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CONGRESSIONAL BAILOUT OF FLOW CONTROL: SAVING THE BURNING BEAST

SIDNEY M. WOLF†

I. INTRODUCTION

On May 16, 1994, in C & A Carbone, Inc. v. Town of Clarkstown, the United States Supreme Court struck down a flow control ordinance of Clarkstown, New York for violating the Commerce Clause. Rendering this decision, the Court resolved a split in fed-

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2. Id.

The Commerce Clause states that “Congress shall have Power ... To regulate Commerce ... among the several States.” U.S. CONST. art. I, § 8, cl. 3. The clause provides an affirmative grant of authority to Congress to regulate commerce. Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1 (1824). The clause has also been interpreted by the Supreme Court to limit, by negative implication, the power of the states and their political subdivisions to affect interstate commerce. This power has come to be known as the “dormant” Commerce Clause. In Gibbons, Chief Justice Marshall declared that the Framers of the Constitution meant the language to be an absolute grant of power to Congress that precluded any state regulation of interstate commerce. Id. at 210-11. Marshall noted that only Congress could exercise the power to affect interstate commerce, otherwise it must “lie dormant.” Id. at 189. The dormant Commerce Clause is also sometimes referred to as the “negative” Commerce Clause. New Energy Co. of Indiana v. Limbach, 486 U.S. 269, 273 (1988).

The dormant Commerce Clause limits state power to affect interstate commerce even when Congress has not acted to either authorize or prohibit state action. See United Bldg. & Constr. Trades Council v. Mayor of Camden, 465 U.S. 208, 220 (1984) (affirming Commerce Clause as “implied restraint upon state regulatory powers”); Norfolk S. Corp. v. Oberly, 822 F.2d 388, 392 (3d Cir. 1987). On the other hand, despite the dormant Commerce Clause, the states retain residual police power to protect the health, safety, public welfare, and the environment for their citizens. Gibbons, 22 U.S. at 203 (deeming “police power” as that used by states to legislate for health, safety and welfare of its citizens and defining it as “that immense mass of legislation, which embraces everything within . . . a state, not surrendered to the general government”). See also Lewis v. BT Inv. Managers, Inc., 447 U.S. 27, 36 (1980) (“[T]he States retain authority under their general police powers to regulate matters of ‘legitimate local concern,’ even though interstate commerce may be affected.”); Hunt v. Washington State Apple Advertising Comm’n, 432 U.S. 333, 350 (1977) (“[I]n the absence of conflicting legislation by Congress, there is a residuum of power in the state to make laws governing matters of local concern which nevertheless in some measure affect interstate commerce...
eral and state courts\(^3\) on the issue of whether flow control discriminated against interstate trade in waste in a manner which violated the Commerce Clause.\(^4\) Following the line of its previous decisions striking down state barriers to the interstate movement of waste,\(^5\) the Court held that the New York ordinance impermissibly discriminated against interstate commerce in waste.\(^6\)


4. The dormant Commerce Clause does not prohibit state and local regulation simply because it discriminates against interstate trade. See Maine v. Taylor, 477 U.S. 131, 138 (1986) (recognizing that state statute can discriminate against interstate commerce "either on its face or in practical effect"); Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 471 n.15 (1981) (recognizing state statute can discriminate in either purpose or effect). A discriminatory state or local regulation may prevail if it is not for the purpose of local economic protectionism, or if it is justified by a legitimate local purpose which is warranted by a valid reason not connected to economic protectionism, and cannot be fulfilled by reasonable non-discriminatory alternatives. See New Energy Co. v. Limbach, 486 U.S. 269 (1988) ("Protectionism [is the use of] regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors."); Lewis v. BT Inv. Managers, 447 U.S. 27, 36 (1980) (stating that local governments "retain authority under their general police powers to regulate matters of 'legitimate local concern,' even though interstate commerce may be affected"); New Energy, 486 U.S. at 278 (suggesting that discriminatory statute may be invalidated if the legitimate local purpose "cannot be adequately served by reasonable nondiscriminatory alternatives").


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“Flow control” is a term describing the legal authority of state and local governments to designate where waste hauling and collection firms must take municipal solid waste for processing, treatment, or disposal. “Flow control,” however, is somewhat of a misnomer; it might better be called “waste designation.” This is because flow control starts with a local ordinance or by-law directing waste haulers in a jurisdiction to deliver their waste exclusively to the designated waste management facilities, such as landfills, waste-to-energy incinerators, transfer stations, material recovery facilities, and composting operations.

Flow control is first and foremost about money. Prior to the Carbone decision, flow control was a very effective means to assure the financing of highly expensive solid waste facilities and operations that often cost hundreds of millions of dollars. Together these facilities cost billions.

The Supreme Court’s ruling in Carbone made it evident that, absent congressional action, the utilization of flow control by states and their political subdivisions cannot occur. The Senate passed legislation, Senate Bill 534, which would legalize flow control for facilities which employed it prior to Carbone, but not after. In other words, the Senate sought to grandfather flow control but not allow it future offspring. The House rejected similar legislation. However, there is a good chance that bailout legislation will reappear in the next Congress, and eventually be enacted.

This article characterizes the effort to legalize flow control as a multi-billion dollar bailout of states and communities which threw their lot in with flow control in order to facilitate the financing of waste management activities. The bailout is not stated by its supporters in Congress to be intended especially for any particular segment of the waste management market. If, however, outcomes are evidence of intentions, then the bailout is intended for the waste-to-energy incineration industry and the communities which formed a partnership with this industry by employing flow control to get waste-to-energy incinerators financed and built. This conclusion is reached because the only waste management approach for which flow control has national importance is for waste-to-energy facilities.

As such, the bailout exists for them.

7. “The primary factor driving the imposition of flow control ordinances is economics.” Id. at 5.
8. See id.
This article examines several aspects of the flow control bailout. Section II describes how flow control works to secure financing for waste facilities. Section III examines the heavy state and local government debt created by flow control supported facilities and the aftermath of the Carbone decision. Section IV describes the Senate bailout legislation. Section V describes the House’s rejection of bailout legislation. Section VI examines the role flow control plays in the different segments of the waste management market. It concludes that the only portion of this market for which flow control has national significance is for waste-to-energy facilities. Section VII explores in detail the impact of flow control on waste-to-energy facilities and discusses why communities made the mistake of investing so heavily in them. Section VIII explains that, because there are alternatives to finance waste management facilities, flow control is not necessary. Lastly, Section IX concludes that the bailout follows in the tradition of flow control, namely that both are easy ways out of difficult problems.

II. Mechanics of Flow Control

It is necessary to begin this analysis by establishing an understanding of the purpose and operation of flow control prior to Carbone. Flow control is principally a financing measure, designed to get state and local governments out of a jam, that is, how to dispose of waste, and how to afford its disposal. Flow control is one method of securing financing for a facility. Another method which often accompanies flow control is a contractual arrangement called “put-or-pay.” Sidney M. Wolf, The Solid Waste Crisis: Flow Control and the Commerce Clause, 99 S.D. L. Rev. 529, 538 (1994). In a put-or-pay arrangement, the local government contracts to “put” a certain amount of waste at the incineration facility. Whether or not the community is able to provide this amount of waste at the incinerator, it still must “pay” for it. In other words, the community is paying for a specific level of capacity whether or not it is used. For waste-to-energy plants, financial markets usually encourage — at least local governments know they implicitly demand — the put-or-pay arrangement. ALEX. BROWN & SONS, INC., CREDIT WORTHINESS OF RESOURCE RECOVERY PROJECTS 9-10 (undated research investment report). While flow control as a whole minimizes the financial risk for both the local government and lenders to a facility, put-or-pay minimizes the risk for the lenders and private operators of a facility.
To build a waste management facility, one needs capital. One may, indeed, need a great deal of capital, depending upon the size and type of waste management operation envisioned. The transfer station at issue in Carbone cost a modest $1.4 million dollars to build.11 By comparison, a state-of-the-art landfill can easily cost $150 million to construct.12 Waste-to-energy incinerators cost from $30 million to $500 million to build.13 These figures, moreover, do not take into account annual operating costs, which can easily amount to millions of dollars for large waste-to-energy plants and for landfills, interest costs, and decommissioning costs. For a waste-to-energy incinerator, decommissioning includes the cost of dismantlement and cleaning up any hazardous or noxious materials from the site. For a landfill, decommissioning involves closing costs that include: creating an adequate reserve fund to clean up and secure the landfill once its useful life is over; closure and post-closure actions such as capping the landfill; providing for a reuse activity on top of the mountain of waste; installing air pollution and ground and surface water pollution monitoring and abatement equipment; maintaining the equipment; and responding to possible pollution after closing. It is a fact that waste facilities built with genuine concern for proper environmental protection standards are enormously expensive.

Lending for waste facilities, like many major public works, is accomplished by the issuance of bonds. These bonds are underwritten by major brokerage houses and purchased in capital markets by pension funds, banks, mutual funds, wealthy individuals, and others with financial means. A community, or a waste district consisting of several communities, that wishes to build these facilities wants not only to attract the necessary capital to build and operate them, but also wants to be able to pay back the millions to its lenders. The lenders, of course, emphatically agree with this. Accordingly, the lenders will act to minimize the risk of default. Thus, for the local governments, the less financially risky the project, the lower the interest charges will become, and the easier it is to attract financing.

It can be difficult, however, to find ready and advantageous financing for multi-million dollar waste facilities. On its face, investing in an operation that puts garbage in a hole in the ground or in

11. Carbone, 114 S. Ct. at 1680.
12. Wolf, supra note 10, at 537 n.61 (estimating proposed landfill in Oregon to cost $148 million).
13. Id.
a big furnace is not particularly alluring. Past stories of serious pollution problems by garbage facilities, and the prospect of environmental liability do not improve this picture. Capital in a competitive marketplace, furthermore, tends to flow to activities with the highest return at the lowest risk, but the average investor does not automatically associate high return and low risk with garbage. Financing for waste facilities, therefore, is not a simple operation.

Flow control, on the other hand, makes waste facilities extremely attractive investments. Although it is intended only to diminish the risk associated with investment, it goes far beyond that. In fact, for all practical purposes, it wipes out the risk and virtually assures repayment.

The business of garbage facilities is to receive garbage. Therefore, the critical element for the financial security of a waste facility is the commitment of a long-term supply of waste. Without an adequate supply of waste, the facility cannot be financially successful. Flow control ensures that a sufficient quantity of waste, called "throughput," will pass through the facility. It literally kidnaps garbage in a jurisdiction and holds it hostage for the facility. Garbage cannot go anywhere else. In kidnapping the waste, flow control also kidnaps the revenues derived from it. The revenues are derived from a "tipping fee," the service charge of a facility for handling the waste. Flow control makes it possible to guarantee that a facility will receive enough waste to, in turn, guarantee sufficient revenue to enable the paying off of bonds necessary to finance the facility.

Equally efficient as the revenue guarantee of flow control, is how price setting is achieved for a waste facility which uses flow control. Flow control creates a monopoly for the facility that is designated to receive the waste, and that monopoly, in turn, fixes any price it wants. The price, or tipping fee, is what is necessary to construct and operate the facility, properly close it after its useful life, and pay the debt service. In addition, it may also provide revenue necessary to fund waste management planning, source reduction and recycling efforts, household hazardous waste collection, and other activities which do not lend themselves to raising revenue because those methods are not generally conducive to charging user fees.

The price for disposal or management of solid waste at flow control supported facilities is usually higher than competing facilities. In the Carbone case, for instance, the waste hauler was compelled to pay a tipping fee of $81 per ton at the transfer station.

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designated by a New York town as opposed to $70 per ton at out-of-state-facilities the hauler preferred. The price disparity is often much worse. In another flow control case, a waste hauler was forced to pay $72 per ton at a public facility compared with $30 per ton at a waste facility it owned but could not use because the waste it collected was trapped in a flow control jurisdiction.

