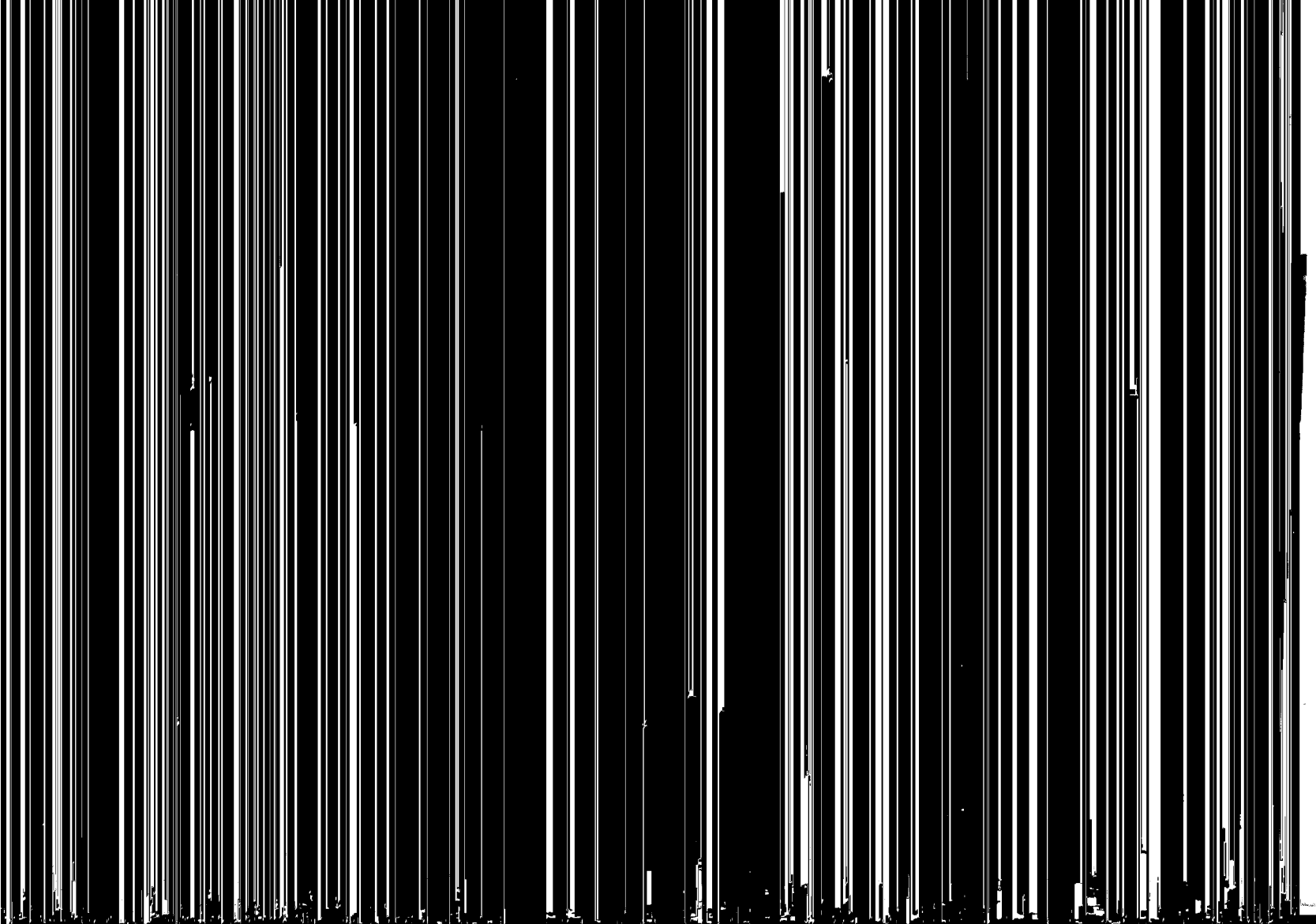


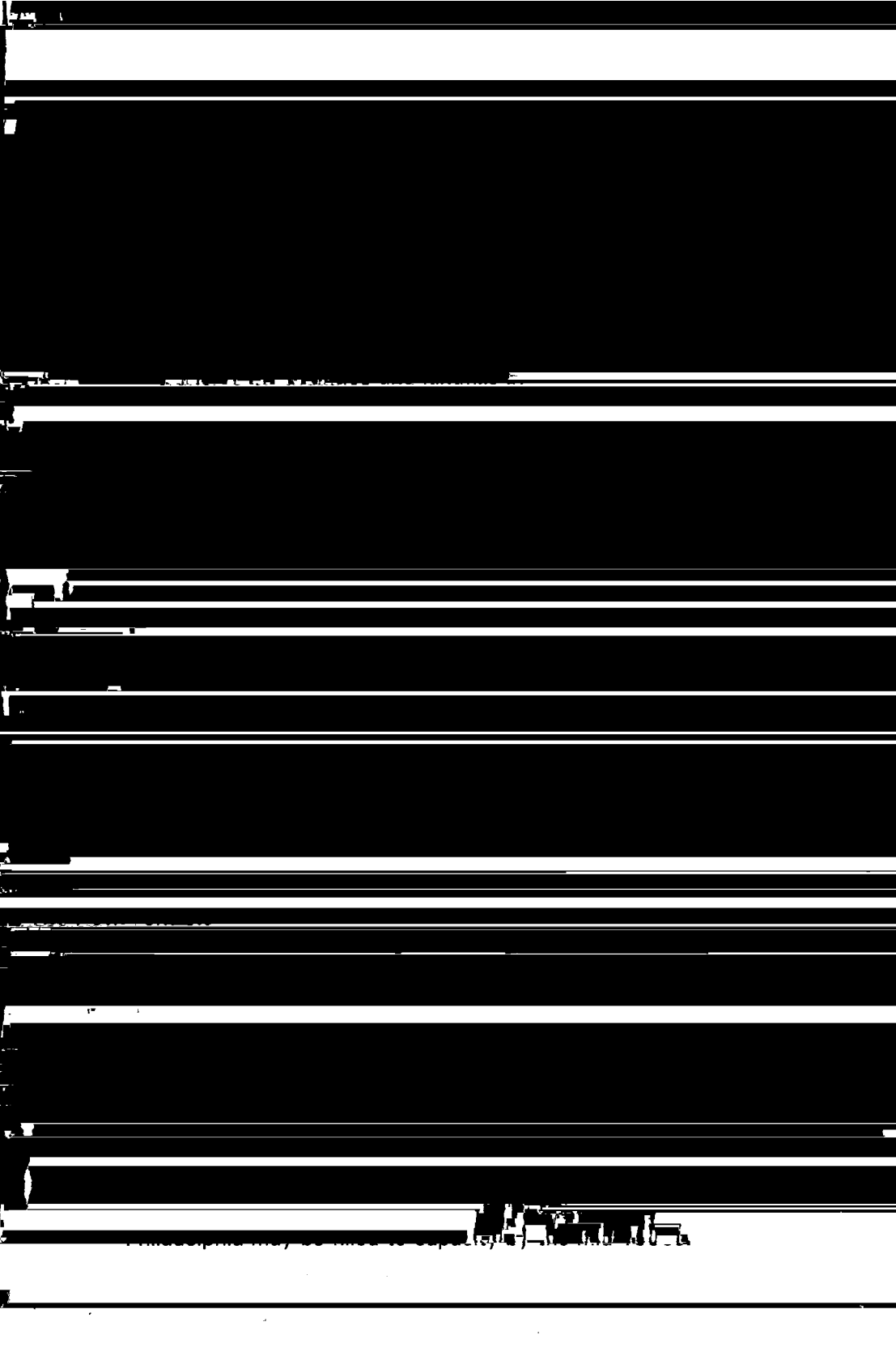
Reporting on Municipal Solid Waste: A Local Issue

Environmental Protection Agency under Grant No. X815290-03 to the Solid Waste Association of North America (SWANA). It has been subjected to the Agency's peer and administrative review and has been approved for publication. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

