

**Meeting the Challenge - Ensuring Capacity for
Connecticut's Municipal Solid Waste and Recyclables
in Changing Market Conditions**

(A White Paper)

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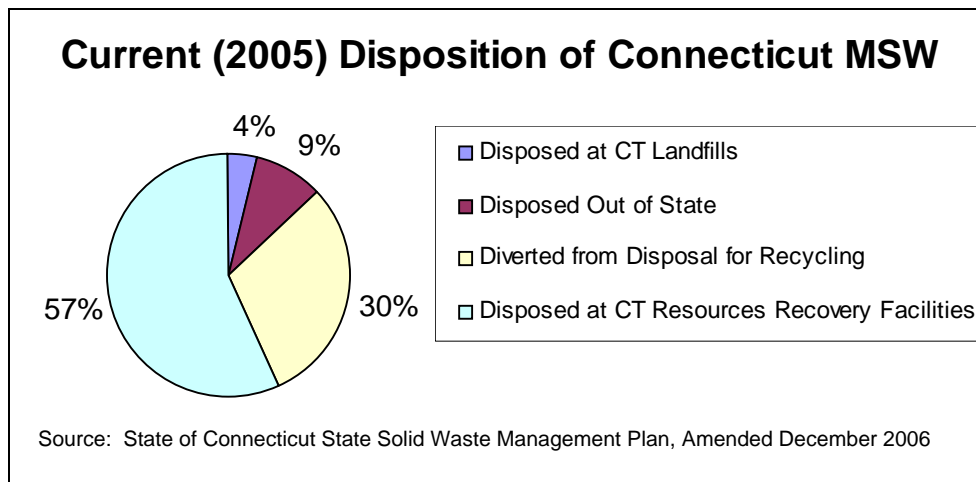
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1.0 Defining the Challenge

Since the mid 1970s, Connecticut has benefited from an integrated solid waste management system that has been largely self-sustaining. This system, which was designed to meet the needs of the state's 169 municipalities, has focused on the recovery of energy and materials from the municipal solid waste ("MSW") stream generated in Connecticut.

Today, this integrated system includes six regional waste-to-energy facilities for MSW, seven regional intermediate processing facilities for recyclables, 112 transfer stations, several sites for composting yard waste and/or leaves, two landfills permitted to accept ash residue from the waste-to-energy facilities, and a third landfill permitted to accept MSW. This system manages approximately 90 percent of the estimated 3.8 million tons per year of MSW generated in Connecticut; the remaining 9 to 10 percent of MSW is transported out-of-state for disposal or processing. These figures do not include construction and demolition ("C & D") waste and oversized, bulky MSW, estimated at more than 1.1 million tons per year, of which less than 10 percent is estimated to be recycled and over 900,000 tons per year is estimated to be transported out-of-state for disposal.¹



Shortfalls in Disposal Capacity

By 2024, with projected population growth and a reasonably vibrant economy, the MSW generated in Connecticut is estimated to reach over 5.2 million tons per year and the C&D waste stream over 1.5 million tons per year. Currently, existing processing and disposal capacity for Connecticut's MSW waste stream faces a shortfall of over 300,000 tons per year (approximately 800 tons per day). Processing and disposal capacity for the state's C&D waste stream faces a shortfall of over 900,000 tons per year (approximately 2,500 tons per day). In addition, there is a projected shortfall in landfill capacity for ash residue from existing waste-to-energy facilities. Once capacity at the Hartford Landfill is exhausted by the end of 2008, Connecticut will have only one landfill for ash residue, and it is privately owned and not reserved for Connecticut. Existing capacity at that landfill is forecast to be exhausted by 2019, and possibly before.²

¹ State of Connecticut State Solid Waste Management Plan, Amended December 2006.

² Ibid.