All other things being equal, people ordinarily seek the lowest price for a product or service. "If we build it, they will come," is a reasonable characterization of the expectation of a community that approves the construction of a waste facility in its area. But all other things are not equal with flow control. Flow control excludes competition because it does not allow the garbage to be disposed of at competing facilities offering a lower price. Instead, the paean of a community governed by flow control is: "If we build it, they will have to come." As a consequence, flow control creates an artificial marketplace for waste, making it easier to finance otherwise difficult to finance waste facilities.

III. POST-CARBONE: OUT-OF-CONTROL INDEBTEDNESS OF FLOW CONTROL AND OTHER COSTS

Prior to Carbone, local governments and their lenders relied on flow control to provide for zero risk in establishing waste facilities. As a result of Carbone, this was an impossible, and ultimately dangerous, expectation. In the aftermath of Carbone, local governments that turned to flow control face two unpleasant prospects: "disaster," in the words of the head of New Jersey's municipal trash association, and "chaos," in the words of United States Senator Frank Lautenberg of New Jersey. Waste haulers and communities confronted with a choice between the high cost of using facilities formerly protected by flow control and competing sites with much lower costs are naturally going to choose the latter. Obviously, it is an easy choice as a recent study by a consulting firm for Browning-Ferris Industries, a large waste hauling company, has established.

15. See Waste Systems Corp. v. County of Martin, 985 F.2d 1381, 1387 (8th Cir. 1993).
This study shows that, on average, flow control laws add forty percent to waste disposal charges.\textsuperscript{18}

After the Supreme Court decision in \textit{Carbone}, Moody's Investors Service investigated the economic effect of the loss of flow control and found that landfills and waste-to-energy facilities were losing revenue, and municipalities were having trouble selling bonds to finance facilities.\textsuperscript{19} Moody's investigation included a review of the bond ratings of 100 solid waste facilities dependent upon flow control.\textsuperscript{20} By June 1995, after analyzing 76 facilities with a total debt of $4.5 billion dollars, Moody's downgraded the bonds of 14 solid waste management authorities, confirmed 62, and upgraded none.\textsuperscript{21} Moreover, it determined that three-fourths of the 76 ratings reviewed had an unfavorable rating outlook due mostly to the potential loss of flow control.\textsuperscript{22} Of particular note, Moody's downgraded the waste bond rating of five New Jersey counties to below investment grade status, which is tantamount to labeling them junk bonds.\textsuperscript{23}

Moody's was not the only entity in the investment community showing concern for the repercussions of the loss of flow control. On the eve of the Supreme Court decision in \textit{Carbone}, investment firms with a stake in flow control facilities, such as Municipal Bond Investors Assurance, Inc., began to assess their exposure, should flow control be invalidated by the Court.\textsuperscript{24} Municipal fund managers like John Nuveen & Co., holding $350 million in solid waste bonds, and Van Kampen Merritt Investment Advisory Corp., with $264 million in solid waste bonds, undertook investigations to de-

\begin{itemize}
\item \textsuperscript{18} \textit{Flow-Control Laws Add 40 Percent To Waste Disposal Charge, BFI Says, 26 ENV'T REP. (BNA) 198, 198-99 (May 12, 1995).}
\item \textsuperscript{19} \textit{Solid Waste: Flow Control Decision Has Negative Effect on Financing of Waste Facilities, Moody's Says, 25 ENV'T REP. (BNA) 1482 (Nov. 25, 1994).}
\item \textsuperscript{20} \textit{Id.}
\item \textsuperscript{21} \textit{Flow Control Results in Lower Bond Ratings; More Expected in Wake of High Court Decision, 26 ENV'T REP. (BNA) 471, 471-72 (June 23, 1995). The downgrades occurred in Connecticut, Florida, Maryland, Michigan, New Jersey, New York, and Virginia. \textit{Id.}}
\item Moody's published a report of its results. \textit{MOODY'S INVESTORS SERVICE, MOODY'S MUNICIPAL CREDIT REPORT, SPECIAL, MOODY'S SOLID WASTE RATING SURVEILLANCE AND RATING OUTLOOK: CREDIT RISK INCREASES IN A POST-CARBONE WORLD (May 1995) [hereinafter MOODY'S REPORT].}
\item \textsuperscript{22} \textit{See Flow-Control Results in Lower Bond Ratings; More Expected in Wake of High Court Decision, supra note 21, at 472.}
\item \textsuperscript{23} \textit{141 CONG. REC. S3807 (daily ed. Mar. 10, 1995) (statement of Sen. Smith).}
\item \textsuperscript{24} Jeff Bailey, \textit{Up in Smoke: Fading Garbage Crisis Leaves Incinerators Competing for Trash, WALL ST. J., Aug. 11, 1993, at A1 [hereinafter Bailey, \textit{Up in Smoke}] (indicating that people are now looking at economics with regard to flow control).}
\end{itemize}
determine which projects were most vulnerable. The bond insurer, Ambec Indemnity, covering ten incineration projects, concluded that the loss of flow control would be "very severe" for its business. Clearly, Carbone has had a considerable impact on the financial community's interest in waste facilities.

Flow control has created other costs as well. It has produced some serious mistakes in waste management by artificially easing financing for environmentally and economically questionable facilities. For example, there is a San Diego materials recovery facility with recycling costs of $200 per ton. The city's daily newspaper has called the facility a "monstrous mistake." Flow control has created other costs as well. It has produced some serious mistakes in waste management by artificially easing financing for environmentally and economically questionable facilities. For example, there is a San Diego materials recovery facility with recycling costs of $200 per ton. The city's daily newspaper has called the facility a "monstrous mistake."

The monopoly pricing accompanying flow control, furthermore, has forced both households and merchants to spend considerably more than market prices for garbage collection and recycling services. A waste company executive in Pennsylvania contended that inefficient and illogical flow control laws in his state caused a 974% increase in the cost of waste disposal within 10 years.

The actual total outstanding indebtedness of local governments for waste management facilities supported by flow control is unknown. Figures mentioned by various sources include $10 billion, $18 billion, and range as high as $23 billion. Moody's has rated over $9 billion in solid waste bonds. In Minnesota, the

25. Id.
26. Id.
30. 140 CONG. REC. E991 (daily ed. May 19, 1994) (statement of Rep. Minge) (noting that Carbone, "by overturning local ordinances[,] handicaps responsible solid waste management and undermines the security of as much as $18 billion in outstanding municipal bonds").
32. William J. Hogan, Assistant Vice-President and Manager of Solid Waste Specialty Group in Moody's Investor Service's Public Finance Department, Address at the Villanova Environmental Law Journal Symposium on Solid Waste in Interstate Commerce: Federal, State and Local Roles (October 14, 1995).
debt for flow control supported facilities stands at $325.4 million.\textsuperscript{33} It is nearly $500 million in both Virginia and California.\textsuperscript{34} The debt is $600 million in Connecticut, $1.5 billion in New Jersey, and $3.2 billion in Florida.\textsuperscript{35}

The figures become more comprehensible when attached to specific waste facilities built with flow control because they represent actual communities which thought flow control would provide them a safe perch from financial risk, but ended up putting them out on a limb. The vulnerable debts range from a $17.9 million materials recovery facility in Springfield, Missouri,\textsuperscript{36} to $46 million borrowed for a proposed sewage sludge composting facility in Burlington County, New Jersey,\textsuperscript{37} to $180 million in bond borrowing for a waste-to-energy plant in Onondaga County, New York.\textsuperscript{38} The Connecticut Resources Recovery Authority operates two recycling facilities that are absolutely dependent on flow control. As a result, the State of Connecticut could ultimately be liable for $520 million in State revenue bonds which were floated to build these facilities.\textsuperscript{39}

It is evident that state and local governments, which have built flow control dependent facilities, stand the risk of hemorrhaging financially. As such, it is no wonder that state and local governments who enjoyed the ease by which flow control allowed them to finance waste facilities were its strongest supporters prior to Carbone,\textsuperscript{40} and why they now lead the charge for congressional restoration of flow control.\textsuperscript{41} It should also be no surprise that their creditors, the financial industry, want protection as well. The Public Securities Association, which represents financial institutions

\textsuperscript{34} Id.
\textsuperscript{35} Id.
\textsuperscript{37} Id.
\textsuperscript{38} Id.
\textsuperscript{39} Id.
\textsuperscript{40} The Solid Waste Association of North America, which represents state and local solid waste officials, the National League of Cities, together with the National Association of Counties sought federal legislation to legalize flow control prior to Carbone. Commentators Make Concerns Known to Panel on Draft Federal Flow-Control Legislation, 24 ENV'T REP. (BNA) 1924, 1924-25 (Mar. 11, 1994).
\textsuperscript{41} New Jersey, Maine, and Minnesota have argued strongly for federal legislation to restore flow control authority with no limitations for the future. Among those joining the post-Carbone cry to restore flow control were the U.S. Conference of Mayors and Municipal Waste Management Association. Local Governments Tell Senate Panel They Need Broad Authority to Direct Flow of Solid Wastes, 25 ENV'T REP. (BNA) 505, 505-06 (July 15, 1994).
holding state and municipal bonds, has urged Congress to grandfather flow control authority to existing flow control facilities to rescue what they say are $20 billion in bonds tied to these facilities.42

In addition, states and communities are generally afraid to create programs which raise property taxes. Through the use of flow control these communities have been able to avoid using property taxes to build and operate the expensive waste facilities of the kind effectively financed by flow control. Failure to restore flow control for communities which used it to finance waste facilities will likely force them to turn to local taxation to help pay off the indebtedness.43

On the other hand, flow control legislation does not have the universal support of communities. For instance, the executive director for the New York State Conference of Mayors and Municipal Officials opposes the restoration of flow control, arguing that it increases local property taxes.44 Local officials in New Jersey, such as the Mayor of Jersey City, strongly oppose flow control.45 New Jersey has the most comprehensive application of flow control in the nation. The state directs the flow of solid wastes for each and every community.46 The dissenting New Jersey officials argue that "flow control limits the ability of local government to find low-cost, environmentally sound disposal alternatives, and results in exorbitant and unnecessarily high tipping fees."47 Haulers faced with high tipping fees pass them onto households through high waste collection fees. In states like New Jersey, where flow control supported facilities are forced on communities, one cannot assume that all communities are happy with the high waste management costs inflicted upon their residents. For instance, after Carbone, Haddon Heights,


43. At a Senate hearing held a month after Carbone, the chairman of the regional waste system in Portland, Maine stated that he was worried that, without flow control, the debts owed by facilities would have to be made up by local taxes rather than current tipping fees. Local Governments Tell Senate Panel They Need Broad Authority to Direct Flow of Solid Waste, supra note 41, at 505-06. This type of action demonstrates that the artificially high monopoly charges for garbage, created by flow control, are, in essence, merely substitutes for taxes.

44. Solid Waste: Markup of Solid Waste Measure Seen by April Without Additional Hearings, supra note 42, at 2192-93.


New Jersey sought to be released from a state requirement that it send residents' garbage to a Camden County incinerator for $90 per ton. It preferred instead to use nearby solid waste facilities in Pennsylvania which were charging only $50 a ton. The town contended that such action would save it $130,000 per year and allow it to be able to balance its budget.

The National Solid Waste Management Association (NSWMA), the leading organization for public and private solid waste professionals, also opposes flow control even though some of its 2,500 members are beneficiaries of the legislation. According to the NSWMA, flow control leads to economic inefficiency by creating monopolies in the solid waste market and artificially raising the price of disposal. This leads to increased costs to households in communities which apply flow control to trash collection.

Flow control increases the cost of disposal for businesses, a key reason why major national representatives of the business community have objected to it. Opponents of flow control include the National Association of Independent Businesses, United States Chamber of Commerce, International Council of Shopping Centers and Associated Business Contractors, as well as major corporations, hundreds of small businesses, and various local Chambers of Commerce from all regions of the country.

