

BOARD OF ALDERMEN

ITEM NO. (3)

AGENDA ITEM ABSTRACT MEETING DATE: June 12, 2007

SUBJECT: A REPORT ON ALTERNATIVE WASTE REDUCTION AND RECYCLING STRATEGIES

DEPARTMENT: PUBLIC WORKS DEPT.	PUBLIC HEARING: NO
ATTACHMENTS: A. Resolution B. Revenue Table C. PAYT Revenues and expenditures D. 2005 Orange County Waste Sort-Town E. 2005 Orange County Waste Sort-Residential	FOR INFORMATION CONTACT: George Seiz 918-7427 Antonio J. Baxter 918-7426

PURPOSE

The purpose of this agenda item is to provide the Board of Aldermen with the information requested as a result of the Pay-As-You-Throw presentation on February 6th, 2007.

INFORMATION

This report presents information on the following:

1. Information comparing revenues with municipalities that use PAYT system.
2. Strategies/educational outreach to reduce waste and increase recycling.

In addition, the report describes the reduction/recycling programs and educational outreach currently provided by Orange County Solid Waste.

Revenue Comparison

The North Carolina municipalities of Eden, Havelock, and New Bern have populations that range from 16,000-24,000. Their solid waste operations are currently under the PAYT system. The attachment displays the percentage breakdown of each municipality's revenue stream in comparison with the Town of Carrboro. All three of the municipalities have an active billing system in place because they provide utilities such as electricity, sewer, water, etc. The fees associated with PAYT programs of these municipalities do not cover the entire cost of the solid waste operation (see attachment).

Current Recycling, Waste Reduction, and Education Efforts-Orange County Solid Waste

In 1997, Orange County and its municipalities adopted a solid waste management plan with a goal (target year-2006) of reducing total waste disposed per person by 61% when compared to a

baseline year of 1991-92. The governments reaffirmed this goal in 2000. The baseline disposal per capita in 1991-92 was 1.36 tons. The goal is 0.53 tons. As of 2000-01, Orange County had reduced its waste per person by 36% to 0.87 tons per person. The most recent calculation completed in May 2007, shows that Orange County's waste reduction rate for 2005-06 was 43%, consistently amongst the highest in the state having ranged from 44% to 46% in previous years.

Recycling is provided throughout the three municipal communities as well as the unincorporated parts of the county. Multi-family sites, rural curbsides, and urban curbsides are amongst the services that are provided by Orange County Solid Waste. There are also six unstaffed recycling drop-off sites as well as the five county solid waste convenience centers.

In addition to recycling, other programs utilized for waste reduction are hazardous household waste collection and commercial food waste recycling. Hazardous household waste collection keeps hazardous and potentially polluting materials out of the landfill. These items include antifreeze, batteries, paint, household chemicals, florescent lamps, motor oil, and oil filters. Commercial food waste recycling is provided (a private contractor is utilized) to collect restaurants' and supermarkets, kitchen prep waste for composting. Currently, there are twenty-five commercial customers receiving this service.

Education and outreach is provided throughout the community to increase participation in the recycling program. Orange County Solid Waste offers educational outreach to schools, businesses, not-for-profits, faith-based organizations, civic groups, governmental organizations, and the public. Services include landfill tours, composting education and compost bin sales, waste assessments, information and display at special events, an annual newsletter, and regular columns in local media. They also provide a webpage and printed outreach materials that describe their programs and services throughout the community, including multi-family (apartment) units. Orange County Solid Waste also holds an annual one-day outdoor compost bin sale event to increase awareness about composting. (www.co.orange.nc.us/recycling/edu.asp)

Waste Reduction and Recycling Strategies

According to Orange County Solid Waste landfill collection data for 2005-06, the Town of Carrboro delivered 7,838 tons of solid waste (comprised of residential, multi-family, construction and demolition, commercial, and yard waste) to the landfill. Paper and organics comprised over half of this amount. Paper includes newspapers, magazines, phone books, junk mail, etc. Organics includes food waste, textiles/leather, diapers, etc. Food waste itself was 22 percent of the waste sent to the landfill. Plastics, which include plastic bottles and film, were 15 percent. Although aluminum cans are less than one percent of the total, these items should not be in the landfill because state law makes it illegal to dispose of aluminum cans in the garbage.

Junk Mail

The average American adult is on several mailing lists. This leads to an endless cycle of junk mail being sent out. The county began addressing this problem in November 2006 by adding mixed paper (office paper, **junk mail**, cereal boxes, paper bags, etc.) to the list of curbside recyclable items; previously mixed paper, including junk mail was recyclable only at drop off sites. Educating citizens on how to eliminate receiving junk-mail could possibly reduce junk

mail placed in the landfill. This information would contain information on how to get off marketing mailing lists and other promotional advertising lists. Town residents could receive this attached information along with the solid waste brochure that is annually distributed by Public Works. The cost to supply residential customers with this additional information would increase printing cost by \$400.

