

MGT-3

Integrated recycling system improves efficiency

Until recently, the yard waste recycling system at the Woody Waste Recycling Facility in Palm Beach County, Florida (1,131,200), was costly and inefficient. Workers would pull the bags of waste from the delivery trucks, shake each bag out by hand, and remove each plastic trash bag from the waste stream. They would then spread the waste on the ground to identify and remove non-recyclable materials. In addition to its inefficiency, this system produced wear and tear on both equipment and the surfaces on which the work was done. To address the deficiencies in its yard waste recycling system, the county designed a new integrated system that has substantially reduced costs.

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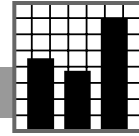
Implementation notes

Leadership/staffing Pat Byers, assistant director of the county solid waste facility's engineering department, led the effort to design and put together a new yard waste recycling system. Solid waste facility staff worked with a consultant to design the new system.

Timeline Construction on the system began in May 2000, and the system began operating in October 2000.

Budget/funding The project cost \$1.75 million and is saving the county approximately \$650,000 a year, the amount formerly spent just to have the material ground by an outside vendor. The solid waste facility expects the system to pay for itself in four years.

Program description The new system integrates all of the separate steps formerly performed by the solid waste facility and outside vendors. Now, three temporary employees (instead of the eight who were formerly required) can pick out the non-recyclable materials as the material flows by on a conveyor belt. The system then grinds and screens the material. The resulting product is taken to a composting facility, where it is mixed with biosolids (primarily wastewater sludge) and composted for use in horticultural mixes and construction projects. The solid waste facility selected a vendor that could provide



components made by a single manufacturer and that would offer a guarantee on throughput. The facility reasoned that the components of a single manufacturer would function together most efficiently and would be easier to maintain. Although other solid waste facilities have assembled integrated systems from mobile parts, this may be the first integrated system built from the equipment of a single supplier.

Results The new system no longer requires any outside vendors and, as a result, can be run by two fewer permanent staff members than the old system. Not only does the system save a considerable amount of money, but it has also improved the quality of the product and, thus, of the resulting compost.

