reduction; 48% Institutional/Commercial Solid Waste Reduction, 18% Self-haul Waste Reduction)



Overview

Seattle faced a trash disposal crisis in the late 1980's after two city-operated landfills closed. Because of citizen opposition to incineration, the city opted to pursue an aggressive waste reduction program. In 1988, the city set a goal to recycle 60% of its residential and commercial waste by 1998. Curbside recycling service for single-family homes began in 1988, and an apartment recycling program and curbside collection of source-separated yard debris in began 1989. The city has charged pay-as-you-throw (PAYT) rates for trash disposal since 1981. In 1996, Seattle diverted 49% of its residential waste stream, 48% of its commercial waste stream, and 18% of the materials delivered to its drop-off sites. Overall, Seattle diverted 44% of its waste stream (34% through recycling and 11% through composting). Private companies provide residential waste management services under city contracts and compete on the open market for commercial customers. City waste management staff functions include operating two transfer stations, providing education and publicity, and overseeing contractors.

DEMOGRAPHICS

POPULATION: 534,700
(1996)

HOUSEHOLDS: 248,970 total
units: 149,500 SFDs (4 or
fewer units in building),
99,470 MFDs

BUSINESSES: 45,000

Keys to High Waste Reduction

Comprehensive curbside recycling and yard debris programs, PAYT trash rates, strong private sector recycling, and multi-family recycling service contribute to the effectiveness of Seattle's waste reduction program. Seattle's single-family curbside recycling program accepts 16 categories of materials; its apartment program accepts 13. In 1996, Seattle residents diverted 14% of their waste through the city's curbside yard debris collection program. The city's PAYT trash rates have been so successful, the city added two small-volume subscription

PROGRAM SUMMARY

	1987	1996
Tons Per Year MSW	NA	767,144
Tons Per Year RSW	233,230	288,106
Tons Per Year ICW	NA	379,166
Tons Per Year Self-Haul	NA	99,843
Percent MSW Diverted	NA	44%
Percent RSW Diverted	19%	49%
Percent ICW Diverted	NA	48%
Percent Self-Haul Diverted	NA	18%
Average lbs./HH/day¹	5.61	6.34
Net Program Costs/HH¹	\$155.33	\$154.93
Disposal Services	\$155.33	\$101.14
Diversion Services	\$0.00 ²	\$53.79

Key: MSW = municipal solid waste RSW = residential solid waste
ICW = institutional and commercial waste
NA = not available

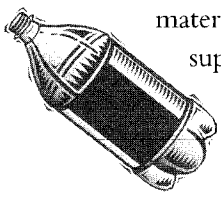
Notes: 1987 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add due to rounding.

¹Figures above reflect residential sector collection only. 227,890 households served in 1987, 248,970 in 1996.

²Reported recycling in private sector. The city incurred no costs for this recycling.

Source: Institute for Local Self-Reliance, 1999.

levels (the 12-gallon "micro-can" and the 19-gallon "mini-can") in response to public requests. Strong local markets for recyclable materials and a city tax incentive provide support for recycling in the private sector.

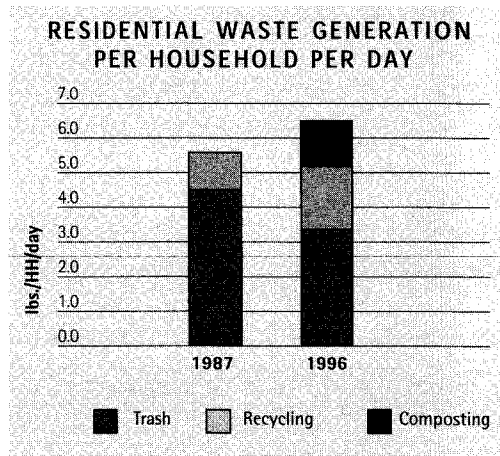


Since more than 40% of Seattle households are located in multi-family units, providing recycling to these households is a critical element in the success of Seattle's waste reduction program.

Seattle involves its citizens in its comprehensive education programs. The city's Master Composter and Friends of Recycling programs provide free training to residents who then perform outreach.

Cost-Effectiveness

Cost-effectiveness of Seattle's waste reduction efforts is due to the city's PAYT trash fees and lower per ton costs for recycling



Source: Institute for Local Self-Reliance, 1999.

and composting as compared to trash disposal. On a per-ton basis, total waste management cost \$154 per ton; trash cost \$173 per ton; recycling; \$121 per ton; and composting; \$142 per ton. The city's PAYT trash fee structure encourages residents to recover rather than dispose of materials. Doing so also saves the city money as fees paid to its contractors are based on per-ton fees. In 1996, per household waste management costs averaged \$155, the same as in 1987.

Tips for Replication

- ▶ Recover mixed paper for recycling.
- ▶ Distribute bins to all participants.
- ▶ Institute PAYT rates for trash service.
- ▶ Invest in education programs, support the programs with market research, and target messages to people of all ethnicities.
- ▶ Accept some or all the risk of secondary materials prices.
- ▶ Pay trash haulers partly based on tons collected so as recycling increases, savings result.

MATERIALS RECOVERED

CURBSIDE (SFDs):

- newspaper, magazines and catalogs, corrugated cardboard
- mixed paper (mail, colored and white paper, bags, paperboard, and phone books)
- glass containers
- cans
- juice and milk cartons
- #1 and #2 bottles
- ferrous metals and white goods
- leaves, grass clippings, brush, holiday trees, and other yard debris

CURBSIDE (MFDs):

- aluminum and tin cans, glass bottles and jars, newspaper, mixed paper, white goods (two of the four private haulers that service apartment buildings also collect plastics)

DROP-OFF:

- all items collected curbside plus:
- lead-acid batteries
- used motor oil
- oil filters
- clean wood scrap and lumber



Seattle's micro-can and 32-gallon trash can sizes

Contact

Jenny Bagby
 Resource Management Branch
 The Seattle Public Utilities
 710 Second Avenue #505
 Seattle, WA 98104
PHONE: 206-684-7808
FAX: 206-684-8529
WEB SITE: <http://www.ci.seattle.wa.us/util>



556



Visalia, California

50% Residential Waste Reduction



Overview

In 1991, Visalia began its waste reduction program in order to meet California's state mandated recycling goals. The city tried several curbside recycling pilot programs involving bins and bags and manual collection. However none of the programs were implemented due to poor productivity and high worker compensation rates as compared to the city's existing automated trash collection system. Instead the city, in partnership with a local trash equipment distributor, designed a special 110-gallon split container for trash and recyclables and a dual-compartmented automated truck that allows crews to collect trash and recyclables simultaneously. The city implemented this innovative automated dual-collection system citywide in 1996. At the same time, it reduced trash collection frequency to once a week (from twice a week) and added a weekly "green waste" collection program. In FY97, Visalia diverted 50% of its residential waste from disposal — 33% through composting and 16% through recycling.