6. Estimates of Post-Consumer Plastic Packaging

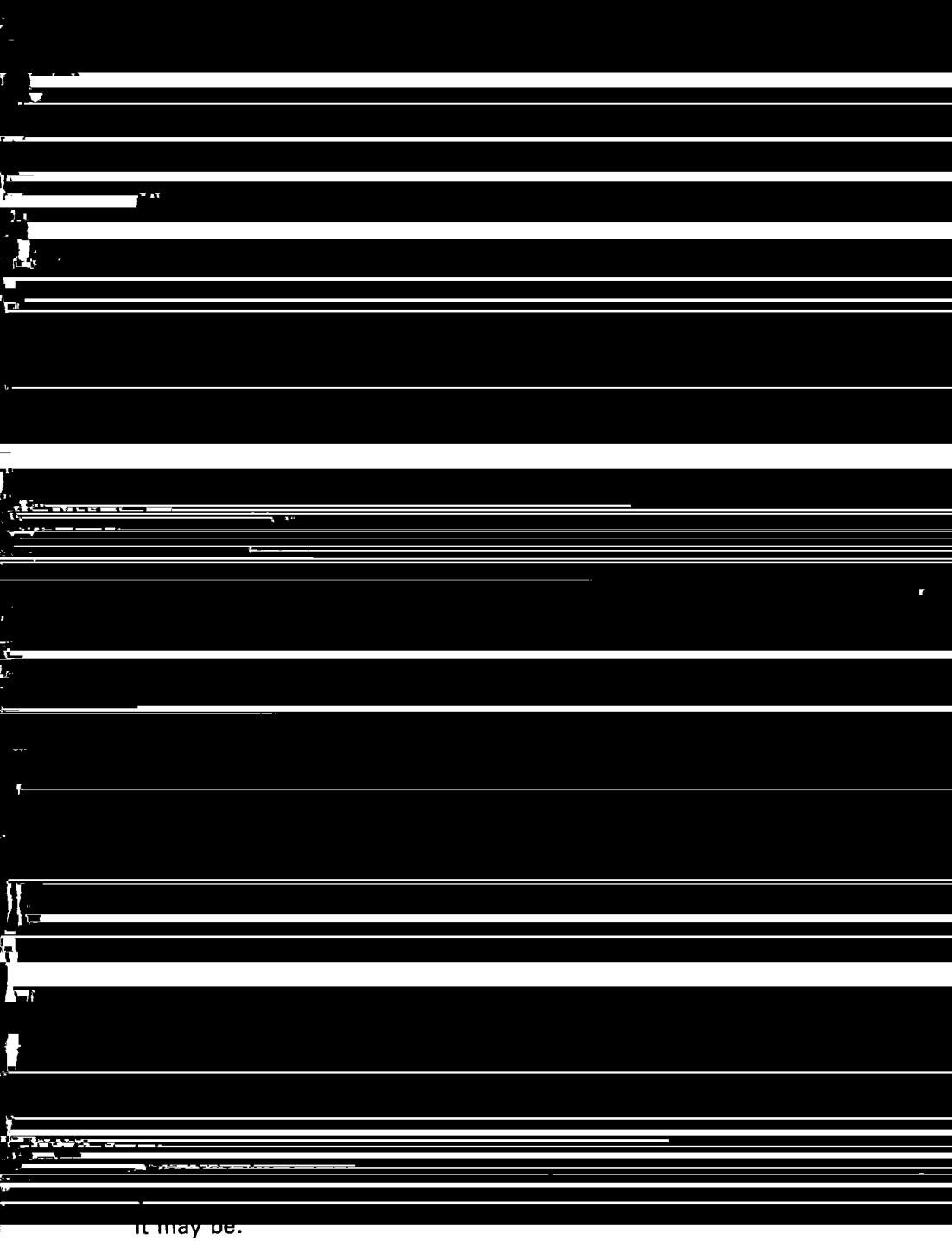
represents a 37 percent increase from the 2.7 pounds we discarded each day in 1960.

The U.S. Environmental Protection Agency estimates that as a nation, we generate 195.7 million tons of solid waste per year, more than double the nation's 88-million-ton waste output in 1960. (Figure 1 shows what materials are in the municipal solid waste stream.)



