



The Closed-Loop Scoop

Washington State Department of Ecology, Solid Waste & Financial Assistance Program

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Pilot Project Targets School Waste

Schools teach students to keep recyclables out of the garbage

Over the past two decades, Pierce County and other local governments have developed numerous programs aimed at convincing adults to recycle waste at home and work. Now Pierce County's Solid Waste Division has launched a new program to help local schools recycle more and waste less.

One of the targeted schools is Spanaway Junior High, where county staff is working in conjunction with the school's new recycling committee. Twenty students collected and sorted garbage from the school's 64 rooms on December 6. Assisted by four representatives from the Pierce County Department of Public Works and Utilities, the students assessed how much recyclable material was finding its way into the school's trash bins.

"We found that only 25 pounds of recyclables had been recycled on the day of the audit, which was only 2 or 3 percent of the overall garbage samples," said Kim Meline, the committee's faculty representative. "I believe that we could recycle 85 to 95 percent of what we found."

The recycling committee will conduct two more waste audits this school year to assess the recycling strategy's success. For more information, read this story on the Bethel School District website: http://www.bethelsd.org/news/news_detail.php?id=1067.

The other seven participating schools are Spanaway Elementary School, Bethel School District; Ford Middle School, Franklin Pierce School District; Sumner Middle

School and Sumner High School, Sumner School District; and Evergreen Elementary, Key Peninsula Middle School, and Gig Harbor High School, Peninsula School District.

"Scores of students at these schools are working to make Pierce County more mindful of its wasteful ways," said Steve Wamback, the county's solid waste administrator. "With support from school administration and faculty, students are designing programs to cut back on how much waste they generate and to recycle as much as they can. In addition to helping improve their schools, the students are learning lessons that they can apply at home and which strengthen their science and math skills."

Bob Dieckmann, an environmental educator for Public Works and Utilities, is coordinating the project with assistance from colleagues Travis Dutton, Stephanie Leisle, Ryan Miskey, and Nancy Morrison. Local solid waste management companies LeMay Enterprises and Waste Connections (Murrey's Disposal and American Disposal) are helping by developing recycling programs tailored to each school's needs.

"Word has been spreading, and we're already developing a list of other schools interested in participating in the 2008-09 school year," Wamback said.

For more information, contact Wamback at 253-798-4556 or steve.wamback@co.pierce.wa.us or Dieckmann at 253-798-4656 or bdieckm@co.pierce.wa.us.

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Washington Continues to Recycle

. . . but garbage rises to record levels



"Besides saving landfill space, waste prevention and recycling also are important strategies for reducing greenhouse gas emissions and conserving energy, Davies noted."

The news on recycling is a mixed bag. Although Washingtonians sent 5.3 million tons of waste to landfills in 2006, we recycled 43 percent of our municipal solid waste (MSW). At the same time, we had success diverting other materials, such as construction and demolition debris, raising the statewide recovery rate of materials from 47 to 49 percent.

The rate at which businesses and residents recycled MSW in Washington stayed steady in 2006. The rate dropped less than half a percent to 43.4 percent, according to numbers the Department of Ecology (Ecology) compiled. Overall tons collected for recycling in 2006 increased by just over 100 thousand tons from the year before. The metals sector showed the greatest increase, while collection of other materials stayed relatively constant.

In addition to construction debris, other recovered materials included land-clearing debris, agricultural wastes and other organic materials, tires, antifreeze, oil filters, and paint. Ecology does not calculate these

items into the state's recycling rate, and calls the recycling of these materials "diversion" instead.

"The numbers tell us people in Washington are responsible about not sending garbage to a landfill where it can harm the environment," said Laurie Davies, manager for Ecology's Solid Waste and Financial Assistance Program. "But we need to think a lot more about not creating waste in the first place. That means thinking about the products we buy, how they're made and packaged."