DEMOGRAPHICS

POPULATION: 91,314 (1996), 92,677 (1997)
HOUSEHOLDS: 28,869 (1996), 25,346 single-family households, 3,523 multi-family units

Keys to High Waste Reduction

Recycling program convenience, collection of 15 categories of recyclable materials, the replacement of the city's previous second-day trash pick-up with a green waste collection day, the state bottle bill, and an extensive outreach campaign contribute to the success of Visalia's waste reduction

program. Residents can commingle virtually all paper products, and metal, plastic, and glass containers for recycling in one side of their wheeled, split containers. Visalia diverts 33% of the city's residential waste through its yard debris program. All green waste is taken to a local compost facility. Visalia diverts nearly 3% of its residential waste through the state container deposit and redemption program.

The city undertook an extensive outreach campaign to teach residents

RESIDENTIAL PROGRAM SUMMARY

	FY94	FY97
Tons Per Year	45,395	50,806
Percent Diverted	2%	50%
Recycled	2%	16%
Composted	0%	33%
Average lbs./HH/day	10.58	10.71
Net Program Costs/HH	\$190.33	\$202.20
Disposal Services	\$190.33	\$108.77
Diversion Services ¹	\$0	\$93.43

Notes: 23,500 households served in 1994; 26,000 in 1996 and 1997. 1994 dollars adjusted to 1996 dollars using GDP deflator. Numbers may not add to total due to rounding.

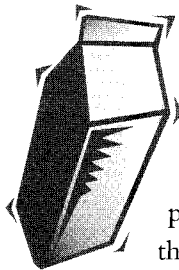
¹Diversion represents deposit container recovery only in FY94, therefore; there were no direct costs to the city.

Source: Institute for Local Self-Reliance, 1999.

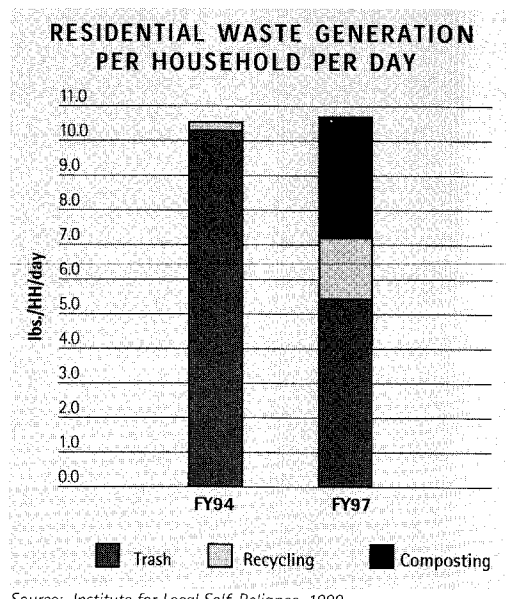
how to use the new system and emphasize the importance of recycling.

Cost-Effectiveness

In 1996, the city spent about \$5.26 million for trash, recycling, and yard debris management services — about \$202 per household served. Of this, about 54% was spent on trash collection and disposal, 18% was spent on recycling, and 28% was spent on yard debris collection and processing. On a per-ton basis, trash cost \$117 and waste reduction programs cost \$96 —



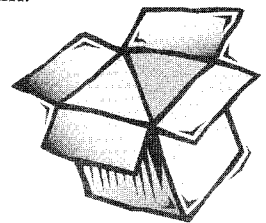
recycling, \$114 and green waste recovery, \$87.¹ Overall, net solid waste management costs per household served have increased from \$190 in FY94 to \$202 in FY97. During this same time period, per ton trash tip fees increased 10%. If these fees had not risen, per household waste management costs in FY97 would have been within 5% of per household costs in FY94. In FY94, per ton trash costs were \$101 per ton, now waste reduction and trash services



cost \$106 per ton. Recyclables processing and composting costs are less expensive per ton than landfill tip fees, helping to contain costs.

Tips for Replication

- ▶ Investigate the dual-collection split-container system and automated collection.
- ▶ Focus on education to teach residents how to use the system.
- ▶ Seek out committed staff and administration to ensure program.
- ▶ Find processor willing to receive commingled recyclables.
- ▶ Put together a Citizen Advisory Group or find other ways to obtain resident input.



Note:
¹The differences in the per-ton costs in these figures are largely reflections of the per-ton costs for recycling and composting processing and trash disposal. Visalia does not track curbside collection costs for recyclables, yard debris, and trash separately and reports per-ton collection costs for all materials as the total system average curbside collection cost.

MATERIALS RECOVERED

CURBSIDE:

- newspaper, magazines, corrugated cardboard
- mixed paper (including mail, paperboard, and office paper)
- glass containers
- cans
- all plastic containers
- milk and juice cartons
- scrap wood and lumber (except creosote or treated wood)
- grass clippings, brush, leaves, and other yard and garden debris

DROP-OFF:

same materials as curbside plus holiday trees



Fully automated dual collection truck used to collect trash and recyclables in Visalia

Contact

Kathy Onsurez, Conservation Coordinator
 Tom Baffa, Solid Waste Services Manager
 City of Visalia Public Works Department
 336 N. Ben Maddox Way
 Visalia, California 93292-6631
PHONE: 209-738-3531 or 209-738-3569
FAX: 209-738-3576



60x



Worcester, Massachusetts

54% Residential Waste Reduction



Overview

In the early 1990s, Worcester faced looming state landfill bans for recoverable materials, and the city needed to transfer trash costs from its tax base to user fees. In 1993, the city implemented curbside recycling and a pay-as-you-throw (PAYT) trash system. The per-bag trash fees offer financial incentives for residents to reduce trash disposal, recycle at curbside, and deliver their yard trimmings to one of the city's three yard debris drop-off sites. Per-bag trash fees combined with a city ordinance that prohibits the disposal of recyclables and yard debris with trash resulted in the city nearly tripling its residential waste reduction rate from 15% in 1992 to 44% in 1994. In 1996, Worcester switched from biweekly to weekly recycling collection and the residential waste reduction rate further increased to 54% (27% through recycling and 27% through composting).

DEMOGRAPHICS

POPULATION: 171,226
(1995), 169,759
(1996)

HOUSEHOLDS: 63,588
(1996); 22,500 single-
family households (one
unit per building), 41,088
multi-family units

Keys to High Waste Reduction

The variety of materials collected at curbside, pay-as-you-throw trash fees, a state bottle bill, and diversion of yard debris all contribute to the city's high diversion rate. Worcester's weekly curbside recycling program collects up to 18 types of recyclables (including mixed paper, all plastic containers, and milk and juice cartons). Residents can also recycle large items, such as appliances, through a special bulky items collection program. Residents must place trash in special yellow bags or city trash crews will not collect it. A 30-gallon bag costs 50¢ and a 15-gallon bag costs 25¢. Massachusetts' container deposit law requires consumers to pay a 5¢ deposit on many beverage containers. In 1996, approximately 4% of Worcester's residential waste stream was recovered through the deposit system.

Worcester provides fall leaf collection and operates drop-off sites

RESIDENTIAL PROGRAM SUMMARY

	1992	1996
Tons Per Year	53,087	57,573
Percent Diverted	15%	54%
Recycled	7%	27%
Composted	8%	27%
Average lbs./HH/day	5.84	6.20
Net Program Costs/HH	NA	\$75.34
Disposal Services	NA	\$48.15
Diversion Services	NA	\$27.19

Notes: 49,824 households served in 1992; 50,868 in 1996. 1992 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add to total due to rounding.

Source: Institute for Local Self-Reliance, 1999.