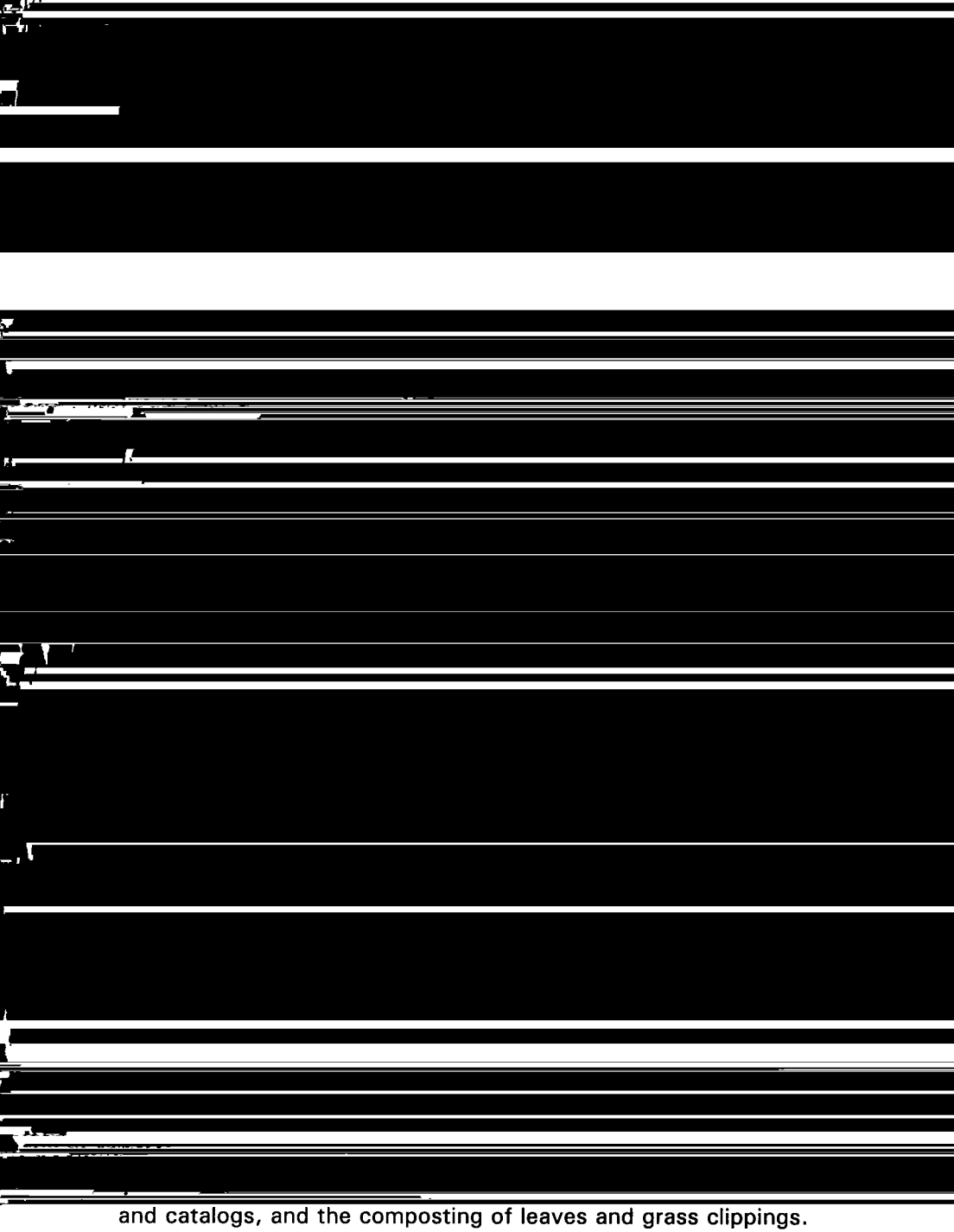
building and operating costs, at which both are being built.

Adding to the public's disillusionment with landfills are recent findings that biodegradation doesn't occur as quickly and as



it may be.

Economic factors also complicate consideration of waste-to-energy facilities. With construction costs potentially in the



and catalogs, and the composting of leaves and grass clippings. Takoma Park estimates the net cost avoided between 1990, when the program was initiated, and June 1993, at about $125,000. The town also estimates that 53 percent of its

[redacted]

[redacted]

some sort of conspiracy theory in their mind or some ulterior

[redacted]

[redacted]

probing questions aimed at separating the [redacted]
chaff. He outlined "five basic, bedrock concepts" reporters need to understand in their reporting:

- uncertainty,

[redacted]

Cohn cautions reporters that "no one can prove that little green men from Mars have not visited Earth. And no study can prove

[redacted]

plan it to work, for how many years will that extend the life of the landfill? If this recycling program works the way you expect

issue.

Asked how he handles the common dilemma of experts'

often can find a common trend or theme among the experts' views.

[redacted]

warrant a skeptical eye.

[redacted]

their readers and viewers, better understand the municipal solid waste issues likely to confront our society in coming years.

[redacted]

the total volume is the 195 million-plus tons of solid waste generated annually in the U.S. or the 222 million tons experts

Chang [redacted] ing well-integrated life styles and consumer patterns takes

[redacted]

[redacted]

development, provides technical assistance, and issues

[redacted]

services.

