

Rachel's Environment & Health News

#29 - Recycling Is Hampered; It Can't Compete With Low-Cost Landfills

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In most U.S. cities, landfills are priced artificially low in the sense that the full costs of operating the landfill are not reflected in the "tipping fee," which is the fee that users of the landfill pay. The underpricing of landfills is a problem because landfills contaminate the environment, but--even more important--it is a problem because cheap landfills make the waste stream larger than it would otherwise be because recycling and conservation are rejected in favor of artificially cheap landfilling. Furthermore, the underpricing of landfills represents a subsidy to the landfilling business (a subsidy paid by government, or by the general public) and this subsidy gives the landfill business an unfair advantage, a competitive edge in the marketplace, which has the effect of discouraging private initiative in the development of disposal alternatives.

These arguments are put forth in a new report by economists at National Economic Research Associates (NERA), a private economic consulting firm. The report presents arguments that citizens can take to city hall.

The solution to the underpricing of landfills is simple (at least in principal): the tipping fee should be raised until it includes the full costs of running a landfill. Under those circumstances, people have strong reason to look for alternatives, like not making so much garbage in the first place, or recycling their garbage and selling the valuable parts rather than shipping them to a landfill.

There are three costs of running a landfill that are usually not included in the tipping fee: (a) the opportunity cost of land; (b) the depletion cost of older landfills; and (c) environmental damages.

The opportunity cost of land is the value of what else could be done with the land if it weren't being used for a landfill. The opportunity cost of land actually should be calculated into the future because a landfill cannot be used for any other purpose for a decade or more after it is closed. The subsidence of the landfill as organic matter decays within it, and the production of methane gas from the decay of organic matter, make a recently-closed landfill a dangerous place, so it cannot be used safely for other purposes.

The depletion cost of a landfill can be understood this way: existing landfills have a limited capacity and eventually any landfill becomes full and has to be replaced. These days, the replacement is always by a higher-cost facility, such as a "resource recovery" plant (an incinerator). Thus each ton of garbage put into a landfill hastens the day when a higher-cost replacement facility will be needed, and that is one of the costs of running a landfill.

The third cost, the environmental cost of running a landfill may be very large indeed, but at a minimum it includes the cost of the nuisance a landfill represents (attracting pests, such as sea gulls; production of odors; reduction in neighborhood aesthetics; surface water pollution; and ground-water pollution). These costs are hard to quantify (until citizens bring a lawsuit and the court awards them damages), but these are nevertheless real costs and an attempt should be made to incorporate them into the tipping fee.

Based on close analysis of landfills run by the City of New York, NERA's economists have come up with conservative (thus probably low) estimates of the true costs of running a landfill. Their analysis is conservative in the sense that they did not calculate the opportunity costs of land out into the future after landfill closure, and they figured the cost of environmental damage as simply the cost of an insurance policy to insure against the damage.

Despite these low estimates of costs, the authors say a tipping fee that accurately reflects the actual costs of landfilling should be \$35 per ton. They then present actual tipping fees being charged around the country: in New Jersey, they range from \$16 to \$32 per ton; in New York they range from \$19 to \$40 per ton. In Connecticut they range from \$15 to \$50 per ton. In Chicago: \$13; Dallas: \$5; Detroit: \$5.25 to \$9; Houston: \$4; Indianapolis: \$11.75; Los Angeles: \$10 to \$12; Memphis: \$5.50 to \$7.90; Phoenix: \$10 to \$14; San Antonio:

\$7.35; San Diego: \$8.00. Small wonder that landfilling is a popular technology--it's cheap because the true costs of using a landfill aren't being paid by the people using the landfill.

The authors point out dangers associated with higher tipping fees: (a) rates should probably be raised over a several-year period to minimize the shock and let people adjust to the new reality of expensive dumping; (b) proper pricing may make it appear that governments are making profits on dumping and this can cause political problems; (c) increased rates may lead to increased illegal dumping, so increased law enforcement will be necessary as tipping fees rise; and, lastly, if tipping fees are regulated by boards of public utilities (or other public bodies) these bodies may prevent haulers from passing on the increased tipping fees to their customers, in which case the real source of the problem (the haulers' customers) will not get the correct economic signals.

This clearly-written report is available from National Economic Research Associates, 123 Main St., White Plains, NY 10601; phone (914) 681-7200; ask for "Underpricing of Landfills," by Mark Berkman and Frederick Dunbar.

--Peter Montague

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EPA'S LANDFILL RESEARCH PROGRAM

Of interest to landfill fighters: "Briefing Document for Science Advisory Board Review of [EPA's] Land Disposal Research Program."

Write Bob Steinberg, EPA, 26 West St. Clair St., Cincinnati, OH 45268; phone (513) 569-7490.

--Peter Montague

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Descriptor terms: landfilling; epa; epa science advisory board; landfilling; costs; national economic research associates; water pollution; methane; groundwater; ny; nj; ct; il; tx; ca; tn; az; illegal dumping; regulation;