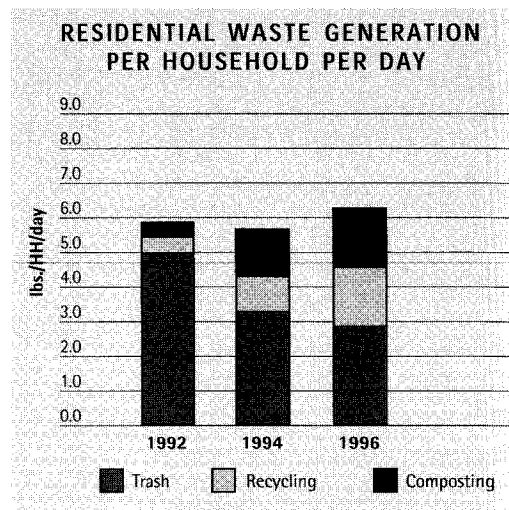
for other yard debris from April through November. Residents can deliver their yard debris to these facilities at no charge. In 1996, more than one-quarter of the city's residential waste was composted in the city's yard debris collection and processing program.

Cost-Effectiveness

In 1996, the city spent \$3.8 million for trash, recycling, and yard debris services — about \$75 per household served. Of this, 64% was spent on trash collection and disposal, 20% was spent on recycling, and 16% was spent on yard debris collection and recovery. On a per-ton basis, trash cost \$96, while waste



reduction cost \$47 (\$54 for recycling and \$40 for yard debris recovery). The city has contained costs by reducing the number of trash crews and the number of workers on the crews in response to decreasing trash disposal. Since recycling began, trash crews service the same number of houses but do so for one-third less labor costs. The number of city Solid Waste Management program employees dropped from 58 in 1993 to 46 in 1996.



Source: Institute for Local Self-Reliance, 1999.

Tips for Replication

- ▶ Implement a pay-as-you-throw trash system.
- ▶ Collect as wide a variety of materials as possible.
- ▶ Make program participation convenient.
- ▶ Avoid adding a material to the recycling program and then taking it away, especially in a pay-as-you-throw system. Residents do not like to be told they have to pay to dispose of something that had been free.

MATERIALS RECOVERED

CURBSIDE:

- newspaper, magazines and catalogs, corrugated cardboard
- mixed paper (mail, office paper, paperboard, paper bags, and phonebooks)
- milk and juice cartons and boxes
- glass containers
- scrap metal
- aluminum cans, trays, and tins
- steel food and beverage containers
- all plastic containers (except motor oil and antifreeze containers and pails or buckets)
- white goods
- leaves

DROP-OFF:

- leaves, grass clippings, brush, Christmas trees, and other yard and garden debris



Contact

Robert Fiore
 Assistant to the Commissioner
 Department of Public Works
 20 E. Worcester Street
 Worcester, MA 01604
PHONE: 508-799-1430
FAX: 508-799-1448
WEB SITE: <http://www.ci.worcester.ma.us/services/dpw/index.html>



Reaching Record-Setting Levels

Some Questions and Answers

Q Which record-setting program is the model?

A There is no one model. No two record-setting programs are exactly alike. For example, rural programs differ from urban ones. However, you can integrate the best features of the best programs to design a record-setting program that meets your community's needs.

Q Can big cities achieve high waste reduction levels?

A Yes. San Jose, California (pop. 873,300), recovers 55% of single-family household waste. The city targets multi-family and institutional and commercial waste (ICW), too. Its overall residential waste reduction level is 45%; ICW reduction is 41%. Seattle, Washington (pop. 534,700), diverts 49% of its residential waste. Its ICW reduction level is not far behind at 48%.

Q How essential is curbside collection?

A Program convenience is essential for high participation and thus high waste reduction. Weekly collection of recyclables and yard trimmings puts recovery programs on par with weekly trash pick-up. In Worcester, Massachusetts, residential recovery increased from 41% to 52% when pick-up switched from biweekly to weekly. Only one of our record-setters, Leverett, Massachusetts, offers no curbside service. However, residents in this rural town must also self-haul trash.

Q What role do state laws and goals play?

A State waste reduction goals, requirements, and policies influence many of our record-setters. Visalia, California, began its program in order to meet the state's 50% recycling goal. Worcester, Massachusetts' program was implemented on the heels of the state's landfill bans. Clifton, New Jersey, began its mandatory curbside program in response to the 1987 Statewide Source Separation and Recycling Act. Bottle bills have increased recovery levels in states with these policies.

Q Can high institutional and commercial waste (ICW) reduction levels be achieved?

A Yes. High ICW reduction may be easier to achieve than residential waste reduction as ICW tends to be more homogeneous and rich in recyclables. Bergen County, New Jersey (63% ICW reduction level), requires businesses and institutions to recycle a wide range of materials including mixed paper. Portland, Oregon, requires businesses to achieve 50% waste recovery by separating recyclables from mixed waste. Economic incentives, such as reduced tip fees for delivering recyclables to drop-off

sites, tax incentives, and reduced franchise fees, also encourage businesses to recycle and haulers to offer recyclables collection. For example, in San Jose, California, haulers pay the city fees of more than \$3 per cubic yard for trash; in contrast, recycling collection firms pay no fees for recyclables hauled.

Q Is it better to contract out for service providers?

A Not necessarily. Service providers vary greatly among record-setters. Some systems are entirely publicly operated. Other record-setters contract or franchise out to for-profit or non-profit companies. And others use a combination.

Q What if no market for mixed paper exists?

A Much of waste is paper, making its recovery critical to record-setting waste reduction. If no market for mixed paper exists, take heart, recovery can still increase. Consider adding individual paper grades for which markets do exist such as corrugated cardboard or high-grade paper. Explore other opportunities such as expanding yard debris recovery, collecting textiles at curbside, and ensuring that reuse opportunities exist.



Q Won't costs increase as more types of materials are added?

A Not if new materials recovered offset trash collection and disposal so that the cost of trash crews, routes, and tip fees can be cut. The higher waste reduction levels are, the higher the avoided costs of disposal. The curbside collection of 20 types of materials in Seattle, Washington, have not raised net solid waste costs per household.

Q Does high waste reduction require big capital investments?

A No. Some record-setters (such as Bellevue, Washington) avoid equipment costs altogether with contracts. Others use existing equipment to minimize start-up costs. In Ann Arbor, Michigan, for instance, trash trucks double as yard trimmings collection vehicles. Fitchburg, Wisconsin, uses a tractor, which previously gathered dust in storage, to landspread recovered organics.

COMMERCIAL PROGRAMS	
Community	% ICW Recovered
Bergen Co., NJ	63%
Clifton, NJ	68%
Portland, OR	52%
San Jose, CA	42%
Seattle, WA	48%

Key:
ICW = institutional and commercial waste

Source: Institute for Local Self-Reliance, 1999.

Cutting Costs

Most of the record-setters have reduced or stabilized solid waste management costs. Many factors contribute to cost-effective programs. One common thread is these communities consider waste reduction a primary waste management strategy. Recycling and composting are not treated as add-ons; rather, they form an integral part of overall waste management.

Specific techniques for cutting costs include:

► Maximize diversion levels

High diversion levels can reduce costs in two major ways: (1) by significantly reducing landfill or other disposal costs, and (2) by eliminating some trash routes and their associated costs.