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The Connecticut Department of Environmental Protection ("DEP"), with the input of many stakeholders, has crafted a substantive new amendment to the State of Connecticut Solid Waste Management Plan. This amendment calls for a panoply of initiatives by government and the private sector and additional mandates designed to blunt the generation of waste, including recovering for reuse, recycling and composting, to the greatest extent possible, the materials and compostable yard waste/food waste in the waste stream; achieving a waste reduction/reuse/recycling goal of 58 percent by 2024 (almost double the present estimated diversion level of 30 percent); and recovering the inherent energy value of the remaining waste for disposal through the existing waste-to-energy system infrastructure while minimizing to the greatest extent the amount of waste that ultimately requires burial in modern, lined landfills.

Yet, even with such compelling initiatives, with no increase in existing in-state MSW disposal capacity and no marked short-term increase in waste diversion, it is estimated that over 600,000 tons per year of MSW (approximately double the current rate) will require disposal out-of-state by 2010. In addition, unless there is a significant reduction in C&D waste, including an increase in C&D reuse and recycling, over 1.4 million tons per year of the C&D waste stream will need to be shipped out-of-state for management by 2024, adding heavily to the already high export quantity.

In short, without substantial new funding, expansion of existing capacity, both for processing and disposal, and the political will to support these initiatives as the underpinnings for a self-sustaining solid waste management system, **Connecticut's system will likely devolve from one that has been largely self-sustaining to one that is increasingly dependent on facilities and programs outside the state** that are beyond the oversight, management, and control of Connecticut's local governments and the DEP.

The Risk of Out-of-State Disposal

Depending so heavily on out-of-state disposal is a high-risk strategy. Not only does it put the disposal system beyond the oversight, management and monitoring of Connecticut's municipalities and regulators, but it also subjects the waste generators in Connecticut to substantial uncertainties—uncertainty as to the transportation costs and risks to consistently move waste hundreds of miles to distant facilities, and uncertainty regarding future legislation and regulations in other states that could limit waste intake, add fees, or otherwise restrict out-of-state imports. While waste flows clearly transcend state boundaries, very few states, if any, embrace waste imports and the prospect of their increase. In fact, most states receiving significant waste quantities from outside their borders continue to examine and implement strategies that enable them to limit such imports. For example, Pennsylvania has a harms/benefits test that it now applies in permitting new facilities or expansions, and North Carolina just enacted a one-year moratorium on permits for new landfills and

Depending so heavily on out-of-state disposal is a high-risk strategy.

certain expansions while its legislature studies the state's capacity needs and waste imports and exports.

Contributions of CRRA and Other Regional Solid Waste Organizations

The substantial portion of the existing solid waste management system for MSW in Connecticut has been developed and sustained through the Connecticut Resources Recovery Authority ("CRRA"). Created in 1973 as a public instrumentality and political subdivision of the State of Connecticut, CRRA's charge and mission is to plan, design, construct, finance, manage, own, and operate solid waste disposal, volume reduction, recycling, intermediate processing, and resources recovery facilities considered by CRRA to be necessary, desirable, convenient or appropriate in carrying out the provisions of the State Solid Waste Management Plan.

CRRA's overarching goal has been to serve its member municipalities through cost-based regional projects that are in the interests and for the benefit of the municipalities and their solid waste management and recycling objectives, and consistent with the State Solid Waste Management Plan. To this end, CRRA has developed, constructed, and now operates an integrated system of four regional waste-to-energy facilities, two regional recyclables processing centers, two landfills, and 12 transfer stations, providing for solid waste recycling and disposal services to more than 100 Connecticut cities and towns. In the aggregate, these projects manage more than 75 percent of the municipal solid waste generated in the state, and the waste-to-energy components produce on average approximately 160 megawatts of clean, renewable electrical energy each hour, representing approximately two to three percent of the state's electricity-generating resources. In carrying out its mission, CRRA contracts with private industry to construct and operate facilities. CRRA has executed contracts with the private operators of these facilities with terms expiring at various points over the next two to eight years, depending on the particular facility/contract.

