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Municipal Solid Waste Flow Control

Summary of Public Comments

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SUMMARY OF MUNICIPAL SOLID WASTE FLOW CONTROL COMMENTS

INTRODUCTION

To obtain information for preparation of the Report to Congress on municipal solid waste flow control, EPA invited the public to express their views by providing written comments and participating in any of the three public meetings in Arlington, Virginia (August 17, 1993); San Francisco, California (August 31, 1993); and Chicago, Illinois (September 15, 1993). In conducting the meetings and inviting comments, EPA obtained information from various interested parties concerning flow controls. Flow control of MSW, also referred to as designation, is a high priority issue for parties involved in municipal solid waste management. Commenters included 74 state and local governments, 60 waste management companies, 29 recycling companies, 2 financial institutions, and 14 environmental groups and individuals for a total of 179 commenters.

These commenters submitted written materials at the meetings and also provided additional comments to the public docket. This report is strictly a summary of the various positions discussed in the written comments up to and including docket number 00195.[1] The summary does not contain any editorial comments, nor does it reflect EPA's position on any of the issues raised. The purpose of this document is to summarize the positions of interested parties on flow controls in preparation for the Report to Congress.

This summary also helps identify areas in which further research may be necessary. Much of the information provided in the written comments is anecdotal and lacks quantitative details. In addition, the written comments did not always provide examples or explanation of opinions, especially on the topic of alternatives to flow controls. While many of the comments and perspectives are enlightening, they do not provide all of the necessary information or documentation for preparing the Report to Congress.

Table 1 provides a breakdown by respondent type (e.g., state and local government) that identifies the number of commenters, number of commenters who support or oppose flow controls and the issue areas that received comment. This report organizes the information into six issue areas: (I) impacts of flow controls on solid waste management and capacity; (II) impacts of flow controls on source reduction and recycling; (III) impacts of flow controls on economics; (IV) impacts of flow controls on recyclable material; (V) impacts of flow controls on human health and the environment; and (VI) alternatives to flow controls. Within each issue area, the report is organized by respondent type. After the issue area sections, the summary provides a list of commenters that provided written materials to the docket.

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[1] Some commenters submitted more than one copy of their comments; this explains the apparent discrepancy between having 179 commenters and 195 comments. Also, if the comments submitted contradict the information contained in the state matrix, the discrepancy will be identified in a footnote. An additional 6 comments were received and reviewed (through docket number 00201). Generally, no new issues were raised by the additional commenters.

TABLE 1

NUMBER OF COMMENTERS BY ISSUE AND NUMBER OF COMMENTERS IN FAVOR OF AND AGAINST FLOW CONTROL

Commenters	Total Number of Commenters	Number of Commenters For/Against Flow Controls	Total Number of Commenters That Discuss the Impacts of Flow Controls on:					
			Solid Waste Management and Capacity	Source Reduction and Recycling	Economics	Recyclable Materials	Human Health and the Environment	Alternatives to Flow Controls
State and Local Governments	74	66/5 1 had no opinion 2 did not comment	61	33-recycling 10-source reduction	54	36	17	13
Waste Management Industry	60	10/50	13	29	46	7	20	8
Recycling Industry	29	3/11 15 opposed flow control of recyclables only	7	17	18	17	8	8
Financial Institutions	2	1/0 1 had no opinion	2	1	2	1	0	1
Environmental Groups and Individuals	14	7/6 1 had no opinion	4	4	5	4	6	1
TOTAL	179	For - 87 Against - 72 No Opinion - 5 Oppose FC of recyclables- 15						

I. IMPACTS OF FLOW CONTROLS ON SOLID WASTE MANAGEMENT AND CAPACITY

State and Local Governments

Sixty-one of the 74 state and local government commenters addressed the impact of flow control on solid waste management and capacity (i.e., 13 did not specifically comment on this issue). Of these 61 commenters, 59 support flow control and two local governments oppose it in favor of free market approaches. The issues of effective and environmentally responsible solid waste management planning and capacity development are central to the flow control concerns of state and local governments. The 59 commenters supporting flow control include 10 state agencies and 49 local governments or local government organizations involved in municipal solid waste management. These commenters urge EPA and Congress to explicitly grant flow control authority to state and local governments. Based on the written comments, it is unclear what Massachusetts' position is on flow control. Also, the submission from Ohio EPA does not state an opinion for or against flow control. Instead, it answers specific questions posed by the U.S. EPA in the July 12, 1993 Federal Register.

One municipality, Lancaster County, Pennsylvania, advocates improved flow control, not the elimination of it. It suggests that regulators identify and resolve the problems with existing systems and educate and train local government officials who will be planning and implementing municipal solid waste management in the future. Lancaster County also recommends that EPA establish the following:

- A national requirement for local governments to develop and implement a long-term plan for managing all municipal solid waste and recyclables generated within the community;
- Planning standards, materials definitions, and plan adoption procedures that incorporate public participation;
- Procedures allowing commercial and industrial generators of municipal solid waste to "opt out" of a local waste management system at the time of plan adoption if the generator can assure adequate disposition and meet recycling and waste management goals; and
- Indisputable authorization of local government flow control authority for municipal solid waste, including recyclables, as necessary, to implement their plans.

Responsibility/Right to Manage Waste. Eighteen state and local government commenters, including the Spokane Regional Solid Waste Management System in Washington State, view municipal solid waste management and planning as the "natural" responsibility of local governments. Five of the 18 commenters went even further by categorizing municipal solid waste management as a public utility, similar to sewage disposal and electricity. Both the National Association of Counties (NACo) and the United States Conference of Mayors pointed out that the only difference between solid waste flow control and sewage waste flow control is whether the waste moves by truck or by pipe. Two commenters noted that without flow control, New Jersey would be unable to finance and develop the additional capacity needed to meet its goal of achieving self-sufficiency for solid waste management before the 21st Century. Flow control is needed for effective management, capacity planning, and to keep "foreign" waste out of the facilities. Since solid waste management is a government's inherent responsibility, derived from its police powers, government should have the legal authority to exercise control over the flow of waste.

One commenter noted that when there are waste management problems (e.g., garbage is not collected), citizens automatically call the local government, regardless of whether the local government

runs the collection services. Thus, citizens view solid waste management as a public service. Two commenters added that the public interest should come before economics. The Pennsylvania Department of Environmental Resources cited court cases from as early as 1905 that declare municipal governments responsible for managing their own wastes. Lackawanna County, Pennsylvania claimed that it is their "right to pursue viable, long-term land-use planning," which is not protected by the free market system, and it is their "right of self-determination of how we want to use our land, water, and resources."

Ensuring Economic Viability of Environmentally Preferred Facilities: One of the issues receiving the most attention is the use of flow control to finance solid waste management facilities. Nineteen commenters noted this benefit of flow control. Flow control provides the financial assurance that the investor communities and bond rating agencies require, by guaranteeing, over the life of the facility, contracts for a definite amount of solid waste and/or recyclables for which the facility will receive a specified revenue (tipping fee). Some local governments have "put or pay" contracts with solid waste management facilities that require a definite amount of solid waste and/or recyclables to be delivered or the local government must pay for the shortfall in waste or recyclables. Flow controls allow local governments to meet these contracts by requiring that solid waste or recyclables be managed at specific facilities. Flow control also reduces the risk faced by the bondholders (i.e., more tonnage equals more money, which increases the security of the bonds). Once the facility is constructed, flow control allows for its financial viability and continued operation. As two commenters explained, flow control guarantees sufficient revenues for the facility owners (either a private company or local government unit) to repay the debt incurred during initial start-up and to guarantee the long-term financial viability for the facility (usually 30-year bonds).

A related issue, noted by 17 commenters, is that flow control guarantees the flow of particular types of waste to the designated facilities. Flow control ensures that food and yard wastes go to the compost facility, mixed waste goes to a transfer station to separate out the recyclables, and combustible waste goes to the incinerator. In this manner, facilities are guaranteed efficient operations, such as the incinerator receiving an ample amount of waste to maintain environmentally safe temperatures. In addition, this guaranteed flow of waste allows facilities to predict their revenues and, as mentioned above, repay their debt on a fixed schedule. One commenter noted that if facilities, operating under a "put or pay contract," did experience shortfalls in waste received, tax dollars would be wasted since local governments would still need to pay the facilities to meet contractual obligations.

The Michigan Department of Natural Resources (DNR) and Clinton County, Michigan, both commented that voluntary agreements to ensure the flow of waste to a facility are not strong enough guarantees to build facilities. Only flow control can assure the controlled movement of waste and protect against competitors undermining rates and diverting waste streams. Likewise, Winnebago County, Wisconsin, noted that flow control is necessary to protect municipalities from competition so that they can properly manage and finance their facilities.

Ensuring Adequate Long-term Capacity. According to 14 commenters, flow control protects and ensures long-term capacity. Future capacity also is protected financially through guaranteed revenues which foster the continued, long-term operation of a facility. These flow control assurances, for example, allow Delaware to guarantee capacity through the year 2009. In Honolulu, flow control is used to ensure that waste is sent to the waste-to-energy facility, which is necessary to extend landfill capacity and to keep the city from "being swamped with garbage." Long-term capacity also is guaranteed when flow control is used to minimize the amount of waste actually disposed by emphasizing source reduction and recycling. One commenter added that source reduction and resource recovery are not economically appealing to the

waste management industry; therefore, flow control is needed to ensure that these environmentally beneficial management options, which ensure long-term capacity, are implemented.

Flow control can prohibit facilities from accepting waste generated outside of the designated planning area; this legal issue is currently a problem in Illinois. Federal and state courts are examining the legality of flow control prohibitions and restrictions on the movement of municipal solid waste. Legal decisions may affect the ability of flow controls to protect and ensure capacity.

Solid Waste Management Planning. Seventeen government commenters stated that flow control allows for effective and environmentally responsible solid waste planning and management. State and local governments can plan for and manage the appropriate type and number of facilities to handle the long-term generation of waste within a specified area. Additionally, effective planning also can predict and manage facility closure. Six commenters noted the benefit of being able to predict the quantity of solid waste over time. This predictability allows state and local governments to plan for and develop future capacity. The Solid Waste Association of North America (SWANA) indicated that Lancaster County, Pennsylvania, through its flow control ordinance, has assured capacity through the year 2015. Six commenters indicated that flow control allows local governments to meet their goals, such as source reduction, recycling, and capacity goals. For example, New Jersey has the goal of a 60 percent municipal solid waste stream recycling rate by 1995. New Jersey believes that this goal is attainable only through effective flow control. Two commenters also indicated that flow control allows for the appropriate selection, planning, and management of the costs associated with a reliable solid waste management system.

Not only does flow control allow for the effective planning of solid waste management systems, it also provides for the implementation of solid waste management plans, as noted by 15 commenters. With flow control as the foundation, all aspects of the plan, particularly an integrated solid waste management system, can be implemented. More specifically, four commenters noted that flow control allows for the development of capacity needed to (1) make this integrated system a reality, (2) replace the capacity lost by closing landfills, and (3) meet recycling goals. As a result of planning and the use of flow control, little uncertainty about the amount of waste exists, and financial obstacles, if any, are minimal. The system can integrate source reduction initiatives, recyclables collection and processing, resource recovery, and landfilling (as the option of last resort) to manage waste in an efficient and environmentally protective manner. This type of system has been the goal of the Southeastern Public Service Authority of Virginia (SPSA) and, as SPSA indicated, it has been quite successful. The system will succeed because haulers will not have the option of diverting waste from the local materials recovery facility to a cheaper landfill. Many states require development of integrated solid waste management plans. Local governments are fulfilling their legal responsibility by implementing their plans and, therefore, should be empowered to use the necessary tools, such as flow control, to achieve effective implementation.

