

St. Paul Public Schools Incorporates Food-Waste Recycling Program

ST. PAUL, MINNESOTA

Before implementing food-waste recycling into cafeterias, St. Paul Public Schools (SPPS) managed food waste in trash dumpsters and down garbage disposals and sink drains. The dumpster was emptied by a trash hauler and managed at the waste-processing facility in Newport. However, food waste is wet and heavy and becomes either a low-quality fuel or is separated as residue destined for landfills. Thus, SPPS decided to implement a more sustainable food-waste recycling program.

A cafeteria-waste-composition study at Maxfield Magnet School found that 82 percent of waste by weight is composed of food waste. Of the food waste generated, the study suggests that about 54 percent is solid food and 46 percent is milk and juice. Overall, by adding the food-waste recycling program, about two-thirds of the tons of food-waste recycled is being diverted from landfills and about one-third from the sewer system.



To implement the program, food-waste recycling tables were established in 50 district sites. In the schools' cafeterias, the food waste is sorted into buckets to be used for livestock feed. Student helpers keep the project sustainable. They make sure that only food and beverage waste ends up in the barrels for livestock feeding, and napkins, forks and other trash are put into the garbage.

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To educate students, faculty and communities on food-waste recycling, a video titled *Cafeteria Food Waste Recycling: How to Turn Elephants into Pigs!* was created through a grant. The video is currently available to view online at www.sppscafe.org/Food_Waste_Recycling.html. The District Resource Management Staff reference the educational video during opening week meetings, green team meetings and all training sessions.

Continuing costs are dependent upon the success of the program and the number of barrels picked up annually. The return on investment is imbedded in the bidding process for the solid waste contract. Bidding out of food-waste recycling provided a bid of \$3.65 per barrel at no tax.



To establish a fair price for disposal, the trash contract included a requirement that the trash hauler and SPPS would work jointly on a field study to measure waste density of the trash from schools. The most important variable was to compare trash dumpster density for schools with food-waste recycling versus schools without it. The study results showed trash density being significantly lower in schools with food-waste recycling programs.

Removal of higher-density elements from the solid-waste contract allows for right-sizing of the service. Reduction in dumpster size or frequency is currently being evaluated and implemented. Based on preliminary research, SPPS is expected to save approximately \$70,000 per year solely from the ability to right-size solid-waste services. Overall, the dollar savings are expected to be very significant.