The opponents of flow control also include national and state environmental organizations who believe that flow control encourages the development of expensive facilities, such as landfills or incinerators, and discourages more environmentally preferable practices like source reduction, reuse, and recycling. For this reason, the Sierra Club urged Congress to support only the grandfathering of flow control and reject any broad legalization of flow control. Similarly, the Natural Resources Defense Council

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49. Id.
50. States Urge EPA to Support 'Flow Control'; Waste Groups Say Issue Represents Bad Policy, supra note 28, at 734. NSWMA called flow control "bad public policy" and did not believe it led to environmental protection or economic efficiency. Id.
52. Blake Early, director of the Sierra Club environmental quality program, expressed support for legislation that would do no more than grandfather flow control supported facilities in existence prior to Carbone, but would not support a
wants Congress not to enact any kind of flow control rescue.\textsuperscript{53} Likewise, the New York Public Interest Research Group opposes legalization of flow control and believes that the \textit{Carbone} decision will ultimately benefit recycling.\textsuperscript{54}

Finally, the waste collection and disposal industry, a $63 billion dollar-a-year enterprise, strongly opposes flow control for the effect it has on its balance sheet.\textsuperscript{55} These businesses can usually find cheaper facilities at which to deposit waste they collect. In fact, many of these businesses own their own waste control and disposal facilities.

Marie Pisecki of Moody's Investors Service described flow control as a "legal device that allowed you to not look at the economics." \textsuperscript{56} It was meant to prevent waste flight, but now this waste is fleeing from flow control protected facilities. Without an adequate supply of garbage to generate revenue to pay off bonds, communities face impending financial trouble. Many communities fear that their bonds will be downgraded, possibly even to junk status.\textsuperscript{57} The extreme result is that local governments, which built and financed facilities with flow control, risk the prospect of bond defaults. More likely, however, is the risk of tougher budget choices and higher taxes as they make up the shortfall.\textsuperscript{58} The battle has been taken to Congress.

In a letter to the House Energy and Commerce Committee a month and half after \textit{Carbone}, Early stated, "Your vote against authorizing flow control for future waste management activities will help discourage new unneeded incinerators and regional landfills and encourage a process that puts greater emphasis on solid waste management planning, waste reduction, and recycling." \textit{Bill Would Ban Flow Control Authority, Protect Existing Contracts With Facilities, 25 ENV'T REP. (BNA) 448 (July 1, 1994) (internal quotations omitted).}

\textsuperscript{53} 141 CONG. REC. S3807, 3808 (daily ed. Mar. 10, 1995) (statement of Sen. Smith); \textit{Solid Waste: Markup of Solid Waste Measure Seen by April Without Additional Hearings, supra note 42, at 2192-93.}

\textsuperscript{54} H.R. REP. No. 738, supra note 51, at 27.

\textsuperscript{55} John Holusha, \textit{Here's a Switch: Now They're Fighting Over Garbage}, N.Y. TIMES, Jan. 23, 1994, at 8. One of the biggest waste collection and disposal firms in the United States is Browning-Ferris Industries (BFI). It has been one of the chief critics of flow control, probably because it operates so many facilities which must compete with flow control-supported facilities. \textit{See, Flow Control Hearings, supra note 27, at 40-45.}

\textsuperscript{56} Bailey, \textit{Up in Smoke, supra note 24, at A1.}


IV. SENE TA BAILOUT BILL

The Senate's bailout legislation involved a clash of titans. On one side was the $63 billion waste hauling disposal industry. On the other side were major waste facility companies, particularly those in the waste incineration business, and state and local governments now saddled with up to $23 billion in debt secured by flow control. Local governments that employed flow control wanted Congress to unconditionally overturn the Supreme Court decision and permit communities to use flow control in the future. Waste hauling and disposal firms, harmed by flow control, presumably wanted the Court's nullification to stand so that flow control would disappear altogether. Grandfathering was tolerable to waste firms, which, in some instances, had facilities supported by flow control, but for the most part competed with facilities which had the advantage of flow control.59

Neither side received all that it wished for from the Senate bill which was approved in May, 1995. Rather, the two major opponents, and the public, got what was needed. What the Senate sought to do was to preserve flow control for those local governments who benefitted from it before Carbone, and were burned by it afterwards.

The grandfathering of flow control meets the basic needs of the stakeholders in the flow control debate.60 Those actually hurt by the Supreme Court decision, namely the local governments which suddenly saw themselves loaded down with difficult to repay debt, were to get relief. On the other hand, flow control was not legalized for future use; thus, this mistake was not perpetuated. The Senate passed a compromise between the two major opposing forces to achieve what one Senator called a "delicate balance."61

Since the federal courts had been split on the constitutionality of flow control, and an adverse Supreme Court decision looked likely, flow control dependent states and communities and their congressional supporters had been urging a federal law legalizing flow control even before the Supreme Court decision in Carbone.62

59. Flow Control Hearings, supra note 27, at 42.
After Carbone, these same advocates of flow control legalization sought a bailout of communities sinking in flow control created debt.

Many supporters of the Senate bailout bill expressed mixed feelings. One of the chief sponsors of the Senate bill, ultra-conservative Republican Robert Smith of New Hampshire, loathes governmental interference with the free market such as that caused by flow control. His concern, however, about relieving communities in his state from flow control induced debt superseded his distaste for government interference in the free market. This sentiment, protecting local interests over free market ideology, was rampant in the Senate, as illustrated by the unanimous 16-0 approval of the Senate bill in committee, and a 94-6 vote in the Senate as a whole.

Three major approaches for legalizing flow control received serious consideration in the Senate. Each of the approaches utilized some kind of grandfathering, but differed in the extent to which grandfathering would be allowed. The most restrictive approach to flow control legislation involved the "strict grandfather" approach, in which only those facilities actually in existence and using flow control prior to Carbone could continue to use it. They would only be permitted to use it until the debt incurred for construction of the facilities was retired or until the end of the useful life of the facilities. Strict grandfathering would not allow governments in the process of constructing a flow control facility as of May 15, 1994, the date of the Carbone decision, to maintain the use of flow control. Under this approach, a facility must be in existence before May 15, 1994 to be afforded flow control protection.

The most permissive approach suggested in the Senate used the "system grandfather." Under this approach, states and local
governments that had a solid waste management system in place predicated on flow control prior to Carbone could continue to use it for future facilities planned as part of a waste management system, without necessarily having these facilities built or designated for flow control at the time of the Supreme Court's decision. New Jersey had the most to gain from this approach.

The middle ground, described as the "modified grandfather," included facilities covered by the strict grandfather, but also extended flow control to communities which made a substantial commitment to the designation of waste management facilities prior to Carbone. This compromise approach allows continued use of flow control by governments that were operating solid waste facilities using flow control, or were in the process of constructing a flow control facility, as of May 15, 1994.

One year after the Carbone decision, the Senate finally passed Senate Bill 534, the Interstate Transportation of Municipal Solid Waste Act of 1995, which adopted the "modified grandfather" approach. Among other things, the bill provided general flow con-
trol authority to state and local governments which had imposed it by law and designated a facility as of May 15, 1994, prior to the Carbone decision.\textsuperscript{71} Several amendments, however, were adopted during committee markups and floor debate which gave preferential treatments to at least nine states. This stretched the modified approach in some states to near system grandfathering. Accommodations were made for states that were intensively reliant on flow control, such as New Jersey and New York.\textsuperscript{72} The Senate included a

71. Any state or local government which adopted and applied flow control regulation before January 1, 1984 can designate a facility and continue to exercise flow control authority for the useful life of the facility. S. 534, 104th Cong., 1st Sess. (1995). A local government can exercise flow control authority if, prior to Carbone, it was required by law to provide for the operation of solid waste facilities, was required to engage in recycling, had implemented this authority through law or contract, and had incurred significant financial expenditures to repay construction bonds for a flow control designated facility. \textit{Id.} Any local government that contracted with a public service authority for solid waste disposal prior to Carbone may continue to exercise flow control until the expiration of the contract, or for the life of the bonds issued for the construction of the facility to which the waste is transferred or disposed. \textit{Id.}

72. \textit{Legislation on Interstate Waste, Flow Control Passes Senate One Year After Carbone Decision, supra note 64, at 212.} During full Senate consideration, amendments covering situations in Vermont, New Jersey, New York, and North Carolina were accepted on the floor of the Senate. \textit{Id.} Several amendments, tailored to the flow control situations of individual states, were accepted during markup of the bill in subcommittee and committee. \textit{Solid Waste: Senate Panel Unanimously Approves Flow-Control, Waste-Import Legislation, supra note 63, at 2374-75.} Subcommittee and full committee amendments to the bill were designed to grant flow control authority to local governments in states with different waste management approaches. \textit{Id.} In mid-March, during the markup by the Senate Environment and Public Works Subcommittee on Superfund, Waste Control and Risk Assessment, senators from Virginia and New Jersey added provisions that allowed local governments in their states to be grandfathered. \textit{Id.} The full committee adopted an amendment by Senator Bob Graham of Florida. Graham's amendment grandfathered local government flow control that lacked laws or ordinances prior to Carbone but exercised flow control from states before that time and made significant financial expenditures as well as having a 30\% recycling goal. \textit{Id.} The amendment gave protection to 20 to 30 counties in Florida which would not have been covered by the bill because they did not enact ordinances or statutes authorizing flow control. \textit{Id.} Senator Joseph I. Lieberman of Connecticut provided an amendment approved by the full committee that provided flow control authority for contracts with a public service authority which had issued bonds. \textit{Id.} This reflected, for example, two waste facilities operated by the Connecticut Resources Recovery Authority that are absolutely dependent on flow control and were constructed with $520 million in revenue bonds. New Jersey sought unrestricted flow control and Frank Lautenberg of New Jersey had two amendments accepted by the full committee. \textit{Id.} The key amendment protected local governments exercising flow control from litigation. \textit{Id.} Although every state was not able to exert influence over the outcome of the bill, individual states clearly had a hand in amending it to suit their own needs. (Senator Dianne Feinstein of California complained that "nine states have received some preferential treatment in this bill," but that $125 million in California bonds was still threatened.) \textit{Id.}
sunset provision on grandfathering which ended flow control in thirty years, which, not without coincidence, is the usual maturity period for municipal revenue bonds.

Before Carbone, communities wanted waste facilities developed with no financial risk, and sought to reach that end through flow control. After Carbone, they wanted to be held harmless for the financial consequences of flow control, and the Senate sought to give them their wish.

V. HOUSE REJECTION OF FLOW CONTROL BAILOUT

The House of Representatives also tried to enact a flow control bailout; but, to date, it has failed. On January 31, 1996, the House voted against House Resolution 34974 which would have grandfathered existing flow control laws much like the Senate bill.74 The defeat of flow control in the House was stunningly lopsided, but not as disproportional as the flow control victory in the Senate; 271 opposed the resolution, while only 150 supported it.75

According to Republican Congressman Thomas Bliley of Virginia, chairman of the powerful House Commerce Committee, and sponsor of the defeated House bill, House reconsideration of flow control in 1996 is unlikely.76 With no other House bills to consider, backers of the House bailout bill indicated they would continue to seek a flow control law, but that they were pessimistic.77 As a result of the House vote, the Senate bill is moot. Enactment of bailout legislation will, most likely, be shelved until after the November election and the seating of the next Congress.

The House effort at flow control faced difficulty for several reasons. Most fundamentally, the House of Representatives of the 104th Congress approach to legislation has often times been rash, contentious, and all-or-nothing; its approach to flow control was much of the same.78 The failure of flow control in the House, con-

74. Bill to Restore Flow-Control Authority Goes Down to Decisive Defeat in House Vote, 26 ENV'T REP. (BNA) 1971 (Feb. 9, 1996).
76. House Defeats Flow Control, GFOA NEWSLETTER (Government Finance Officers Association), Feb. 9, 1996, at 3.
77. Bill to Restore Flow-Control Authority Goes Down to Decisive Defeat in House Vote, supra note 74, at 1971.
78. The Senate, on the other hand, has been comparatively more willing to engage in bi-partisanship, studied consideration, compromise, and moderate and practical outcomes.
sequently, is as much a result of the current institutional temperament of this body as the substance of the legislation.