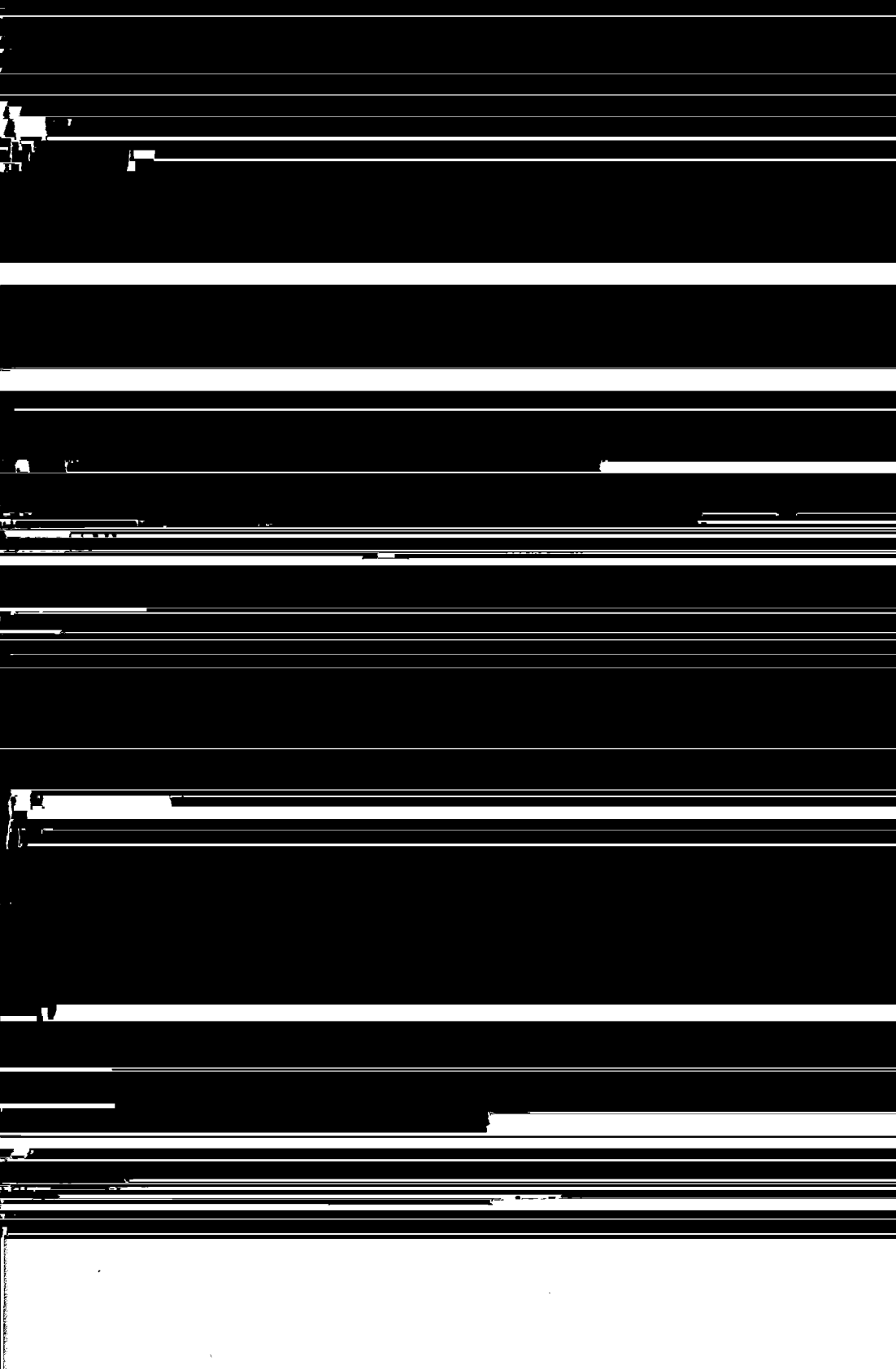
the market for recycled materials.

incentives to stimulate the marketplace. In March 1993, *Waste*

private sector has a significant financial stake in reducing waste,

collecting recyclable solid waste and manufacturing marketable products from those recycled materials, and much is being done.

manufacturing raw materials. They also can help reduce the amount of hazardous substances in the waste stream which



education on cost effectiveness.

There also is the potential that substituting one material at the source would have other negative environmental impacts and/or

[redacted]

Aluminum. The aluminum industry has one of the highest recycling rates, primarily because a viable market exists for it. It is significantly more economical to recycle used cans than to create new aluminum. Unlike other materials, aluminum maintains much of its value through the recycling process and is

recycling also requires the capacity to process the recycled material into new products and a market for the end product.

Another obstacle to increased recycling is potential liability.

[redacted]

they can be remelted and formed into other items -- less than 2 percent is currently recovered for recycling. Soft drink bottles and milk jugs make up most of the plastic currently being

[redacted]

recycled. According to a 1991 survey for American Plastics

[redacted]

Council (formerly the Partnership for Plastics Progress), the

[redacted]

million pounds a year (see Table 5). The recycled plastic is used in a variety of products such as fiberfill for pillows, sleeping bags and jackets; bottles for household cleaners; flower pots; plastic for park benches; and even the "fuzz" on tennis balls.

[redacted]

end products. Plastics include a wide variety of resins or polymers, with different characteristics and mixed plastics producing a lower quality end product (see Table 6). Multi-layer

[redacted]

way? Which industry is doing that? Is it economical?