"Besides saving landfill space, waste prevention and recycling also are important strategies for reducing greenhouse gas emissions and conserving energy," Davies noted. Washington's recycling efforts for 2006 reduced greenhouse gas emissions by more than 3 million tons or 1,000 pounds per person. This roughly equates to removing 2.5 million passenger cars from the roadway each year. That's over half the passenger cars in Washington.

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Calendar of Events

March 12-14, 2008, Globe 2008 will be held in Vancouver, BC. To learn more, call 604-775-7300 (toll-free 800-274-6097), or visit the conference Web site at <http://www.globe2008.ca/>.

March 13-14, 2008, 2008 Built-Green Conference, Seattle. To learn more, call 425-460-8238 or visit the conference Web site at <http://www.builtgreenconference.com/>.

March 28-30, 2008, Better Living Show, Portland. To learn more, call 360-901-8375 or 503-880-3642, or visit the conference Web site at <http://www.betterlivingshow.org/>.

April 12-13, 2008, Seattle Green Festival, Seattle. For details, visit the Web site at <http://www.greenfestivals.org/content/view/767/390>.

April 22-26, 2008, Ecocity World Summit, San Francisco. For details, call 510-419-0850 or visit the Web site at <http://www.ecocityworldsummit.org/index2.htm>.

May 18-21, 2008, Washington State Recycling Association Conference. Pasco. For details, call 206-244-0311 or visit the Web site at <http://www.wsra.net/Conference/>.

June 9-12, 2008, Northwest Hazardous Waste Conference for Household and Small Business Programs, Troutdale, Ore. See Web site for information: <http://www.nahmma.org/displaycommon.cfm?an=1&subarticlenbr=18>.

June 16-20, 2008, Towards Carfree Cities VIII: Rethinking Mobility, Rediscovering Proximity. Portland. For details, visit the Web site at <http://www.carfreeportland.org>.

(Washington Continues to Recycle, continued.)

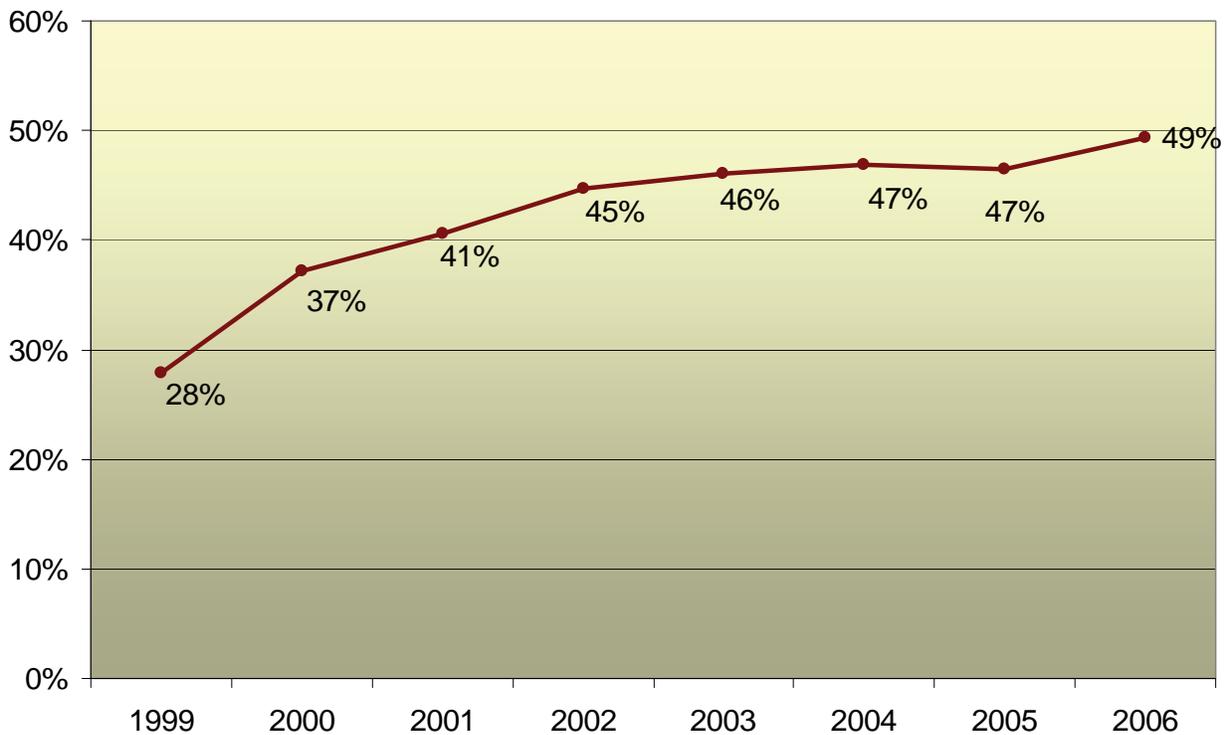
From 2005 to 2006, Washington's population grew an estimated 1.9 percent, according to the Office of Financial Management. In addition, the amount of garbage each person in the state produced coincidentally also increased by 1.9 percent in 2006. Together, the growth in population and the growth in each person's garbage caused the total amount of waste to increase even more.

