

# NORTH CAROLINA COUNTY INSTITUTES STICKER SYSTEM

*New program serves 30,000 households, and already has resulted in a doubling of recycling participation rates.*

*Robert Bracken*

**I**N NOVEMBER 1991, Craven County, North Carolina became one of the first communities in the Southeast to introduce volume based garbage collection. The program requires all participating households to attach a special sticker to each 33-gallon bag of garbage. Priced at \$1.25 each, the stickers provide an ongoing financial incentive to cut back on waste. Since the program started, the county has reported a doubling of recycling participation rates and record tonnage of recyclables collected.

In conjunction with implementing volume based pricing, Craven County also extended curbside garbage and recyclables collection to the rural areas. A tax-funded network of roadside dumpsters (greenboxes) was dismantled when curbside service was introduced. Altogether, the program delivers volume based garbage collection and recycling to about 30,000 households, including six municipalities plus the unincorporated areas.

The major change for municipal residents accustomed to curbside pickup for a monthly flat fee was adjusting to the sticker routine. Two program features, however, make this job easier: 1) A minimum supply of stickers is mailed to households each month; and (2) If they choose, residents can place garbage loose into cans and attach the appropriate number of stickers (in roughly 33-gallon increments) to the outside of the can. A standard 90-gallon trash cart, for example, would need three stickers.

For larger households, and those not recycling, the volume based program probably means higher trash collection charges. But for smaller households and those that recycle or practice source reduction, it may translate into lower monthly trash bills.

## **PRESSURES TO REDUCE WASTE**

The volume based program came in response to a broad range of pressures. Like every community in North Carolina, Craven County faces a number of new state laws dealing with solid waste, including a waste reduction goal of 25 percent by 1993 and 40 percent by 2001. State law also bans several types of waste from sanitary landfills, in-

cluding large appliances (white goods), whole tires, lead acid batteries and, in 1993, yard waste. In addition, the state encourages local governments to set up enterprise funds and rely on fees rather than taxes to fund solid waste programs.

A year before implementation, county planners began developing a collection program that could meet state mandates and provide financial incentives for waste reduction. Variable rate and volume based program options were developed based on conversations with managers of similar programs and a review of publications. While program details varied widely, variable rate programs were grouped into four major categories: bags, stickers, variable can size and weight based systems.

Programs using subscription to varying sizes of garbage cans had the advantage of providing permanent disposal outlets to all residents — thereby reducing the potential for illegal dumping and ensuring a predictable revenue base. The logistics, however, of getting the can capacity and rate increments just right, combined with the need to maintain a large can inventory to cover switches to a different size, made this option seem less attractive.

Truck-mounted weighing systems were viewed as too experimental and capital intensive, although paying for garbage disposal by the pound has advantages. It should provide the convenience and permanence of rigid containers and at the same time send very accurate price signals to customers.

The sticker system was chosen because of its low setup costs, proven track record, and the fact that stickers could be mailed to customers and, unlike bags, would not take up valuable shelf space at retail stores. Sheets of stickers are used instead of rolls for ease of storage under cash registers and for quick sale in multiple sets.

Since program revenues are tied to sticker usage, accurate estimates of how many stickers households use — or bags of garbage they generate — are critical. Managers of other volume based programs told the county to expect a significant shrinkage of waste volume at the curb, due to increased recy-

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Households must attach stickers to each 33-gallon bag of garbage. Sticker sales cover the costs of collection and disposal.

cling and source reduction as well as other dollar stretching consumer behavior such as overstuffing bags. Therefore, the sticker price had to be adjusted accordingly.

The \$1.25 sticker price was set at a level to cover the costs of collection and disposal. It is estimated that \$.30 of the sticker price goes to cover the \$25 per ton tipping fee.

Initial plans called for a system with a flat base fee which covered only the costs of curbside recycling — leaving sticker revenue to cover all garbage related collection and disposal costs. However, the risks of loading too much cost onto the sticker had to be taken into account. As the sticker price rises, the potential for illegal dumping and revenue shortfalls (due to nonparticipation) increases. To reduce these risks, the county decided to provide, in addition to recycling, a base garbage collection service combined with a higher base fee.

#### MONTHLY ALLOTMENT

Under the adopted program, the county sends all households a monthly allotment of four stickers, enough to meet the needs of a waste conscious or small household. If a household uses up the minimum supply, additional stickers must be purchased at various retail outlets — mainly grocery stores — or government offices throughout the county. Unused stickers can be carried over from month to month, but are not currently redeemable for cash. Although an informal market probably exists between residents with excess stickers and those in need of more, these exchanges are not seen as detrimental to program success. The county is studying ways to credit customer accounts for unused stickers, thereby providing small waste generators with fee increments below the four sticker base.