High waste diversion allows Madison, Wisconsin, to serve 10,000 more households with fewer and smaller trash trucks. The smaller trucks cost less and have lower maintenance costs. Since Worcester, Massachusetts, began recycling, the city decreased trash crew size from 3 to 2 and the number of routes from 11 to 9.

► Compost

Yard trimmings collection costs vary among our record-setters, but tend to be lower than recycling collection costs because the material is homogeneous and needs less expensive, low-tech processing.

In Bellevue, Washington, one-third of residential waste is composted. Bellevue residents spend about \$102 per ton for composting compared to \$139 per ton for recycling. Chatham, New Jersey, keeps its composting program costs low by hosting a regional compost facility in return for free tipping of its grass clippings. Chatham also avoids capital outlays for yard debris recovery by leasing county equipment as-needed.

► Implement PAYT trash programs

In communities with pay-as-you-throw (PAYT) trash fees, trash disposal per household decreases.

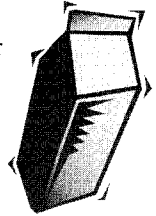
Dover, New Hampshire, instituted its PAYT system in 1991, the same year it began weekly curbside recycling. Between 1990 and 1996, per household trash disposal fell from 6 to 2.3 pounds per day. Dover's net residential solid waste management costs dropped from \$1.1 million in 1990 to \$798,000 while adding more than 1,000 customers. Per household costs have decreased from \$122 in 1990 to \$73 in 1996.

► Augment curbside with drop-off sites

While curbside collection is critical to maximizing participation and therefore recovery levels, drop-off collection is generally cheaper for the community.

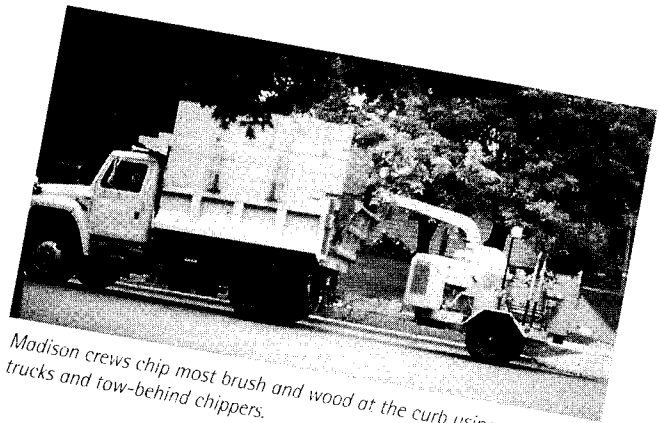
In 1996, St. Paul, Minnesota, avoided \$75,000 in disposal fees and diverted 1,800 tons of material by offering residents drop-off opportunities for bulky goods from sofas and computers to skis. In Ann Arbor, Michigan, a comprehensive drop-off center accepts materials not collected at curbside (such as building materials, hardcover books, and appliances). Their costs to collect materials through drop-off are \$14 per ton cheaper than through curbside collection, and drop-off increased the city's waste reduction level by 3%.

PAYT systems may also encourage the use of drop-off sites. In Dover, New Hampshire, drop-off collection accounted for 19% of all materials recovered. Their costs to collect and process drop-off materials average \$14 per ton, compared to \$77 per ton for curbside collection and processing of recyclables and yard debris.



► Consider dual-collection

One way that Loveland, Colorado, and Visalia, California, have integrated recycling completely into their solid waste management systems is through use of dual-collection vehicles, which collect recyclables and trash in separate compartments on one truck. Dual-collection systems can save money by avoiding the need for two separate fleets of trucks and by increasing productivity of collection crews.



Madison crews chip most brush and wood at the curb using open-bed trucks and tow-behind chippers.

Tips from Record-Setters

Collection

- ▶ Collect as wide a variety of materials as possible.
- ▶ Collect yard trimmings for composting.
- ▶ Use drop-off sites to augment curbside collection.
- ▶ Distribute bins to all participants.

Education

- ▶ Educate, educate, educate.
- ▶ Target education at new residents and at all ethnicities.
- ▶ Repeat messages in a variety of media.

Program Planning

- ▶ Build broad program support during the planning stages by seeking public input, selling the program to those active in community (such as service and civic clubs), and building political support.
- ▶ Make program participation as convenient as possible. Keep the program easy and user-friendly.
- ▶ Investigate dual-collection, especially when faced with an aging trash fleet.
- ▶ Learn from others' experiences. Find out what other communities have accomplished and how they did it.

Policies

- ▶ Implement a pay-as-you-throw trash system (and include small container options).
- ▶ Encourage source reduction and reuse.
- ▶ Pass a local ordinance requiring residents, businesses, and institutions to participate in waste reduction activities or requiring haulers to offer their customers (residential and commercial) a minimal level of recycling service.
- ▶ Enforce mandatory programs to boost both the quantity and quality of participation.
- ▶ Offer recycling services to multi-family households, require haulers to provide these services, or require that multi-family building owners/managers provide recycling services to their tenants.

Ongoing Programs

- ▶ Be prepared for resistance to change. Try to anticipate likely questions.
- ▶ Seek out committed staff and administration to ensure program success.
- ▶ Secure stable markets for reusable items and recyclables.
- ▶ Avoid adding a material to the recycling program and then taking it away, especially if the trash system is pay-as-you-throw.
- ▶ Track data to document success.

- ▶ Be conservative when reporting recycling and composting tonnages and program costs.
- ▶ Talk to your customers. Solicit input and give feedback on program progress.
- ▶ Recruit and reward citizen volunteers, who have many skills and can help maintain community motivation
- ▶ Be creative.

RESOURCES

▶ Waste Reduction Record-Setters

- *Cutting the Waste Stream in Half: Community Record-Setters Show How* (EPA-530-R-99-013). Available from the RCRA hotline 1-800-424-9346 and at <<http://www.epa.gov/epaoswer/osw/non-hw.htm#reduce>>.
- The Waste Reduction Record-Setters Project Web pages: <<http://www.ilsr.org/recycling>>
- *On the Path to Sustainability* (Seattle's solid waste plan for reaching 60% diversion). Call (206) 684-7644 or download from the Web: <<http://www.ci.seattle.wa.us/util/swplan/docs.htm>>
- State waste reduction awards programs (e.g., California recognizes outstanding businesses; visit its Web page: <<http://www.ciwmb.ca.gov/WRAP>>. Wisconsin's Governor's Waste Reduction and Recycling Awards honor individuals, businesses, schools, and communities; its Web page is located at: <<http://www.dnr.state.wi.us/org/caer/cea/award/govawrra/govawra.htm>>.)

▶ Composting

- *Compost, New Applications For an Age-Old Technology* (EPA530-F-97-047). Call 1-800-400-9198.
- U.S. EPA Compost Web Page: <<http://www.epa.gov/epaoswer/non-hw/compost>>
- *BioCycle: Journal of Composting & Recycling* published by JG Press, Inc., (610) 967-4135, Web: <<http://www.jgpress.com>>
- The U.S. Composting Council, (301) 913-2885, Web site: <<http://www.CompostingCouncil.org>>
- The Composting Resource Page Web site: <<http://www.oldgrowth.org/compost>>

▶ Pay As You Throw

- U.S. EPA has produced a video, guide book, fact sheets, and a quarterly newsletter. Call 1-800-EPA-PAYT or visit the Web site: <<http://www.epa.gov/epaoswer/non-hw/payt/index.htm>>

▶ Recycling in Multi-Family Dwellings

- *Multi-Residence Recycling Guide*, by the New York Department of Environmental Conservation and the Cornell Cooperative Extension. Call (518) 457-7337.