In addition, the flow control measure rejected by the House was brought to the floor in a highly unusual and controversial way. Bliley bypassed his own committee and instead moved the bill directly to the floor through the fast-track procedure of suspending House rules. Christopher Smith, a Republican Representative from New Jersey, the state most reliant on flow control, persistently pressed Bliley to suspend House rules in order to gain a quick vote on a bailout.79 Legislation considered in this manner, however, prohibits floor amendments and needs a two-thirds majority vote on the floor for approval. Bliley and the House Republican leadership appeared not to care whether they had the support or input of Democrats in either the provisions of the flow control measure, or in the matter of the extraordinarily expedited vote.

The fast-track procedure, with no amendments, no hearings, and limited debate, was in sharp contrast with the procedure used to pass the Senate bill. Senate Bill 534 was considered in committee, had bipartisan support, and underwent spirited discussion and numerous amendments on the Senate floor. Many Democrat and Republican House members were angered by the procedural maneuvering to suspend the rules for a quick vote.80 Democrats in particular appeared to be sending a message that the House Republican leadership would have to deal with them if they wanted to enact any future environmental legislation.81 Thus, the rejection of the House legislation can be seen as a rebellion against the process rather than as a referendum by House members on flow control itself.82

Finally, another fatal flaw of the House measure was that, unlike the Senate bill, it was not a comprehensive solution to interstate waste movement. Carbone essentially prevents states and their local governments from imposing export bans on the interstate movement of waste, which is the function of flow control as it traps waste within a state’s border. A bailout law would partially overturn

79. Smith was a sponsor of H.R. 2838, a very narrow bailout bill which called for the protection of the outstanding debt on solid waste facilities only in New Jersey. New Attempts Eyed to Move Narrow Bill Allowing Flow Control Under Some Conditions, 26 ENV’T REP. (BNA) 1801 (Jan. 26, 1996); Flow Control Measure to Aid New Jersey Receives Consideration by House Leaders, 26 ENV’T REP. (BNA) 1771 (Jan. 19, 1996).

80. House Defeats Flow Control, supra note 76, at 3.


82. Id.
Carbone, to the extent that flow control would be grandfathered for existing facilities. Many states, however, also wanted Congress to overturn the 1978 Supreme Court decision in City of Philadelphia v. New Jersey, which invalidated import bans erected by states to keep out waste from other states. The debate over City of Philadelphia and restricting waste movement largely cuts across geographic lines. The two large waste exporting states of New Jersey and New York now benefit from City of Philadelphia, and do not want other states to be able to prevent waste importation. Midwest states, on the other hand, have become unwilling waste importers, as waste disposal firms have taken advantage of their extensive rural areas to site large landfills meant to receive wastes from other states, including those on the East coast. Due to the City of Philadelphia decision, the Midwest states are relatively powerless to stop these waste imports, and the House bill did not provide the relief desired by the waste importing states.

The Senate bill contained interstate waste transportation provisions that substantially loosened the grip of City of Philadelphia by allowing states to impose restrictions on waste importing, but did not go so far as to prevent them from banning it altogether. A major appeal of the Senate bill was that it was a compromise that gave the Eastern states, which depend on flow control and export huge amounts of waste, relief from the Supreme Court ban on flow control, but at the same time gave the Midwest states relief from the Supreme Court's position that waste importation could not be barred.

The House was unable to produce a similar timely compromise. The Bliley measure addressed only flow control, purposely excluding interstate waste transportation. Ohio Republican Congressman Michael Oxley introduced House Bill 2323, a two-title bill addressing both flow control relief and restrictions on interstate waste transportation. The Oxley Bill contained a "presumptive ban" on interstate waste movement which would all but completely overturn City of Philadelphia. Bliley and Richard Armey from Texas, the Republican Majority Leader of the House, were categori-
cally opposed to a presumptive ban. Armey and Bliley preferred the approach of the Senate bill which allowed states to impose significant restrictions on wastes flowing across their borders from other states, but refused an automatic total ban on waste imports. In late November of 1995, Bliley asked Oxley to meet with Republican Representative Bill Paxon of New York to seek a compromise on the interstate waste section of H.R. 2323. The talks went nowhere, and the House moved instead on the Bliley proposal.

The inability to compromise on the interstate waste movement issue by the two Republican Congressmen and the geographic divisions they represented apparently forced the Republican leadership to conclude that it had to advance a quick vote on flow control alone. Further delay would have threatened the status of outstanding waste facility bonds. For the last two years, the issues of flow control and interstate waste transportation have been linked out of necessity because national lawmakers believed that the only way to secure enough votes to pass one was to include the other. The Senate recognized this connection in passing its version of flow control legislation. Bliley and the Republican leadership of the House promised that the link would be restored in the final conference bill worked out with the Senate. Democrats were distrustful of the Republican leaders' assurances, and so were Republican supporters of interstate waste movement restrictions. Both groups ganged together to kill the House bill. With the defeat of House Resolution 349, Congress apparently will not be able to enact a flow control bailout in 1996.

VI. FLOW CONTROL'S SLICE OF THE WASTE MARKET

There is no doubt that a substantial number of communities have become dependent upon flow control. They are experiencing financial stress and real confusion as a result of it being pulled out from under them by the Supreme Court. There is also no doubt that, on closer examination, flow control is not necessary for environmentally or economically sound solid waste management. Flow control, in fact, does not play a significant role in solid waste man-

87. House Majority Leader Vows to Block "Presumptive Ban" on Interstate Waste, supra note 85, at 1380.
88. Id.
89. Id. Paxon represented the interests of waste exporting states like New Jersey and New York. He favored allowing as much interstate movement of solid waste as possible. Id.
90. Daniels, supra note 81, at 21.
91. Id.
agement on a national scale. There is a great gulf between the real necessity and actual importance of flow control, on the one hand, and the justifications concerning sound waste management which have been offered for creating and perpetuating flow control, on the other.

The geographical reach of flow control is both broad and misleading. Thirty-five states, the District of Columbia, and the Virgin Islands, directly authorize flow control.92 Four other states allow flow control indirectly through measures such as local solid waste management plans and home rule authority.93 Heavy use of flow control by localities appears to be concentrated in only a few states, though some of these states are quite populous and are leading waste generators.94 Approximately one-third of New York counties have flow control ordinances.95 Flow control has been in use in New Jersey since 1979 and it covers all non-hazardous solid waste in each of its 567 municipalities and 21 counties.96 In New Jersey, flow control encompasses 14 million tons of solid waste disposed annually and supports 31 facilities, together representing over $2 billion in capital investment.99 These facilities were planned, technically reviewed, granted permits, and financed under the authority of flow control.100 Flow control has been relied upon since 1988 by sixty-five of sixty-seven Pennsylvania counties,102 and twenty-two


93. Id.


95. New York was the second leading generator of municipal solid waste in 1991 with 22 million tons, accounting for approximately 7% of the total national generation of 293.6 million tons. Id.


97. New Jersey was the fifth leading generator of municipal solid waste in the nation in 1991, with 14 million tons, approximately 4.8% of the country's waste generation. Glenn & Riggle, supra note 94, at 34.


99. Id.

100. Solid Waste: Markup of Solid Waste Measure Seen by April Without Additional Hearings, supra note 42, at 2192.

101. Pennsylvania was the ninth leading generator of solid waste in 1991, with nine million pounds, or 3% of national waste generation. Glenn & Riggle, supra note 94, at 34.

counties in Minnesota are also reliant on flow control. These statistics, however, only indicate the potential application of flow control.

In March 1995, EPA submitted a report to Congress evaluating flow control as a tool for solid waste management. This report answered two questions posed by Congress. First, EPA was to identify the impact of flow control on the protection of human health and the environment. Second, EPA was to identify the impact of flow control on the development of State and local waste management capacity and the achievement of State and local goals for source reduction, reuse, and recycling. EPA concluded that in both areas the impact of flow control was minor.

Eighty percent of municipal solid waste is managed in landfills and in waste combusters. EPA determined that flow control is not necessary for protecting human health and the environment at these kinds of facilities. EPA pointed out that these facilities are subject to state and federal regulations that are designed for the express purpose of protecting human health and the environment and that these regulations dictate the same level of protection whether or not the waste facility is subject to flow controls.

Although flow control is touted by its supporters as playing a significant role in managing solid waste in this country, EPA found that flow control actually plays only a limited role in the solid waste market as a whole. EPA concluded that there is only one segment of the waste market, the large waste-to-energy facilities, where flow control plays a major role. At least fifty-eight percent of the waste received by waste-to-energy facilities is supported by flow con-

103. Minnesota generated 4.2 million pounds of municipal solid waste in 1991, 1.4 percent of all the waste generated in the United States. Glenn & Riggle, supra note 94, at 34.


105. EPA REPORT, supra note 92, at ES-1.

106. Id.

107. Id.

108. Id. at ES-5. Waste combuters include mass burn incinerators and waste-to-energy plants.

109. Id. at ES-4 to ES-5. The EPA found that "regardless of whether state or local governments administer flow control programs, states are required to implement and enforce federally approved regulations that fully protect human health and the environment. Accordingly, there is no empirical data showing that flow control provides more or less protection." Id.

110. EPA REPORT, supra note 92, at ES-5.

111. Id.

112. Id.
control measures. Of the 135 operating facilities, 61 have waste guaranteed by flow control measures.

Other than the waste-to-energy segment of the industry, EPA found that flow control had only a limited role. For example, less than three percent of the total recycling market is subject to flow control. Flow control, furthermore, is not usually applied to landfills and composting facilities. In fact, EPA found no evidence that it played any significant role in financing new landfills or landfill expansions. EPA stated that private landfills have shown the ability to raise substantial capital, which indicates that investors are willing to finance the expansion of landfill capacity without flow control. Likewise, EPA found the use of flow control to direct yard trimmings to specific composting facilities to be an uncommon practice and an insignificant factor affecting the growth of the composting segment of the waste market.

The term "recycling" carries positive public sentiment. Those seeking to preserve flow control have attempted to exploit this sentiment by portraying flow control as crucial for building and running recycling facilities. Advocates of flow control legalization in the Senate offered specific recycling facilities as prime examples of waste management operations created as a result of flow control. As previously noted, however, less than three percent of the total recycling market is subject to flow controls.

Flow control is only significant for a particular subsegment of the recycling market known as materials recovery facilities (MRFs). In particular, flow control's primary importance is for large, high-technology MRFs which require substantial capital investment. Considerably less costly, low-tech (and higher employment) MRF-based recycling programs are relatively untouched by flow control. In 1992, flow control was used at 13% of the MRFs

113. Id.
114. EPA REPORT, supra note 92, at ES-9.
115. Id.
116. Id. For example, EPA stated: "From a national perspective, flow controls generally have not been an important factor in the compost segment." Id. at ES-6.
117. Id. at ES-10, III-62.
118. Id. at ES-10.
119. Id. at III-14. For EPA's discussion of the composting market segment, see id. at III-14 to III-25.
121. EPA REPORT, supra note 92, at ES-5. See also id. at III-43 (discussing flow control's role in recycling growth).
122. Id. at ES-7.
123. Id. at III-43.
(26 facilities); these MRFs handled 19% of the waste MRFs received (1.1 million pounds).\textsuperscript{124} This waste constituted a mere 2.7% of the 40 million tons of municipal solid waste subjected to recycling in 1992.\textsuperscript{125}

There is a strong association between the magnitude of capital costs and the use of flow control by MRFs.\textsuperscript{126} Thirty-two percent of the waste handled by high tech MRFs is supplied by flow control.\textsuperscript{127} This amount dwarfs the seven percent of waste that flow control supplies to low-technology, and thus, low capitalized, MRFs.\textsuperscript{128}