- What are the possible negative environmental or economic impacts source reduction or recycling can have?
- What causes the difference of percentage of recycled waste in the country (e.g., in Seattle and San Francisco the rates are

[redacted]

- In some areas, mixed household waste is sent to materials reclamation facilities. This option may save on collection costs, yet, is it feasible and beneficial in the long run? Can it become an effective alternative?
- It is obvious that source reduction and recycling are for the most part environmentally sound and save energy, but certain limitations exist in terms of cost effectiveness. How do these limitations impact potential options for a particular community?

combined capacity of 102,755 tons per day and a combined capability to produce 17 million megawatt-hours of electricity (net energy) per year.

Types of Incineration Facilities

There are three basic types of municipal waste incineration or solid waste combustion facilities operating in the U.S.: mass burn, modular, and refuse-derived fuel (RDF).

The *mass burn combustor* is designed to burn all municipal

a truckload of solid waste into a holding pit at the facility. A

In other cases, the steam is sold directly to industries and

through an air pollution control system designed to remove pollutants before the air is emitted from a smokestack.

Smaller, lighter ash is caught by the air pollution control system as the exhaust gases pass though the hot air. This *fly ash* makes

the facility.

The capitol cost of building the plant, though, is just one part of the costs involved with waste-to-energy facilities. In addition,

[redacted]

incinerators have not escaped from the public anxiety and concern -- the NIMBY, Not In My Back Yard, phenomenon -- that greets many types of industrial siting actions (see Table 7). Proponents of increased reliance on waste-to-energy incineration point out that the facilities require far less acreage than is

[redacted]

required of landfills, thereby increasing the number of potentially

[redacted]

Some state and local agencies have imposed comprehensive air pollution regulations on incineration facilities. Under the Clean Air Act prior to passage of the 1990 Amendments, the U.S. Environmental Protection Agency was constrained in setting standards. With more stringent standards authorized under the 1990 Amendments -- and with coverage extended for the first

focuses on the resulting ash.

[redacted]

of 15 waste-to-energy facilities that "mirror the diversity" of the

[redacted]

128 that were operating at the end of [illegible] making certain assumptions, Inform estimated that the nation's 128 waste-to-energy facilities were generating more than 5.5 million tons of ash requiring disposal per year. (There were no national statistics at the time of the study.)

[redacted]

[redacted]

[redacted]

amount of waste the community produces after recycling and source reduction?

- Who is building the plant? Does the builder have experience building incinerators that are up and operating? What is the

[redacted]

much.

Note: An important point for reporters and editors to keep in mind: Much press coverage of incinerator controversies has

[redacted]

centered around the trace air emissions. Are reporters in effect "missing the story" in perhaps over-playing air emissions ... and under-playing ash?

[redacted]

the open dump methods of the past," it says.

When is the last time your newspaper used "Sanitary Landfill" in a headline? Or the last time you saw the term used anywhere in a headline? Don't hold your breath. "Dump" is a headline writer's delight: Short, one-syllable, pithy, and at the same time graphic. Ideal. But perhaps inaccurate.

We've all seen "No dumping" signs along the highway. A

percentage remaining for landfill disposal to decrease to 58 percent in 1995 and to 49.2 percent in the year 2000.

tolerate landfills."

Easterbrook says that although landfills "can be built with reasonable environmental safety, they are fundamentally bad

consumption."

Given that source reduction and recycling "won't ever solve

Location restrictions should be applied and enforced so that they forbid siting of landfills at, on, or near airports; floodplains; wetlands; fault areas; seismic impact zones; and geologically unstable areas.

staffers in what became known as "The Garbage Project."

ments are among the factors which have led to significantly

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What are the "tradeoffs" involved with those options, both from a financial and from an environmental standpoint? What steps are being taken to reduce, where possible, over-reliance

what they realistically can, the challenge to environmental journalists will remain: how best to help the lay public reach informed decisions on the optimum handling of the remaining waste stream.

[redacted]

explosive gases in air that will propagate a flame at 25 degrees Centigrade and atmospheric pressure.

4) To control illegal dumping and public exposure to hazards, public access must be restricted.

5) Except in limited circumstances, open burning must be eliminated.

6) Stormwater run-on and run-off must be controlled.