Eight commenters focused on general waste management hierarchy issues related to flow control and solid waste management planning. Five commenters indicated that flow control allows local governments to decide the best and most protective methods to handle their waste, based upon the solid waste management hierarchy. Source reduction and recycling take priority over incineration, and landfilling. The local governments can then plan for the necessary facilities to implement the chosen methods of management, and flow control guarantees that the waste will be sent to the proper facilities. For example, in Florida, a county must meet a 30 percent recycling goal, have a commercial recycling program, and have some type of yard waste management program as a prerequisite to siting a waste-to-energy facility. Two commenters added that the result of flow control will be less waste sent to landfills. The City of Springfield, Missouri expanded on this issue by stating that without flow control, law suits may

arise over the "improper disposal of solid waste." An additional commenter, the Greater Lebanon Refuse Authority in Pennsylvania, discussed the concept of recycling landfills, or landfill mining. Through recycling, a 200-ton per day 15-acre landfill serving 100,000 people could operate for 100 years, based on several repetitive periods of use, recycling, and reuse. This would limit the need for new landfill capacity.

Five commenters indicated that local governments also are obligated to provide and/or fund all supplementary waste management services, such as household hazardous waste collection, curbside recycling programs, composting programs, and community education programs. Flow control is essential to keep local governments from going bankrupt trying to fulfill these obligations, in addition to covering the costs of meeting regulatory requirements, planning, and public participation in decision making activities.

Three commenters argued that citizens are willing to pay more for integrated solid waste management systems that are technologically advanced and, thus, more protective of human health and the environment. As SWANA pointed out, in many instances, the public has even voted in favor of paying higher tipping/user fees than they would for private landfilling in order to obtain the services provided by the integrated systems. Lancaster County, Pennsylvania adds that, in its experience, flow control authority is what allows the citizens to strive for and achieve the highest quality services and the maximum value for their investment. Finally, SWANA asserts that, without flow control, state and local governments cannot have the municipal solid waste management system of the future that the public is demanding.

Liability Issues. Six state and local government commenters addressed liability issues. As described by NACo, local governments are subject to "arranger liability," which is premised on the theory of actual or potential local government control of the solid waste stream, based on the police power authority and the government's right to monopolize waste disposal if it so chooses. If a private owner/operator abandons a dump site or landfill, the local government may be liable for clean-up, closure, and post-closure care under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), if they designated (or arranged) that waste be sent there. Further, NACo stated that these activities are extremely expensive, and many local governments nationwide, such as Tacoma, Washington, are incurring significant debt to fund remediation activities. If local governments might incur these future liabilities, they should be granted flow control now to build up funds to cover future clean-up and closure activities. In addition, flow control is a positive mechanism for limiting a local government's future liability since the local government would have the authority to direct municipal solid waste to the most environmentally protective facilities. These commenters hold that if local governments cannot have flow control authority, they should not be held accountable for how the waste is managed by the private sector.

Waste Import/Export. Four commenters addressed waste import and export issues. Michigan DNR noted that the control of imports and exports of waste across state boundaries is a key requirement in establishing and maintaining a comprehensive solid waste management system. This control has been threatened by the U.S. Supreme Court decision in Fort Gratiot. The Supreme Court held that a Michigan law restricting landfill operators from receiving waste generated outside of the county, unless it was approved in the integrated solid waste management plan, violates the Commerce Clause of the Constitution. Michigan DNR views this decision as jeopardizing the ability of counties to ensure long-term capacity, which could eventually lead to a nationwide disposal crisis. Clinton County, Michigan, referred to the Fort Gratiot decision as crippling the planning process. If waste generated in Michigan is taken out of state, waste from other states will be needed to maintain a sufficient flow of waste to facilities in Michigan. NACo stated that Congress needs to declare that flow control, and local government management of its own waste, is not unlawful interference or an unreasonable burden upon interstate

commerce. Finally, Minnesota remarked that a state cannot ensure the environmentally safe management of waste sent outside of its borders. Only if other states have equal or better standards and policies would waste exportation be a viable option.

Use of Flow Control in Negotiations. Minnesota commented that flow control, or waste designation, can often be used as a leveraging tool to motivate voluntary delivery to designated facilities when negotiating contracts. In Minnesota, flow control is the tool of last resort. In order to adopt a flow control ordinance, a county or group of counties must undergo a series of public hearings and state or regional approval. They must attempt to achieve flow control by voluntary delivery before an ordinance can be implemented. The City of Urbana, Illinois, echoed this benefit of using flow control as a leveraging tool during solid waste management negotiations.

Private Sector Issues. Four commenters raised issues regarding the private sector and flow control. San Diego County, California, pointed out that private companies, when entering contracts, rely upon negotiating the type and volume of waste to be sent to their facilities; in effect, a form of flow control. Similarly, granting flow control authority to local governments would allow them to compete with private firms and enter into comparable agreements. Private industry would continue to play a significant role in solid waste management, as they do today in areas where local governments exercise flow control.

Hennepin County, Minnesota, recalled that when it was deciding to finance an integrated solid waste management system and impose waste designation (i.e., mandated flow control), companies did not raise opposition. However, companies are now complaining because, as Hennepin County believes, they were not successful enough in selling their facilities and technologies when local governments were contracting for waste-to-energy facilities. Hennepin County asserts that EPA and Congress should not be persuaded by these companies who want the rules changed for their own financial benefit. Similarly, the Greater Lebanon Refuse Authority (GLRA) asserted that many private companies develop business plans that include the receipt of waste from, or into, flow controlled areas and, therefore, planned for a greater volume of municipal solid waste than is reasonable to expect under the state and municipal regulatory plans. For example, a company may decide to site a landfill 15 miles outside of a county that has flow control ordinances designating where the county's waste is sent. The company, however, may disregard this flow control authority and plan to obtain a portion of its waste from that county. GLRA asserts that this should not be allowed. The new facilities, not the old ones, are the chief flow control antagonists.

In addition, Clinton County, Michigan, believes that the private sector is too unpredictable to be a reliable manager of waste. Citizens would be vulnerable to pricing monopolies, choices between vendors would be removed, and communities could be unwilling recipients of waste from unknown origins. The local government would end up dealing with frustrated citizens who experience lapses in service.

Arguments Against Flow Control. The Village of Westbury, New York, resists flow control and believes it to be inimical to their interests and to the general public interest for the following planning- and capacity-related reasons: (1) flow control locks out capacity to those who need it; (2) burdens citizens with paying for any excess capacity; and (3) leads to unnecessary transport of waste.

Ventura County, California, also raised several arguments against flow control. The county believes that flow control and the creation of service monopolies are not necessary to implement integrated solid waste management plans and ensure capacity. Through the exercise of police powers, local governments can solicit private sector proposals for materials collection and designated facilities;

encourage the development of diverse merchant ventures; set service rates and standards; assess fees to finance local diversion programs; and provide regulatory incentives to service providers and manufacturers who offer system enhancements. Ventura County further asserts that local government could still make financial guarantees if they choose to own and operate all solid waste collection services.

Capacity objectives also can be met through smaller, more diversified facilities with multiple operators and processes. This more market driven system, in which government serves as a skillful buyer of privately financed and competitively priced services, provides greater flexibility, minimizes public sector risk, and catalyzes the development of innovative technologies and markets. A waste management facility does not need to be large, monolithic, and expensive.

For example, in Ventura County, processing curbside program materials costs $65 per ton net of revenue at the local materials recovery facility, but only $15 per ton net at smaller process lines operated by independent haulers at their service yards. Establishing small, strategically located green materials mulching and vermiculture operations in the County has alleviated the need for construction of a capital-intensive regional composting facility which would quadruple per ton processing costs. In all of these cases, cost-effective and market-sensitive capacity has been created in the absence of flow control. Even where large capital projects are essential to integrated solid waste management systems, these regional facilities, such as the waste-by-rail megafills of eastern Washington, Oregon, and the western deserts do develop with private capital and without flow guarantees.

Waste Management Industry

Six waste management industry commenters that support flow control, and six that oppose it, addressed solid waste management and capacity. Another commenter, WMX Technologies, Inc., generally supports NSWMA's anti-flow control arguments, but stated that they would not oppose legislation establishing flow control of residential recyclables as long as certain conditions were included (e.g., the designation is made under a competitive process, facilities not limited to collecting from specific geographic areas, and prior investments and arrangements are protected).

Capacity Issues. One commenter indicated that flow controls guarantee that waste will flow through facilities developed under solid waste management plans, thus allowing for the development of increased capacity, and guaranteeing its viability and efficient use. Two commenters, however, believe that flow control does not create increased capacity. One company commented that flow control actually may lead to reduced capacity by forcing privately-owned facilities out of business. The other company cited New Jersey as an example. New Jersey relies heavily on flow control, yet it has still failed to provide adequate disposal capacity for its own waste.

Planning Issues. One commenter, Ogden Martin Systems, stated that flow control is an essential solid waste management planning tool. Local governments need to determine the amount of waste within their jurisdictions, and the expected growth of that waste, so that they can estimate the amount of waste reduction possible with proposed recycling and composting programs. A second commenter, California Refuse Removal Council, echoed this belief, indicating that planned, ambitious recycling and waste reduction goals could not be achieved without flow control.

Recycling Industry

Four recycling industry commenters that support flow control, and two that oppose it, addressed issues related to solid waste management and capacity. Another recycling industry commenter, the

California Resource Recovery Association, supports flow control for solid waste, but not for source separated recyclables.

Capacity Issues. The California Resource Recovery Association recognizes the value of flow control for financing materials recovery facilities and increasing the overall waste management capacity in a region. Flow control of source separated recyclables, however, does not accomplish these ends. In fact, when exclusive franchises for recycling have been implemented, business generators reportedly have had to stop recycling some materials because the exclusive hauler chosen was unable to manage the amount of material and no other recyclers could service the account.

Planning Issues. Three commenters indicated that flow control allows local governments to achieve landfill diversion and recycling goals set forth in solid waste management plans and/or mandated by state laws. In reaching this end, two commenters noted that flow control allows for investment in landfill alternatives, such as incinerators and composting facilities, which would otherwise be impossible. Local governments may find that these alternative facilities will result in lower overall costs for municipal solid waste disposal. On the other hand, another commenter believes that facilities should be financed by their users and, if they are not viable without flow control, then they probably are unnecessary in the free market.

One recycling industry commenter stated that local governments cannot easily implement comprehensive, integrated waste management plans without flow control.

Financial Institutions

Planning Issues. Both Paine Webber and Standard & Poors commented on solid waste management and capacity. Paine Webber supports flow control and believes that it is necessary for state and local governments to effectively plan capacity and determine the amount of capital needed to implement the plans. While Standard & Poors took no position on flow control, it stated that, "Without legal waste flow to limit competition, the result will be significantly lower rated bonds with higher costs which will make funding an integrated solid waste management system much more difficult."

Environmental Groups and Individuals

Capacity Issues. A University of Wisconsin research assistant stated that flow control is necessary to help provide more accurate predictions of quantities of solid waste in order to effectively plan for future capacity needs.