Flow control supporters contend flow control legislation is necessary to carry out integrated solid waste management systems (ISWM).\textsuperscript{129} ISWM involves use of different methods for handling an entire waste stream and operates on a waste management hierarchy. This waste management hierarchy utilizes a preferred order of solid waste management strategies. The pecking order starts at the top with source reduction and proceeds downward to reuse, recycling, waste-to-energy recovery, and finally, land disposal.\textsuperscript{130} Many of the preferred components of ISWM do not lend themselves to generating revenues for their own support because they cannot readily charge user fees similar to the tipping fees charged by flow control supported facilities.\textsuperscript{131} EPA acknowledged the usefulness of flow control to raise revenues to support the various elements of ISWM by ensuring waste was transported to facilities charging tipping fees. These fees then could be used, in part, to fund non-revenue generating portions of an ISWM program.\textsuperscript{132} EPA noted, however, that while flow control provided an administratively efficient method for local governments to fund ISWM, there were other financial and organizational options that govern-

\begin{itemize}
\item \textsuperscript{124} \textit{Id.} at III-26.
\item \textsuperscript{125} \textit{Id.}
\item \textsuperscript{126} EPA REPORT, \textit{supra} note 92, at III-26.
\item \textsuperscript{127} \textit{Id.} at ES-7.
\item \textsuperscript{128} \textit{Id.} at ES-8.
\item \textsuperscript{129} CONGRESSIONAL RECORD ONLINE VIA GPO ACCESS [wais.access.gpo.gov] (June 27, 1994) (statement of Rep. Grams). Representative Grams stated, "In my home state of Minnesota, county officials developed an integrated waste management system premised upon state waste flow control laws." \textit{Id.}
\item \textsuperscript{130} EPA REPORT, \textit{supra} note 92, at III-79. Flow controls are used to support waste collection services such as curbside recycling and solid waste services, and measures which do not generate revenues on their own, such as household hazardous waste collections, source reduction, solid waste planning, and public awareness programs. The costs of these measures are incorporated in the tipping fees of the waste disposal and waste-to-energy facilities. \textit{Id.} at ES-10.
\item \textsuperscript{131} \textit{Id.} at III-79.
\item \textsuperscript{132} \textit{Id.} at III-80.
\end{itemize}
ments can and do use to support solid waste management activities.\textsuperscript{133} As such, EPA concluded that there was no data demonstrating that flow control was essential for long term achievement of state and local goals for source reduction, reuse, and recycling.\textsuperscript{134}

Finally, an early and persistent justification for flow control was that it addressed the supposed crisis in disposal capacity, due chiefly to mounting landfill closings around the nation.\textsuperscript{135} EPA has since concluded that in a relatively short period, adequate capacity for national and regional solid waste management has developed.\textsuperscript{136} Recycling and the substantial growth in new regional landfills and landfill expansions are two of the key developments offsetting the loss of capacity from landfill closings.\textsuperscript{137} In fact, EPA concluded that there was no data demonstrating that flow control is essential for the development of new solid waste capacity.\textsuperscript{138}

The best measure of the real impact of flow control is the amount of waste it covers in important sectors of the waste market which, as EPA established, is limited. Flow control affects the waste-to-energy segment of the waste market, but it only plays a minor role in recycling and is usually not applied to landfills and composting facilities.\textsuperscript{139} On this scale, flow control is not a national problem and arguably is not deserving of a national solution in the form of a congressional bailout. The group most reliant upon flow control consists of the communities which used flow control to help build waste-to-energy facilities and their private operators and bondholders, and it is for this group that Congress is considering a federal bailout.

Waste-to-energy is one type of facility utilized in the burning or combustion of municipal solid waste.\textsuperscript{140} These plants recover heat from the combustion of waste to produce either steam or electricity.\textsuperscript{141} The second kind of facility burns waste without energy recovery.\textsuperscript{142} Not surprisingly, the vast majority of waste combustion

\textsuperscript{133} Id. at III-80 to III-83.
\textsuperscript{134} Id. at ES-5.
\textsuperscript{135} Wolf, supra note 10, at 529-31.
\textsuperscript{136} EPA REPORT, supra note 92, at III-76.
\textsuperscript{137} Id. at III-78.
\textsuperscript{138} Id. at ES-5. EPA did note that flow control might be desirable to provide in-state self sufficiency for state and local jurisdictions. Id. at ES-11, III-76.
\textsuperscript{139} Id. at ES-10, III-62.
\textsuperscript{140} Id.
\textsuperscript{141} EPA REPORT, supra note 92, at ES-10, III-62.
\textsuperscript{142} Id. at ES-8.
occurs at waste-to-energy facilities. Of the thirty-two million tons of municipal solid waste burned in 1992, waste-to-energy facilities accounted for thirty-one million tons while incinerators only accounted for one million tons.143

Most of the benefit of a bailout would be realized by waste-to-energy facilities,144 the only segment of the waste market where flow control plays a major role on a national scale.145 The high percentage of waste-to-energy facilities with flow control is partly attributable to the substantial capitalization required to construct waste-to-energy facilities, which are ordinarily financed by long term bonds.146 EPA reported that in 1992, the average initial capital cost for existing waste-to-energy facilities was $60 million.147 The average capital costs for similar facilities being constructed today is $136 million, primarily because these facilities are large, modern, and must employ up-to-date pollution control equipment.148 As such, waste-to-energy facilities need to ensure an adequate, long-term supply of waste at high levels of capacity in order to generate revenues sufficient to service their debt and costs.149 Accordingly, waste-to-energy facilities supported by flow control receive, on average, three times more waste than waste-to-energy facilities unsupported by flow controls.150 In other words, big, expensive waste burners are much more likely to have flow control than smaller, less costly energy recovery incinerators. In short, if a community wants to build an enormously expensive waste-to-energy plant it inevitably must rely upon flow control.

The private sector has a stake in most of the waste-to-energy facilities, because most of these plants are privately owned and/or operated. Much of the bailout, consequently, is aimed at the private sector. Private companies have an ownership or operational role for eighty-four percent of the waste-to-energy throughput.151 This percentage includes most of the larger waste-to-energy facilities.152 Of 135 operating waste-to-energy facilities in the nation, 58 are privately owned and operated, 34 are privately operated and

143. Id.
144. Id.
145. Id. at ES-9.
146. EPA REPORT, supra note 92, at ES-9.
147. Id. at III-46 n.52.
148. Id. at III-46 n.5.
149. Id.
150. Id. at III-47.
151. EPA REPORT, supra note 92, at III-58.
152. Id.
publicly owned and 43 are publicly owned and operated.153 Twenty-three of the 58, or about 39.5%, of the privately owned and operated facilities receive flow control protection from local governments.154 A smaller percentage of the publicly owned and operated facilities required flow control or contract arrangements to guarantee waste throughput.155 Fifteen of the forty-three publicly owned and operated facilities use flow control. Of the thirty-four publicly owned and privately operated facilities, twenty-three are undergirded by flow control.156

Flow control is just one of two measures privately owned or operated facilities have obtained from state and local governments to minimize their risk of investment and enhance their prospects for profit. These facilities have also obtained contract guarantees, most typically put-or-pay arrangements.157 The combination of flow control and contract guarantees applies to eighty-nine percent of all waste-to-energy throughput.158 By comparison, a mere eight of the fifty-eight privately owned and operated facilities operate without either flow control or contractual guarantees,159 and only five of the thirty-four privately operated/publicly owned facilities benefit from neither measure.160 Twenty-one of the forty-three publicly owned and operated facilities, however, do not have the protection of flow control or contractual guarantees.161

Prior to Carbone, the combination of flow control and put-or-pay arrangements was instrumental in securing financing for waste facilities. When flow control was invalidated by the Supreme Court, it turned lethal. Under put-or-pay, local governments must guarantee a certain amount of waste to the designated facility, whether or not waste is forthcoming. With flow control, the tipping fees for the wastes offset these costs. Without flow control, however, local governments with existing put-or-pay contracts must ante up the extra funds when tipping fees fail to cover the costs.162

153. Id. at III-54.
154. Id.
155. Id.
156. EPA REPORT, supra note 92, at III-54.
157. For a discussion of put-or-pay arrangements, see supra note 10.
158. EPA REPORT, supra note 92, at III-54.
159. Id.
160. Id.
161. Id.
162. Final Efforts on Interstate Transport, Municipal Flow-Control Measure Fall Short, supra note 60, at 1174.
VII. BAILING OUT THE BURNING UP OF WASTE

There are two major kinds of waste-to-energy incinerator plants: mass-burn plants and refuse-derived fuel (RDF) plants.\textsuperscript{163} Mass-burn plants burn unprocessed garbage, not generally requiring sorting and removal of recyclables prior to combustion.\textsuperscript{164} RDF plants process the garbage prior to burning to sort out materials which are difficult to combust along with recyclables.\textsuperscript{165} Incineration, however, does not have a successful track record in this country, and the incineration industry was not a model which should have encouraged confidence and optimism.

In the 1970s, the early generation of American incinerators, the RDF plants, were plagued by mechanical problems, explosions, and pollution problems.\textsuperscript{166} Thirty-two of the sixty American plants suffered unscheduled shutdowns lasting one week or more.\textsuperscript{167} Additionally, sixteen of the plants were closed well before their expected twenty-year life-spans reached expiration.\textsuperscript{168} Thus, even before the adoption of mass-burn plants from Europe, the American incineration industry suffered extensive problems.\textsuperscript{169}

During the 1980s, the incineration industry hawked a technology in mass-burn plants which they claimed worked well in Europe and could be successfully transplanted in the United States.\textsuperscript{170} Advocates claimed that the European mass-burn plants would replace the previous and largely unsuccessful American RDF method of incineration. Prior to the mid-1980s, only twenty-nine percent of existing incinerators in the United States were mass-burn facilities.\textsuperscript{171}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{163} EPA Report, supra note 92, at III-49.
\item \textsuperscript{164} \textit{Id}.
\item \textsuperscript{165} \textit{Id}.
\item \textsuperscript{167} \textit{Id} at 25.
\item \textsuperscript{168} \textit{Id}. By 1987, at the peak of a national campaign to build and site new incinerators, the garbage incineration industry had already been hit by mechanical failures that closed \$720 million worth of waste-to-energy plants and resulted in unscheduled shutdowns in more than half of the operating plants. Richard C. Firstman, \textit{High-Stake Risk on Incinerators: Billions Spent on Plants Amid Concern Over Cost and the Environment}, \textit{Newsdaily}, Dec. 13, 1987, reprinted in, \textit{Newsdaily} (reprint 1988), at 4.
\item \textsuperscript{169} As already noted, the United States developed the RDF technology. Maier, supra note 166, at 28. In RDF systems, the garbage is sorted before it is burned and chopped into pellets which are combusted to produce electricity. RDF proved to be costly and plagued by problems. RDF plants experienced fires and explosions and 10 were permanently shutdown due to these problems. \textit{Id}.
\item \textsuperscript{170} \textit{Id} at 25.
\item \textsuperscript{171} \textit{Id}.
\end{itemize}
\end{footnotesize}
Afterwards, two-thirds of the new plants being built were mass-burners.\footnote{172}{\textit{Id.} Mass burn facilities presently account for two-thirds of the waste handled by waste-to-energy plants, nearly 21 million tons in 1992. \textit{EPA REPORT, supra note 92, at III-49 to III-50. RDF plants now account for nine million tons. \textit{Id.}}} There was little hope in adapting the American technology to create larger incinerators able to handle the large quantities of waste expected to come from closing landfills. The industry responded to the troubles, caused by a decade and a half of cost overruns and plant failures for its home-built RDF technology, by promoting the adoption of European mass-burn technology. Even then, critics considered the switch to costly European technology to be a risky gamble.\footnote{173}{\textit{Key Findings on the Crisis, NEWSDAY, Dec. 13, 1987, reprinted in, The Rush to Burn: America's Garbage Gamble, NEWSDAY (reprint 1988), at 4 [hereinafter \textit{Key Findings}].}}

The initial experiences with the European borrowed technology were not encouraging.\footnote{174}{Maier, \textit{supra} note 166, at 23.} Saugus, Massachusetts was one of the first communities to adopt a European-style resource recovery incinerator in 1975. The incinerator was built by what eventually became Wheelabrator Environmental Systems, a major player in the incineration boom of the 1980s. For the first four years, the plant experienced numerous shutdowns, and required a financial bailout from the federal government to repay $11 million in repairs.\footnote{175}{\textit{Id.}} The same company which built the Saugus facility constructed a second waste-to-energy plant for Pinellas County, Florida in 1983, costing $160 million.\footnote{176}{\textit{Id.}} This incinerator suffered so many expensive mechanical problems that it was unable to meet its bond payments for two years.\footnote{177}{\textit{Id.}} A year later, nonetheless, Wheelabrator opened a European-style incinerator in Westchester County, New York. This plant also proved to be unexpectedly costly to operate, and the county taxpayers had to pay nearly $30 million in three years to cover a shortfall in electricity revenues.\footnote{178}{\textit{Id.}} Interestingly, Wheelabrator ultimately conceded that the European technology could not be transferred to this country without difficulty.\footnote{179}{Maier, \textit{supra} note 166, at 23.}

One problem facing the American waste industry was its lack of experience with the technology it was borrowing from Europe. In fact, most of the companies selling the plants had little experience...
building or operating them.\textsuperscript{180} Indeed, four of the ten leading firms had never built an incinerator, and two others, by 1987, had built only one each.\textsuperscript{181} The transplanted technology, furthermore, did not have a long-term track record of success for the manner in which it would be used in this country,\textsuperscript{182} and it had virtually no operating history in the United States.\textsuperscript{183} Due to the difference between American and European garbage systems, it was questionable whether these European incinerators would be trouble-free in the United States over the long-term.\textsuperscript{184} The waste industry, of course, claimed the new incinerator technology was proven. It was not, however, proven in American circumstances.