Washington residents produced an average of 8 pounds of waste per person each day in 2006, compared to 7.9 pounds a day in 2005.

A 1989 Washington state law established a statewide recycling goal of 50 percent. By contrast, the latest reported national average is 33 percent. "The ultimate goal is not to produce the waste in the first place," Davies said.

For more information about Washington's recycling and diversion data, please visit our solid waste data page at <http://www.ecy.wa.gov/programs/swfa/solidwastedata/>. For questions about Washington's recycling and diversion measurement, please contact Gretchen Newman at gnew461@ecy.wa.gov or at 360-407-6097.

Washington State Diversion Rate - 1999 to 2006



28th Annual Recyclers of the Year Awards

Each year the Washington State Recycling Association (WSRA) seeks nominations for outstanding recycling professionals, innovative government administrators, and everyday folks making a measurable difference in improving recycling vitality and environmental well being statewide.

Awards Nomination Process

A nomination form is available for download from the WSRA Education page (<http://www.wsra.net/Education/education.asp>) by clicking on the **2008 ROY Nominees** link.

A completed nomination form and attachments must be received (not postmarked) no later than March 1 2008. (All text must be submitted by e-mail, in addition to any text that is submitted in hard copy.) The WSRA Awards Committee selects all award recipients. Areas of consideration include innovation, environmental and economic benefit, level of commitment, and growth potential for the greater recycling community.

City of Shelton Moves to Dual-Stream Recycling

by Tami Ramsey (with help from Tracy Farrell and Shannon McClelland)

In 2007, the City of Shelton (population 8,500) kicked off its new Automated Dual-Stream Recycling Program. Customers in the City of Shelton now use two recycling roll-carts: one for all mixed fiber (paper and cardboard) and the other for mixed containers (glass, metal, plastic, and dairy tubs). The program started up with the help of Coordinated Prevention Grant (CPG) dollars and a surplus of used containers from Seattle Public Utilities.

This new recycling strategy cost the City around \$60,000 for new and donated 35-gallon containers, parts, labels, advertising, and staff time. Expected cost to maintain the program after it's fully up and running is around \$16,000 annually. This cost will include a hauling contract, roll-cart maintenance, and program outreach.

For nearly 10 years, Shelton was using a three-bin curbside system with limited success in volumes collected and participation. After an aggressive outreach campaign in 2003-2005, participation rose to 38-40 percent after years at 27 percent.

"The old system was good in that it provided people who wanted to recycle with a service at their curb," admits Tracy Farrell, Environmental Projects Coordinator for the City of Shelton.



Tracy Farrell hoses out a surplus bin



Tracy Farrell strikes a pose

"However, it had drawbacks with the uncovered separate bins that allowed water to damage the material and wind to cause littering concerns."

Participation barriers included the system itself; the bins are inconvenient and can get heavy. In an attempt to increase participation and raise the recycling rate, City officials made the decision to change the system substantially.