The Pennsylvania Chapter of the Sierra Club stated that standardized fees under flow control help to insure capacity and that many Pennsylvania counties use flow control as a necessary planning tool. In addition, Pennsylvania would benefit from using flow control to protect itself from the inundation of out-of-state waste.

Hierarchy Issues. The Californians Against Waste Foundation opposes put-or-pay contracts because they may run counter to the waste management hierarchy. Source reduction and recycling should be top priorities. If flow control of recyclables is prohibited, local governments still should provide recycling services (e.g., collection) in competition with other local recyclers. Local governments could adopt mandatory recycling ordinances that prohibit residential and commercial generators from disposing of certain garbage.

*** * February 8, 1994 * ***

Supporting Other Waste Management Programs. The Ohio Chamber of Commerce raised the issue of communities using flow control to collect fees to pay for other waste management programs, such as household hazardous waste collection or recycling. Flow control allows for cross subsidies from one class of rate payer to another. The Chamber of Commerce opposed this use of flow control because industrial waste generators should not have to pay for programs in which they are not involved.

II. IMPACTS OF FLOW CONTROLS ON SOURCE REDUCTION AND RECYCLING

The commenters that directly addressed the impact of flow controls on source reduction and recycling could generally be divided into the following three categories:

- Encourages source reduction and recycling efforts;
- No effect on source reduction and recycling efforts; and
- Detrimental to source reduction and recycling efforts.

State and Local Governments

Encourages Source Reduction and Recycling Efforts. Of the ten state and local governments that addressed the issue of source reduction, six commenters noted that flow control either had been or was expected to be beneficial to the source reduction efforts in their states or counties. It specifically was noted that increased disposal fees tended to encourage source reduction. The more a generator has to pay per volume disposed, the greater the economic incentive the generator has to reduce the amount of solid waste generated. One commenter noted that flow controls are necessary to help states meet source reduction goals.

Of the 33 commenters from state and local government that addressed the issue of recycling, twenty-six stated that flow control is either beneficial for or encourages recycling efforts. In the absence of flow control, low tipping fees could result in less recycling overall. Most of the commenters noted that without flow control there would be no economic incentive to recycle because the cost to landfill is cheaper.

For example, according to the Minnesota Legislative Commission on Waste Management, mandatory flow control in Minnesota encourages source reduction and recycling because the cost of managing waste in a mixed waste facility ($156-200 per ton) is higher than the cost of recycling ($100-156 per ton). Additionally, the commenter from the Maine Waste Management Agency indicated that with incinerators that depend upon flow control, those who create the waste pay the true costs of waste disposal. This provides a financial incentive for waste generators to reduce at the source and to recycle whenever possible in order to avoid the costs of incineration. Specifically, in Maine, recycling increased from 16 to 30 percent from 1988 to 1991; incineration fell from 45 to 37 percent; and landfilling fell from 9.5 to 4 percent. In this case, flow control had an extremely positive impact on recycling efforts.[2]

Thirteen of the commenters in favor of flow control observed that flow control was necessary for states and localities to meet their mandatory recycling goals. The National Association of Counties observed that many state laws mandate recycling and diversion from landfill requirements. Local governments, not private industry, have the responsibility to meet these requirements. Virtually every option considered for recycling and diversion is more expensive than landfilling. Thus, flow controls are necessary for states to meet recycling and diversion goals, because without them haulers would simply choose the cheapest option, landfilling.

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[2] These percentages do not add up to 100 percent, however, they are the numbers that appear in the comment.

Hennepin County, Minnesota will recycle and compost 50% of its waste in 1993; in 1992 only 2% of its waste was unprocessed and landfilled. This achievement is attributed to the successful use of flow controls. New Jersey has a mandatory recycling goal of 60% and flow controls are expected to help the state meet that goal.

Also, according to Union City, New Jersey, solid waste collectors and facilities are regulated as public utilities whereby rates are subject to regulation to avoid price gouging and to ensure reasonable rates. Since the government is responsible for ensuring services, flow control positively impacts the delivery of solid waste recycling and disposal service by county implementing agencies. With the adoption of mandatory recycling goals (e.g., 60% by 1995), solid waste management districts have an obligation to provide a management strategy whereby at least 60% of their waste streams are returned to the economic mainstream as raw materials. Thus, as a result of the recycling mandate, source reduction and recycling are encouraged in New Jersey.

The commenter from the City of Milwaukee noted that without flow control, recycling would suffer as a result of the fluctuations in market conditions. Without flow control as the market varies, private haulers have to adjust the cost of processing to reflect these changes. Further, the vendors of recyclable processing and marketing services suffer because they are unable to guarantee end users a reliable quantity and quality of product. While Milwaukee implied that with the implementation of flow controls, the market would fluctuates less, they did not address specifically how this situation would be made more effective under flow control.

No Effect on Source Reduction and Recycling Efforts. Three of the state and local government commenters noted that flow controls were not incompatible with nor an impediment to source reduction efforts. As one commenter noted, flow control has little impact on source reduction because companies have always taken their own source reduction initiatives (e.g., in Delaware companies now fabricate 27 to 29 cans per pound of aluminum as compared to 20 to 28 cans when cans were first introduced into the marketplace).

One commenter, from the Pennsylvania Department of Environmental Resources, noted that flow control would have no significant impact on recycling efforts in the state since recycling is mandatory for most of the state. Currently, recyclables are not subject to flow control.

Detrimental to Source Reduction and Recycling Efforts. One commenter found flow control to have negative impacts on source reduction efforts. The commenter from Ventura County observed that solid waste management obligations and source reduction are inherently in conflict. Flow controls that require collectors to maintain a steady stream of waste to a facility can provide disincentives for source reduction.

Six commenters noted that flow control has some negative effects on recycling efforts. The commenter from the Minnesota Legislative Commission on Waste Management noted that flow controls may stultify recycling as a permanent waste management practice rather than allow it to develop into a materials marketing system. According to the commenters, the development of a materials marketing system is the only way recycling will become a permanent part of the production process.

Mayor Sheri Barnard, of Spokane, Washington, stated that under flow control, local governments contract primarily with large national corporations, making competition by small recycling firms nearly impossible. In some cases, when all waste is designated to a specific incinerator, small recyclers are

prevented from using their new recycling technologies. Therefore, the overall level of recycling is diminished.

The commenter from the Michigan Department of Natural Resources stated that flow controls might hurt recycling efforts, unless revenues from the disposal facility could be used to support recovery facilities through an integrated waste management program. The commenter from the Greater Detroit Resource Recovery Authority observed that flow control ordinances could possibly result in a build up of recyclable materials, which might result in the unsanitary storage of recyclable material or possibly even lead to illegal dumping.

Although three state and local government commenters noted some negative impacts of flow control, two of the six commenters were vehemently opposed to flow control. The comments of the Incorporated Villages of Westbury, Mineola, and New Hyde Park, New York, noted that with flow control recyclables become a burden, not an opportunity. This burden occurs because unnecessary transportation costs add to the management costs for recyclables.

Ventura County observed that flow control eliminates competition over the supply of wastes and ignores the effect of the recyclable market dynamics on planning, program development, and service delivery. Specifically, Ventura County noted that flow controls inhibit the development of a recyclables market. Long-term commitments to facilities both decrease the local government's ability to respond effectively to changes in the commodities marketplace and provide a disincentive to develop and utilize innovative and more cost effective waste management alternatives. Moreover, costs increase due to a lack of competition, and lower service choices and quality lead to customer disenfranchisement. Flow controls also restrict a manufacturer's access to recyclables, thus limiting essential market development.

Waste Management Industry

Encourages Source Reduction and Recycling Efforts. Four commenters observed that flow control can provide benefits for recycling efforts. Two commenters noted that flow controls allow local governments the ability to maximize recycling and meet recycling goals. With flow controls, localities can require that collectors recycle materials that cannot be recycled economically. Another commenter added that flow controls help to develop new markets for recyclable goods because of the increased predictability of quantity and quality of recyclable material. Another commenter stated that because of the financial security provided by flow control, major investments are made in new facilities that use recycled raw materials. Therefore, increased recycling is a benefit of flow control.

No Effect on Source Reduction and Recycling Efforts. Four commenters stated the position that flow control neither ensures nor encourages recycling. Two commenters in particular noted that the only way to ensure recycling is to strengthen the market for recycled materials.

Detrimental to Source Reduction and Recycling Efforts. Most of the commenters did not address the issue of source reduction directly. A few commenters did note that flow control did not encourage waste reduction.

Of the 29 commenters from the waste management industry that addressed the issue of recycling, 21 stated that flow control would be detrimental to the recycling industry and recycling efforts. Some of the reasons cited for disapproving of flow controls include:

- The creation of a monopolistic environment that inhibits innovation in the recycling marketplace;
- Protection of hauling practices that allow wastes to be mixed, thus degrading the resources; and
- An increase in the fixed costs for recyclers.

Frank Perrotti & Sons, Inc of Woodbridge, Connecticut stated that when municipalities fall short of meeting their put or pay obligations, they have an incentive to reduce recycling to meet their other obligations. The commenter noted further that, the more effective a municipality is at meeting its recycling goals, the less likely it is to meet its put or pay obligations under its solid waste contract with a Resource Recovery Authority.

The commenter from Waste Stream, Inc. (WSI), located in New York, used their firm as evidence of the fact that flow control thwarts the efforts of successful recycling firms. In WSI's case, the St. Lawrence Solid Waste Disposal Authority planned to build a waste-to-energy facility, but worried more about having enough waste volume to guarantee adequate cash flow for financing the facility than about the development of an effective recycling program.

SEMASS, which is a waste-to-energy facility located in Massachusetts, represented a different perspective.[3] They stated that if flow controls were implemented in the SEMASS service area, and waste were directed to a landfill rather than the SEMASS facility, many potentially recyclable materials would be landfilled, and society would lose the recovery value of those materials.

Recycling Industry

Encourages Source Reduction and Recycling Efforts. Two commenters noted that flow control might be beneficial for recycling efforts. National Recovery Technologies, Inc. observed that flow controls could encourage recycling if the waste stream is directed toward facilities that process mixed solid waste. Flow control also might encourage recycling if some of the tipping fees collected at public facilities could be used to pay for recycling and composting programs including curbside and drop off programs. Marin Resource Recovery and Recycling Association (California), observed that flow controls will enhance recycling opportunities and the ability of individuals to participate in local recycling programs, however, they never provided any examples.

Detrimental to Source Reduction and Recycling Efforts. Of the 17 commenters from the recycling industry that addressed the issue of recycling, 15 stated that flow control would have negative effects on recycling efforts, particularly on the future of the recycling industry. Ten commenters noted that the monopolistic nature of flow control would be detrimental to the recycling industry and efforts for future expansion. As one commenter from the Chicago Paperboard Commission stated that even the threat of flow controls reduces the incentive to invest in the recycling industry. The most noted opposition to flow control is that without free markets for recyclables, recycling firms would be unable to do business because of the restricted access to raw materials. Recyclers also oppose flow control because they are concerned that the lack of competition will reduce innovations in the recycling industry. Another obstacle flow control imposes on the recycling industry, noted by six commenters, was the potential degradation of

3 Some states including Rhode Island classify waste-to-energy facilities as recycling facilities.

resources that results from hauling of mixed wastes. The quality of recyclable materials may be decreased by mixed waste processing.

