

# Zeroing in on Waste

By Guy Crittenden

Like drifting continents, a slow-motion collision of two opposing philosophies about waste is currently underway in North America. Understanding what's at stake is crucial for anyone in the waste management and recycling business, which is being rattled by seismic shifts.

On one side is "integrated waste management" (IWM), an approach that seeks to optimize the efficiency of waste diversion activities like composting and recycling in coordination with disposal, which may include incineration (preferably to co-generate power) and landfill (if only for ash). Dutch IWM proponents recently made presentations to the City of Toronto about their modern technologies and included waste-to-energy in their high "diversion" numbers.

IWM appeals to private sector and municipal waste managers who must cope with the ever increasing flood of material that comes their way. IWM proponents accept some flattening out the 3Rs hierarchy, since they don't control the first two Rs: reduce and reuse. They have a job to do, right now, and must answer to budget overseers or stock analysts, fluctuating markets for recycled commodities, and limited or declining disposal capacity.

The other side is Zero Waste, a movement that originated among environmentalists and academic think tanks; its core idea is that what we call "waste" is actually the inefficient allocation of resources and energy. Even if incinerators were proven safe and landfill space was abundant (the IWM wet dream), Zero Waste proponents would argue against them. We're consuming and discarding more and more resources, they say, and our focus on recycling and disposal systems (even new "gee whiz" technologies) is actually making matters worse.

The Holy Grail for Zero Waste proponents is **extended producer responsibility** (EPR) -- a term coined by a professor from Sweden where, ironically, energy-from waste is popular. True EPR connects producers with the downstream fate (and costs) of their products and packaging, and the price signal creates a virtuous cycle: internalization of the full costs of materials over their complete lifecycle drives eco-efficiencies up the value chain, culminating in design for the environment.

The economic premise of EPR is fundamentally sound and surprisingly consistent with free market ideas. Unfortunately, the best ideas from the Zero Waste movement have sometimes been confused with woolly central planning policies and the discredited command-and-control approach to regulation, with which they have little in common.

Fortunately, the Zero Waste argument has finally been laid out cogently in a paper published by the **Product Policy Institute**

based in Athens, Georgia. Authors Bill Sheehan -- former director of a Zero Waste coalition -- and Helen Spiegelman (a board member of the respected British Columbia environmental group SPEC) titled their paper "Unintended Consequences: Municipal Solid Waste Management and the Throwaway Society."

Sheehan and Spiegelman note that the municipal solid waste management system was established a century ago to protect public health but evolved in such a way that it provided an indirect subsidy to the "throwaway society," collecting (at taxpayer expense) all the detritus of the consumer culture and making it "go away." Rather than proselytize ordinary people to recycle more (an IWM habit), Sheehan and Spiegelman instead suggest that corporations and consumers are behaving in a rational way. With no price connection between production and disposal, it's predictable that industry would shift over the past half century toward the manufacture of expedient, disposable products, often made from non-renewable materials and energy. (A disposable plastic razor is a good example, as is a "recyclable" plastic soft-drink container.)

The authors state that if this subsidy ended (i.e., if municipalities stopped collecting the stuff) the (seemingly) free ride for these materials would stop and EPR would ensue.

The authors analyzed the U.S. EPA's extensive waste characterization data over the 41-year period from 1960 to 2001 to compare patterns in the generation, recovery and discards of product and non-product wastes (e.g., organics). They observe that the municipal waste management system "has been least effective in reducing manufactured product wastes, and most successful in managing certain community generated biowastes."

"The waste stream managed by local governments changed from one dominated by coal ashes and relatively homogeneous food wastes a century ago, to one dominated by product wastes today. Currently, product wastes comprise 75 per cent of MSW by weight, and 89 per cent by volume," they write.

Sheehan and Spiegelman note that "Recovery of yard trimmings is the big success story" and suggest that organics processing could remain a municipal service. But they advocate EPR for product waste and note that the recycling rate for many materials has plateaued.

I don't know how the collision of IWM and Zero Waste is going to unfold. It may be that IWM is the best we can do for now and that implementation of full EPR will be a task for the next generation. In any case, you owe it to yourself to read this lucid paper, and you can do so by looking under the Posted Documents button on our website at [www.solidwastemag.com](http://www.solidwastemag.com)