[redacted]

furnished upon request to the state agency or be made available at all reasonable times for inspection. Also, the state agency can set alternative schedules for recordkeeping and notification requirements except for the notification requirements in Sections 258.10 (airport safety) and 258.55(g)(1)(iii) (a particular

[redacted]

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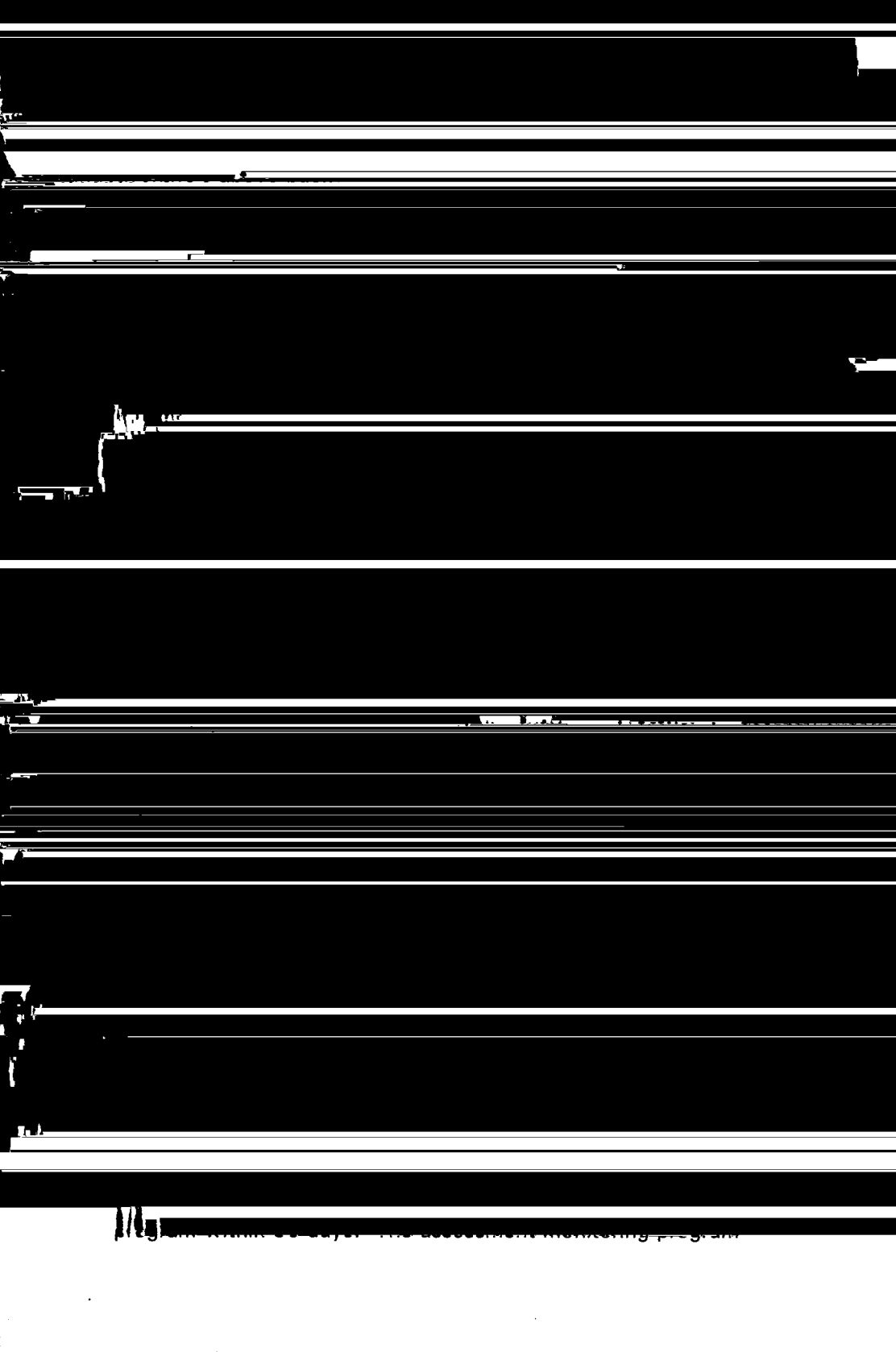
New units must have monitoring systems in place before they



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(202) 371-5319

Piscataway, NJ 08855
(201) 932-4402

Citizen's Clearinghouse for
Hazardous Waste
P.O. Box 926
Arlington, VA 22216
(703) 276-7070

Can Manufacturers Institute
821 15th St., NW

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900 19th St., NW, Suite 000
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(202) 775-5150

Council on Packaging

Glass Packaging Institute

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water and landfill leachate can present problems for solid waste facilities because many wastewater treatment plants cannot

[redacted]