Financial Institutions

Encourages Source Reduction and Recycling Efforts. Paine Webber was the only financial institution that addressed the impacts that flow control would have on recycling. They commented that flow control might enhance and foster recycling programs by improving the ability of local governments to fund materials recovery facilities.

Environmental Groups and Individuals

Encourages Source Reduction and Recycling Efforts. One commenter from the Institute for Environmental Studies at the University of Wisconsin stated that flow control is necessary to help Wisconsin meet its recycling goals.

The Pennsylvania Sierra Club observed that if states are permitted to exclude waste generated out-of-state through the use of flow controls, each state will have more incentive to effectively promote recycling and source reduction within their state. Governments need to be able develop integrated solid waste management plans that incorporate recycling. Flow control provides a tool that will permit state and local governments to meet their responsibility to implement such plans.

Bio-Engineering Fuels, an alternative energy company located in Washington, observed another way in which flow control has positive effects on recycling efforts:

- Without flow controls, recycling and source reduction will suffer because it is cheaper to landfill everything. Many private companies do not want the expense or the hassle of reducing their use of landfills to manage their solid waste.

Detrimental to Recycling Efforts. The Californians Against Waste Foundation noted that flow control has the following negative effects on the recycling industry:

- Flow controls limit the amount of material ultimately diverted. An exclusive franchise on recyclable material could prevent a recycler from collecting material that a franchise hauler does not collect.

- Flow controls limit the quality of the material that is collected and marketed. The exclusive hauler may offer only mixed waste processing or minimal source separation.

- Flow controls reduce the incentive for a company to reduce costs via source reduction or recycling. An exclusive franchise that controls both solid waste and recyclables may offer a flat rate for services. In this case, a company must pay the same amount to have both its solid waste and recyclables removed regardless of the volume of waste to be recycled. This situation might be remedied by the introduction of a tiered fee structure to encourage the hierarchy of source reduction, recycling, and then disposal. With such a fee structure, the franchisee might charge the company less money to remove recyclable material.

- Generators want to have the flexibility to choose the recycling company with which they do business, especially when the generator is a chain with outlets in different states. Flow control may hinder the development of company-wide recycling programs for generators in this position if different outlets of the company must operate under different flow control restrictions.

III. IMPACTS OF FLOW CONTROLS ON ECONOMICS

State and Local Governments

Increased Disposal Costs. One of the main points stressed by state and local governments was that the goals of government and private industry differ in providing waste management services. Private industry seeks profit, while government seeks the safest, most cost effective method for managing waste and protecting human health and the environment, without producing a profit. Governments reach their goals by developing comprehensive waste management plans, which often incorporate recycling and composting programs as well as construction plans for state-of-the-art, environmentally sound, disposal facilities. Realizing that their plans are expensive to implement, 22 governments defended increased costs stating that the higher goals of long-term waste minimization and increased protection of public health and the environment supersede any short-term negative impacts of increased costs.

Fifteen commenters claimed that flow controls are necessary to acquire waste for facilities and guarantee revenue to finance them. Four government commenters specifically stated that current solid waste management systems would suffer greatly if flow control authority were removed. Existing facilities would not receive adequate quantities of waste and, thus, could not repay their debts. State and local governments that have already invested large amounts of money and capital in facilities dependent on flow control, financially would be devastated. The Concord Regional Solid Waste/Resource Recovery Cooperative, formed by 36 municipalities in New Hampshire to manage the financing, construction, and operation of waste-to-energy facilities, fears that the municipalities will not be able to meet their 20 year put-or-pay commitment to deliver solid waste without flow control. A put-or-pay commitment means that a municipality must deliver a specified amount of solid waste and must pay its vendor (e.g., the Cooperative) its fee, whether or not the solid waste is delivered to the facility. Haulers will choose to take the waste to cheaper facilities, such as far-off landfills, for disposal. The League of California Cities advocates that "one size does not fit all," and that current flow control flexibility must be retained.

Five state and local governments stated that flow control does not create inefficiency. They said instead that flow control will ensure that the least expensive and least risky method of financing facilities is implemented. One commenter took the argument a step further implying that the current approach to waste management, without flow controls, is inefficient.

Market Inefficiencies. Sixteen commenters countered the argument that flow control inevitably results in a monopoly stating that with flow control, competition is still an integral part of the waste management process. Vendors must compete to win bids when local governments contract with the private sector to provide waste management services.

Five commenters remarked that flow control establishes a fair and level playing field by stabilizing solid waste management prices and disposal/tipping fees. As the City of Tampa, Florida, stated, "In order to keep the price manageable, one entity must be able to balance the total fiscal and waste stream picture." Delaware levies uniform fees on commercial and residential generators of waste such that all residents share the total cost of solid waste management, which is treated as a public utility. As experienced by Marion County, Oregon, flow control ensures that waste is sent to the local waste-to-energy facility, so that the county can meet its contractual obligations. Failure to meet this commitment would cause increased garbage rates. "The control was, and still is, necessary to keep rates stable." Finally, two commenters noted the economies of scale gained by aggregating waste for collection and processing on a regional or state basis.

The Town of Wallingford, Connecticut, commented that there is no evidence to indicate that there are either more or less inefficiencies in flow control municipalities than in other communities. They stated that, "Connecticut, which allows flow control by statute, is one of the most successful states in the U.S. in its construction and utilization of waste-to-energy plants and MRFs."

Waste Management Industry

Increased Disposal Costs. The majority of waste management industry commenters (35 of 60) specifically stated that flow controls foster the monopolistic control of solid waste by local governments and inevitably lead to increases in cost without concurrent increases in benefits. The commenters generally stated that when laws restrict or abolish competition, the natural market forces that keep prices from unnecessarily rising disappear.

Many waste management commenters provided examples of situations where disposal costs in counties with flow controls exceeded disposal costs in neighboring free market counties. A solid waste collector in Mercer County, New Jersey (the name was not provided), where flow controls presently exist, described such a situation. The commenter stated that under flow controls in Mercer County, trash haulers must pay $117.81 per ton to dispose of municipal solid waste and $136.36 per ton to dispose of construction debris at a transfer station owned by the county. All trash from the transfer station is then delivered to a privately owned and competitively operated landfill in Pennsylvania where the fee for dumping is only $55 per ton for either municipal solid waste or construction debris. The result is that haulers in Pennsylvania pay $55 while haulers in Mercer County pay $117.81 or $136.36 for disposing the same amount of trash that will eventually go to the same place.

The Waste Material Trucking Company Inc., located in Southington, Connecticut, provided another example of increased disposal costs due to monopoly control. Residents and haulers in Southington, once accustomed to free trash disposal at the now closed Southington landfill, currently must deliver their waste to the nearby Bristol waste-to-energy facility. Tipping fees have increased since the time the Bristol facility opened from $37.50 in January of 1988 to $55 in July of 1993. Rates increase every year, and they now more than double the disposal fees charged in nearby Massachusetts towns that operate under free market conditions. The Waste Material Trucking Company is outraged because it cannot take advantage of lower cost options, though they are available.

Some comments made by the waste management industry dealt with taxation issues. Five firms implied distrust of governments in their use of revenues resulting from flow control. These firms stated that government officials use flow controls to create hidden taxes that sometimes support projects unrelated to waste management. In addition, three commenters noted that ironically, as governments attempt to raise more revenues with flow control, excessive costs are actually driving private firms out of business, leading to an overall decline in tax revenues.

Market Inefficiencies. Almost half of the waste management industry commenters (27 of 60) specifically stated that flow control leads to inefficiency. Commenters addressed the inefficiencies experienced both by government owned or government subsidized firms in general, and the inefficiencies experienced by private firms as a result of flow control.

Because government owned businesses do not fear competition and loss of revenue, they do not have incentives to cut costs and improve efficiency. Flow control effectively shields government owned waste management facilities from free market forces by guaranteeing waste and revenue. Consequently, prices increase and efficiency suffers. In support of this argument, one commenter (Container Corporation

of Carolina, Inc.) pointed to a Virginia study comparing public and private trash collection services in the Virginia suburbs of Washington, D.C. The study determined that in general, public facilities were much more expensive and far less efficient than private ones (e.g., municipal departments used smaller trucks and therefore, had to make more trips to dump sites, they also used larger pick-up crews but served fewer homes per shift, and public employees were absent a greater percentage of time).

Not only were commenters displeased by the inefficiencies of government owned facilities, they also were unhappy about the inefficiencies forced upon private firms by flow control. Private firms described situations in which they were forced to haul waste long distances to comply with flow control laws when more conveniently located disposal sites were available. Being forced to dispose of waste in inconvenient, distant locations often resulted in backtracking of waste, longer hours for haulers, and higher costs due to extra fuel use. Other, less obvious consequences included increased air pollution, greater probability of accidents due to more hours on the road, and more wear and tear on roads and highways.

York Waste Disposal Inc. provided an example of the inefficiencies private firms must endure as a result of flow controls that prohibit waste export. York cites a specific example involving the Township of Derry in Dauphin County, Pennsylvania whose waste, prior to flow control laws, was hauled to the waste-to-energy facility in York county as out-of-county waste. Because the hauling distance was only five miles, waste disposal was being handled efficiently. However, flow control laws forced Derry to transport its waste to the Dauphin Meadows Landfill, 35 miles away. The additional hauling distance requires more diesel fuel, more wear and tear on trucks, and causes more air pollution. Additionally, York stressed that absolutely nothing is gained from choosing one disposal site over another because they are both environmentally safe (double lined landfill versus incinerator).

With flow controls, private firms also complained that they had to choose facilities with unfavorable credit terms and operating hours. These are often serious considerations for smaller companies, which do not have the financial flexibility of larger firms.

Four representatives of the waste management industry commented that flow control is a form of economic protectionism. They believed that shielding facilities, whether or not they are government-owned and operated, is often detrimental to the economy, unproductive, and inefficient. Commenters believe that flow control should not be allowed to keep facilities operating by guaranteeing waste, when those facilities would not otherwise survive under free market conditions. One company questions why government-owned facilities need economic protection to survive, when privately-owned facilities operate successfully without any form of revenue guarantee.

One commenter stated that large government construction projects, such as those resulting from flow control, are often unnecessarily costly and highly inefficient. Local governments often waste tax money on poorly planned projects. Projects are more likely to succeed if handled by the private sector, which is driven by the free market.

Disincentive to Investment. Another complaint made by nineteen waste management industry representatives was that incentives to invest are often curtailed by the prospect of flow control. If companies believe their revenue stream will be removed by government-owned facilities that are supported by flow control, they are unlikely to invest millions of dollars on new and potentially risky ventures.

Energy Answers Corporation (EAC), stated that, contrary to arguments claiming that flow control reduces financial risks by guaranteeing waste and revenue, flow control does not guarantee financial success, and lenders and bondholders oppose flow control because it creates uncertainty when planning

and developing a project. For example, if social or economic changes occur, such as shifting populations, then facilities will have no mechanism to adjust their disposal options if they are limited to a specific geographic area.

