

L.R. Kimball helps Pennsylvania County make recycling facility self-sustaining

THE SITUATION

For a number of years, all of the municipalities in Lehigh County, Pa., have been bringing the leaves, grass clippings and other yard waste they collect to the County Organics Recycling Facility. At that location, the organic waste is ground and processed and then is sold as composting material to landscapers and others. Traditionally the state Department of Environmental Protection (DEP) has offered grant money to the county to cover 90 percent of the cost of equipment purchases for this facility. In 2007, however, DEP began notifying counties that they would need to make their recycling facilities self-sustaining, because less grant money was likely to be available in the future. Lehigh County sought to develop a method to share costs of the recycling process and facilities with the municipalities it served.

THE CHALLENGES

In 2004, Lehigh County officials had conducted a sustainability study, but the plan had not yet been implemented. Developing a fair and workable method of collecting fees for the facility's recycling services was difficult. The county needed to find a way to measure the amount of material brought into the facility, document the source of the material, and then determine how to charge for it and establish a fair fee structure.

THE SOLUTION

To analyze and research a long-term, sustainable funding mechanism, Lehigh County contracted with L.R. Kimball. The experts from L.R. Kimball reviewed the 2004 study and expanded upon it to begin implementation.

But early on it became clear that the municipalities were not likely to have extra funds to devote to the recycling facility. After considering a number of options, L.R. Kimball recommended that the municipalities contribute funds to the county based on how much material they

each brought to the facility for recycling. Put simply, those that used it the most would pay the most.

To make this plan feasible, the county decided it would pay 50 percent of the cost and try to recover the rest from the municipalities. To allocate costs among the municipalities, L.R. Kimball reviewed several methods. Ultimately, they recommended a system to charge individual municipalities for use of the facility based on the percentage of material received from and the services provided to each municipality.

- L.R. Kimball created a database of all the material brought to and sold from the recycling facility and accounted for usage and maintenance of equipment. Some municipalities operated their own facilities to initially grind the waste, but others needed to rent the equipment from the county to grind the material.
- L.R. Kimball calculated the assignment of fees based on equipment rental and the cubic yards of material unloaded.
- From this formula, quarterly invoices were prepared. L.R. Kimball developed software applications to send invoices to each municipality with their allocation of fees. The application also incorporated methods to bill landscaping companies who were delivering yard waste and buying prepared compost, billing them per cubic yard.



Project Overview

CLIENT

Lehigh County, Pennsylvania

GOAL

Develop a database and accounting method for the County Recycling Facility that leads to a sustainable operation

L.R. KIMBALL SERVICES

- Database and application software creation
- Consulting
- Planning assistance and development



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The new database and invoicing technology allowed the county to generate detailed annual reports to DEP and the municipalities, specifying the amount and types of materials delivered. Additionally, the county was able to review data weekly so it could plan for future operations. This information disclosed when yard waste arrived and when compost left the facility, the amount of leaves and other yard waste that could be expected in the fall, and other critical information.

L.R. Kimball's software applications provided Lehigh County with a full cost accounting system and database. Officials now know exactly what it costs them each year to operate the composting site and they can now more precisely determine the fee each municipality must pay to cover the cost of using this facility.

Implementing the Accounting Program

Early in the year, the total amount of fees necessary to pay for operation of the composting facility was unclear, so a price per cubic yard was assigned for individual drop-off of materials and sales on a volume basis, along with services provided on an hourly basis. The rates were based on the 2004 analysis of services, modified to reflect current budgets and recent facility history. Actual data from 2007 was entered into the database, and when the invoices were prepared, the county discovered that the total fees charged to municipalities would exceed 50 percent of the operational costs. Since the county did not intend to exceed this limit, the rate structure was changed so that the net fee collection would equal the anticipated shortfall between the budgeted operational costs of the facility and the actual annual costs.

Invoices were redrafted based on an hourly rate for actual service hours provided and using actual drop-off volumes. Fees were apportioned so that the municipality with the highest percentage of organic material drop-off would be invoiced that same percentage of the shortfall amount.

Developing a 10-year Plan

Subsequently, L.R. Kimball supported Lehigh County in the preparation of its 10-year plan for collection, transportation and disposal or recycling of waste, a plan required by DEP for all counties. Development of the plan involved a range of activities in which L.R. Kimball teamed with county officials, including:

- Helping the county identify the types of industries, businesses and communities that would be best represented on a county Solid Waste Advisory Committee. It was composed of representatives from the hauling and disposal industries, county commissioners, local municipalities and area non-profit organizations.
- Participating in a series of four meetings to discuss necessary modifications to the county's original 1996 solid waste plan, recommendations on what should be changed by regulation, other changes that had occurred in the county and a range of topics of concern to the committee.

- Preparing a revised solid waste plan for the county that addressed the concerns of all parties and that reflected reasonable expectations. The plan used current data to estimate future generation of waste and recyclables and laid the groundwork for contracting with landfills to dispose of non-recycled wastes.
- Gaining final approval of the plan draft and making appropriate revisions.
- Assistance with implementation of the final plan.

TARGETED RESULTS

The program for the composting facility and the ensuing 10-year plan resulted in significant benefits for Lehigh County.

- The database and software applications developed by L.R. Kimball helped ensure that the county facility would be self-sustaining and continue to operate, despite the potential loss of state grant money.
- L.R. Kimball's full cost accounting system and database enabled the municipalities to provide financial support for the facility based on the actual amount of material they delivered. Using this process, the municipalities agreed to pay quarterly invoices.
- The county was able to generate quarterly invoicing quickly and simply by entering data daily or weekly and automatically generating invoices for all municipalities. These procedures considerably simplified the staff work processes and the compilation of the DEP Annual Recycling Report.
- Municipalities received invoices that they understood, in a format that was familiar to them.
- Municipalities now had access to accurate and easy-to-compile data to meet the provisions of the Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act that requires collection of compostable materials.
- L.R. Kimball helped Lehigh County develop a realistic and actionable 10-year plan for disposal of municipal solid wastes.