The waste industry also faced significant environmental and economic differences between the European and American garbage situations, which should have raised healthy skepticism over whether European incineration technology could be successfully transplanted to the United States. Economically, one major difference between European mass-burn plants and their American counterparts was size. The largest European plants are still only about half the size of the big American facilities planned and built during the 1980s.\textsuperscript{185} In addition, because the early 1980s was a time of rising energy prices coupled with efforts to make alternate sources of energy available,\textsuperscript{186} investors dictated that American incinerators generate electricity, unlike their European counterparts.\textsuperscript{187} The American plants, consequently, were oversized applications of the European incinerators aimed at generating more electricity.\textsuperscript{188} Conversely, more than seventy percent of European mass-burn plants primarily recovered steam or no energy at all rather than producing electricity.\textsuperscript{189}

Economics is less a factor for European incineration than for this country. In Europe, energy recovery is less about making

\begin{itemize}
\item \textsuperscript{180} Firstman, supra note 168, at 4.
\item \textsuperscript{181} Id.
\item \textsuperscript{182} Key Findings, supra note 173, at 4.
\item \textsuperscript{183} Firstman, supra note 168, at 4.
\item \textsuperscript{184} Id.
\item \textsuperscript{186} Jeff Bailey, Poor Economics and Trash Shortage Force Incineration Industry Changes, WALL ST. J., Aug. 11, 1993, at A2 [hereinafter Bailey, Poor Economics].
\item \textsuperscript{187} Peracchio, supra note 185, at 25.
\item \textsuperscript{188} Firstman, supra note 168, at 7.
\item \textsuperscript{189} Maier, supra note 166, at 23.
\end{itemize}
money than in the United States,190 where in the 1980s, energy sales accounted for more than half the revenues of the large American plants.191 These differences resulted in much more expensive plants with many more problems.192 The new American mass-burn facilities were, on average, nearly twice as costly to construct as their European counterparts.193 The European plants were not proven to be more reliable than the previous generation of unreliable American plants, yet the industry built them. As a result, half of the mass-burn facilities in operation in 1987 experienced unscheduled shutdowns, while three have been closed permanently.194

American mass-burn facilities also faced different environmental problems than their European counterparts. The principle problem existing on the environmental side was that American garbage was different and more likely to cause air pollution and mechanical problems than European garbage. The American garbage included more plastics and other products which Europeans recycled. The garbage burned in American mass-burn facilities generated more acid gases which led to more pollution and damaged plant equipment.195 The builders of waste-to-energy plants, moreover, downplayed and sometimes ignored the health risks resulting from air pollution and toxic ash.196 In addition, American mass-burn facilities had a higher rate of corrosion as a result of the plants having to operate at the higher temperatures necessary to generate electricity.197 A final environmental concern was the ash generated by mass-burn plants, which amounted to ten percent of the volume and up to thirty-five percent of the weight of the original garbage.198

Not everyone was caught up in the incinerator-building boom. Many experts cautioned against premature adoption of unproven European technology. Discussing transplanting European mass-burn incinerators to the United States, the former chairman of the solid waste branch of the American Society of Mechanical Engineers stated, "[t]he only thing that is proven is that it's very costly
and still has a lot of bugs in the technology."\textsuperscript{199} Wheelabrator, the contractor that built so many of the new mass-burn facilities, itself acknowledged in company documents that the European mass-burn technology "is not directly transferrable to the U.S. for various reasons."\textsuperscript{200} The reasons they cited, among others, included the smaller size of the European plants, chemical differences between the two countries' wastes which could create mechanical problems, and generally lower steam temperatures and pressures in Europe.\textsuperscript{201} In the midst of the rush to burn, a report from Moody's Investors Service, in 1987, declared that "[a] resource-recovery plant project may not be suitable for every municipality and such a project entails major risks."\textsuperscript{202}

The bright future painted by incinerator advocates clashed with the bleak reality of incineration existing at the time. The new incinerators were costly and frequently unreliable. They were heavily subsidized by electricity ratepayers. They contributed to air pollution and generated huge quantities of toxic ash. They did not eliminate the need for landfills, to which the ash itself had to be disposed. Lastly, these incinerators undercut cleaner and cheaper waste management strategies, chiefly recycling, and in some instances made meaningful recycling impossible.\textsuperscript{203}

In the 1980s, municipalities stampeded into incineration, and the amount of municipal solid waste combusted at waste-to-energy facilities expanded ten-fold.\textsuperscript{204} During this decade, there were great plans and expectations for the growth of waste-to-energy plants. For instance, in 1987 there were 93 plants operating, another 115 under construction or development, and scores more planned. At the very least, 200 plants were expected to be in operation by 1992. What has been called "the rush to burn," represented one of the biggest collaborations of public works and private industry in our history.\textsuperscript{205} However, by the end of the 1980s the incineration craze had itself nearly burned out. Today there are only 135 waste-to-energy plants, not the projected 200.\textsuperscript{206}

Why were these incinerators built in the first place? Much of the cause can be attributed to the much ballyhooed "solid waste

\textsuperscript{199} Id.
\textsuperscript{200} Id.
\textsuperscript{201} Id.
\textsuperscript{202} Maier, \textit{supra} note 166, at 23.
\textsuperscript{203} Firstman, \textit{supra} note 168, at 5.
\textsuperscript{204} EPA \textit{REPORT}, \textit{supra} note 92, at III-58.
\textsuperscript{205} Id.
\textsuperscript{206} EPA \textit{REPORT}, \textit{supra} note 92, at III-49.
This crisis appears not to be as bad and immediate as initially feared. In addition, the fear appears to have been fueled by the incinerator industry and its allies. Companies and communities dove into the incineration business during the 1980s, operating on the premise that landfill capacity was shrinking. That assumption has not proven to be true, at least in the short-run. The decline in the total number of landfills has not affected total landfill capacity. Municipalities overestimated the amount of trash they and others would be generating for the incinerators. In particular, economic recessions reduced the expected rate of garbage generation, thereby helping to make these estimates incorrect. Landfill capacity, moreover, had been unexpectedly maintained by the successful diversion of waste materials to growing composting and recycling markets in the 1980s, with recycling especially experiencing tremendous growth in the late part of the decade. The geographic range of modern landfills has also expanded. Their capacity is now available to more distant communities. This development has produced favorable economies of scale.

The rush to burn is only partly explained, however, by the fear of a solid waste crisis and the projected need to seek alternatives to dwindling landfill space. Fanning the flames of this craze were business interests which saw or obtained lucrative profits from a quick and huge expansion of the waste-to-energy market. A political-business coalition arose to beat the drum and profit from the selling of incineration. This coalition, comprised of makers and operators of incineration plants, financial services institutions, construction companies, lawyers, and consultants used its considerable influence to promote the growth of an industry from which it wished to profit handsomely. Particularly important to the development of this environment was the lack of guidance given to states.

207. See Bailey, Poor Economics, supra note 186, at A2; Bailey, Up in Smoke, supra note 24.


209. EPA REPORT, supra note 92, at III-64.


211. EPA REPORT, supra note 92, at III-75.

212. Firstman, supra note 168, at 4.

213. See generally Firstman, supra note 168, at 4-9.

214. Public officials in the mid-1980s were being pressured into a solution to the capacity crisis that some predicted would be a massive environmental and economic catastrophe. Id. Firms which had or sought to build incinerators promoted waste-to-energy plants as the panacea to the solid waste crisis. Indeed, waste and incineration companies themselves stimulated the waste-to-energy buildup by continuing to promote the "garbage crisis" despite a disposal glut in many areas. Bailey, Poor Economics, supra note 186, at A2.
and local governments regarding solid waste management by the federal government during the Reagan years. It was these public and private factors that helped provide an environment conducive to the easy, mostly unobstructed growth of incineration.

In the public realm, the intentional abandonment by the Reagan and Bush Administrations of environmental regulation helped to bolster the incineration rush. The failure or refusal of the states and EPA to regulate stringently the most serious pollution problems of incinerators was a big break for the incineration industry. The two environmental problems facing incineration were air pollution and what to do with the ash produced by incinerating garbage. State environmental regulators regularly lowered and softened air pollution requirements to encourage incinerators. Likewise, despite the fact that EPA reports indicated the ash contained dangerous levels of cadmium, lead, and dioxin, EPA refused to treat incinerator ash as hazardous waste, which would subject it to considerably more expensive disposal at hazardous waste facilities rather than municipal landfills.

The incinerator industry itself received direct governmental assistance in the form of two federal subsidies. The federal government granted generous tax breaks to investors and operators of incinerators and required utilities to purchase the electricity generated. Prior to 1986, federal tax law provided large tax breaks for private capital investment in incinerators including investment tax credits, energy tax credits, and accelerated depreciation. Investment in private incinerators escalated between 1984 and 1986 to take advantage of these tax breaks. The 1986 Tax


221. Porterfield, supra note 220, at 42.
Reform Law, however, scaled back these tax advantages, and thereby led a shift away from private and toward public ownership of the plants. 222 Local governments turned to incineration companies to build, lease, and then operate the plants. This development served to make private investment attractive because the incinerator bonds created were tax-exempt municipal securities. 223 The exemption of municipal bond holders from federal taxes essentially amounted to taxpayer subsidization of incinerator construction. 224

Federal action also encouraged municipalities to support waste-to-energy plants through the terms of the 1978 Public Utilities Regulatory Policies Act (PURPA). 225 PURPA required utilities to buy electricity from alternative power sources, such as resource recovery plants, at a price it would ordinarily pay to produce the electricity. 226 Some states, like New York, set rates even higher. 227 The result was that electric utility customers were subsidizing the building of the new incinerators. 228 In fact, one source estimated this electrical ratepayer subsidy amounted to roughly half the operating costs of new waste-to-energy plants. 229

At the same time, EPA, during Reagan's tenure, cut its solid waste policy staff from 128 to 1 employee. 230 State and local governments, consequently, did not receive needed guidance on solid waste management, and serious questions regarding the air pollution generated by incinerators were left unaddressed. 231 As a result, local governments were forced to make crucial decisions on their own about what to do with their garbage. 232

The abdication of responsibility by the federal government left a vacuum into which private sector interests rushed. These interests would be enriched if local governments turned to incinerators as the solution to their garbage problems. 233 Communities, fearing what they saw as a looming solid waste crisis, were left out on a limb when federal and state governments retreated from their roles as

222. Id.
223. Id.
226. Maier, supra note 166, at 23.
227. Id.
228. Firstman, supra note 168, at 7.
229. Id.
230. Id. at 5.
231. Id.
232. Id. at 7.
233. Firstman, supra note 168, at 5.
regulators and advisors on solid waste issues during the 1980s. Looking for guidance, these communities turned to the same engineering consultants that municipalities generally rely upon for advice regarding public works projects and problems. These consultants, however, had a vested interest in encouraging and convincing communities to turn to incinerators. As one public interest advocate noted, consulting engineers do not make money when they advise communities to concentrate their efforts on non-engineered, low-tech solutions such as recycling. Recycling had proven successful in the 1980s, but in communities which were advised to put their chips in incineration, hundreds of millions of dollars were invested in this option, while only a fraction of that went to recycling. Even if self-interest was not involved, engineering firms had, and still have an inherent bias toward large-scale technological solutions. Thus, it was not uncommon for consulting firms to work both sides of the incineration business. First, they would advise communities to open up incinerators. Then, these same people were hired by incinerator firms for regulatory design and construction assignments.