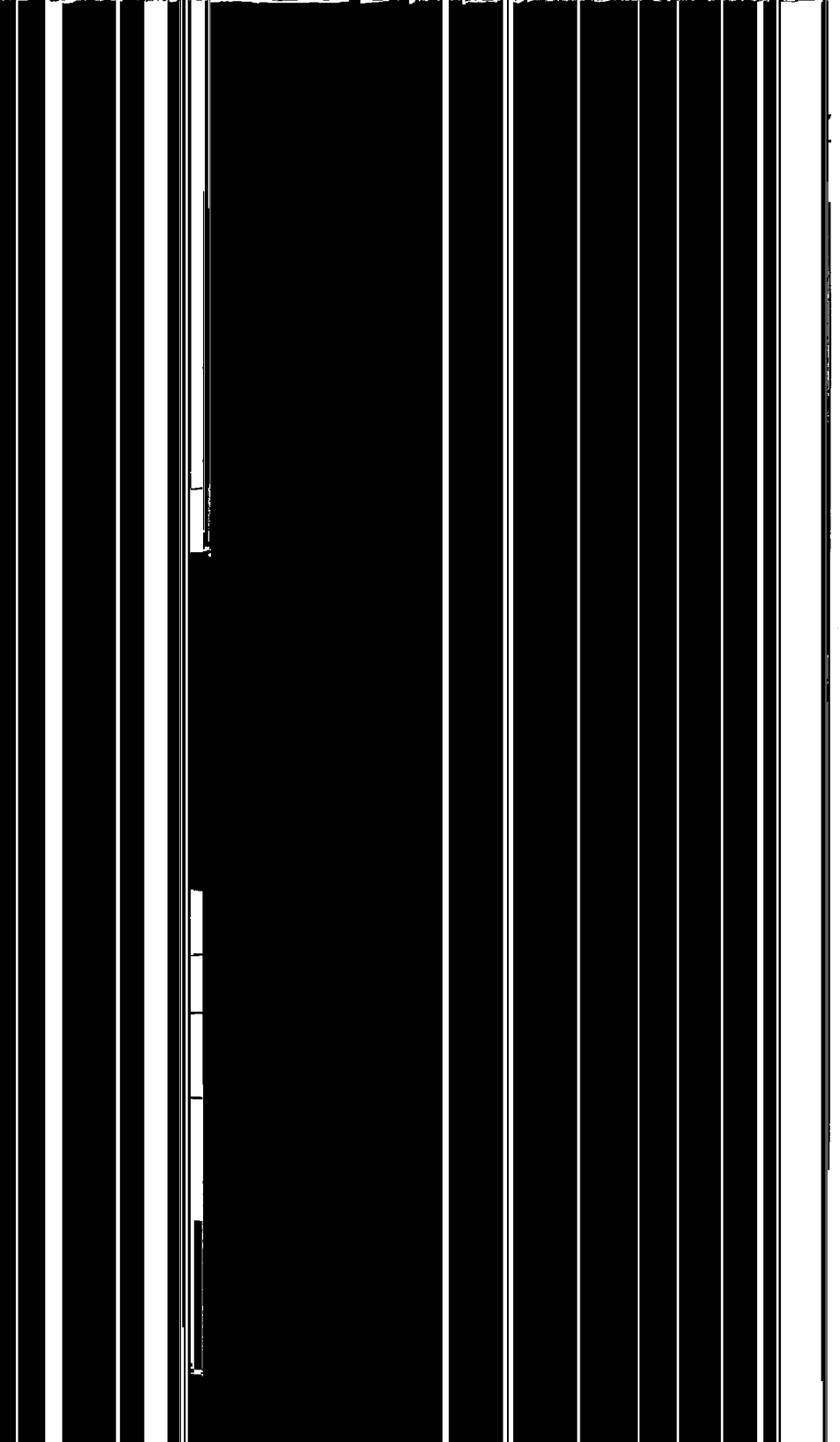
substantial number of the sites currently listed as Superfund sites are municipal landfills.

Maryland	5,000,000	15	17	88
Massachusetts	6,600,000	30	47	23

[4]Includes significant industrial waste.
[3]Includes out of state disposal.
[4]Includes construction and demolition waste.
[5]Includes construction and demolition, and sewage sludge.

[redacted]

Data from *BioCycle's* 1992 "State of Garbage in America" survey.
Source: "1993 Nationwide Survey: The State of Garbage in America,: BioCycle, *May 1993.*



75-00-3	Chloroethane; Ethyl chloride
67-66-3	Chloroform; Trichloromethane
124-48-1	Dibromochloromethane; Chlorodibromomethane
96-12-8	1,2-Dibromo-3-chloropropane; DBCP
106-93-4	1,2-Dibromoethane; Ethylene dibromide; EDB
95-50-1	o-Dichlorobenzene; 1,2-Dichlorobenzene

75-34-3	1,1-Dichloroethane; Ethylidene chloride

[redacted]

108-05-4	Vinyl acetate
75-01-4	Vinyl chloride
1330-20-7	Xylenes

**Chemical Abstract Service registry number. Where "Total" is entered, all species in the ground water that contain this element are included.*
***Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.*