

RECYCLING'S RECORD

By Allen Hershkowitz



A small but vocal chorus of antienvironmental interests have tried to cast doubt on the value of recycling, perhaps the most widely practiced and most basic of all environmental policies.

Certainly the most prominent attack on the nation's growing commitment to recycling was a lengthy cover story, "Recycling Is Garbage," published in the *New York Times Magazine* on June 30, 1996. In it, John Tierney, a staff writer for the magazine, argued that most recycling efforts are economically unsound and of questionable environmental value. Tierney described recycling as perhaps "the most wasteful activity in modern America."

The *Times Magazine* article was a challenge to all Americans committed to environmental protection.

Obviously, not all the materials found in the municipal waste stream can be recycled, nor can all consumer products be made from recycled materials. But the United States is far from those practical limits. A much higher percentage of materials now discarded in the U.S. waste stream can be recycled, and the environment would certainly benefit if many of the products now made from virgin resources were manufactured from recycled resources instead.

Virtually every issue put forth by those who take the antirecycling position has been subject to thorough review and debate, producing volumes of research. Rarely do the facts support the antirecycling stance.

The most obvious and well-known advantage of recycling is that it leads to less garbage being buried in landfills, and environmental problems are the major reason more than 10,000 landfills have closed in the United States in the past fifteen years.

Landfills are neither simple, cheap, nor environmentally safe. Landfills generate hazardous and uncontrolled air emissions and also threaten surface and

groundwater supplies. Landfills have contaminated aquifer drinking water supplies, wetlands, and streams throughout the United States—indeed, throughout the world—and many continue to do so. The list of toxic and hazardous chemicals emitted as gas or leaching as liquid from literally thousands of landfills defines a waste management option with wide-ranging pollution impacts.

More significant, and again contrary to the impression one gets from reading antirecycling reports, even those landfills that use liners to protect against subsurface water pollution report troubling problems. A recent summary of industry experience with landfill liner technology drew the following conclusions: "Early experience in the use of geomembrane-lined sites showed that many *many leaked*. More recent experience indicates that even with strict construction quality assurance supervision, *many still leaked*." Moreover, the leachate collected by the groundwater protection technology has to be captured, stored, pumped into a transport vehicle, and taken to a private or publicly owned sewage treatment plant.

In addition to mistakenly claiming that landfills are environmentally safe, those who argue against recycling contend that landfill space is widely available and cheap. According to the Reason Foundation, "The landfill crisis is a political crisis, not an environmental one."

Editor's Note: In the *New York Times Magazine* last year, John Tierney presented recycling as merely a "rite of atonement for the sin of excess." His article spurred an 86-page response by the Natural Resources Defense Council, selections of which are printed here. On page 5, Clark Wiseman, an economist with Gonzaga University, takes a less apocalyptic view.

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The three most substantial reasons accounting for the increase in landfill availability are: (1) recycling has grown and now diverts almost 24 percent of the nation's municipal waste stream to other, economically productive uses, (2) developers invested in new landfill capacity, anticipating very high financial returns as thousands of facilities closed due to environmental problems, and (3) recycling of yard waste has grown from virtually zero to 20 percent between 1985 and 1993. *Recycling thus accounts for two of the three most important causes that have produced new landfill capacity.*

The number of states with landfill capacity extending beyond the next five years rose slightly, from forty-two in 1986 to forty-eight in 1995. Viewed from this national perspective, existing landfill capacity in the United States today is not all that different from that in 1986. What has changed since 1986 is that thousands of environmentally dangerous landfills have closed, so the proximity of landfills to waste generators has been reduced. This results in more vehicle miles traveled to dump garbage, more costly time on the road for haulers, increased wear and tear on trucks, etc. According to the National Solid Waste Management Association, from 1988 to 1991 the number of landfills in the United States declined by 62 percent (-4,682).

Even if landfill capacity were as cheap and available as some insist it is, it would be unwise to bury valuable, already refined materials that took energy, resources, and money to produce when they can instead be productively recycled.

Compared with traditional garbage collection, expenditures on recycling efforts are invariably smaller and offer the potential to generate their own revenue stream, even if they do not always break even. As Michael Shapiro, the EPA's director of the Office of Solid Waste, observed recently:

...A well-run curbside recycling program can cost anywhere from \$50 to more than \$150 per ton of materials collected. Typical trash collection and disposal programs, on the other hand, cost anywhere from \$70 to more

than \$200 per ton. This demonstrates that, while there's still room for improvements, recycling can be cost-effective....

Whatever subsidies exist for recycling efforts pale in comparison with, for example, the hundreds of billions of dollars in subsidies provided to virgin-resource processors over the past century and which continue to this day. The virgin-based forest products, mining, and energy industries have all been—and remain—beneficiaries of both direct and indirect subsidies and tax breaks. Some examples include percentage-depletion allowances, which are intended to promote resource exploration, below-cost timber sales from federal lands, U.S. Forest Service research donated to industry, write-offs for timber management and reforestation costs, and below-cost mining leases based on an 1872 law. And these subsidies do not include the many exemptions from environmental laws that the virgin-resources industries enjoy, allowing them to externalize costly burdens to the environment. The few and comparatively meager subsidies that the recycled-materials infrastructure receives represent a fair effort to level the competitive playing field, though to do so meaningfully will take decades.

Opponents of recycling claim that shipping wastes to a landfill is economical. But as of 1995, the costs for landfilling wastes in the United States—not including collection, processing, and transport—varied by more than 300 percent, depending on the region and the technology employed at the facility. Thus, it is impossible to claim, as the antirecycling interests do, that relying on a landfill is—and always will be—the cheapest waste management option.

It is complicated to establish financial accounting equivalents for the dissimilar costs and benefits recycling and landfilling engender. No full life-cycle-cost accounting protocol that conforms with generally accepted accounting principles has been established that convincingly monetizes and compares these dissimilar costs and benefits. Sometimes advantages accrue at the local level that benefit recycling; sometimes revenue from recycling is less cost-competitive.

In fact, however, tipping fees at landfills have been increasing at more than twice the rate of inflation every year since 1986 in virtually every region of the

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United States (overall they increased by 300 percent since that time), and they are expected to continue to rise by 7 percent per year (more than double the projected rate of inflation) for the foreseeable future.

Far from trashing recycling and impugning the motives of its proponents, all sectors of the polity would do well, materially and spiritually, to embrace

and help advance the sustainable, community-building, natural harmony it promotes.

Dr. Hershkowitz is a Senior Scientist with the Natural Resources Defense Council. This excerpt is from "Too Good to Throw Away: Recycling's Proven Record." The full report is available from NRDC, 40 West 20th Street, New York, NY 10011, for \$7.50 plus \$1.45 postage.