Highlights from Select Record-Setters

► Ann Arbor, Michigan (Population: 112,000)

City programs recover 47% of household waste. The state's bottle return law diverts another 5%. The non-profit Recycle Ann Arbor (RAA) picks up 24 different recyclables weekly and also runs a drop-off station. From April through November, city crews collect grass clippings, leaves, and brush at curbside (which are banned from the landfill). The city earns \$38,000 per year from compost and mulch sales.

► Bellevue, Washington (Population: 103,700)

Bellevue's residential waste reduction climbed from 11% in 1989 to 60% in 1996. Its PAYT system, combined with comprehensive curbside collection, is the heart of the program. Almost two-thirds of customers subscribe to one 30-gallon can or 19-gallon mini-can per week trash service.

► Dover, New Hampshire (Population: 27,000)

A PAYT system is responsible for Dover's residential recovery level increasing from 3% in 1990 to 52% in 1996. During the same period, per household costs for solid waste management dropped from \$122 to \$73.

► Falls Church, Virginia (Population: 10,000)

After implementing multi-material curbside collection, Falls Church reduced trash collection from twice to once weekly and cut the number of trash crew members from ten to seven. The solid waste management budget dropped from \$1.05 million in FY90 to \$630,000 in FY97. Falls Church recovers 65% of its residential waste.

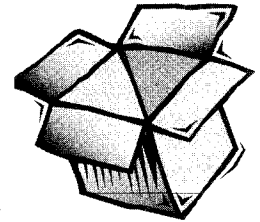
► Fitchburg, Wisconsin (Population: 17,300)

Fitchburg's mandatory recycling ordinance and multi-family recycling ordinance were the first in Wisconsin. It is also one of the few communities collecting clothing, toys, books, small appliances, and housewares at curbside monthly. The town disposed less waste in 1996 than in 1992 despite a nearly 20% growth in households. Per household waste handling costs dropped from \$126 in 1992 to \$108 in 1996.

► Loveland, Colorado (Population: 44,300)

In the early 1990s, Loveland overhauled its waste management system in response to rising worker compensation insurance rates and aging trash trucks needing replacement. Specially designed dual-collection vehicles now pick up recyclables and trash

each week. This system along with PAYT trash fees and several options for yard trimmings recovery result in a 56% residential recovery level. The city estimates it saves \$100,000 per year through dual-collection as compared to separate trash and recycling collection.



► San Jose, California (Population: 873,300)

This culturally diverse urban city diverts 43% of its municipal solid waste. Single-family household diversion levels reach 55%. Residential curbside recycling service to all single-family and multi-family households, PAYT trash fees, weekly year-round residential yard trimmings collection, and financial incentives for businesses to reduce waste drive San Jose's high recovery levels.

RESIDENTIAL PROGRAM CHARACTERISTICS

Community	# Materials ¹	% Composted	Mandatory	PAYT
Ann Arbor, MI	31	23%	✓	
Bellevue, WA	29	34%		✓
Bergen Co., NJ	Varies	32%	✓	Some ²
Chatham, NJ	24	43%	✓	✓
Clifton, NJ	20	28%	✓	
Crockett, TX	25	32%	✓	
Dover, NH	28	17%		✓
Falls Church, VA	21	40%		
Fitchburg, WI	25	21%	✓	✓
Leverett, MA	25	23%	✓	✓
Loveland, CO	19	37%		✓
Madison, WI	17	34%	✓	
Portland, OR	22	17%		✓
Ramsey Co., MN	Varies	8% ³	✓ ⁴	✓
San Jose, CA	23	26%		✓
Seattle, WA	23	21%	YT only	✓
Visalia, CA	20	33%		✓
Worcester, MA	24	27%	✓	✓

Key: PAYT = pay-as-you-throw YT = yard trimmings

Note: Most of the communities operate drop-off sites for recyclables and yard trimmings. Bergen County does not operate any drop-off facilities but 45 out of 70 communities in the county operate drop-offs for their residents. Madison and Worcester accept yard trimmings only at their drop-off facilities. San Jose does not operate any drop-off facilities but residents can deliver materials to the numerous private drop-offs located in the city.

¹Represents the number of types of recyclable and compostable materials recovered through residential curbside and drop-off programs. For instance, old newspapers is one type. Juice and milk boxes are another type.

²Four out of 70 communities within Bergen County have implemented PAYT trash fees.

³Represents percentage of municipal solid waste composted as Ramsey County does not track residential materials separately from other MSW.

⁴Saint Paul and three other county municipalities have enacted mandatory recycling ordinances. More than half the county residents live in these communities. State law also bans leaves, grass, brush, and yard debris from state landfills and incinerators.



Association of New Jersey Recyclers

120 Finderne Avenue, Bridgewater, New Jersey 08807
908-722-7575 – 908-722-0280(f)
anjr@verizon.net

May 12, 2008

Assemblyman John McKeon
Chairman Assembly Environment and Solid Waste Committee
4 Sloan Street
South Orange, NJ 07079-1769

Re: A121 "Smart Container Act"

Dear Assemblyman McKeon:

First, I would like to thank you for sponsoring and shepherding the recently enacted Recycling Enhancement Act through the legislature last session. Second, I'd like to note that all that work will be completely obliterated because the passage of this bill - A121 the "Smart Container Act"- will cause The Recycling Enhancement Act P.L.2007, c.311, *to imminently cease* (N.J.S.A.13:1E-96.6-5) along with *all funding for recycling*. This makes no sense as recyclers around the state work to reinvigorate recycling.

It is our opinion that A121 the "Smart Container Act" is unnecessary, will have a negative economic impact on recycling and on local and county governments and creates costs the state does not need to take on at this time for the following reasons:

- The bill states that "The Legislature finds and declares that litter composed of discarded beverage bottles and cans is a growing problem of public concern and a direct threat to the health and safety of the citizens of this State". This statement differs from the Clean Communities Council Study that identified the largest component by volume is fast food packaging, not beverage containers.
- New Jersey has mandatory recycling - with programs and infrastructure in place that already provide curbside collection of all the recyclables addressed in this bill.
- By comparison the Smart Container Act will require the building of a new infrastructure (new costs) to do what is already being done in already established curbside programs and this new infrastructure will only address less than 4% of the solid waste stream.
- Although less than 4% of the waste stream the containers identified in the Act amount to, in some cases up to 50% of the revenue of municipal and county funded recycling programs. The economics of those programs are based on the historical make up of the material they collect. To change that make up will change the economics of the programs and result in increases in operating costs which will be passed on to the taxpayers. A reduction in revenue will have a devastating effect on these publicly funded programs.
- One of the key barriers to recycling is inconvenience - *the perception that recycling is inconvenient or difficult*. We question how a program that requires and limits the amount of containers to be returned to a store or redemption center will capture more of the containers than are now being collected as part of the existing, convenient curbside recycling programs.
- With the imposition of a redemption value on containers we see an increased cost to local government in enforcement - keeping scavengers from rummaging through and removing containers, with a redemption value, from recycling collection containers placed by residents for collection.

