

WASTE STREAM ANALYSIS IN THE FARM COMMUNITY:
SOLID WASTE ESTIMATION IN MCDONOUGH
COUNTY, ILLINOIS

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ABSTRACT

Solid waste management is becoming a matter of increasing importance for state and particularly local governments. As landfills close because of more stringent federal regulations and per capita waste generation continues unabated, communities are forced by economic reality, state legislative mandate, or both factors to implement alternative waste management practices.

Before a community can begin managing its solid waste in new ways, it must first know how much and what kind of refuse its residents are generating. In areas where organized waste management is universal, namely the cities, the community's planner may be able to draw upon traditional sources of waste information such as haulers and public records to formulate a basis for estimating a waste stream. But in areas where collection is not widespread, as in most of the farm community, the planner may need to resort to other data gathering techniques.

Waste stream estimation in the farm community requires a different approach than in urban areas. For example, in the absence of traditional solid waste information sources, field studies may be more of a necessity as a means of developing a reliable source of base data.

This investigation focuses on waste estimation in the farm community. Its purpose is to determine the quantity and composition of solid waste generated on farms in

McDonough County, Illinois. In order to accomplish this task, a series of field studies were undertaken in the planning area, including a survey of farm operators, a weight-only refuse sampling, and a waste composition study.

Using information collected in these field studies, base data were established from which an estimate of the overall farm waste stream was made. Among the findings of the study: the overall per capita generation rate is 2.1 pounds daily; livestock farms generate about 58 percent more refuse than do grain operations; farm refuse is characterized by a higher than normal (compared to urban households) quantity of ferrous metals and aluminum waste; nearly 70 percent of farm refuse is landfilled, about 10 percent is recycled, over 13 percent is incinerated, and nearly 7 percent is disposed of by on-site storage.

The quantity of farm refuse that is generated is not large when compared to the urban waste stream; nevertheless, it represents a considerable amount of discarded material that must be managed in one way or another. In today's fast-changing regulatory environment, waste planners and public officials alike may eventually be forced to pay closer attention to the refuse generated on farms.