In addition to CRRA, other regional authorities and/or organizations, each serving member communities' waste disposal and recycling needs, contribute significantly to the existing infrastructure, public oversight and self-sustainability of Connecticut's solid waste management system. These include, but are not limited to, the Bristol Resource Recovery Facility Operating Committee/Tunxis Recycling Operating Committee ("BRRFOC/TROC"), the Eastern Connecticut Resource Recovery Authority ("ECRRA"), the Housatonic Resources Recovery Authority ("HARRA"), and the Southeastern Connecticut Regional Resources Recovery Authority ("SCRRA"). These entities also contract with the private sector for certain facilities and services they own and/or make available to benefit their member communities. Through these authorities and/or organizations, there are six regional waste-to-energy facilities that process MSW with a combined permitted design capacity of 2.6 million tons per year. (See Appendix A for information about these facilities.)

Of critical importance, **between 2008 and 2015, four of these six waste-to-energy facilities could be privately owned and under the full control of the private owner.** This is based on the terms of the contracts between the development organization, the municipalities, and the private operator (or owner). This development would effectively **transfer the control, oversight and assurance of processing capacity for over 1,463,000 tons per year of MSW in Connecticut from the public to the private sector,** potentially allowing that capacity previously dedicated to the needs of Connecticut municipalities through long-term contracts to be open for commitment to waste sourced at the highest market-clearing price, originating either within or outside Connecticut boundaries.

Combined with the fixed capacity of Connecticut's existing waste-to-energy infrastructure and the state's limited landfill and ash residue landfill capacity, this evolving scenario has the potential to markedly exacerbate the already decreasing self-sustainability of Connecticut's solid waste management system that was planned, structured, financed, constructed, and operated to serve the needs of Connecticut's municipalities.

2.0 The Impending Shift to Private Ownership in MSW Processing and Disposal Capacity and the Implications of this Ownership Change

Connecticut municipalities rely heavily on the six existing waste-to-energy facilities in the state for the processing and disposal of MSW that is not recycled. In addition, two ash residue landfills, one publicly owned and one privately owned, provide ash residue disposal for these facilities. As previously noted, ownership of four of these waste-to-energy facilities (Bridgeport Project, Bristol Project, Wallingford Project, and Southeast Project (in Preston)) is anticipated to shift into private control between 2008 and 2015, although there is some uncertainty regarding the ownership arrangement of the Wallingford Project after 2010. Further, **by the end of 2008, the capacity of the publicly owned ash residue landfill in Hartford will be exhausted.** The only remaining in-state ash residue landfill capacity, in Putnam, which is privately owned, is projected to be exhausted by 2019 or earlier depending on the arrangements with, and operating levels of, the waste-to-energy plants it will serve and how much out-of-state waste is accepted. **This situation poses significant risk in terms of capacity assurance and disposal cost to Connecticut municipalities.**

Public vs. Private Control

In choosing public ownership over private ownership, many communities, often working together through an authority, district or cooperative, have opted for capacity assurance and a greater control over costs, liability, continuity of service, and ability to adapt to the changing needs and conditions in their communities. In addition, through public control, public health and safety considerations are elevated, and there is public accountability for performance, a history of actual expenditures, and guaranteed public participation. Everything in a publicly owned project is a matter of "public record." The structure promotes public involvement in the actions and plans that are implemented, and standards are established in response to citizens' concerns. In a privately controlled project, there is typically more limited communication with the public and greatly limited access to project data, particularly financial and operational information. Public ownership answers to and benefits the citizens; private ownership answers to and benefits the stockholders.

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In the private sector, price is determined by supply and demand; cost does not determine price. The private sector seeks the highest attainable price for any given quantity of output. Further, in the solid waste industry, private ownership does not necessarily equate to reduced risk since solid waste facilities involve risks that cannot be fully allocated away from the public. Private owners require additional returns for assumption of additional risks, and no matter how financially sound and

creditworthy a private owner may be (or appear to be), there is always the risk of insolvency or bankruptcy.