I urge you consider the economic impact this proposed legislation will have on local governments when debating the bill.

Sincerely,

A handwritten signature in black ink, appearing to read "Dominick D Altilio", written over a faint circular stamp or watermark.

Dominick D Altilio
President

RESOLUTION URGING THE DEPARTMENT OF ENVIRONMENTAL PROTECTION TO RECONVENE
AND REWRITE THE DRAFT SOLID WASTE MANAGEMENT PLAN

.....

WHEREAS, the City of Clifton, recognized since 1999 by the United States Environmental Protection Agency as a model recycling community and leader in source reduction, recycling and environmental stewardship, has reviewed the Draft Solid Waste Management Plan (SWMP), dated March 2005; and

WHEREAS, by the Department of Environmental Protection's (DEP) own statements, the Solid Waste Plan does not adequately address a comprehensive solution to the emerging problem of solid and hazardous waste transfer facilities; and

WHEREAS, in the Foreword and Executive Summary, the (SWMP) is inconsistent and lacks sufficient data with regard to declining recycling rates; and

WHEREAS, the historical official data documents a different trend in solid waste projections; and

WHEREAS, based on the above data, the Department of Environmental Protection (DEP) should reconvene to review the methodology of how solid waste generation rates were estimated for the next ten years; and

WHEREAS, based on Passaic County's historical data, there appears to be a need to immediately develop additional recycling and composting facilities in nearly each and every county of the State; and

WHEREAS, in order to accomplish regional recycling and composting facilities, the State needs to encourage and assist private industry with incentives to create reliable, realistic, actual solutions to the management of solid waste; and

WHEREAS, the current draft report does not but should address concrete solutions for the management of recyclables, compostables, or solid waste; and

WHEREAS, the City of Clifton is willing to share at least ten such concrete solutions for the management of recyclables, compostables, or solid waste; and

WHEREAS, a comprehensive (SWMP) plan should also address local tire management, and the distribution of funding for same;

NOW, THEREFORE, BE IT RESOLVED, that the City of Clifton petitions the State to be given the opportunity to outline its recommendations which are realistic, pragmatic solutions to the future management of recyclables, compostables, solid and hazardous waste; and

BE IT FURTHER RESOLVED, that the City of Clifton opposes the \$3.00 per ton surcharge in addition to the new formula that is being proposed for among other reasons the following reasons:

- The recycling tax that was established in 1987 and ended in 1996 was a \$1.50 per ton fee as compared to the \$3.00 per ton fee being proposed.
- The old formula allotted 40% to municipalities, and 35% to businesses for low-interest loans and recycling market development research.
- The new formula does not allocate any monies to businesses, which have always been one source for innovative ideas.

- The new formula does not offer incentives to municipalities.
- Pay-as-you-throw systems should be on a voluntary basis, and the State should be very discreet with funding and assisting "targeted communities."

BE IT FURTHER RESOLVED, that separating, collecting, and transporting recyclables is an expensive operation, and support must be given to provide financial incentives for manufacturers, retailers and consumers to reduce, reuse, refill and recycle products without adding additional financial burdens on local governments; and

BE IT FURTHER RESOLVED, that a copy of this resolution be forwarded to Acting Governor Richard Codey; to Senator Frank Lautenberg; to Senator Jon N. Corzine; to Congressman William Pascrell, Jr.; to New Jersey State Senator Nia H. Gill; to New Jersey Assemblyman Peter C. Eagler; to New Jersey Assemblywoman Sheila Oliver; to the Passaic County Board of Chosen Freeholders; to the United States Environmental Protection Agency, Region II and Office of Solid Waste (5305W); to the United States Composting Council, to the National Solid Waste Management Association/Northeast Region; to the Northeast Recycling Council; to the Environmental Defense Fund; to the Association of New Jersey Recyclers; to the Association of New Jersey Environmental Commissions; to the New Jersey Environmental Federation; to all New Jersey Solid Waste Advisory Councils; to Commissioner Bradley Campbell of the New Jersey Department of Environmental Protection; to the New Jersey State League of Municipalities; and to the New Jersey Conference of Mayors; and

BE IT FURTHER RESOLVED, that the City Manager or his designee hand deliver this resolution, as well as any supporting information to as many public forums as is made available.

INTRODUCED Stefan Tatarenko

ADOPTED: May 3, 2005

James Anzaldi

JAMES ANZALDI, MAYOR

ATTEST:

Richard C. Moran

RICHARD C. MORAN, CITY CLERK

CERTIFIED TO BE A TRUE COPY

Richard C. Moran

CONCRETE SOLUTIONS BY THE CITY OF CLIFTON FOR THE MANAGEMENT OF
RECYCLABLES, COMPOSTABLES, AND/OR SOLID WASTE

1. Requiring all solid waste haulers, through the permitting and licensing process, that while collecting from their customers, i.e., businesses, schools, institutions, apartments and condominiums, the hauler must ensure that the generator is in compliance with the recycling regulations and that no mandated recyclables are mixed with solid waste. This can be done with the cooperation of the hauler and generator every time a contract is signed, thereby eliminating a lot of confusion and contradiction that has occurred when generators change haulers.
2. Adopting the attached Resolution, which was adopted by the City of Clifton on December 19, 2000, requesting the State and Federal Governments to enact legislation for the waste reduction of plastic and plastic packaging (see attached resolution).
3. Developing compost facilities in nearly every county as regional facilities, and supporting them with grants and other incentives to develop in-vessel composting of food and soiled paper products, along with outdoor composting of leaves, grass, brush, stumps, logs, and damaged unpainted pallets, etc. This will address nearly 35% of the solid waste stream. Also, these facilities can provide to residents, landscapers and nurseries compost, mulch, woodchips and logs at reduced rates, thereby creating an organic natural product and assist the State in its mission on environmental sustainability.
4. Encourage supermarkets, through tax incentives, low-interest loans and grants, to develop reusable types of packaging, such as buying items in bulk, refillable bleach and detergent bottles (with incentives for reduced rates to consumers). Some supermarkets give an incentive to consumers of 2¢ on every bag that is reused.
5. All solid waste facilities, such as transfer stations, landfills or incinerators, should be required to separate all recyclable bulky items that may enter the waste stream and divert those items to recycling centers. This would include tires, metals, concrete and other demolition debris, etc. Also, any type of wet waste that was to arrive in sufficient quantities could be diverted to the in-vessel composting facilities that would be established, thereby eliminating another portion of the waste stream from final disposal facilities.
6. The State needs to encourage refillable and returnable containers. This can be achieved through a deposit law and incentives given to private industry to develop and create these new types of reusable containers. Refillables truly save natural resources by using the item over and over again until it needs to be recycled. Also, reusables and refillables save energy by not having to collect, transport and process the item over and over again. Additionally, refillables cut down on greenhouse gas emissions, thereby reducing

and preserving the ozone layer of the atmosphere. Reusables and refillables will alleviate the concern raised by Commissioner Campbell in his opening letter regarding New Jersey's air pollution problems.

