

Rational Solid Waste Management in New York

December, 2001 Citywide Recycling Advisory Board

In a time of renewed budget constraints and increased pressures on our urban air quality, it is imperative that the City invest its solid waste dollars wisely, and in such a way that we don't make matters worse. This review clarifies our current situation and what this means for the City, and proposes some solutions that the City can take to reduce costs and environmental impacts of managing our waste. These recommendations are long held by the Manhattan Citizens' Solid Waste Advisory Board (MCSWAB), established pursuant to Local Law 19, the City's mandatory recycling law. MCSWAB stands ready to advise on City solid waste matters.

THE HIGH COST OF EXPORT

Economic Cost

In 1996 the City decided, without any prior planning, to close our last city-owned disposal site: Fresh Kills landfill. Since the phase-out of the landfill began, the Department of Sanitation (DOS) budget has ballooned, due to the cost of exporting our garbage. The overall DOS budget is now approaching \$1 billion. Trash disposal costs have almost quadrupled from \$29 million in 1998 to \$105 million in 2000, and are expected to double again to \$227 million by 2002.* The City's 1992 Solid Waste Management Plan (SWMP) identified waste prevention as the least expensive means of managing waste. DOS's figures show that its waste prevention programs have cost about \$27 per ton vs. \$95 per ton for long-term waste export.† But less than 1% of DOS' budget is invested in waste prevention, with 5% for recycling.

* NYC Independent Budget Office, Newsfax #77.

† SAIC Waste Prevention

reports, <http://www.ci.nyc.ny.us/html/dos/html/recywprpts.html>, , Table 4.2-1. Oct, 2000

Environmental Cost

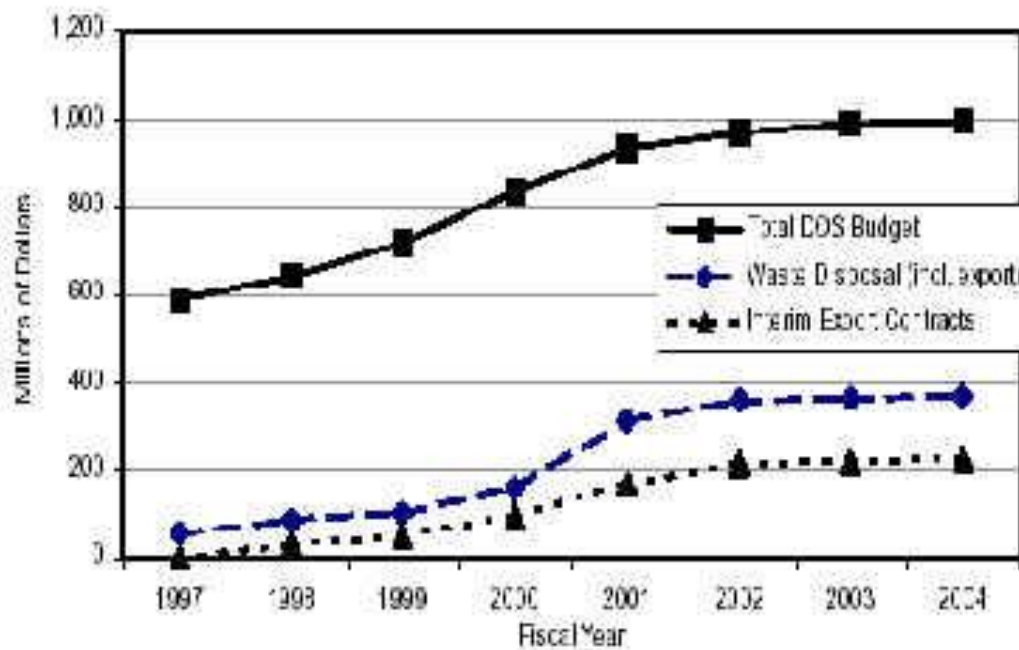
The phasing out of Fresh Kills landfill also meant phasing out the efficient barge transfer system, increasing truck traffic through city streets, bridges, and tunnels. DOS packer trucks collect 16,800 tons of residential solid waste and recyclables each day making 1,680 round trips. Tractor-trailers that now export residential

solid waste and recyclables make an extra 840 round trips each day.‡ Commercial waste packer trucks traverse the same streets and collect 28,200 tons per day of solid waste and recyclables from commercial establishments, making 2,820 round trips. Export of commercial solid waste and recyclables require tractor-trailers to make 1,410 round trips per day or half a million trips per year.

‡ DOS Residential Diversion Report, March, 2001

Before Fresh Kills was closed, there were several marine transfer stations that barged residential and institutional waste to the landfill. Now all solid waste goes to 78 privately owned transfer stations in New York City. There have been long lines of idling trucks at these and the previously used marine transfer stations. These increased truck trips and idling outside transfer stations have increased air pollution, driving up asthma rates, not only in communities near the transfer stations, but throughout the city. The increase in truck traffic also adds to the economic costs of waste export by hastening the deterioration of infrastructure.