In a competitive market, one would expect disposal fees at the waste-to-energy facilities in Connecticut to actually decrease when contracts expire, as the bonds providing the substantial financing for the facilities would have been retired. However, this is not expected to be the case in Connecticut. As the current long-term project contracts come to an end during the next decade and several waste-to-energy facilities shift fully into private ownership and control, those private companies will be unfettered in their ability to set disposal fees as high as the market will allow, operating as "merchant plants" and drawing waste from outside Connecticut from sources in New York, Massachusetts and Rhode Island that are looking for nearby alternatives to the higher cost, long-haul facilities which they are now using, displacing essential capacity for Connecticut residents at a time when a growing shortfall in available disposal capacity already exists.

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Another concern is the extent and pricing of ancillary services that could be expected from the regional facilities under a full private ownership, merchant plant structure. Under the current long-term contracts with municipalities, certain of these projects include ancillary services, such as recycling and public education programs, that are bundled into the tipping fees. With the expiration of the long-term contracts and reversion of facilities to private ownership and control, such ancillary services would need to be unbundled and paid for separately, conducted by municipalities, or eliminated to the detriment of the communities. These services are critical to meeting new diversion goals.

Economics of Solid Waste Collection and Disposal: A Brief Refresher

Economists characterize industries along a yardstick ranging from perfectly competitive to monopolistic. The competitive industry—classic examples are agricultural, such as corn—is characterized by many buyers and sellers of an undifferentiated good or service, no significant technical, regulatory, or financial barriers to entry, and no significant economies of scale. In such a market, no seller has the ability to set the price; prices are set by the aggregate forces of supply and demand, and prices set result in low profit margins. When capacity is constrained and competitive characteristics are not present, the industry tilts towards the monopolistic or oligopolistic (i.e., "a market condition in which sellers are so few that the actions of any one of them will materially affect price and have a measurable impact on competitors")³ model. In this situation, there are from one to a few producers of a good or service, which may be differentiated, barriers to entry are often significant, economies of scale are usually present, and prices are set by producers, usually to reflect a significant profit margin.

Solid waste collection and truck transport are two segments with very few barriers to entry. Trucks are easily financed, there are no proprietary techniques, and economies of scale are relatively minor, with average operating costs about 30 percent less for a large firm than for a one-truck operator.

³ The American Heritage Dictionary of English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company

Processing of recyclables is a segment where there are significant economies of scale. Financial and regulatory (permitting) requirements must be met, and siting often can be politically difficult. Processors also need to be able to market materials and manage relatively complicated equipment. In this segment, one would expect profit margins to be higher than for collection or truck transport.

Disposal is the least competitive segment of the solid waste industry. There are significant financial and regulatory requirements, and, generally, very powerful public and political opposition to siting (NIMBY syndrome), all of which make entry difficult. Also important, the economies of scale in landfill operations and in waste-to-energy plants are significant. The cost per ton to landfill decreases from over \$50 in smaller landfills to under \$12 in the largest landfills, exclusive of any legislated fees or host community fees. For these reasons, this is the segment of the industry where producers can be expected to earn the highest profit margins. In large waste-to-energy facilities, per-ton operating costs, exclusive of debt service, ash disposal, and legislated fees or host community fees, could be expected to range from approximately \$35 to \$45. Profit margins are especially attractive when debt on such facilities is retired and pricing is market-based.

Collection firms with disposal sites like to use their own disposal sites for waste they collect—a business model called vertical integration. Achieving vertical integration is highly desired by private sector firms, so much so that some firms have departed markets where there is not access to company-owned disposal capacity for waste collected in that market. For example, Allied Waste left the Connecticut market in 2003.