7. While there should be incentives for reusable, refillable and recyclable packaging, the State should implement "discretionary surcharges" to discourage the use of single-use food and beverage containers.
8. The State needs to work with private industry to site and build recycling mills to handle all the recyclable commodities that are being mandated. Without viable mills, recycling will be costly and useless. Also, the State should consider negotiating and assisting those mills that are currently struggling to maintain their operation with grants, low-interest loans and tax incentives. During the past two years, 20 mills throughout the country have shut down, one of which was in the City of Clifton.
9. The State needs to seriously begin landfill reclamation projects that include landfill mining and the proper management of all landfills currently in operation.
10. The State must develop permanent Household Hazardous Waste Collection sites in all counties, and assist counties with grants and/or low-interest loans. Monies to accomplish this task can be generated from a tax on those hazardous materials that will be collected, similar to the Scrap Tire Cleanup Fund; and
11. Amend the local tire management law. The present law, which is inadequate, charges a fee of \$1.50 upon the sale of new motor vehicle tires. The first \$2.3 million in each fiscal year shall go to a dedicated fund for the cleanup of abandoned tires and to provide grants to counties and municipalities. However, the State has chosen to fund only those large tire piles, mostly in the southern portion of the State, and many of those piles are on large abandoned properties that were or are privately owned. This is not a fair distribution of these monies, and the State should, beginning in 2006, distribute monies from this fund in the same manner they allotted monies for the cleanup of tires in 2002: throughout the counties.

R-29
12/19/16

RESOLUTION REQUESTING THE STATE AND FEDERAL GOVERNMENTS TO ENACT
LEGISLATION FOR THE WASTE REDUCTION OF PLASTIC AND PLASTIC
PACKAGING

WHEREAS, a sound natural environment is the foundation of
a healthy society and a robust economy; and

WHEREAS, human activities around the globe are causing
severe environmental damage that threatens human health and our
planet's ability to sustain a diverse community of life; and

WHEREAS, the knowledge of ways to live in harmony with
our environment and methods and technologies to accomplish this end
already exist; and

WHEREAS, the State, the Federal government, and
manufacturers can do much to reverse environmental degradation and
contribute to building a healthy society by addressing issues such
as reusable packaging, waste reduction (sometimes called source
reduction, waste minimizations and pollution prevention - stopping
waste before it starts), recycling, composting, and hazardous waste
management; and

WHEREAS, many Western industrialized nations have
established systems of manufacturer's responsibility which 1)
require companies to take back and reuse, or recycle, large
containers in which products are shipped, 2) provide shoppers the
opportunity to leave excess packaging at stores, where
manufacturers can collect them for recycling, or 3) provide for the
private sector to create privately-funded consortia to directly
recycle and manage waste, or to reimburse local governments for
their cost in doing so; and

WHEREAS, America's cities and local governments (New
Jersey specifically) now bear the enormous financial burden to
recycle huge amounts of waste produced by American consumers and
producers; and

WHEREAS, cities must also spend thousands of dollars to
dispose of non-recycled trash by landfilling and combustion; and

WHEREAS, incentives to reduce waste and recycle a variety
of packages will foster the development of new technologies, create
jobs and result in the emergence of entire new industries, thus
bringing economic benefits to our communities;

NOW, THEREFORE, BE IT RESOLVED, by the Mayor and
Municipal Council of the City of Clifton, that it recognizes that
plastics and plastic packaging poses the most major solid waste
dilemma facing America in the 21st century; and

BE IT FURTHER RESOLVED, that government and industries
are urged to address plastic waste and plastic packaging for the
following reasons:

1. Once burned, many plastics produce toxic ash and
toxic fumes into the atmosphere.

2. If landfilled, it retains its shape, taking up valuable space which represents about 15% of our solid waste by weight, or about 40% by volume.
3. It cannot be composted, and if photodegradable, it will generate a toxic by-product affecting the soil, water, and wildlife.
4. Plastic litter is permanent and is carried into waterways. Small pieces especially polystyrene, are mistaken for food, clogging the digestive and respiratory tracts of small birds and marine life.
5. The creation of plastic items are sometimes made from Chlorofluorocarbons (CFCs) or Non-CFC, which can have an impact on the atmosphere by increasing the greenhouse effect.
6. Supermarket shelves carry 7 types of packaging that consists of plastic bottles and/or containers. This creates a major problem for collection and recycling of these plastic items.
7. Plastics are made from oil, which is a non-renewable resource, and other chemicals which are hazardous and toxic.

BE IT FURTHER RESOLVED, that the City of Clifton supports the Clifton Environmental Commission in recommending that the following action be taken to reduce the problems posed by plastic packaging, such as

1. A uniform system should be implemented nationally that eliminates all other types of plastic bottles and/or containers from supermarkets except for number (1) PET and number (2) HDPE.
2. Encourage merchants, consumers, and industry to switch from plastic to glass, paper and cardboard packaging (e.g. egg cartons, glass jars for brown sugar, etc.).
3. Require industry to replace toxic ingredients in the manufacturing process with less toxic or non-toxic ones.

BE IT FURTHER RESOLVED, that support is given to proposals that provide financial incentives for consumers and manufacturers to reduce the amount of packaging and the use of virgin materials in products and to recycle packaging and products without adding financial burdens on local governments; and

BE IT FURTHER RESOLVED, that the Federal and State Governments are urged to adopt legislation for the West Reduction of Plastic Packaging; and

BE IT FURTHER RESOLVED, that a copy of this resolution be forwarded to the Federal and State Legislators representing the City of Clifton; to the Clifton Environmental Commission; to the New Jersey State League of Municipalities; and to the New Jersey Conference of Mayors.

INTRODUCED Edward M. Welsh

ADOPTED: December 19, 2000

James Anzaldi
JAMES ANZALDI, MAYOR

ATTEST:

Richard C. Moran
RICHARD C. MORAN, CITY CLERK

CERTIFIED TO BE A TRUE COPY

Richard C. Moran

RECYCLELEGIS
12.19.00:DM



The Association of Food, Beverage
and Consumer Products Companies

May 12, 2008

The Honorable John F. McKeon
Chairman, Assembly Committee on Environment and Solid Waste
State House Annex
P.O. Box 068
Trenton, New Jersey 08625-0068

RE: Assembly Bill 121

Dear Chairman McKeon:

On behalf of the Grocery Manufacturers Association (GMA)¹ I would like to take this opportunity to comment on a number of aspects related to bottle deposits as they affect food, beverage and consumer products companies. GMA supports the goal of recycling and reducing solid waste. Over the years GMA has supported efforts to move beyond the confines of bottle deposit systems in recognition of the proliferation of other, more comprehensive and efficient solid waste management strategies. To this end GMA is in opposition to Assembly Bill 121.

GMA continues to believe that mandatory deposit systems are costly, inefficient and targeted at a narrow segment of the solid waste stream. GMA is working toward a comprehensive recycling solution that will significantly increase statewide recycling rates and significantly reduce the average per ton recycling cost. Creation of a bottle deposit program will not lower the state's cost per ton to recycle nor will it significantly increase New Jersey's recycling rates. However, exploring single-stream recycling through pilot programs can show how effective single-stream recycling can be while lowering the cost of municipal recycling and waste disposal.