Investment banking firms and other institutional investors saw a bright, highly profitable future in incineration. From 1982 to 1987, the heyday for communities jumping on the incineration bandwagon, investment banking firms reaped about $194 million in fees for packaging bond issues for incinerators. Large financial service firms encouraged investment in incinerator ventures through bonds and saw the incinerator business as offering tremendous, long-term potential for capital gain. In fact, one major in-

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235. *Id.*
236. *Id.* Walter Hang of the New York Public Interest Research Group noted that consulting engineering firms make money when they say, "We'll design an incinerator, we'll help you finance it, we'll help you build it, we'll help you operate it." *Id.* Put simply, engineering consultants had a substantial financial interest in incinerators being built. *See also*, Firstman, *supra* note 168, at 9.
240. *Id.*
242. *Id.* These institutional investors included John Hancock Mutual Life Insurance Company, Ford Motor Credit Corporation, and General Electric Credit Corporation. *Id.* An example of the bountiful long-run investment expectations of private investors can be found in a Peekskill, New York incinerator built by
insurance company went so far as to become not just a lender, but also a partner in incinerators.  

Those who suffered declines in other businesses also saw incineration as a highly profitable venture, and therefore as a path to recovery. Large engineering and construction firms in the dwindling nuclear power business viewed waste-to-energy facilities as a new line of business. Likewise, incinerator companies which had built or operated problem-plagued plants using American technology during the 1970s, saw the European style plants as a means to revive their industry. Although many construction companies and waste management firms had very little experience building and running incinerators, lack of experience did not stifle their efforts.  

For example, one of the largest waste-to-energy plant builders was under contract in 1987 to build fourteen plants for $2.3 billion even though, at the time, it had only three plants in operation, none older than fourteen months.  

The politics of influence was crucial to the industry's development. In New York, the incineration industry regularly made contributions to New York City council candidates. For instance, Hempstead, Long Island awarded over $1 billion in contracts to a politically connected construction company, which had never built an incinerator, and which had been sanctioned previously for bid-rigging and price-fixing. Also in New York, the brother of powerful United States Senator Alphonse D'Amato simultaneously served as a founding member of a state legislative advisory panel created to solve New York's garbage problem and counsel to the large waste management firm, Browning-Ferris. Not surprisingly, he represented Browning-Ferris in negotiations to build and operate a waste-to-energy plant on Long Island, which the company projected would generate $1 billion in revenues for twenty years.  

Wheelabrator. The partners who invested $51.7 million in the plant expected to receive revenues of nearly $900 million over 18 years.  

243. Id. John Hancock, one of the first financial service companies to invest in incineration, took equity stakes in projects.  


245. Firstman, supra note 168, at 4-9.

246. Id.


249. Id.


251. Id.
Former government officials, elected and appointed, readily enlisted in the incineration boom. These individuals went to work as lawyers and consultants, either on their own or in the employment of other law practices, consulting firms, or incinerator builders and operators in the pursuit of establishing incinerators. This type of arrangement was so widespread that Ogden-Martin, a major builder of incinerators, hired former EPA officials to promote waste-to-energy as a fiscally and environmentally sound technology.

Flow control was not the reason waste-to-energy facilities were built. Most of the explanation lies in the pressure, prodding, and promotion of incineration by private interests which saw riches in burning garbage. At the same time, while flow control was not the reason for the expansion of the waste-to-energy market, it was a key tool needed to make it happen. Without flow control for the incineration buildup, no one could get rich, and not surprisingly, with a flow control bailout, no one will be made poor.

The rush to burn was a national experiment that posed the prospect of trading the pollution of landfills for that of incinerators while burdening communities and their taxpayers with enormous long-term financial risks and costs. The promoters of incineration cultivated an image of problem free technology which burned garbage without pollution while generating useable electricity. They painted incinerators as an environmentally sound alternative to old, overflowing landfills which poisoned groundwater supplies. The selling of a new age of incineration, however, had skeptics. Financial and environmental problems were predicted by some in the midst of the incineration buildup of the 1980s. For example, the head of the New York Public Interest Group, in 1987, stated his "worst fear" was that the march toward incineration will...
lead to “financial disaster.” Unfortunately, his prediction was correct.

By the early 1990s, the incineration boom ran out of steam. The number of new facilities being planned and constructed declined sharply from 202 in 1988, to only 53 in 1993. EPA reported that there would now only be a modest growth in the waste incineration industry during the 1990s. Unfortunately, too many such facilities had already been built, causing communities to be saddled with massive debts. These debts were manageable so long as flow control existed. Without it, however, the incinerators were burning municipal cash rather than trash.

The financing of waste-to-energy facilities has been structured so that the public received most of the risks and the private companies reaped most of the rewards. A common practice was for the local government to provide the financing, the company to own or operate it, and the local government to guarantee a certain amount of trash at a fixed price. If the market price plunged, and flow control was eliminated, the municipality would be financially burned. A combination of factors contribute to what some have called a “death spiral” leading to even greater declines in wastes received and more debt for the public. Incinerators, desperate for cash, might charge a higher fee to local waste collection services, and thus to local communities, to cover fixed costs. The higher tipping fees send local haulers packing and create more shortfall. Moreover, in an effort to attract additional waste, incinerators often charge considerably less to outsider haulers, begetting wide disparities in waste charges between local haulers and outside customers. For example, in Claremont, New Hampshire a waste-to-energy facility charged $96.50 a ton tipping fee for local trash, but charged only $40 per ton for outside trash.

257. Id. at 5.
258. EPA REPORT, supra note 92, at III-47.
259. Id.
261. Id.
262. Id.
265. Id.
Incinerator companies presented and pushed waste-to-energy plants as a “partnership” with communities. One Broward County, Florida official said, “one of the partners in this deal is making a whole lot of money.”\textsuperscript{266} He was speaking about two big incinerators operating in Broward County which cost $500 million to construct and which the county must feed at $55 per ton despite the fact that it can dispose of the waste elsewhere for $42.\textsuperscript{267} This is the crux of the waste-to-energy problem. The waste-to-energy industry is not competitive with landfills and is becoming increasingly less so every day.\textsuperscript{268} With flow control, competitiveness was irrelevant; with the loss of flow control, it is everything. Municipalities collectively spent billions of dollars to support the building of big incinerators, but now don’t have enough garbage to keep them going.\textsuperscript{269} The economics of incinerators are “terrible,” as the \textit{Wall Street Journal} put it, because the cost of disposal is considerably more expensive than at competing landfills.\textsuperscript{270} Incinerators were not established to be economic in and of themselves. They were designed to replace a disappearing asset, landfills. Unfortunately, the landfills did not disappear.\textsuperscript{271}

Incinerators need to operate at full capacity in order to be financially viable, namely to meet their high debt service costs and achieve a net cost that is competitive with landfills.\textsuperscript{272} If they cannot operate near capacity, incinerators cannot meet their debt service. Flow control is meant to transform the economics of waste-to-energy facilities from intrinsically terrible to artificially terrific. As such, waste-to-energy facilities rely upon flow control, long term contracts, or a combination of both, to ensure high capacity utilization. As a result of flow control, waste-to-energy fees are not limited by competition and often are used to cover other municipal system costs.\textsuperscript{273} Waste-to-energy tipping fees supported by flow control are generally higher than landfill tipping fees.\textsuperscript{274} For example, in New York, the average incinerator tipping fee is $13 more than the aver-

\textsuperscript{266.} Id. 
\textsuperscript{267.} Id. 
\textsuperscript{268.} Id. at A1-A2. 
\textsuperscript{270.} Id. 
\textsuperscript{271.} Id. 
\textsuperscript{272.} EPA \textit{Report}, supra note 92, at III-51. 
\textsuperscript{273.} Id. 
\textsuperscript{274.} Id.
age landfill tipping fee. In Minnesota, the difference is $34 and in New Jersey, it is $19.

Measures proposed in Congress to grandfather existing flow control supported facilities provide a bailout for municipalities which have established waste-to-energy plants. One source states that waste-to-energy facilities account for 50%, or $12 billion, of the total dollar volume of outstanding solid waste bonds. Of the $9 billion in solid waste bonds which Moody’s Investors Services has subjected to rating, two-thirds, or $6 billion, are for waste-to-energy plants. In fact, the head of the Solid Waste Association of North America believed that the loss of flow control would result in $10 billion of outstanding bonds that finance incinerators to go “belly-up.”

The bailout of flow control is not only a bailout for communities stuck with expensive waste-to-energy plants but also for private owners, operators, and investors. With the bailout, these interests cannot lose. The incineration industry is among the leaders urging congressional legalization of flow control; this was so even before Carbone. Prior to Carbone, flow control, along with put-or-pay contracts, virtually eliminated the risks faced by those who operated or financed ill advised incinerators. After Carbone, a congressional bailout would rescue these interests.

It is understandable that local governments would want to be free of the financial difficulties created or compounded by the loss of flow control to existing waste-to-energy facilities. However, any measure which compels a large portion of the waste stream to incinerators is, quite simply, not necessarily environmentally sound waste.

275. Id. at III-57.
276. Id.
278. Id.
279. Hogan, supra note 32.
281. Broad federal legislation to eliminate judicial challenges to flow control was urged prior to Carbone by Ogden-Martin, which owns and operates 25 waste-to-energy facilities that mostly serve municipalities, and has contracts with local governments whose flow control directs waste to the Ogden-Martin burners. Commentators Make Concerns Known to Panel on Draft Federal Flow Control Legislation, supra note 40, at 1924-25; States Urge EPA to Support ‘Flow Control’; Waste Groups Say Issue Represents Bad Public Policy, supra note 28, at 734-35.
283. Id.
management. Flow control, as well as put-or-pay contracts for incinerators, have a "vampire" effect on the waste stream. These measures are meant to steer a fixed percentage of waste toward an incinerator. In fact, incinerators require no less than their usual high utilization capacity of waste to meet all fixed costs. Incinerators and landfills are on the bottom of the preferred hierarchy for waste management. The result is the diversion of a substantial portion of the waste stream to incinerators and away from the more preferred options of waste reduction, reuse, and recycling. The incentive in communities which must operate waste burners at capacity to meet their debt load is to feed, and feed well, the burning beast. Every ton of waste fed the incinerator is a ton not subject to reduction, reuse, and recycling strategies.

It should be no surprise that flow control deprives some waste management options and feeds others, since flow control is expressly meant to monopolize the waste stream for activities it financially guarantees, like incinerators. The tendency of flow control to disadvantage the environmentally preferred options of reduction, reuse, and recycling is a major reason national environmental organizations oppose flow control. Incinerators have long been criticized as expensive and unreliable. They have been promised as an alternative to replace old landfills that endanger water supplies; however, they have raised concerns that one kind of pollution has been substituted for another. Instead of direct land and water pollution, incinerators contribute to air pollution and generate huge quantities of toxic ash.