By providing weekly curbside recycling to all participating households, the county offers a clear alternative to the costly garbage

bag. In the county's view, not offering this alternative would have defeated the purpose of variable rates, which is to promote recycling and waste reduction.

In addition to curbside recycling service, seven staffed dropoff centers are open to receive the following items free of charge: white goods and bulky items, yard waste, mixed paper, corrugated cardboard, lead acid batteries, used oil and rinsed agricultural containers. These centers are especially important as outlets for materials that are either too bulky for placement in garbage containers, banned from the landfill, or not easily collected by curbside recycling trucks.

Thus far, multifamily dwellings with dumpster service are not included in the sticker program. Metering trash deposited in common dumpsters poses technical problems that would seem to preclude volume and weight incentives in this sector.

#### ROADSIDE GREENBOXES ELIMINATED

Replacing roadside dumpsters in the rural areas with curbside collection service enabled the county to consolidate the unincorporated areas and municipalities into a single solid waste collection and funding system. The county wide system was formally established through a series of interlocal agreements between the county and its municipalities. Two small towns opted not to participate but may join the compact at a later date. American Refuse Systems (ARS), a North Carolina based hauler and limited partner with Waste Management, Inc., was chosen as the lead contractor to manage the garbage collection and recycling operations. Several other private haulers also collect waste under a franchise agreement with the county. Revenues to these haulers are based on the number of stickers collected on their routes.

Under the old system, municipal residents complained that their county property taxes were used to fund a dumpster network that they never used, while at the same time, they were charged monthly fees for city garbage pickup. Moreover, the greenboxes were an eyesore, frequently overflowing with garbage, and could not allow for monitoring of incoming waste, e.g. to screen banned items. And, of course, no financial incentive for waste reduction was possible under this system. The greenbox, in effect, was a bottomless garbage pit, the cost of which was buried in the county property tax bill.

The county sought to address these problems by establishing a county wide curbside service based on variable user fees. Importantly, the estimated cost to rural households for the curbside system was comparable to the cost of establishing a network of staffed convenience centers, a common collection alternative in rural areas. The favorable rural curbside costs could be achieved by integrating the rural routes with the high density municipal routes in the context of a county wide program.



## PUBLIC ACCEPTANCE CHALLENGE

Program implementation, however, was far from trouble free. The biggest problem was, and remains, public acceptance. Despite public meetings, press conferences and meetings, the perception of many residents was simply that the program was being forced on them. Many could not understand why the old system had to be changed. The program, they argued, should have been put to a vote.

The fact that the sticker system was paired with the extension of curbside garbage collection county wide has generated multiple reactions. Rural residents, especially those who were comfortable with hauling their own garbage to roadside dumpsters at no charge, were upset by now having to pay for garbage collection. They argued that taxes should have at least been reduced correspondingly. Other rural residents were concerned about increased truck traffic or about dogs and other animals tearing apart garbage bags left at the curb. Many feared that illegal dumping would run rampant, that stickers would be stolen or counterfeited, or that people would not understand program details.

At the height of public reaction to the plan, shortly after kickoff, dissenters marched through downtown New Bern, the county seat, vowing to boycott the program. A lawsuit was filed by a local activist (the case is pending) and the newspaper started a daily column called "Trash Watch" to track program developments.

The solid waste advisory committee has taken an active and useful role in transferring public reaction into a managed forum that reports to the Board of Commissioners. Both before and after program implementation, it met to consider modifications. One proposed change would have eliminated the monthly four sticker allotment and associated fee, requiring residents to purchase each sticker as needed. The recycling fee would be billed annually to residences as a special charge on their property tax bill. For now, however, the county intends to stay with the monthly billing routine.

Aside from the high profile protests by some residents, operational problems so far have been minimal. Few, if any, illegal dumping incidents, including raids on commercial dumpsters, have been reported. The base monthly supply of stickers, along with a tough new litter ordinance, may be contributing factors.

## RECYCLING RATE DOUBLES

Advocates of the program point to signs of an emerging success story: recycling participation and tonnages of recyclables collected have increased dramatically. In communities that already had curbside recycling, participation (measured by setout rates) more than doubled immediately after the sticker system went into effect — from about 30 percent to more than 70 percent. Since the program extended curbside recycling to new areas of the county — more than dou-

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bling the recycling customer base — an increase in tonnage of recyclables was expected. However, the per capita poundage increased as well, from six pounds per setout to seven pounds, which is impressive given the much broader customer base.

According to Tyler Harris, county manager, successful implementation of a volume-based program requires a comprehensive educational and promotional campaign well in advance of program startup. "Convincing people of the need to change is the hardest part," he says.

Craven County's transition to volume based garbage collection appears to be working, as more people grow accustomed to the new routine. As one county official says, "People are just saying 'we're going to get by with one bag of garbage per week' — and they're doing it." ■

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