Through the efforts of the previous coordinator, Shannon McClelland, and other City staff including Ms. Farrell, the City secured a donation of roll-carts from Seattle Public Utilities. In this way, Shelton obtained nearly 1500 blue roll-carts for the price of retrieval—a savings of over \$45,000. (Ms. McClelland now works for the Washington State Department of Ecology's Solid Waste and Financial Assistance Program.)

Remaining grant funds paid for cleaning and repairing the donated carts, researching and designing labels, and publicizing the new program. Outreach was through radio, open houses, utility inserts, the local newspaper, and postings.

With the dual-stream recycling system, the City projects recycling numbers will rise at a rate of 3 percent a quarter through 2008. This projection is conservative simply because it

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(City of Shelton Moves to Dual-Stream, continued.)

takes time for new recyclers to get used to the process while the City discovers and works out other bugs. "We really expect to measure the real impact in year 2 or 3," touts Tracy. It's too soon to report the final effects of the new system. After a couple of years, though, the new system should be fully in place. Then the City would like to see the participation rate at 60 percent and a 20 percent increase in tons recycled.

Prior to the new collection system from 2006-2007, Shelton saw a 7 percent increase in tons recycled; staff speculate the increase was due to recycling education. Since the inception of automated dual-stream recycling in August, the volume of residential garbage collection in the City of Shelton has decreased by an average of 3 percent.

Early numbers are showing the volume of recycling is up 3 percent between September and December of 2007. Participation is up from under 900 to nearly 1600 households.

The City of Shelton chose dual-stream recycling over the more popular single-stream approach for the following reasons:

- √ Lessons learned from other jurisdictions in the Puget Sound region that changed to a commingled system.
- √ Maximizing the value and types of materials collected.
- √ Avoiding the glass/paper contamination issue.

- √ Providing convenience to City of Shelton residents.
- √ Increasing collection efficiencies.
- √ Reducing worker injuries.

The process of changing over from one system to the other was smooth for the most part. Shelton is still in need of more roll-carts to fill customer demand. The resolution for now is to be patient until the City buys and distributes the remainder of carts.

The City also experienced other problems. One task was educating customers about cart placement for the automated system's convenience. It has also been difficult to coordinate garbage and recycling pickup because two different collection trucks are used and the new containers are larger. Last, while staff worked out bugs in the system, they needed to have endless patience and make time for customers. However, if Shelton reaches its target projections, the results will far outweigh the problems experienced.

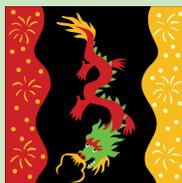
If you currently do not have a curbside recycling system and would like to start with bins, the City of Shelton has some that you can have for the price of retrieval. "Sure, we'll pay it forward," smiles Tracy, when asked if the city would give away their surplus of bins from the old system.

For more information about the Automated Dual-Stream Recycling Program in the City of Shelton, contact Tracy Farrell at 360-432-5126 or tracy@ci.shelton.wa.us.

Paperless Firecrackers

Less paper waste flows into the waterways

There is a new trendy way to ward off evil spirits for the Chinese New Year. Paperless firecrackers are the new noise-making and eye-catching way to celebrate. Without the paper mess left behind from New Year celebrations, there is less to clean up and less waste in the garbage. There also seems to be less gunpowder left after the firecrackers are set off. For more information, see the Honolulu Advertiser article at <http://the.honoluluadvertiser.com/article/2007/Dec/27/in/hawaii712270341.html>.



2007 Tire Cleanup

Effort removes over half the waste tires piled in Washington

What's the status of the tire pile cleanup program?

Working with local governments and citizens, the Department of Ecology (Ecology) identified 100 tire piles in the state of Washington. These piles contain over 40,000 tons of tires; that's about 4 million passenger tires. Cleanup of tire piles started in May of 2007. In eight months contractors removed 28,000 tons of tires from 20 sites. That's more than 60 percent of the tires estimated to be piled in Washington.