Increased Concentration in the Solid Waste Industry

An oft-noted trend in the solid waste industry is the movement towards increased concentration and away from the competitive model. In the late 90s, several mega mergers occurred: USA Waste acquired Waste Management and Eastern Environmental, renaming the combination Waste Management; and Allied Waste Industries acquired Browning-Ferris Industries, Inc. These acquisitions resulted in a huge increase in concentration. In 1993, the top 100 firms controlled about half the solid waste market. By 2003, the top four publicly traded firms controlled almost half the solid waste market, estimated at \$46.5 billion. Waste Management alone controls over 49 percent of the entire landfill market in the United States; one of every two tons of MSW that is landfilled in the United States is buried in a disposal site owned by Waste Management. Together, all the publicly traded firms control over 60 percent of landfill tonnages. By any standards, this is a highly concentrated industry segment—one that meets the definitions of an oligopoly, or, in many local markets, a monopoly or duopoly.⁴ Indeed, Smith Barney characterizes the entire solid waste industry as oligopolistic.⁵

In the late 90s, the newly combined solid waste firms digested their acquisitions. The combined firms have spent several years eliminating superfluous layers of management and overlapping responsibilities. Now, they're starting to flex their market powers, raising rates to allow for more attractive (to them) profit margins.

As evidence of this trend, in the Portland (Oregon) Metro area, the number of firms collecting commercial waste decreased by 40 percent over the decade from 1995 to 2004, while the share of the publicly traded companies increased by over 600

⁴ A monopoly is a market with a single producer; a duopoly is a market with two producers.

⁵ Leone Young, *Solid Waste ABC's*, (Citigroup, Smith Barney: June 7, 2005) p.7.

percent. Portland went from being a "Mom and Pop" hauling market to being a market largely dominated by publicly traded firms.

New York City, after the closure of the Fresh Kills Landfill in 2001, relies on private sector transfer and disposal options (with the exception of the Essex County, New Jersey, waste-to-energy facility in Newark and a few other facilities). Currently, 84 percent of the solid waste from New York City is handled through the transfer stations owned by three publicly traded firms, and then on to landfills owned by these firms. By any definition, this is not a competitive market. Rather, oligopoly is the most accurate description of the disposal industry sector serving New York City.

In Connecticut, two firms operate the state's six waste-to-energy plants: Covanta and Wheelabrator. One of these plants (Mid-Connecticut) is presently owned by CRRRA and another (Lisbon) by ECRRRA. Prices are largely set in long-term contracts, with spot prices for any available capacity usually set by the operator. When these long-term waste disposal contracts expire, if ownership reverts to the private operators, Connecticut's solid waste industry will have the economic characteristics of an oligopoly or duopoly. When this happens we can expect these operators to set prices based on market conditions rather than on cost plus a reasonable margin. In other words, prices within Connecticut can be expected to be set just below those of out-of-state disposal, which includes the cost to transport and dispose at such out-of-state locations.

3.0 A Time for Action

Connecticut has a long-established public policy that considers the management of solid waste to be a fundamental government service and responsibility. This public policy led to the resources recovery infrastructure and a self-sustaining solid waste management system, planned and developed through organizations such as BRRFOC, CRRRA, ECRRRA, HRRRA, and SCRRRA. This system has served Connecticut's municipalities well for over 20 years, with assured capacity, controlled disposal pricing, and little dependence on MSW facilities outside Connecticut.

Connecticut has a long-established public policy that considers the management of solid waste to be a fundamental government service and responsibility. This public policy led to the resources recovery infrastructure and a self-sustaining solid waste management system, planned and developed through organizations such as BRRFOC, CRRRA, ECRRRA, HRRRA, and SCRRRA.

Connecticut now faces significant increased concentration in the solid waste disposal industry at a time when the state is experiencing substantial shortfalls in disposal capacity. Over the next decade, Connecticut's municipal solid waste infrastructure could be expected to change from a publicly managed system of six waste-to-energy plants and two ash residue landfills to a system of four or five waste-to-energy plants owned by two private firms, one or two waste-to-energy plants owned by quasi-public authorities, and one ash residue landfill owned and controlled by a private-sector firm.