Research has shown that container deposit laws are an extremely costly and inefficient means of recycling. Under the deposit law in nearby Connecticut it costs approximately \$500 per ton to recycle beverage containers, which is well over three times the comparable cost per ton for a typical curbside recycling program. The reason for the high costs is that the deposit

¹ The Grocery Manufacturers Association (GMA) represents the world's leading food, beverage and consumer products companies. The association promotes sound public policy, champions initiatives that increase productivity and growth and helps to protect the safety and security of the food supply through scientific excellence. The GMA board of directors is comprised of fifty-two chief executive officers from the Association's member companies. The \$2.1 trillion food, beverage and consumer packaged goods industry employs 14 million workers, and contributes over \$1 trillion in added value to the nation's economy.

system is exceptionally inefficient at recycling. Rather than moving materials through curbside programs that are designed expressly to manage recycling in a cost-effective manner, deposit systems move containers through a distribution and retail system that is not equipped to efficiently administer the container deposit program.

Because there are important differences in the manufacturing and distribution processes between carbonated and non-carbonated beverages, recycling all beverage containers through a deposit system is even more expensive and inefficient. Non-carbonated beverages are typically produced and distributed on a national basis with other food products through wholesalers and retail chains. Therefore, there is no local system in place to control the distribution, sale, return and recycling of these containers and both the initiation of the deposit and redemption of all beverage containers would create a logistical nightmare.

In addition to creating higher costs for consumers and businesses, creation of a bottle deposit program would jeopardize progress made by municipal recycling programs in establishing efficient curbside programs. Expansion of the bottle bill discourages households from participating in cost-efficient curbside programs and takes revenue from municipal programs by diverting valuable materials to the deposit system. Not only do municipal programs lose revenue, but also consumers lose convenience. Expansion of the deposit law burdens consumers with the additional hassle of transporting empty containers back to retailers, rather than simply leaving containers for curbside pick-up.

Creating a beverage container deposit system would affect a small portion of the waste stream. According to the U.S. Environmental Protection Agency in 2006 all beverage containers were responsible for approximately 5.2% of the municipal waste stream. While the numbers in New Jersey may vary, creating a beverage container deposit program will not have the significant impact on New Jersey's overall recycling rate that GMA and many bottle deposit program advocates seek. Bottle deposit programs are an extraordinarily expensive recycling program that can only have a limited impact towards increasing municipal solid waste recycling.

GMA and its member companies continue to support the goal of increased recycling and environmental responsibility. In our commitment to environmental responsibility, we have made a considerable effort over the past several years to reduce the amount of packaging in the waste stream. GMA members recycle, use recycled materials, and employ the latest technology to enhance their commitment to environmental responsibility.

GMA and our member companies are fully committed to promoting and achieving sustainable solutions. In support of this commitment, GMA has formally joined with the National Recycling Coalition in a partnership called the National Recycling Partnership (NRP). NRP is a coalition of food and beverage producers, retailers and the United State Environmental Protection Agency. The Partnership is committed to improving recycling programs in the United States and reinvigorating recycling among consumers. The NRP has identified two critical areas that must be addressed for recycling to reach its full potential: 1) raising public awareness and interest in recycling (re-branding recycling) and, 2) demonstrating best practices in residential recycling programs.

As stated previously, GMA supports the concept behind the legislation. While GMA and its member companies agree that manufacturers must share in the responsibility for enhanced recycling opportunities, we believe that the funding must be distributed equally across all segments of the waste stream. Consistent with our support for shared responsibility, we believe all of New Jersey's "waste producers" (business, households and manufacturers) should share in the cost of implementing and maintaining a comprehensive, integrated waste management system.

Additionally, container deposit laws do not recognize that all of us have a role to play in responsible solid waste management. Deposit laws unfairly burden the beverage industry and ignore that responsible resource management is a shared responsibility in which the entire public has a stake. Simply put, mandatory bottle deposits take recycling in the wrong direction. Rather than enact a system with inherent problems, New Jersey should direct its environmental resources toward integrated, cost-effective solid waste programs that maximize environmental benefits.

In closing, let me underscore that container deposit systems were implemented 15 to 25 years ago as a targeted litter control measure, at a time when recycling rates were well below ten percent. Since then, comprehensive recycling programs have emerged, incorporating broad categories of recyclable materials as opposed to a single sector of the solid waste stream. In today's environment, container deposit systems are antiquated, unnecessary and, in fact, counter-productive.

Thank you for the opportunity to present testimony on behalf of GMA. If you or members of your committee have any questions, please do not hesitate to contact me at (617) 515-2458 or at lalusic@gmaonline.org.

Sincerely,



Lorin Alusic
Director, Northeast State Affairs

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TO: Members of the Assembly Environment & Solid Waste
Committee

FROM: David Brogan, Vice President, NJBIA

DATE: May 12, 2008

RE: NJBIA Opposition to A-121 – “Smart Container Act”

The New Jersey Business and Industry Association (NJBIA), which represents nearly 23,000 businesses in the State of New Jersey, respectfully **OPPOSES** A-121, sponsored by Assemblywoman Huttler, Assemblywoman Greenstein, and Assemblywoman Stender. This bill would require a 10-cent deposit on all plastic and glass bottles and aluminum cans (other than refillable containers) less than 24 oz. and a 20-cent deposit on such beverage containers over 24 oz. up to 3 liters. NJBIA believes that this type of recycling program would place an unnecessary financial burden on retailers and distributors, and provide little or no benefit to recycling rates in our State.

Specifically, under the bill, there would be a cost to retailers to collect and transport the bottles from the retail establishment to the recycling center. There would be a cost of the equipment necessary to clean the bottles as they are collected because storing such bottles could attract insects and vermin. There would be a cost to distributors of remitting the deposit money to the State, and there would be a cost to both distributors and retailers in providing certified monthly reports.

New Jersey has a county recycling system that is successful in many ways. To partially fund these recycling efforts, the State recently imposed a \$34 million tax on trash generation which is collected annually and given back to counties and municipalities in the form of grants. Furthermore, the primary funding source for the programs is derived from the sale of the products collected.

The law that created the tax contains a provision that eliminates the tax if a bottle redemption program is put in place. Thus, if enacted, the Smart Container Act: would eliminate the revenue source that is used to fund grant moneys for county recycling efforts; create a competing system of collection and recycling, further eroding the primary revenue source to those counties; and, it would create a system that increases costs to retailers and distributors of those products.

In short, NJBIA opposes A-121 due to: the impracticality of collecting and storing bottles at retail establishments; the increased costs of necessary cleaning machinery, transportation, submission of reports, and disbursement of the deposit moneys; and, the complete disregard for New Jersey's current county recycling infrastructure.

As an alternative to creating a competing and costly system, a better solution would be to simply utilize the aforementioned \$34 million trash tax to either fund an enhanced education program or provide additional funding to counties toward these efforts.

NJBIA would like to reiterate our opposition to A-121, and we respectfully request the committee members to consider our concerns as you deliberate the merits of the bill. We appreciate your consideration of this request. Should you have any questions or need further information, please contact me at 609-393-7707, extension 236.

- c. Kate McDonnell, Assembly Democrat Staff
- Thea Sheridan, Assembly Republican Staff
- Carrie Ann Calvo-Hahn, Office of Legislative Services