EAC asserts that flow control is not necessary to support a facility. EAC is responsible for the development of SEMASS, a three hundred million dollar resource recovery facility in Massachusetts. Although SEMASS is one of the nation's largest waste-to-energy facilities in the country, EAC has never required flow control for any aspect of its development or operation. All of EAC's projects are privately financed and rely on long-term negotiated contracts. The SEMASS Partnership, owned by EAC, is an example of a successfully operating facility that never utilized flow controls. In order to secure financing, SEMASS was required by its lenders to secure 1,000 tons of waste under long term contract. They were able to do this successfully by negotiating with 32 cities and towns and by demonstrating that they would provide the most cost effective disposal option.

Supporters of Flow Control. Ten of the 60 waste management industry commenters supported flow control. Two stated that flow control did not result in monopoly control and instead, provided a balanced playing field for all waste management companies. With flow controls, smaller firms could compete evenly with larger firms; without flow controls, larger firms, especially those with their own management facilities, could undercut prices and capture most of the waste market. Ogden Martin Systems, Inc. commented that flow controls in northern Virginia actually caused competition to flourish and pointed out that over 800 individual trash collection and disposal contractors compete for business within Arlington County, Fairfax County, and the City of Alexandria. Four of the companies argue that flow control is necessary to guarantee waste to facilities, which in turn guarantees that the facility owners (either local governments or private firms) will pay off their debts. Minnesota Resource Recovery Association added that haulers would simply choose cheaper alternatives.

Recycling Industry

Increased Disposal Costs. Ten recycling industry commenters either explicitly stated or implied that flow controls create monopolies and cause price escalation. These commenters agree that the free market is responsible for keeping prices at reasonable levels and that flow controls interfere with the free market system causing all the benefits associated with competitive markets to disappear (e.g., system upgrades, improved quality of service, market development, and low prices).

One recycler also believes that flow control is a tool used to disguise new taxes. However, as stated by another commenter, increased costs resulting from flow control can drive private recycling firms out of business and therefore reduce tax revenues.

Market Inefficiencies. Six of the recycling industry commenters feel that flow controls would result in either inefficient collection of recyclable goods or inefficient waste disposal in general. Four commenters also stated that flow controls would retard the development of the recycling market by blocking local businesses with the potential to use recycled feedstock from obtaining the material from monopoly collectors.

Disincentive to Investment. Two recyclers addressed the effects of flow control on incentives to invest. They stated that flow controls that regulate recycling will prevent further private investment in recycling efforts. Often, existing flow controls compete with private sector recycling investments and crush any incentive to invest in the recycling industry. In addition, the municipal operations taking control of

recycling efforts have less incentive to invest in state-of-the-art facilities in an effort to increase efficiency, because they are protected from the forces of the free market.

Financial Institutions

Market Inefficiencies. Only two financial institutions commented, Paine Webber, Inc. and Standard & Poor's Corporation. Paine Webber stated that competition still exists with flow control since haulers must competitively bid to haul waste for municipalities. Standard & Poors also commented on the market effects of flow control stating that flow control would limit competition. In general, Standard & Poors is neutral on the flow control issue, stating both that, "flow control is not necessary for a solid waste issue to receive a high rating" and yet "if municipal solid waste facilities are to be financed with tipping fees, legal waste flow is needed to have strong investment grade ratings and the lowest possible borrowing costs to the municipality."

Environmental Groups and Individuals

Increased Disposal Costs. Three commenters opposing flow control stated that it creates monopolies and results in higher costs to consumers. They said that when a monopoly replaces the free market system, prices increase and the consumer suffers.

A University of Wisconsin research assistant supporting flow controls, stated that if large regional landfills are allowed to underbid the services provided by county-wide or municipal disposal systems, the government-owned facilities will not be able to compete. Consumers will choose the cheaper option in a free market system. Flow control ensures that consumers will pay the higher disposal costs necessary for an environmentally safe facility.

The Pennsylvania Chapter of the Sierra Club agreed stating that flow control is needed to help cover the costs of existing solid waste disposal facilities.

Incentives to Investment. One commenter also stated that flow control is necessary to convince investors to buy the bonds that finance facilities. Without revenue guarantees, the ability to plan and finance new, state-of-the-art facilities would be greatly reduced.

IV. Impacts of Flow Controls on Recyclable Materials

Comments concerning recyclables and flow controls could be divided into the following three categories:

- No exclusion of recyclables;
- Limited exclusion of recyclables; and
- Complete exclusion of recyclables.

Addressing the exclusion of certain materials from flow controls, most of the comments from the recycling industry raised the issue of discarded versus non-discarded materials. The position of these commenters on the use of flow controls to manage materials depended on whether flow controls could regulate all materials or only materials discarded (e.g., placed at the curb or delivered to a recycling facility).

Some of the commenters included in the "Complete Exclusion" category did not provide a definition of recyclables or differentiate between clean and mixed recyclables in their comments. As more information concerning this distinction was acquired, it appears that most commenters believe that source separated recyclables should be excluded from flow control.

State and Local Governments

Of the 74 commenters from state and local government, 36 commenters directly addressed the issue of materials covered by flow control ordinances. The central issue raised in most of the comments was defining recyclables and determining who has the right to regulate them.

<u>No Exclusion of Recyclables.</u> Fourteen commenters noted that the government had the authority and/or the need to control the flow of all municipal solid waste, including recyclables.

Two commenters justified the authority of municipalities to implement flow control over recyclables by explaining that it enables them to meet state recycling goals. The commenter representing the League of California Cities observed that without the authority to control the flow of recyclables, cities will not be able to meet the ambitious diversion mandates established by California law and by 1995 will be subject to fines of $10,000 per day. Further, if recyclables are exempted, many contracts will be void and exclusive franchisees will be unable to meet their obligations. Local governments also will experience similar revenue/tonnage problems.

Regional Waste Services, Inc. (RWS is an organization representing 21 municipalities in Maine) expanded on this by adding that all household, commercial, industrial, municipal, and institutional solid waste, including the recyclable component of the waste stream in Maine, is the property of RWS. As a result of this ownership, RWS has the right to subject all discarded and unused materials regardless of their material value to flow controls.[4] RWS stated that recyclables need to be included to help each municipality in Maine meet its mandatory recycling goals. Each municipality in Maine is under a statutory

[4] According to state regulations, municipalities may designate certain materials as recyclables and exempt them from flow control.

mandate to recycle 50% by January 1, 1994. If a municipality fails to make reasonable progress towards this goal, it will be assessed $1.50 per ton on its tipping fee. Since the responsibility to meet these recycling goals ultimately falls on the municipalities, it is likely that the encouragement of voluntary recycling by generators will result in the imposition of penalties against the municipalities.[5]

In September 1992, New York City approved a Solid Waste Management Plan consisting of ambitious source reduction, recycling, landfilling, and incineration programs. As part of the plan, New York City will consider promulgating flow control pursuant to New York City Administrative code §16-201 et seq., that will facilitate the recycling and composting of some categories of residential, institutional and commercial solid waste. Since the Department of Sanitation only collects waste from residential and certain institutional generators, flow control may need to be employed to direct certain categories of recyclables and/or compostable solid waste currently collected by the private sector to specialized handling facilities in order to meet planning goals.

Limited Exclusion of Recyclables. Ten commenters stated that while recyclables were different from the rest of the municipal solid waste stream, it was important to be selective in excluding recyclables from flow control. Most importantly, there was considerable concern that "recyclables" and "recycling" be clearly, universally, and equitably defined. Some commenters described the recyclable materials excluded from flow controls in their own state. These exclusions are implemented in two ways: some states list specific materials to be excluded from flow controls and other states list the materials actually subject to flow controls.

According to the Maine Waste Management Agency, Maine flow controls cover residential, commercial, and industrial waste, as well as recyclables that are abandoned or discarded by the owner. In Maine, commercial businesses with their own disposal facilities are an additional exception.[6]

According to the Minnesota Legislative Commission on Waste Management, municipal solid waste flow control or waste designation in the state is based on a waste management hierarchy (source reduction, recycling, waste-to-energy, landfilling). This approach allows designation only for wastes that would otherwise be managed in a less environmentally sound manner. The state will not authorize the use of flow controls for waste that is being managed at a facility using a method that occupies the same or higher place on the state's waste management hierarchy (e.g., flow controls could not be applied to MSW currently being managed at a waste-to-energy facility in order to send the waste to a landfill). Waste designation may not be applied to source separated recyclables. Also exempt from designation is waste processed at a resource recovery facility in operation at the time a designation ordinance goes into effect. Anyone can apply for exclusion from designation, and it must be granted if it would not financially impair the facility. Designation encourages source reduction, recycling, and waste management facilities at the higher end of the hierarchy and discourages the use of landfills.

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5 The municipality may have trouble tracking the voluntary quantities recycled and thus may not be able to demonstrate that they have met their recycling goal.

6 This differs slightly from the language in the state regulations, which states that municipalities may require delivery of solid waste to a designated facility. Under the regulations, municipalities may designate certain materials as recyclables and exempt them from flow control.

While the Michigan Solid Waste Management Act does not authorize flow control, it does regulate the entire solid waste stream except for hazardous and liquid wastes. According to the Michigan Department of Natural Resources, Michigan also exempts certain recyclable materials from the Solid Waste Management Act, "if they are separated and actually being recycled." In Prince Georges County, Maryland, the local government has the authority to direct all solid waste, but exempts construction demolition debris, commercial recyclables (i.e., white paper and corrugated cardboard), old cars, sludge, and asphalt.

According to Lycoming County, Pennsylvania, flow control is authorized for curbside separated recyclables and delivered recyclables for all commercial, industrial, household, or institutional recyclables (i.e., flow control is authorized for discarded materials). Lycoming does exempt charities, private industry, and residential drop-off or buy-back centers from flow controls. The Solid Waste Authority of Central Ohio, excludes secondary materials recovered from a materials recovery facility, as long as they are destined for market and not another disposal facility.

The Florida Department of Environmental Protection states that recovered materials, (defined as those with known recycling potential that have been diverted from the solid waste stream for sale, use, or reuse) are exempt from municipal solid waste flow control if the materials are used within one year, they do not cause pollution, and they are not hazardous or derived from hazardous wastes. While local governments have the right to exclusive collection of recovered material from residences, they cannot restrict the flow of commercial source-separated recovered material.

Union City, New Jersey explains that flow control should govern all residential, commercial, and industrial solid waste, including recyclable material, unless they are separated at the point of generation (e.g., source separated). This is necessary because only a public entity will resist market forces and recycle material instead of opting for the cheaper landfilling.

Illinois authorizes flow controls for the management of all municipal solid waste including recyclables. However, Illinois considers that each planning jurisdiction should have the authority to decide what materials to include for flow control in their municipal solid waste management plans.

Champaign, Illinois considers that municipalities need to control the entire residential waste stream in order to achieve economies of scale and to assure adequate volumes to finance programs and facilities. To achieve this, Champaign suggests that all residential waste (including recyclables), all commercial solid waste (excluding source-separated recyclables), all industrial waste (excluding source-separated recyclables), and all landscape waste should be covered by flow control.

The commenter from the Resource Recovery Project in Wallingford, Connecticut, which represents 5 counties, explained that the authority to control the flow of municipal solid waste and residential recyclables is essential to enable states to finance waste-to-energy plants, landfills, and materials recovery facilities. Many Connecticut municipalities have guaranteed waste and/or recyclable streams to enable the financing of such facilities. At the same time, the commenter also noted that it seems logical to treat recyclables as separate once they have been segregated.[7]

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[7] Under current regulations, municipalities in Connecticut may designate where solid waste and specified residential recyclables may be managed.