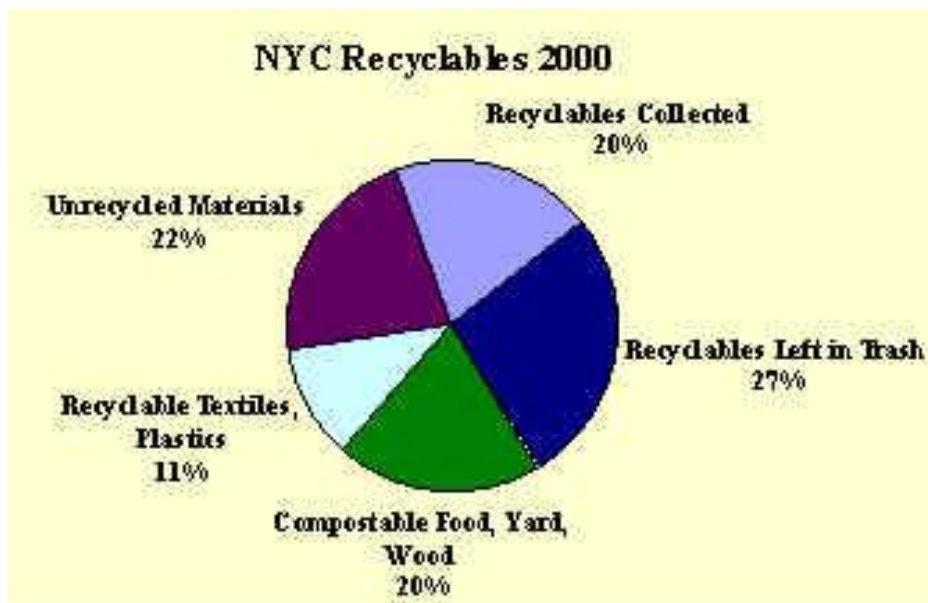
Export Contracts Under the Interim Plan Will Consume Nearly 25 Percent of DOS's Annual Budget



SOURCES: Independent Budget Office; Department of Sanitation; Comptroller's Annual Financial Report
 NOTE: Figures for 2001 through 2004 are 100% projections.

We are relying heavily on one contractor for export

The long-term solid waste management plan depends to a large extent on a single, yet-to-be built facility in Linden, New Jersey, plagued by court suits and delays, with half of the city’s garbage to be exported through this one facility. The plan fails to identify export alternatives in the event that the Linden facility is not built or if it experiences an interruption in operations. The company proposing to build this facility has stated its intention to also bid for the balance of the City’s waste stream, in which case the City could be reliant on a single facility for nearly all of its export needs. In addition, the long-term plan also fails to address the commercial waste stream, which accounts for fully one-half of the garbage produced in NYC.



Is it smart to export 80% of our trash?

The City’s 20% recycling rate is partly due to the fact that more than half of the recyclables are thrown in the trash - the result of inadequate education, and weak enforcement. In addition, the City targets less than half of the waste stream for recycling, even though it is approximately 20% clean organics (food and yard waste, wood), and 11% of it is textiles and mixed plastics. A 1990 City waste compostion study indicated that 80% could be recycled. The City’s waste prevention program is also not ambitious, and many opportunities for reduction and reuse are not being taken.

Missed Opportunities

Waste Generation / Prevention

The City has missed many opportunities for reducing waste generation, even though its own 1992 Solid Waste Management Plan (SWMP) identified waste prevention as the least expensive means of managing waste. DOS has not implemented its own consultants' recommendations, as well as those made by the solid waste advisory boards, including "leave it on the lawn" and "pay as you throw" pricing to encourage conservation.

New York City has not achieved the State's 10% waste prevention goal, for 1997, and has not demonstrated how it will be achieved.

Recycling

Non-compliance with City law. The City has not achieved the rate of recycling required by Local Law 19, passed in 1989. Residents and institutions are diverting 20% of their waste for recycling - less than the 25% mandated to be reached by 1994.

Contamination. Included in the City's 20% recycling rate is garbage thrown into recycling receptacles. DOS has stated that contamination of glass, metal and plastic is as high as 30% and contamination of paper is about 5%.

Lost recyclables. Roughly 27% of the contents of black (garbage) bags is estimated to be currently-targeted recyclables.

No public space recycling. There is no systematic recycling in the City's parks, subways, or streets.

Lack of recycling by the commercial sector. Regulations requiring recycling by the commercial sector are outdated and poorly enforced. Even when commercial generators participate properly by setting out source-separated recyclables for collection, these materials are often not recycled by the carters who pick them up. Most of private, in-city capacity for separation of commercially-generated metal, glass and plastic has been dismantled because waste companies have made space to handle lucrative residential waste export contracts under the City's interim export plan.

Weak enforcement. Recycling enforcement is severely understaffed; enforcement personnel also enforce other sanitation codes (littering, etc.) Enforcement officials do not routinely check black bags in apartment buildings for recyclables, probably the greatest source of violations.