The state's solid waste industry is taking on all the characteristics of an oligopoly, and, indeed, on the ash residue landfill side, that of a monopoly. Natural monopolies, such as water and wastewater services, have traditionally been rate regulated. Now, the solid waste disposal industry in Connecticut is taking on the monopolistic characteristics that suggest the need for its rate regulation.

Doing nothing to address this situation could be expected to result in higher disposal prices, as demand for disposal services is very strong in the region, disposal capacity is increasingly limited, and alternatives to the in-state waste-to-energy facilities are distant and require long and expensive transport for their access. Doing nothing, at best, ensures uncertainty regarding the future costs and availability of capacity for MSW from Connecticut's municipalities, and, at worst, allows disposal prices in Connecticut to rise significantly with in-state MSW displaced by out-of-state sources, and private owners of existing facilities reaping windfall rates of return. Further, it could lead to existing regional projects becoming fragmented and destabilized.

Options for Meeting the Challenge

Option 1. Rate Negotiation

One option is for local government groups to jointly patronize each of the waste-to-energy facilities, staying unified within BRRFOC, CRRRA, ECRRA, HRRRA, and SCRRRA, and attempt to negotiate reasonable rates, reflecting decreased debt service due to the retirement of the bonds that originally financed the facilities and a "fair return" to the owners and operators of the facilities. If Connecticut implements aggressive recycling programs and steadily increases the recycling rate to achieve its 58 percent goal much earlier than 2024, with significant increases in the next several years, demand for waste disposal would be reduced from present levels, and market forces might favor agreement on a reduced disposal price. There is no guarantee of a favorable outcome. Attempts to negotiate agreements such as this have not been successful in Connecticut to date.

The pros of this option include:

- It could result in favorable rates for municipalities, especially if some negotiation leverage can be achieved; and
- It could help to retain the existing projects as structured and maintain project unity and cooperation in other regional waste reduction/recycling initiatives under the new amendment to the State Solid Waste Management Plan.

The cons of this option include:

- The owners/operators of the waste-to-energy facilities are likely to be unwilling to negotiate anything close to cost-based rates; and
- It may be difficult to keep so many municipalities united.

Option 2. Rate Regulation

Another option is for the Connecticut General Assembly to authorize traditional utility-type rate regulation of the waste-to-energy facilities and the ash residue landfill. This move would impose a type of cost-plus pricing, rather than the market-

Options for Meeting the Challenge

Option 1. Rate Negotiation

Option 2. Rate Regulation

Option 3. Ownership of New Waste-to-Energy Facility and/or Landfills by the Regional Resource Recovery Authorities

Option 3a. New Landfill Site in Connecticut for MSW and Ash under Public Ownership

Option 3b. New Waste-to-Energy Facility Site or Existing Facility Expansion in Connecticut under Public Ownership

Option 3c. Out-of-State Landfill Owned by One or More Connecticut Regional Resources Recovery Authorities

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based pricing system that the private firms would be expected to apply were the General Assembly to do nothing to address the situation.

The pros of this option include:

- Rates for disposal could be controlled to provide for a reasonable profit similar to utility rate regulation keeping waste disposal costs for municipalities more predictable and closer to cost-based pricing, and citizens would see a substantial reduction in pricing;
- There is lots of experience in setting utility rates and an existing infrastructure in Connecticut;
- This approach would be less expensive to implement in comparison to, say, purchasing facilities at fair market value;
- Municipalities would be able to develop budgets and plan with reasonable assurance of the costs for disposal/processing;
- Existing regional projects may be able to stay intact under new or extended contracts when existing long-term contracts expire; and
- The existing Department of Utility Control could potentially assume this role.