Complete Exclusion of Recyclables. Twelve state and local governments hold that recyclable material should be excluded from flow controls. Most of these twelve noted that flow control should be applicable only to municipal solid waste, which should be defined to exclude recyclables.

Waste Management Industry

No Exclusion of Recyclables. One commenter from the waste management industry stated that recyclables were no different than any other material in the solid waste stream. In their opinion, no basis exists for excluding some materials from flow controls while including others.

Limited Exclusion of Recyclables. Of the seven waste management industry commenters on this issue, three noted that certain types of recyclable material should be exempt from flow controls. Specifically, one commenter stated that only materials to be sold or donated materials can safely be exempted from municipal solid waste flow control. Two other commenters from WMX Technologies and Mid-American Waste Systems, Inc. stated that while they were not opposed to the flow control of residential recyclables, commercial recyclables should not be subject to flow control. According to WMX, local government should not assume the responsibility or burden of managing commercial and industrial wastes except to the extent that regulations are necessary to protect human health and the environment. Commercial recycling has a long history of being successful and there is no need for it to be disrupted or limited by government.

Complete Exclusion of Recyclables. Three waste management industry commenters stated that it was inappropriate for government to subject recyclables or materials of any value to flow control. These three commenters accepted that local governments need to control municipal solid waste (one commenter defined municipal solid waste as residential waste and another commenter referred to municipal solid waste as any materials that have been discarded).

Recycling Industry

Among the 17 commenters from the recycling industry that addressed the issue of materials covered, the main issue was the need to clearly define the extent to which recyclables should be subject to flow controls. One commenter stated that clarifying the materials covered by flow control ordinances is essential.

No Exclusion of Recyclables. One commenter observed that even if a material is potentially recyclable, it is still a solid waste and inherently could present many of the same potential risks to public health and safety as any other solid waste and therefore should be treated no differently. It is the availability of markets that determines a material's recyclability.

Limited Exclusion of Recyclables. Seven commenters stated that flow control of recyclables is only appropriate when the materials have not been separated from the waste stream or when materials have been discarded through actions such as placing the materials on the curbside. One commenter elaborated on the need to categorize recyclables into at least two types based on their management pathways. The first type entails removal of recyclable materials from discarded solid waste. Since this is a regulated solid waste activity, recyclables following this path may be subject to flow controls. The second pathway, however, involves source separated materials that have never been part of the solid waste stream. This second category is not waste management but resource management. Flow controls are not appropriate here. Recovered materials are not solid waste and not subject to flow control.

The commenter from the Free-Flow Packaging Corporation (FFP) also noted that the ability to collect source-separated recyclable material directly from the generator is essential to maintaining the high quality raw material for their polystyrene needs. Specifically, FFP collects polystyrene directly from its generators (e.g., Apple Computer, Sony, Saturn Motor Company), so that it is clean, dry, and free of all contamination. This source of usable raw material would not be available if flow controls included recovered materials in the definition of solid waste. It is not feasible for FFP to purchase polystyrene from a municipal transfer station because if the polystyrene is collected by a garbage hauler, it is commingled with other plastics, cans, and covered with dust.

Six of these seven commenters that are in favor of limited exclusions noted that flow controls should not interfere with the property rights of the generator. One commenter also noted that the right of commercial businesses to contract directly with scrap metal dealers for the collection of materials separated prior to disposal must be protected.

Complete Exclusion of Recyclables. Nine of the commenters from the recycling industry stated that recyclables should be excluded from the materials covered by flow controls because (1) recyclables are a commodity; and (2) the personal property rights of the owner need to be protected. Generators should have the right to dispose of materials as they choose.

Financial Institutions

One commenter addressed the issue of what materials ought to be covered by flow controls. Paine Webber's position is that bondholder security is greatest when the commitment of flow includes 100% of all waste generated in a region. However, Paine Webber has successfully financed projects where local community recycling efforts have been exempted. They feel that the role of recyclables in the waste stream needs to be further evaluated.

Environmental Groups and Individuals

No Exclusion of Recyclables. Two commenters stated that recyclables should not be exempt from flow control ordinances. The Pennsylvania Sierra Club noted that all materials should be covered by flow control including commercial, residential, and industrial solid waste as well as curbside separated recyclables and commercially generated recyclables.

One commenter observed that in California "recyclables" are legally a part of the solid waste stream. Consequently, local governments have legal justification for their authority to regulate "recyclables."[8]

Limited Exclusion of Recyclables. Of the four individual and environmental group commenters that addressed the issue of materials covered by flow controls, two commenters noted that certain exclusions were necessary.

The Californians Against Waste Foundation (environmental group) stated that flow control should be limited to mixed solid wastes. Source separated recyclable materials which have been separated by the

[8] California Public Resources Code protects the right of persons to sell, donate, or otherwise dispose of recyclables.

generator for the purposes of reuse, recycling, or composting should not be defined as solid waste, nor should they be subject to the flow control authority of local government. The definition of solid waste should not depend upon the value of the material. Generators should be able to recycle their materials with the recycler of their choice whether it is on a donate, sale, or fee for service basis.

The American Automobile Manufacturers Association noted that flow control must include certain exclusions. Solid wastes transported for the purpose of recycling to a facility owned or operated by the generator should be excluded. Recyclable materials separated from municipal waste should be excluded as well. The definition of municipal solid waste also should exclude industrial process waste, or other solid wastes resulting from industrial activity that are unlike general refuse and trash, including construction, demolition, and any renovation debris; used oil; scrap metal; machinery and equipment; and any solid waste identified or listed as a hazardous waste under section 3001 of RCRA, or any solid waste containing polychlorinated biphenyls (PCBs) that is regulated under the Toxic Substances Control Act.

V. IMPACTS OF FLOW CONTROLS ON HUMAN HEALTH AND THE ENVIRONMENT

State and Local Governments

Seventeen state and local governments commenters addressed the impacts of flow controls on human health and the environment. All of the 17 commenters favor the use of flow controls. The general opinion of 14 state and local governments is that improperly handled waste can present serious environmental and human health problems that do not arise in the handling of most other commodities. State and local governments seem most concerned that without flow controls, economics would cause haulers to bring waste to the cheapest disposal facilities regardless of their level of environmental protection. In addition, incentives would remain for environmentally unsound facilities to continue operating indefinitely without upgrading. Since substandard and minimally standard facilities contaminate ground water, impose health risks to citizens and cost tremendous amounts of money to clean up and upgrade, it is wise to implement flow controls to steer waste away from unsound and often environmentally hazardous facilities.

According to one government commenter, repeal of waste flow control would benefit those entities that have made the least effort in pursuing and implementing balanced and environmentally correct solid waste solutions. In contrast, flow control rewards those striving to meet environmental objectives.

The City of Tacoma, Washington believes that flow controls can play an important role in funding the clean up of Superfund sites. In Tacoma, solid waste rates approximately doubled between 1989 and 1993 in order to pay for debt service on the revenue bonds used to fund remediation activities at a Tacoma Superfund site. Without flow control, funding the remediation activities would have been extremely difficult and complete remediation would not have been accomplished as rapidly as it was.

Six state and local governments feel that limitations of the use of flow control impinge on government's rights. They believe that if local governments are ultimately responsible for the waste in their jurisdiction, they should be allowed to decide how and where that waste is disposed. If flow control is the most suitable method for ensuring that waste is disposed in the safest way possible, municipalities should be allowed to implement it.

Two commenters stated that illegal dumping occurs in the absence of flow control and that flow control would provide the authority to reduce backyard dumping.

Waste Management Industry

Twenty representatives of the waste management industry addressed the impact of flow controls on human health and the environment. Seventeen opposed flow control, while three supported it.

Ten commenters believe that flow control is unnecessary as a means of protecting human health and the environment. They stated that RCRA's Subtitle D Rule for municipal landfills, once implemented, would provide adequate protection and therefore, environmental protection is not a valid justification for flow controls. One commenter suggested that stricter enforcement of existing rules and regulations governing waste disposal sites would achieve greater environmental protection without loss of competition.

Two commenters, a solid waste collector in Mercer County, New Jersey, where flow controls presently exist, and the National Solid Wastes Management Association (NSWMA), oppose flow control stating that it leads to illegal dumping. Since residents are not willing to pay more to have their trash removed, they find other means of disposal such as backyard burying or dumping. This illegal dumping damages soils and contaminates ground water. According to NSWMA, illegal dumping already occurs in some localities such as Saint Lawrence County, New York, where flow controls currently are in place.

Another concern, voiced by two commenters, the National Solid Wastes Management Association (NSWMA) and United States Pollution Control Inc., is that flow control actually will channel waste to environmentally unsound disposal sites or possibly even to known Superfund sites. According to NSWMA, flow controls forced Rhode Island Solid Waste Management Corporation to haul waste to a known Superfund site. The commenters fear that all residents and organizations that used the environmentally unsound facility will be responsible for cleanup costs through increased rates.

Four commenters maintained that flow control does not protect human health and the environment. One commenter, York Disposal Services, stated that flow control can actually damage the environment when it forces private haulers to carry waste long distances, increasing fuel use and air pollution. York feels that if flow control is potentially harmful to the environment, it is not a reasonable solution to the waste problem.

Finally, three proponents of flow control expressed concern that without flow control laws, local governments cannot properly manage waste disposal and ensure human health and environmental safety. If local governments are to be held responsible for waste within their jurisdictions, they must be armed with all available tools to prevent the mismanagement of that waste.

Recycling Industry

Eight recyclers commented on the impacts of flow control on human health and the environment. All eight either stated explicitly or implied that flow control does not provide benefits to human health and the environment. Two of the eight commenters specifically oppose flow control of recyclables, which in their view have no hazardous effects on health or safety. The California Resource Recovery Association cited a study of over 600 recycling facilities by the California Integrated Waste Management Board (CAIWMB) entitled, "Effects to Human Health and the Environment of Recycling Facilities and the Manner in Which These Facilities are Regulated." The analysis showed that the environmental impacts of processing source separated materials are minimal, so they could be excluded from flow controls without great risk to the public.

One recycler stated that flow controls cause problems with illegal dumping. When fees increase, people try to avoid them by dumping waste illegally. Another recycler claimed that in the past, flow controls have directed waste to sites known to be environmentally unsound.

Environmental Groups and Individuals

The six environmental groups and individuals commenting on the impact of flow controls on human health and the environment oppose the use of flow control. Two feel that flow control impinges on the generators' right to choose the most environmentally protective waste management facility. In effect, the waste generator loses control of the management of his or her waste but retains liability for any mismanagement. According to the American Automobile Manufacturers Association (AAMA), "If a waste generator were limited by a flow control statute or regulation to manage waste at certain facilities, and

these facilities subsequently became Superfund sites, the generator should be relieved of CERCLA liability with respect to response costs at these facilities. In such a case, it would be Congress, EPA, or the local government and not the generator that actually 'arranged for disposal' of the material."

Another commenter described a case in New York where flow control forced waste to be disposed in an environmentally inferior facility. This commenter stated that, "[d]espite the presence of a state of the art waste-to-energy plant in the neighboring Town of Hempstead, the Town of North Hempstead invoked its flow control authority to direct all commercial, industrial, and residential solid waste generated within its boundaries to an unpermitted Town transfer facility for out-of-state export."

