BEYOND YARD TRIMMINGS

CURBSIDE SORT FOR ORGANICS

CURBSIDE REPORT

Pilot scale projects are testing the viability and diversion potential of adding a separation for household compostables.

DRIVEN by mandated recycling goals and a desire to optimize capital investments in collection systems, a growing number of municipalities are examining the viability of expanding curbside programs by adding a sort for household organics. To date, only a few communities in Canada and the United States have proceeded with a full-scale system based on source separation of recyclables and compostables. Numerous others, however, have initiated pilot projects to test two, three and sometimes four sorts as part of a curbside program.

One of the more ambitious pilots, officially launched in May, 1994 in the Town of Markham, Ontario, is striving to reach a 75 percent diversion rate. The project includes about 3,500 households and businesses in the community of Unionville. The demonstration area is divided into an expanded Blue Box program and a blue bag area. The 2,300 households in the blue bag area are separating materials into three streams: Recyclables, compostables (food and yard trimmings), and garbage. About 900 Blue Box households received an additional box to handle an expanded list of recyclables. This area is only sorting out yard trimmings, setting them out in bags. All remaining household organics are put into the garbage stream.

The blue bag area has weekly collection for the compostable stream, and biweekly collection (on the same day as compostable pick up) for recyclables and garbage. A specially designed, 56 cubic yard truck fueled by natural gas is being used for the entire collection program. It is equipped with two compartments, each with variable compaction rates to accommodate the collection scheme. Residents in this area also had backyard composters available to them free of charge. Recyclables in the expanded Blue Box area are collected biweekly using a 46 cubic yard, nine compartment recycling vehicle that is expected to facilitate the source separation of recyclables at the curb. One goal of the pilot is to compare source separation of recyclables at the curb with commingled collection in the blue bag area and separation at the processing facility.

In the United States, New York City continues its pilot project with 3,500 households in the Park Slope section of Brooklyn. The pilot began in 1991. Residents separate food residuals, yard trimmings and other organic materials, setting them out in plastic bags for weekly collection along with recyclables. A packer truck is used for collection. The city's Department of Sanitation is studying expansion of the pilot to other boroughs.

In Hamilton, New York, a pilot serving 150 households — initiated in September, 1992 — is continuing. The compostable fraction, which includes food, wet paper and paper packaging, is placed in a clear bag and cocollected weekly with garbage.

In January, 1994, the Eastern Rensselaer County Solid Waste Management Authority (ERCSWA) in Stephentown, New York, conducted a one month source separation pilot with 2,100 households in the town of Pittstown. Residents receive curbside recycling service and the town has over a 95 percent participation rate. For the pilot, the compostable stream included food residuals, nonrecyclable paper, hygienic products like diapers and yard trimmings (because of the rural nature of the community, and the time of year, the authority only anticipated receiving household plant trimmings). Residents were asked to put compostables in brown paper bags, and set them inside a rubber or metal container at the curb. "We provided labels that residents could put on their container, but we didn't mandate that the containers had to be used," says Margretta Morris, executive director of ERCSWA. "If people chose to use plastic bags, it had to be a clear plastic bag and they would have to put a new sticker on every week. We provided an economic incentive, giving the first sticker for free. Every sticker after that cost $1.00. Therefore, we didn't get too many people using plastic bags."

Recyclables in bins, compostables in garbage cans, and garbage in plastic bags were all collected on the same day (weekly collection). The authority conducted an aggressive educational campaign prior to the pilot. About 90 percent of the households participated. The biggest challenge of the experiment — aside from below normal temperatures — was hauler education. "The truck drivers and collection crew should have been better indoctrinated," says Morris. "The contamination that we found in the material was not done by the residents but by the haulers. We found perfectly clean recyclables in the compostable material."

LAUNCHING TWO PILOTS

Two new pilot programs are expected to be launched in the fall of 1994, one in southern New Jersey and the other in Dakota County, Minnesota. Part of the National Audubon Society's Compost For Earth's Sake (CFES) program, the projects have cosponsors that include state food councils or grocers associations, Procter & Gamble

and the local communities. The collection portion of the pilots will run for 12 months, with an 18 month composting period.

The New Jersey pilot will serve 1,000 households in Cherry Hill and between 100 and 200 households in the city of Gloucester. Commercial establishments, including restaurants and grocery stores, will be part of the pilot as well. For residents, the compostable fraction will include food scraps, soiled paper, diapers, cat box filler, pizza boxes, etc. Materials will be placed in clear plastic bags with handle ties in a tall kitchen bin. Residents will be given the bins and one box of bags when the pilot is started; additional bags will have to be purchased. Participation in the program is voluntary.

The compostable fraction will be cocollected in a packer truck with yard trimmings on a weekly basis. Currently, Cherry Hill residents receive weekly curbside recycling and garbage collection service. (In the summer, however, garbage is collected twice a week.) When the pilot is launched, residents will set out all fractions on the same day. In Gloucester, trash, recyclables and the compostable/yard trimmings fractions will be collected on separate days. Yard trimmings in both communities will be collected in bulk (i.e. in open containers) or in kraft paper bags.

After several siting efforts, the project sponsors were able to lease a warehouse in Gloucester. To aid in the siting and public acceptance effort, a citizen's advisory committee was established, comprised of Gloucester residents. The committee will be active throughout the length of the pilot. The composting portion of the pilot will be run by Bedminster Bioconversion Corporation, based in Cherry Hill. It will be installing a minidigester. Bags containing compostables will be loaded into the digester, and screened out prior to windrow formation. The American Plastics Council, a cosponsor of the pilot, will examine recycling options for the bags. At this time, the yard trimmings to be cocollected with the compostables will not be processed at the facility. All composting and curing will take place inside the warehouse.

The pilot is expected to collect 40 to 50 tons/week of organics. About 80 percent of the tonnage will come from commercial sources and 20 percent from the residential stream.

The Dakota County pilot will serve about 1,200 households, mostly located in the town of Inver Grove Heights. Commercial organics will be collected as well. A three stream collection strategy will be used (compostables/recyclables/garbage), with residents sorting the same types of materials as the New Jersey pilot. One distinction is that the Dakota County program is planning to use biodegradable bags supplied by Cargill.

After a request for proposals, the CFES sponsors selected Browning-Ferris Industries to collect and compost the organic fraction. The company operates a composting site for yard trimmings at a landfill in Inver Grove Heights, and had been planning to expand its permit to accept other organic materials at the site. It is expected that 50 to 75 tons/week of materials will be generated by the source separation program.

Permitting for both pilots was in an advanced stage as of the end of June, according to Lauren Dechant of National Audubon Society, coordinator of the CFES program. Once the permits are received, the programs will first start with commercial generators, then after several weeks, will begin collecting from residents. The CFES program will collect data on all facets of program, including collection systems, compost recipes, materials handling, postprocessing, product quality and cost. In addition, generator and public acceptance will be evaluated. — N.G. ■

Two new pilot programs for fall, 1994 will be located in southern New Jersey and in Dakota County, Minnesota.