The cons of this option include:

- Utility-type rate regulation of solid waste disposal would be a significant move and require a major change in policy by the Connecticut General Assembly that would be vigorously opposed by the private sector participants. Few states have enacted such rate regulation;
- It would create a new administrative burden and possibly an additional layer of government for the State of Connecticut to fund and manage;
- Unless there was some regulation of capacity to ensure a "set-aside" for Connecticut municipalities or in-state generators, the regulation of rates per se would not necessarily resolve the state's disposal capacity needs; and
- With MSW recognized as a commodity in interstate commerce and the history of court decisions regarding flow control, the state may be limited in its ability to mandate capacity in private facilities for Connecticut municipalities over out-of-state sources with which the private sector may contract.

Option 3. Ownership of New Waste-to-Energy Facility and/or Landfills by the Regional Resource Recovery Authorities

The bargaining position of the regional authorities would be enhanced if they had a reasonable alternative to the privately controlled monopoly or oligopoly of waste-to-energy facilities, such as:

- a. An in-state site permitted for an ash residue landfill or an ash residue and MSW landfill;
- b. An in-state site permitted for another waste-to-energy facility; or even
- c. Ownership of an out-of-state landfill able to receive significant quantities of Connecticut waste at rates that are close to cost-based.

Given the rates now being paid by Northeast municipalities such as New York City for out-of-city waste transfer and disposal, and given the rates now being charged at Connecticut's waste-to-energy plants, it is not likely that out-of-state transfer and disposal offers would be at a price lower than the currently prevailing price range in Connecticut. That is why ownership of a facility would provide significant leverage.

Option 3a. New Landfill Site in Connecticut for MSW and Ash under Public Ownership

The pros of this option include:

- It would provide needed disposal capacity for Connecticut municipalities under public control and ensure non-discriminatory, cost-based pricing;
- It would enhance Connecticut's ability to remain self-sustaining in the management of its solid waste and ash residue;
- It would improve the bargaining position of the regional resources recovery authorities and give them negotiation leverage in their deliberations with the private sector; and
- It would retain revenues in Connecticut otherwise potentially lost to out-of-state outlets, to the benefit of Connecticut's economy.

The cons of this option include:

- Substantial opposition to the site and siting of any new landfill in Connecticut would be encountered, and there would be uncertainty in the schedule and final outcome of the siting/development process;
- It requires the expenditure of significant public funds to obtain a site and procure and construct the landfill;
- Eminent domain power likely would be needed by the regional authorities;
- There would be certain environmental impacts associated with additional in-state landfill(s);
- The public owner(s) would retain certain long-term liability upon site closure and continuing post-closure care responsibility; and
- Connecticut has committed to a hierarchy of waste management that avoids MSW landfills.

Option 3b. New Waste-to-Energy Facility Site or Existing Facility Expansion in Connecticut under Public Ownership

The pros of this option include:

- It would provide for needed MSW processing capacity under public control and ensure cost-based, non-discriminatory pricing that is a lower cost to taxpayers;
- It would enhance Connecticut's ability to remain self-sustaining in the management of its solid waste;
- It would allow additional energy recovery from MSW and contribute to the state electricity supply from renewable fuel;
- It would improve the bargaining position of the regional resources recovery authorities and give them negotiation leverage in their deliberations with the private sector; and
- It would retain revenues in Connecticut otherwise potentially lost to out-of-state outlets, to the benefit of Connecticut's economy.

The cons of this option include:

- Substantial opposition to the site and siting of any new waste-to-energy facility would be encountered, and there would be uncertainty in the schedule and final outcome of the siting/development process;
- It requires the expenditure of significant public funds to obtain a site and procure and construct the facility;

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- Eminent domain power likely would be needed by the regional authorities; and
- There would be certain environmental impacts associated with an additional in-state waste-to-energy facility.

Option 3c. Out-of-State Landfill Owned by One or More Connecticut Regional Resources Recovery Authorities

The pros of this option include:

- It would provide for needed MSW disposal capacity under public control and ensure cost-based, non-discriminatory pricing;
- The ability to acquire property and site a landfill outside Connecticut while difficult at best, could potentially be less costly and less difficult than doing so in Connecticut;
- It would improve the bargaining position of the regional resource recovery authorities and give them negotiation leverage in their deliberations with the private sector; and
- Environmental impacts to Connecticut would be minimized.