Finally, one commenter, the Californians Against Waste Foundation, stated that preliminary evidence shows that the majority of problems occur with facilities that process mixed solid waste. Hence, recycling facilities should not be penalized with flow controls when they are not causing environmental problems. The Californians Against Waste Foundation suggested that the degree of regulation should be proportional to the degree of environmental impact.

VI. ALTERNATIVES TO FLOW CONTROLS

State and Local Governments

Most of the 13 state and local governments that suggested alternatives either stated explicitly or implied that waste management policy goals could not be achieved without flow control. Consequently, governments suggested alternatives cautiously, often warning that they were not completely feasible.

Contracts or Franchising Agreements. The most popular alternative (suggested by 7 commenters) was government contracts with the private sector to guarantee adequate flow of waste to planned facilities. Though effective in the short run, one commenter stated that contracts do not provide any means of financing future capacity or for funding landfill closure and remediation. Another commenter pointed out that contracts are really a form of flow control since they restrict competition and limit opportunities for small rubbish haulers.

Three commenters suggested that if legislative authority exists, local governments could establish franchises. With franchises, instead of entering into contracts, municipalities could give a limited number of haulers franchise agreements or the right to enter into private contracts in a specified district.[9] The United States Conference of Mayors stated that both contracts and franchise agreements are "less flexible" and "more cumbersome" than flow controls and may involve higher costs to consumers. The United States Conference of Mayors also stated that these alternatives disrupt competition more than flow controls do because they limit the destination of waste as well as the opportunity to haul it.

Taxation. Two commenters suggested increasing local or state property taxes. However, according to the Pennsylvania Department of Environmental Resources, most entities do not have the enabling authority. In addition, increased taxation is politically difficult to implement.

Alternative Bonds. The United States Conference of Mayors suggested replacing revenue bonds with general obligation bonds which rely on the taxing authority of the local government to provide financing.

Fee Systems. Four commenters considered the possibility of levying a fee on residences, businesses, and apartments to pay for growth and expansion of solid waste management facilities. This fee would subsidize facilities. According to the commenters, one problem with this approach is that it does not encourage the internalization of the true costs of waste disposal. Hence, generators lack incentives to reduce waste.

Another possibility (suggested by Minnesota) is to create landfill surcharges for future closure/post-closure care and possible remediation costs. This approach forces greater internalization of the true costs of landfilling and reduces some of the differences in tipping fees between landfills and other waste management facilities.

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[9] A franchise is the right or license granted to a person to market a company's services within a particular territory. Franchises are often awarded through a competitive bidding process. Franchises could limit the number of waste management or recycling companies within a jurisdiction. As part of this franchise agreement, a company may sign a contract requiring that municipal solid waste or recyclables be collected and delivered to specific management facilities.

One commenter stated that local governments could establish license fees for waste haulers, charging them for their licenses to operate such that the fees would cover the basic costs of operating a waste management facility. Operators then could charge minimal tipping fees.

Increased Government Involvement. Five commenters suggested complete government ownership and operation of all elements of the waste disposal industry. This approach would ensure both the financial viability of facilities and effective waste management; however, it would remove the free market from the system altogether and would be extremely complicated and expensive to implement. Another difficulty mentioned by the commenters is that government displacement of private waste companies might cause undesired disruption of the flow of commerce.

Another suggested alternative was to force landfills to upgrade and set aside funds for cleanup, closure, and post-closure care.[10] This alternative would be similar to the landfill surcharge suggestion. Again, landfills would be forced to internalize the true costs of waste disposal and would have to increase fees. As a result, state-of-the-art facilities with higher fees would be better able to compete.

Waste Management Industry

Contracts or Franchising Agreements. Five of the 8 waste management industry firms commenting on alternatives to flow control suggested that municipalities contract with disposal services to ensure waste flow. Through contracts, government-owned facilities still would have guaranteed waste flow without the monopolistic environment created by flow controls. Another firm suggested franchising waste collection using a competitive bidding process.

Taxation. One firm suggested raising taxes to finance facilities.

Alternative Bonds. The following bond alternatives were suggested by a waste management company:

- General obligation bonds;
- Pollution control revenue bonds;
- Leveraged leasing; and
- Industrial bonds.

Unfortunately, no discussion accompanied the suggested alternatives.

Increased Government Involvement. The National Solid Wastes Management Association (NSWMA) advocated the establishment of increased partnerships between the government and private waste service firms.

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10 This alternative already is required under RCRA's Subtitle D.

Recycling Industry

Seven of the 8 recycling firms commenting on alternatives to flow control either stated that competition was the best option or mentioned that free market options in general should be explored in greater depth. The following alternatives were offered:

Contracts or Franchising Agreements. Four commenters suggested the use of contracts or franchising agreements as competitive alternatives to flow control.

One commenter suggested establishing government and recycler alliances. Through the alliances, recyclables are either separated from municipal solid waste or reclaimed after collection but before disposal. The alliances allow recyclers to access recyclable material while still appeasing the health and safety concerns of local governments.

Taxation. Individual recycling companies stated that taxes could provide an alternative to flow controls. State or local governments could levy permit taxes on all vehicles transporting waste and/or finance new facilities through the creation of new taxes.

Fee Systems. Two commenters suggested establishing system fees to create recycling incentives.

Increased Government Involvement. The California Resource Recovery Association (CRRA) suggested each of the following alternatives:

- Promote the expertise and investment of existing recyclers to provide reuse, recycling and composting services to generators;
- Build smaller MRFs that encourage (or at least allow) independent recyclers to continue recycling. Instead of building facilities that handle all recyclables, CRRA proposed designing facilities that target only the recyclables that the private sector cannot handle;
- Finance MRFs with flow control of solid waste only (i.e., not including source separated materials);
- Have state or local governments establish a license and reporting system for independent recyclers;
- Ban recyclable or compostable materials from landfills (as San Diego is doing with a mandatory recycling ordinance). This ban would achieve the same objectives of flow control of recyclable materials; and
- Require generators who do not meet recycling goals to develop comprehensive waste reduction plans.

Financial Institutions

Standard and Poors was the only financial institution to comment on alternatives.

Taxation. Standard and Poors raised the possibility of using ad valorem taxes (property taxes) to fund projects.

Increased Government Involvement. They also suggested special assessments, which may accomplish the same effect as legal flow controls. A system can levy an assessment on all residents and businesses and charge no or low tipping fees at the waste management facility, creating the equivalent of an economic monopoly without waste flow laws. The assessment would provide credit strength and allow local governments to obtain financing for waste management facilities.

Environmental Groups and Individuals

Increased Government Involvement. One reason for flow controls is to meet state recycling goals. However, instead of establishing flow controls, one commenter suggested that governments begin mandatory recycling programs, which, with better record keeping and monitoring requirements, would obtain the same results.

LIST OF COMMENTERS

STATE AND LOCAL GOVERNMENT COMMENTERS

State Governments

Connecticut Department of Environmental Protection, Hartford, Connecticut
Delaware Solid Waste Authority, N.C. Vasuki, Chief Executive Officer, Dover, Delaware
Florida Department of Environmental Protection, William Hinkley, Chief, Bureau of Solid and Hazardous Waste, Tallahassee, Florida
Illinois Environmental Protection Agency, Mary Gade, Director, Springfield, Illinois
Maine Waste Management Agency, Sherry Huber, Executive Director, Augusta, Maine
Massachusetts Office of the State Auditor, Division of Local Mandates, Joseph DeNucci, Auditor, Boston, Massachusetts
Michigan Department of Natural Resources, Jim Sygo, Chief, Waste Management Division, Lansing, Michigan
Minnesota Legislative Commission on Waste Management, MN Office of Waste Management, MN Pollution Control Agency, and MN Attorney General
Nebraska Department of Environmental Quality, Joe Francis, Assistant Director, Lincoln, Nebraska
New Jersey Department of Environmental Protection and Energy, Office of Recycling and Planning, Gary Sondermeyer, Assistant Director
Ohio Environmental Protection Agency, Kate Bartter, Deputy Director for Policy and Legislation, Columbus, Ohio
Pennsylvania Department of Environmental Resources , Arthur Davis, Secretary

Local Governments and Organizations Representing Local Governments

American Public Works Association, Ray Reurket, Director, Federal Programs, Washington, D.C.
Association of Minnesota Counties, Barbara Johnson, Attorney (represents 86 of the 87 counties in Minnesota)
Board of Hennepin County Commissioners, Minnesota, Randy Johnson, Commissioner
Bristol Resource Recovery Facility Operating Committee and Tunxis Recycling Operating Committee, Jonathan Bilmes, Connecticut
Cape May County Municipal Utilities Authority, New Jersey
City and County of Honolulu, Hawaii, Department of Public Works, Robert Young
City of New York Department of Sanitation, Jane Levine, Deputy Commissioner for Legal Affairs
City of Springfield, Missouri, Jim O'Neal, Councilman
City of Sunnyvale, California, Mark Bowers, Solid Waste Program Manager
City of Tampa, Florida, Sandra Freedman
City of Urbana, Illinois, Tod Satterthwaite, Mayor
City of Houston, Texas, Department of Solid Waste Management, Everett Bass, Director
City of Milwaukee, Wisconsin, Department of Public Works, Steven Brachman, Resource Recovery Manager,
City of Tacoma, Washington, Department of Public Works, Phillip Ringrose, Public Works Division Manager
Clay-Owen-Vigo Solid Waste Management District, Indiana, Donna Klewer, Director
Clinton County, Michigan, Department of Waste Management, Ann Mason
Concord Regional Solid Waste/Resource Recovery Cooperative, New Hampshire, James Presher, Director, (represents 27 municipalities)

Connecticut Conference of Municipalities, New Haven, Connecticut
County of Lehigh Department of Planning and Development, Office of Solid Waste Management, Allentown, Pennsylvania, Julia Stamm, Solid Waste Coordinator
County of San Diego, California, Scott Peters, Deputy County Counsel
County of Ventura, California, Solid Waste Management Department, Kay Martin, Director
Delaware County Council, Media, Pennsylvania
Greater Detroit Resource Recovery Authority (represents 21 municipalities)
Greater Lebanon Refuse Authority, Lebanon County, Pennsylvania, Michael Pavelek II, Executive Director
Joint Comments on behalf of City of Indianapolis, Indiana; Davis County Solid Waste Management and Energy Recovery Special Service District; Delaware County Solid Waste Authority; Eastern Renssalaer County Solid Waste Management Authority; Greater Detroit Resource Recovery Authority; Marion County, Oregon; Minnesota Resource Recovery Association; National Institute of Municipal Law Officers; Onondaga County Resource Recovery Agency; Resource Authority in Sumner County, Tennessee; Solid Waste Authority of Central Ohio; Town of North Hempstead, New York; Wisconsin County Solid Waste Management Association; and York County Solid Waste and Refuse Authority
King County Solid Waste Division, Department of Public Works, Seattle, Washington, Rodney Hansen, Manager
Lackawanna County Solid Waste Management Authority, Pennsylvania
La Crosse County, Wisconsin, Brian Tippetts, Solid Waste Manager
Lancaster County Solid Waste Management Authority, Pennsylvania, Herbert Flosdorf, Executive Director
Latah County, Idaho, Board of Latah County Commissioners
Law Firm of DeCotiis & Pinto for 7 of the 22 solid waste management districts in New Jersey, Hackensack, New Jersey
Law Firm of Fulbright & Jaworski for the Incorporated Villages of Westbury, Mineola, and New Hyde Park, New York; The New York State Conference of Mayors and Municipal Officials; and American Ref-Fuel Company of Hempstead, New York
Law Firm of McManimon & Scotland for the Mercer County Improvement Authority, New Jersey
Law Firm of Michael D. Diederich, Jr. for the County of Rockland Department of Solid Waste Management
Law Firm of Tock and Miller, LTD. for the Intergovernmental Organization in Champaign County, Illinois
League of California Cities, Yvonne Hunter, Legislative Representative, Sacramento, California (represents 468 incorporated cities in California)
Lycoming County Planning Commission and Lycoming County Solid Waste Department, Pennsylvania, Jerry Walls, Executive Director
Marion County, Oregon, Department of Solid Waste Management, James Sears, Director, Salem, Oregon
Medina County Sanitary Engineering Department, Ohio, K.W. Hutz, County Sanitary Engineer
Metro Dade Solid Waste Management, Miami Florida, Paul Mauriello, Solid Waste Management Planner
Monmouth County Planning Board, New Jersey, Lawrence Zaayenga, Solid Waste Coordinator
National Association of Counties, Washington, D.C.
Newark, New Jersey, Sharpe James, Mayor
Northeast Indiana Solid Waste Management District, Brian Miller, Executive Director
Organization of Solid Waste Districts of Ohio, Michael D. Long, Executive Director of the Solid Waste Authority of Central Ohio (Mr. Long's comments represent the opinion of the Organization of Solid Waste Districts of Ohio which is comprised of 40 of Ohio's 48 solid waste management districts.)