What happens to waste tires after cleanup? It depends on the site and the condition of the tires. At the largest tire pile in the state, in Goldendale, the focus was on a fast cleanup. So most of the 20,200 tons of tires removed from that site were shredded and landfilled. The contractor completed that cleanup in 100 working days, removing over 200 tons a day.



Tire pile site in Toledo, WA, before cleanup



Goldendale tire pile in October 2006

At the other completed tire pile sites, cleanup work concentrated on recovering recyclable or reusable materials. In these cleanups, contractors removed 7,600 tons of tires from 19 sites. Landfilling was the only option for 4,400 tons of unusable tires. About 1,900 tons were recycled into crumb rubber products or cut up for bumpers. Another 950 tons ended up as fuel in local cement kilns, used in place of other petroleum fuels. And 350 tons went into construction projects in place of other fill materials.

What's next for the Ecology tire pile cleanup program? The program still has 70 tire pile sites to clean up. These sites contain over 12,000 tons of tires. The expected average size of tire piles at the remaining sites is 200 tons. Ecology's contractors continue to clean up sites, though progress is slower during winter weather. Ecology expects cleanup activities to continue into 2009.



Tire bales used in road construction



Toledo tire pile site during cleanup

College Is New County Solid Waste Outreach Coordinator

By Tami Ramsey (with help from Mark Cox)

In Grays Harbor County, the Solid Waste Department of the Utilities and Development Division used to be a one-man show. Prior to about 1999, Mark Cox, Solid Waste Department Manager for Grays Harbor County, ran the division single handedly until he got permission to hire a recycling coordinator. After a couple of failed attempts at keeping this position filled it was time to get creative.

In late 2007, Mark secured an interlocal agreement with Grays Harbor College to act as the solid waste outreach coordinator for the county.

"I'm basically getting four people for the price of one," explains Mark. The college partners with AmeriCorps to use three more staff. Coordinated Prevention Grant money will pay for Lorena Marchant, Grays Harbor College staff, while the college pays for AmeriCorps staff.

Since mid-2006, the department has been without a recycling coordinator. This hurt services to the community. They wanted someone 'green' to fill the position. "The job was attractive to recent college graduates, but the position doesn't offer much room for advancement," reasoned Mark.

The agreement between the county and the college includes the college providing one half-time employee to conduct education and outreach projects within the community, with a primary focus in schools. Working with three staffers from AmeriCorps, Marchant will help with:

- √ Developing education and outreach material.
- √ School and community presentations.
- √ Salmon-friendly lawn care and hazardous waste outreach.
- √ Implementation of single-cart programs within schools.

With the recent implementation of countywide curbside recycling (single-stream, except glass), Cox thought that schools should be on board with the same recycling concept as the county. Marchant plans to reach every school in Grays Harbor County by the end of 2009.

The school recycling rate should double, and participating schools may be able to cut their solid waste disposal bills in half.

The one-man show also contracts out other solid waste services including:

- √ LeMay operates the Moderate Risk Waste Facility.
- √ WSU Master Gardener's operate the organics program.
- √ Grays Harbor County Jail runs the litter cleanup program.

For more information about any of these programs, contact Mark Cox at 360-249-4222 or mcox@co.grays-harbor.wa.us.

"Tips for Secured Loads" Video

The Department of Ecology (Ecology) has completed its sequel video, *Tips for Secured Loads*. The previous video, *Securing Your Load*, featured Maria Federici who suffered a nearly fatal accident in 2004 from an unsecured load in Renton. (In November 2007, a jury awarded Federici \$15.5 million in a civil court case.)

Ecology's second video shows pickup truck owners and drivers **how** they can properly load and secure a variety of items. These items range from yard waste to construction materials. The video also shows how to use appropriate tie-downs. This is very useful information for private individuals and small business owners or their employees, such as landscapers.

Viewers can watch the DVD in a linear version, or skip to specific chapters. Spanish subtitles are also included. For more information, or to view the video on-line, visit www.litter.wa.gov. To obtain a copy of the video, email litter1@ecy.wa.gov.



Department of Ecology

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