Composting

- About twenty percent of the City's discards is clean organic material, suitable for composting. Composting saves disposal costs, can generate revenue, and is the environmentally superior way of handling organic waste. A number of successful composting pilots have been operating in the city for a few years.
- The City has delayed spending \$20 million previously earmarked delaying composting facilities from 2003 until 2010.
- The City's successful leaf composting program is jeopardized by lack of a permanent suitable site.

Some Sustainable Solutions

We Need New Priorities

The City's Independent Budget Office calculates that recycling is becoming cheaper than disposal, and according to DOS's own 1992 plan, waste prevention is the least expensive option of all (\$27/ton vs. \$95/ton for export). The next Solid Waste Management Plan (due in 2002) should include:

- commitments to achieve 10% waste prevention and 40% recycling and composting by 2007 with commitments to implement specific programs and legislation to achieve these goals;
- alternatives to the interim truck-based export plan, in the event that the planned Linden facility is not built;
- measures to reduce impacts of commercial waste truck traffic (i.e. more efficiency and integration of commercial and residential truck routes and facilities);
- all measures included in Intro 482, the City-wide Environmental Procurement and Agency Waste Prevention Practices bill; and
- measures to resolve all issues in NYS Department of Environmental Conservation's comments on the City's Solid Waste Management Plan.

In addition, The NYS Solid Waste Management Act should be revised (or a new

waste management act, on the City level, promulgated) to establish waste prevention, recycling, and composting mandates, require the City to design and implement sufficient measures to achieve mandates, and require the City to demonstrate it has achieved its Plan commitments.

Reduce the Pollution

- Now that exported residential waste is going to the same disposal facilities as commercial waste, the City should seek to combine the transfer of these wastes in a barge- and rail-based system.
- Dual-bin collection vehicles allow for collection of two recycling streams with a single truck, improving collection economics while reducing truck impacts. The City should procure more dual-bin trucks for all suitable districts.
- The City should experiment with alternative fuel vehicles for its own fleet and develop a plan to encourage or require similar investment by private carters.
- DOS should stagger collection shifts to reduce queuing of trucks outside of transfer stations.

Waste Prevention Solutions

Launch Quantity-Based User Fee (QBUF) ((Pay As You Throw)) Pilot Project. More than five thousand cities and towns in the U.S. have instituted QBUFs for municipal waste collection and disposal services. Such quantity-based fees provide citizens with a financial incentive to reduce and recycle. USEPA's research has shown QBUF programs typically result in a 10% increase in recycling, and that a QBUF is the single most effective initiative a municipality can use to prevent waste and increase recycling rates.* We need to pursue steps toward implementing QBUFs:

- make sure that building/home owners know how much of their taxes are used for garbage services annually;
- study how other QBUF cities handle any problems that arise, and adapt the system to New York City;
- institute QBUF pilot programs in neighborhoods with varied housing stock, to identify and resolve any problems;
- design, test and evaluate a high-rise garbage meter for use in a pilot residential project that would assess tenants according to the quantity of service they use.

*<http://www.epa.gov/epaoswer/non-hw/payt/pdf/wn1196.pdf>

Reuse programs New York City has the potential to prevent thousands of tons of high quality materials from entering the waste stream. Expand successful pilot programs like Materials for the Arts, and WasteMatch to be available to all New Yorkers and all businesses.

Expand Durables Repair Vocational Training

The "Recycle A Bicycle" pilot program, at a nominal cost, has taught marketable skills to students, kept useful products out of the waste stream, provided repaired bicycles, free, to non-profit groups and the youth who repair them.

The successful program should include:

- repair and restoration of other types of durables: furniture, appliances, computers, etc.;
- placement of students who complete training in apprenticeships in repair businesses.

Recycling Solutions

Ease participation, strengthen enforcement, lessen contamination

- Revise recycling regulations to optimize ease of participation and enforcement (e.g. require sufficient recycling bins in apartment buildings), and to reduce contamination.
- Increase enforcement funding and expand its focus to include recyclables that are improperly thrown away. Costs of enforcement would be offset by fines received, and the quality and quantity of recyclables would increase, reducing processing and waste export costs.

Expand public education and outreach

- Increase budget to a minimum of \$1 per resident / year.
- Put all of DOS' educational materials online.
- Use approaches to appeal to different cultures.

Institute public space recycling programs in parks, subways, and other areas with high levels of pedestrian traffic.

Improve commercial recycling

- Inspect office buildings and commercial establishments, and enforce compliance with recycling requirements.
- Revise commercial recycling regulations to make them effective and enforceable (add new materials where markets exist).

Composting Solutions

- Undertake innovative new pilot programs to test methods of economically collecting the large food waste segment of the waste stream for composting.
- Target nonprofit institutions and government facilities, such as schools and hospitals, which are particularly suited for food waste collection and composting.
- Site new, in-vessel composting facilities utilizing food, or food with other organics, in and outside of New York City; re-examine the previously proposed in-vessel compost facility in Newark.
- Invest the \$20 million set aside for centralized composting facilities as soon as possible.

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