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Pollution Control Financing Authority of Warren County, Oxford, New Jersey, Bart Cahart, Executive Director
Prince Georges County, Maryland, Dept of Environmental Resources, Eugene Lauer, Director
Regional Waste Services, Inc., Portland, Maine, Gary Lorfano, Chairman of the Board of Directors (Regional Waste Services represents 21 municipalities)
Solid Waste Association of North America, John Abernethy, Vice President, (also Public Works Director, Sacramento County, California) Mr. Abernathy's comments represent SWANA's opinions regarding the flow control issue.
Solid Waste Association of North America, Durwood Curling, International Secretary (also Executive Director of Southeastern Public Service Authority of Virginia) Mr. Curling's comments represent SWANA's opinion on the flow control issue.
Solid Waste Association of North America, Curt Kemppainen, President (also Public Works Director, Kent county, Grand Rapids, Michigan) Mr. Kemppainens' comments represent SWANA's opinions regarding the flow control issue.
Solid Waste Association of North America's "Response to Questions Raised by the USEPA for Their Flow Control Public Meetings"
Solid Waste Authority of Central Ohio, Jack Foulk, President of the Franklin County, Ohio Board of Commissioners and Chairman of the Solid Waste Authority of Central Ohio Finance Committee. Mr. Foulk's comments represent the Solid Waste Authority of Ohio's opinions regarding the flow control issue.
Minnesota Solid Waste Management Coordinating Board, Paul McCarron, County Commissioner (represents the 7 counties that surround and include Minneapolis and St. Paul)
Southeastern Public Service Authority of Virginia, John Hadfield, Deputy Executive Director (represents 8 communities)
Spokane, Washington, Sheri S. Barnard, Mayor (on behalf of herself and other concerned citizens)
Spokane Regional Solid Waste Management System, Washington, Phil Williams, Executive Director
Town of Hamden, Connecticut, Mayor Lillian D. Clayman
Town of Wallingford, Connecticut, Philip Hamelm, Jr., Resource Recovery Project Coordinator (represents 5 counties)
Union County Utilities Authority, Linden, New Jersey, Jeffrey Callahan, Executive Director
United States Conference of Mayors, Washington, D.C., J. Thomas Cochran, Executive Director
Winnebago County Solid Waste Management Board, Wisconsin, Leonard Leverence, Director of Solid Waste

WASTE MANAGEMENT INDUSTRY COMMENTERS

Alliance Environmental Services, Inc., Milwaukee, Wisconsin
Allied Waste Industries, Inc., Apache Junction, Arizona
Arena Trucking Co., Inc., Rice, Virginia
Attwoods Inc., Coconut Grove, Florida
Browning-Ferris Industries, Inc., Houston, Texas
C&R Sanitation Co., Inc. Collection & Recycling, Newington, Connecticut
California Refuse Removal Council, Sacramento, California
California Waste Removal Systems, Lodi, California
CDT Landfill Corporation, Joliet, Illinois
Cedar Disposal Inc., Menomonee Falls, Wisconsin
Chambers Development Co., Inc., County of Anson, North Carolina
Commercial Disposal Co., Inc., West Springfield, Massachusetts
Council of Trade Waste Association, Inc., Flushing, New York

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CSX Transportation, Jacksonville, Florida
Daneco, Inc., Minneapolis, Minnesota
E&K General Hauling Inc. (President), Sheboygan, Wisconsin
E&K General Hauling Inc. (Vice President), Sheboygan, Wisconsin
Energy Answers Corporation, Albany, New York
Expert Disposal Service, Inc., Hartland, Wisconsin
Frank Perrotti & Sons, Inc., Woodbridge, Connecticut
Grand Central Sanitation, Pen Argyl, Pennsylvania
Handy Dump Waste Diverting Technologies, Inc., Roanoke, Virginia
Hechimovich Sanitary Landfill, Inc., Horicon, Wisconsin
Knutson Services, Inc., Rosemount, Minnesota
Laidlaw Waste Systems, Inc., Burlington, Ontario
McCaughey Standard, Inc., Pawtucket, Rhode Island
McGuire, Woods, Battle, & Boothe REP: Container Corporation of Carolina, Inc., Fort Mill, South Carolina
Mid-American Waste Systems, Inc., Canal Winchester, Ohio
Minnesota Resource Recovery Association, Trudy Gasteazoro, Executive Director, St. Paul, Minnesota (represents waste-to-energy facilities serving 29 counties and 2 cities. Other members of the Association include Dakota county, Northern States Power Company, United Power Association, Quadrant Company and Richards Asphalt
Multi Material Management & Marketing, Oakland, California
National Serv-All, Inc., Ft. Wayne, Indiana
National Solid Wastes Management Association, Washington, D.C. (represents 2500 member companies in the U.S. and Canada)
Norcal Waste Systems, Inc., California
Ogden Martin Systems, Inc., Arlington, Virginia
Paine's Inc. Recycling and Rubbish Removal, Simsbury, Connecticut
PASCO (Palo Alto Sanitation Co.), Palo Alto, California
Richmond Sanitary Service, Richmond, California
Ritters Sanitary Service Inc., Lyon County, Minnesota
Rumpke Waste Systems, Cincinnati, Ohio
Santek Environmental, Inc., Cleveland, Tennessee
Sawyer Environmental, Hampden, Maine
Semass Partnership, Rochester, Massachusetts
South Coast Refuse Corp., Irvine, California
Superior Environmental Services (President), West Allis, Wisconsin
Superior Environmental Services (Chief Executive Officer), West Allis, Wisconsin
Testimony of a Solid Waste Collector in Mercer County, New Jersey
United States Pollution Control, Inc.
Upper Valley Disposal Service, St. Helena, California
Valley Sanitation Co., Inc. (Vice President), Fort Atkinson, Wisconsin
Valley Sanitation Co., Inc. (General Manager, Leonard Cerrentano), Fort Atkinson, Wisconsin
Valley Sanitation Co., Inc. (President), Fort Atkinson, Wisconsin
Valley Sanitation Co., Inc. (General Manager, Deborah Vaughn), Fort Atkinson, Wisconsin
Virginia Waste Industries Association, Richmond, Virginia
Vogel Disposal Services, Mars, Pennsylvania
Waste Material Trucking Company, Inc., Southington, Connecticut
Waste Industries, Inc., Raleigh, North Carolina
Waste Systems Corporation, Minnesota

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Waste-Stream Inc., Potsdam, New York
WMX Technologies, Inc., Oak Brook, Illinois
York Waste Disposal, Inc., York, Pennsylvania

RECYCLING INDUSTRY COMMENTERS

American Forest & Paper Association, Washington, D.C.
Automated Material Handling, Kensington, Connecticut
C.F. Justice, Hesperia, California
California Wastepaper Dealers Association, Baldwin Park, California
California Resource Recovery Association, Loomis, California
Chicago Paperboard Corporation, Chicago, Illinois
E. L. Harvey & Sons, Westboro, Massachusetts
Free-Flow Packaging Corporation, Redwood City, California
Independent Recycler's Association, Oakland, California
Institute of Scrap Recycling Industries: Chicago Chapter, Chicago, Illinois
Institute of Scrap Recycling Industries, Inc., Washington, D.C.
Institute of Scrap Recycling Industries: Southwestern Chapter, California
IVEX Packaging Corporation, Lincolnshire, Illinois
Jefferson Smurfit Corporation, St. Louis, Missouri
Marin Recycling and Resource Recovery Association, San Rafael, California
National Recovery Technologies, Inc., Nashville, Tennessee
Northern California Recycling Association, Berkeley, California
Omni Recycling Paper Recycling Coalition, Westbury, New York
Recycling Products of Rockland, New York
Recycling Products of Rockland and C & A Carbone, New York
Sonoco Product Company, Hartsville, South Carolina, for Paper Recycling Coalition (a group of 11 companies that operate paper mills which exclusively use recovered paper as raw material)
Southeastern Paper Manufacturing Company, Dublin, Georgia, for the Recycling Paper Coalition (PRC)
The Pick Up Artists, Culver City, California
The Business Recyclers Educational Assistance Link, Loomis, California (a technical council of the California Resource Recovery Association formed to specifically address generator's issues regarding source reduction, resource recovery and recycling)
Tidewater Fibre Corporation, Chesapeake, Virginia
Urban Ore, Inc., Richmond, California
Waste Recovery Systems, Inc., Newport Beach, California and Franklin, Tennessee
Weyerhauser Company, Tacoma, Washington
Winzinger Incorporated, Hainesport, New Jersey

FINANCIAL INSTITUTION COMMENTERS

Paine Webber, Inc., New York, New York
Standard & Poor's Corporation, New York, New York

ENVIRONMENTAL GROUPS AND INDEPENDENT COMMENTERS

American Automobile Manufacturers Association, Detroit, Michigan
Bio-Fuels Engineering Corp., Kalama, Washington
Californians Against Waste Foundation, Sacramento, California

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Charlotte Zieve, PhD., Institute for Environmental Studies, Madison, Wisconsin
Citizens Coordinating For Clean Water, Lebanon, Pennsylvania
Dirk Plessner, Esq., Eastman & Smith, Toledo, Ohio
John Pugliaresi, Waste Resource Technologies, California
John McCabe, Independent Waste Management Consultant, Palo Alto, California
Lawrence R. Schillinger Environmental Consultants, Albany, New York
Ohio Chamber of Commerce, Columbus, Ohio
Pennsylvania Chapter of the Sierra Club, Harrisburg, Pennsylvania
Rufus C. Young, Jr. of Burke, Williams & Sorensen, Los Angeles, California (this attorney and his firm have represented California municipalities on solid waste management issues; however, the comments submitted were not on behalf of any specific municipality.)
Tammie Wallace, Fort Myers, Florida
W. Dexter Bellamy, PhD, Fort Myers, Florida

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