The cons of this option include:

- This may require legislation for a regional resources recovery authority or group of such authorities to own/operate and/or finance assets outside Connecticut;
- It is a complex undertaking of uncertain duration and outcome-overall process could take several years to go through site acquisition, siting, permitting, and construction;
- The public owner would incur substantial front-end development costs without certainty of ultimate landfill construction, although cost-sharing with development partner(s) is possible;
- The public owner would incur property acquisition and capital construction costs, which could be much higher than projected if a lengthy development period ensues;
- The public owner would have all or most of the long-term liability for the site, except to the extent certain liability could be passed to or shared with a contracted operator or development partner(s) and sources of waste;
- The public owner runs the risk that the siting/permitting process is unsuccessful and the landfill is not constructed;
- There is also some risk of future legislation restricting the public owner's ability to export/import to an out-of-state site;
- The public owner's ability to monitor a landfill operation perhaps several hundred miles distant may be constrained;
- Substantial transport costs would be incurred in moving waste from sources in Connecticut to a distant out-of-state landfill; and
- Disposal revenues that would benefit Connecticut's economy would largely be lost to an out-of-state economy.

Conclusion

In a waste processing and disposal capacity strained environment, such as exists in Connecticut, and is projected to worsen without a significant increase in waste

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diversion, the private, vertically integrated waste service companies would have tremendous pricing power. They could push waste to their facilities at predatory prices.

The way to prevent this situation from happening is to make sure Connecticut has sufficient disposal capacity, owned and operated for the public benefit, and dedicated to managing waste generated in Connecticut. There are options, but the regional resources recovery authorities and their municipal members need to work together in deciding on a preferred course, which may include seeking assistance from the Connecticut General Assembly. Now is the time for action.

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Appendix A

Regional Resources Recovery Facilities in Connecticut¹

Selected Information	Bridgeport RRF	Bristol RRF	Mid-CT RRF	Southeast RRF	Wallingford RRF	Lisbon RRF
Permitted Design Capacity (TPY)	821,250	237,250	888,888	251,485	153,300	195,640
Year Bonds Will Be Paid Off	2008	2014	2012	2015	2009	2020
Operator	Wheelabrator	Covanta	MDC/ Covanta	Covanta	Covanta	Wheelabrator
Number of Towns Contracted ²	19 (Towns contracted to CRRA; CRRA has contract with Wheelabrator)	14	70	16	5	5 + 11
2005 Member Tipping Fee (\$/ ton)	\$69	\$66	\$70	\$60	\$57	\$60-\$66
Fee Covers	Disposal, Recycling Education, Recyclables Processing	Disposal	Transfer, Disposal, Recycling Education, Recyclables Processing at Hartford IPC (no tipping fee), Electronics Recycling	Disposal, Electronics Recycling, Education	Disposal, Electronics Recycling	Disposal
Ash Disposal Site	Putnam	Seneca Meadows (NY)	Hartford	Putnam	Putnam	Putnam
Post-Contract Ownership	Wheelabrator	Covanta	CRRA	Covanta	Covanta	Eastern CT Resource Recovery Authority

¹ Source: State of Connecticut State Solid Waste Management Plan, Amended December 2006, Appendix F

² A total of 129 CT municipalities of 169 are currently under contract for MSW disposal at one of the six in-state regional resources recovery facilities. The Housatonic Resources Recovery Authority ("HRRA") communities (11) have an arrangement with Wheelabrator. Their MSW can be delivered to either the Lisbon facility or the Bridgeport facility. Currently, most of this waste is delivered to the Lisbon facility; however, it not contracted to that facility. These 11 communities are therefore not included in the 129 contracted/member communities.