VIII. ALTERNATIVES TO FLOW CONTROL

Flow control is not required to establish waste management facilities. They were built without the benefit of flow control prior to

284. See id. at 340. Cook pointed out that incineration has raised issues of safety and pollution, concerns that have irritated neighbors of existing and proposed facilities, and spawned litigation. Id.
286. Id. at 534-35.
287. Environmentalists generally take a dim view of incinerators not only because they divert waste from alternatives like recycling, but also because of concerns over air pollution. Holusha, supra note 55.
288. Firstman, supra note 168, at 5.
289. Id.
Carbone, and will continue to be built without flow control.\textsuperscript{291} Since 1988, for example, the waste management firm, Browning-Ferris Industries, has built over fourteen composting facilities and eighty recycling facilities all around the nation without public support.\textsuperscript{292}

Alternatives to flow control existed prior to Carbone, and the same alternatives exist today. Consequently, flow control is both unnecessary and expendable.\textsuperscript{293} Most of these alternatives have been tried in one form or another in real places; they are not merely theoretical proposals. Minnesota is a good example of a state where several approaches have been used to steer wastes to preferred waste management facilities and away from those considered environmentally inferior.\textsuperscript{294} All the alternatives, admittedly, have downsides and pose difficulties similar to flow control. There is no single perfect solution for state and local governments to steer waste to desirable facilities in the most economical, environmental, and constitutional manner.

A. Financial Options

Alternatives to flow control generally fall into two categories; financial and organizational.\textsuperscript{295} A direct financial alternative is monetary assistance by state and local governments to help maintain lower tipping fees. In 1993, for instance, the Minnesota legislature gave $1.5 million to two solid waste facilities to subsidize their operations.\textsuperscript{296}

Local governments and cities, as another alternative, may impose surcharges on waste disposed of in landfills, with or without a higher surcharge on waste generated outside the area.\textsuperscript{297} City and county licensing fees for waste collection firms, furthermore, can be used to fund facilities, either in addition to, or in lieu of, tipping fees.\textsuperscript{298} Minnesota, for example, has mandated landfill surcharges

\textsuperscript{291} It is important to note that facilities built without flow control are subject to the same environmental standards as those built with it.
\textsuperscript{292} Flow Control Hearings, supra note 27, at 42.
\textsuperscript{293} See Waste Recycling, Inc. v. Southeast Alabama Solid Waste Disposal Authority, 814 F. Supp. 1566, 1581 (M.D. Ala. 1993) (acknowledging that there exist alternatives to flow control regulations).
\textsuperscript{294} These alternatives are discussed in Taylor, supra note 62, at 15-16.
\textsuperscript{295} EPA Report, supra note 92, at ES-12 to ES-13, III-80 to III-83.
\textsuperscript{296} Taylor, supra note 62, at 15.
\textsuperscript{298} Taylor, supra note 62, at 16.
in order to internalize more of the cost of landfilling by the landfills themselves. Furthermore, Minnesota requires waste collectors to be licensed by the jurisdiction in which they operate.\textsuperscript{299} We have long accepted the notion that licensing can be accompanied by fees. This license fee can be set at a level that would cover the basic costs for operating facilities.

Taxing the waste stream in communities through landfill surcharges or licensing fees is one of the most potent alternatives to flow control.\textsuperscript{300} Another form of waste taxing user fees levied on waste generators or private sector providers, and includes uniform user fees, unit-based pricing, and market-based tipping fees.\textsuperscript{301} In addition, general taxes like property taxes can support waste management facilities and operations. Some communities with expensive waste-to-energy plants, but without flow control, have resorted to "economic flow control."\textsuperscript{302} With economic flow control, communities set the disposal fees for the incinerator low enough to attract garbage and then handle the rest of the costs in the tax base.\textsuperscript{303} Whether Congress grandfathers formal flow control or not, this approach may become more frequently used by communities to establish new facilities.

Economists have long recommended a variety of pollution and waste stream taxes to pay for good waste facilities, discourage waste generation, and raise revenues for other public purposes. These taxes, essentially, are meant to internalize the externalities of production and consumption which generate waste in our society.\textsuperscript{304} They include single-item taxes, general litter taxes, and disposal taxes.\textsuperscript{305} Single item taxes are placed on individual types or classes of products, such as tires, bottles, car batteries, newspapers, appliances and the like.\textsuperscript{306} General litter taxes are broader in nature and are applied to larger categories of consumer products that create litter or other forms of solid waste. Disposal taxes are fees col-

\textsuperscript{300} Flow control is, in fact, essentially a hidden tax concealed in waste disposal charges anyway.
\textsuperscript{301} EPA REPORT, supra note 92, at ES-12, III-81 to III-82.
\textsuperscript{302} Bailey, \textit{Up in Smoke}, supra note 24, at A1; EPA REPORT, supra note 92, at I-5 n.11.
\textsuperscript{305} MATHEW MONTAVON & PAUL SHINN, \textit{GOVERNMENT FINANCE RESEARCH CENTER OF THE GOVERNMENT FINANCE OFFICERS ASSOCIATION, TAXING THE SOLID WASTE STREAM FOR STATE AND LOCAL GOVERNMENTS} 1, 12, 28, 32 (1990).
\textsuperscript{306} Id.
lected at landfills or incinerators on the weight or volume of trash disposed.\textsuperscript{307} These taxes include the surcharge previously mentioned.\textsuperscript{308} The revenue raising, facility building, and waste reducing possibilities of taxing the waste stream are virtually untapped but hold great promise.\textsuperscript{309}

Financially, communities can employ subsidies, surcharges, and taxes to replace the economic boost provided by flow control. They can also, furthermore, turn to organizational options independently or in connection with financial alternatives.

B. Organizational Options

Organizational alternatives to flow control include: (1) municipal ownership and operation of waste collection systems that deliver the wastes and recyclables to selected facilities; (2) utilization of the private sector, such as hiring contractors to perform collection services, or awarding franchises for collection and hauling services within given collection districts with designated waste facilities chosen by the communities; and (3) creation of special purpose districts or utilities to manage municipal solid waste collection and delivery to designated facilities.\textsuperscript{310} In addition, higher standards for landfills and waste-to-energy facilities could divert waste to selected methods of waste management. Indeed, steady improvement in regulatory standards has been the trend for state and federal governments.\textsuperscript{311} As standards progressively rise, they will force landfills to upgrade or close, having the effect of diverting waste to some of the state of the art waste management facilities which in the past were supported by flow control.

Minnesota also has experience with several of these organizational options. Minnesota counties have entered into contracts with private haulers and others to assure sufficient waste streams for facilities.\textsuperscript{312} Although this approach is limited when there are cheaper alternative facilities to receive the waste, long-term security regarding both a place and price for depositing waste can be very attractive to many waste haulers.

\textsuperscript{307} Id.
\textsuperscript{308} Id.
\textsuperscript{309} MONTAVON \& SHINN, supra note 305, at 1, 12, 28, 32.
\textsuperscript{310} EPA REPORT, supra note 92, at ES-11, III-80 to III-81.
\textsuperscript{311} Taylor, supra note 62, at 15-16.
\textsuperscript{312} See, e.g., Waste Systems Corp. v. County of Martin, 985 F.2d 1381, 1383-87 (8th Cir. 1993).
Some communities in Minnesota have seen the local government directly control collection and disposal of waste, an option that was more widely used in the past, but is no longer broadly practiced in Minnesota or any other state. Nevertheless, a local government has a variety of measures it can use to organize collection, including government collection, contracting with or without competitive bidding, or exclusive franchising or negotiating with a consortium of haulers to establish service areas and prices. A contract created under organized collection could mandate that waste be delivered to a specific facility. This may or may not escape the fate of flow control, but where contracts are voluntarily entered into by waste haulers, it likely would not be challenged as a violation of the Commerce Clause. While it is true that government control of waste disposal may be more intrusive than flow control, treating waste like a public utility will not subject it to the same Commerce Clause challenge that the town of Clarkstown faced in Carbone.

IX. Conclusion

Flow control was the easy way to finance and build waste facilities that would have been otherwise difficult to finance and build. Flow control offered a quick fix that enabled state and local governments to avoid more difficult choices for both waste management strategies and facilities. As a result, flow control skewed waste management choices to big and enormously expensive facilities.

Major public works projects in American communities typically are financed by general obligation bonds backed by property taxes, which are easy to administer and are perhaps the most direct means to finance waste facilities. Property tax increases, however, are politically unpopular. Likewise, most other kinds of fees and taxes invoke the same resistance. On the contrary, we live in an era where tax hikes are anathema, and property tax relief is de rigueur. Hence, the motivation for adoption of flow control was to escape the dreaded property tax increase, but still finance necessary waste facilities, including the big controversial incinerators.

314. Organized collection of solid waste is authorized by Minnesota’s waste management legislation and is, or can be, in other states.
315. A local government, however, has to see that the measures it uses do not constitute municipal regulation of the waste market. If the measures are deemed to constitute regulation, the measures are subject to scrutiny under the Commerce Clause. See SSC Corp. v. Smithtown, 66 F.3d 502 (2d Cir. 1995).
Looking back, it is very likely that if decision-makers and the public were forced to seriously consider using property taxes to support waste management, they would have balked at financing the large-scale, expensive facilities which went hand-in-hand with flow control. Many incinerators would not have been built, and those that were would have been financed primarily with general obligation bonds, which are repaid from taxes, rather than revenue bonds, which rely upon tipping fees. Flow control, however, was adopted in some communities, and huge incinerators were built without tax support. If flow control is not restored to those facilities it once supported, many communities will have to turn to property taxes to repay their indebtedness; ironic, isn’t it?

Without flow control, it would not be nearly as easy to build large, capital intensive facilities. Financing waste facilities through taxes rather than flow control would tend to make decisions to build waste management facilities more economically prudent. Fiscal restraint would be a major guiding principle. Federal, state, and local governments might have been more receptive to the more environmentally sound, more preferable strategies at the top of the waste management hierarchy, relying less on capital intensive facilities like incinerators on the bottom of the hierarchy, and turned to meaningful regulation to achieve source reduction, reuse, and intensive recycling.

Since 1986, Germany has embarked on a serious regulatory effort to reduce excess product packaging with a novel system called the Green Dot program. The German Green Dot system allows consumers to leave excess packaging from various consumables at the stores where the products are purchased. German industry, acting through a consortium of 600 retailers, packagers, and raw materials suppliers, in turn, must collect the product packaging from retailers and is responsible for recycling it. Pursuant to the Green Dot system, German industry must reduce 64% to 72% of various packaging by 1995. Aside from the legislated quotas the industry must satisfy, requiring manufacturers to be responsible for

316. Many communities would have rejected the building of the waste-to-energy facilities through the property tax base. At the very least, less costly incinerators might have been constructed. One needs only to look at past and present battles over proposed construction of other important public facilities, such as schools.


the waste they produce has the effect of encouraging them to re-
duce the amount of packaging to avoid the cost of recycling.

The Green Dot program, sweeping the rest of Europe, is sym-
bolized by the disappearance of the toothpaste box — a vivid ex-
ample of source reduction.\textsuperscript{319} No longer would you find a box
containing a tube of toothpaste on store shelves in Germany. In
the United States, both federal and state government have, for the
most part, refused to seriously undertake regulation for source re-
duction, reuse, and intensive recycling. European nations, particu-
larly Germany, are way ahead in this area. It is rather ironic that we
are ignoring the German source reduction and recycling system
now, as it was German incinerator technology that we copied in the
"rush to burn" 1980s.\textsuperscript{320}

We did not do ourselves any favors when we adopted flow con-
trol. We only helped set back American waste management. By
building facilities like incinerators which perpetuate the national
culture of consumption, flow control did not challenge the all-con-
suming lifestyle of the throw-away society we created, and necessi-
tated a national waste management system dominated by disposal.\textsuperscript{321} Flow control, furthermore, gave the appearance that
the public was not paying for waste facilities; but of course now we
know that it is paying a great deal. A congressional bailout of flow
control does not address the problems flow control created, or at
least contributed to, and is ultimately another easy way out. We
may not be doing ourselves a favor now by bailing out communities
using flow control — we may just be rewarding foolish choices.
Congress should consider this the next time it considers bailout leg-
islation, as it surely will.

\textsuperscript{319} Id.
\textsuperscript{320} Peracchio, \textit{supra} note 185, at 30.
\textsuperscript{321} Irene Virag, \textit{The All Consuming Lifestyle, America's Routines are Rooted in the
Psychology of a Disposable Society - A National Culture of Consumption}, \textit{NEWSDAY}, Dec. 13,
1988), at 11.