Aluminum Cans

Even though state law prohibits disposing of aluminum cans in landfills, they make up about forty-eight tons of Carrboro's solid waste. Providing more public education about the state ban of aluminum may aid in potentially increasing recycling and reducing aluminum cans from the landfill. Placing a sticker on residential roll-out carts to inform residents about the ban on aluminum cans provides awareness about the ban. Orange County currently has weather resistant stickers which display "No Aluminum Cans". The sticker also displays the North Carolina general statute that prohibits aluminum cans from landfills.

The Town could possibly place the stickers on residential roll-out carts simultaneously with the holiday refuse collection schedule sticker. The cost of producing enough stickers for residential roll-out carts would be about \$1,000.

Plastic Bags

There is not a public program for recycling plastic bags; however, some local stores such as Food Lion, Harris Teeter, and Weaver Street Market provide drop-off collection points for the plastic bags they distribute. All other plastics, other than bottles, constitute almost 12 percent of the Town's waste. Providing more education regarding grocery store plastic bag recycling may aid in reducing plastic bags in the waste.

Food Waste

Currently, Carrboro generates an average of 2,486 tons of residential trash per year (three year average). In the last waste sort data provided by Orange County (2005), 22 percent of residential trash (single family homes) was food waste (547 tons). There are about 3,700 residential collection points. Thus the average annual food waste generation is 296 lbs per collection point. According to Orange County Solid Waste, only 50-75 percent of food waste is readily recyclable in backyard composting bins. If an additional ten percent of residential collection points actively utilized compost bins over and above those now composting food waste, residential food waste could possibly be reduced in between a range of 27 to 41 tons. That would mean a possible annual tip fee savings within the range of \$1,269 to \$1,927. Providing 370 compost bins would cost about \$14,800. Much of this cost may be offset by acquiring grant funding. The Division of Pollution Prevention and Environmental Assistance administer the Community Waste Reduction and Recycling Grants through the Solid Waste Management Trust Fund. The purpose of the grants is to assist local governments and not-for-profit agencies in expanding, improving and implementing waste reduction programs in North Carolina.

There also may be an opportunity to further reduce commercial food waste. As stated earlier, Orange County Solid Waste also offers commercial food waste collection. Orange County has

identified potential new commercial customers to participate in this program and they are willing to work with Town staff to expand this program to other businesses.

SUMMARY

The Town is currently recycling at a good percentage when compared to other Orange County communities (see attachment); however, there is still room for improvement in order to help reach the goal of 61 percent waste reduction goal. Focusing on the four areas of junk mail, aluminum cans, plastic bags, and food waste may reduce waste in an economical way. Supplying the junk mail information and aluminum can stickers to rollout carts would cost about \$1,400. If the public education campaign reduces junk mail and aluminum by a modest five percent (8.4 tons junk mail/2.4 tons aluminum cans), that would reduce the landfill tipping fees by \$508.

Providing information on the solid waste brochure about grocery store plastic bag recycling will not add any additional costs. This information could be placed in the solid waste brochure.

Food waste potentially provides the best opportunity to have significant waste reduction. It may also be possible to bring about this reduction with a minimum amount of budgetary expenditure if the Town were to apply for and receive a grant to offset the purchase of composting bins.

Fiscal Impact

Junk Mail Post Cards, Alum. Can Stickers	
Aluminum Can Stickers*	\$1,000
Junk Mail Informational	\$ 400
(07-08) FY	\$1,400
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Annual Increase in Program Costs	\$400
Reduction in Tip Fees^	(\$508)

Food Waste-Composting Carts	
Compost Bins (370)	\$14,800
NC DENR Grant	-\$13,320
Town's Match for Grant* (07-08) FY	\$ 1,480
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Annual Increase in Program Costs	\$0
Reduction in Tip Fees**	(\$1,269-\$1,927)

*One-time costs

^Represents five percent reduction in Junk mail and aluminum cans (8.4 Tons and 2.4 Tons)=10.8 tons
 10.8 tons X \$47 per ton=\$508

**Assumes 148-222 lbs potentially diverted per home.

148 lbs X 370=54,760 lbs (27 tons)
 222 lbs X 370=82,140 lbs (41 tons)
 27 tons X \$47 per ton=\$1,269
 41 tons X \$47 per ton=\$1,927

One time added costs of \$1,000. Annual costs added to program \$400. Possible landfill tipping cost reduced by \$508.

One time added costs of \$1,480 in match for grant funds. No annual costs added. Possible landfill tipping cost reduced by a range of \$1,269-\$1,927.

The \$1,400 for the junk mail postcards/aluminum cans stickers and the \$1,480 for the grant match was not included in the proposed 07/08 Budget.

RECOMMENDATION

It is recommended that the Board of Aldermen accept the report and consider implementing these strategies.