COMMERCIAL WASTE MANAGEMENT STUDY

VOLUME IV

EVALUATION OF WASTE DISPOSAL CAPACITY POTENTIALLY AVAILABLE TO NEW YORK CITY

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Prepared for:

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List of Acronyms/Definitions

Acronyms	
C&D	construction and demolition
DSNY	New York City Department of Sanitation
LL74	Local Law 74, effective December 19, 2000, enacted by the City Council, requiring a comprehensive assessment of commercial solid waste management in New York City
MSW	municipal solid waste
PADEP	Pennsylvania Department of Environmental Protection
tpd	tons per day
WTE	waste-to-energy

Definitions	
City	New York City
Consultant	The DSNY's Consultant Team, including Henningson, Durham & Richardson Architecture and Engineering, P.C.; Parsons Brinckerhoff Quade and Douglas, Inc.; Ecodata, Inc.; Franklin Associates, Ltd.; Urbitran Associates, Inc.; HydroQual, Inc.; and Cambridge Environmental, Inc., who prepared the Commercial Waste Management Study
DSNY-managed Waste	Solid waste that DSNY collects from all residential households in the City and the institutional waste of City, state and federal agencies that DSNY collects and/or for which DSNY arranges disposal
Final Study Scope or Final Scope of Work	Commercial Waste Management Study Final Scope of Work issued on July 31, 2003
New SWMP	The new comprehensive Solid Waste Management Plan to be developed in 2004 for both DSNY-managed Waste and commercial waste for the planning period 2004 through 2024
New SWMP Planning Period	The 20-year period from 2004 to 2024 addressed by the City's New Solid Waste Management Plan
Study	Commercial Waste Management Study
Transfer Station	Privately owned and operated transfer station in New York City that accepts, transfers and transports some portion of municipal solid waste or construction and demolition (C&D) debris or fill material generated in the private sector for out-of-City disposal

EXECUTIVE SUMMARY

PREFACE

Local Law 74 of 2000 (LL74) mandated a comprehensive study of commercial waste management (Commercial Waste Management Study or Study) in New York City (City) by a Consultant funded by the City Department of Sanitation (DSNY). This Study undertaken to comply with LL74 will assist the City in managing the commercial waste stream in the most efficient and environmentally sound manner, and assist in the development of the City's Solid Waste Management Plan (New SWMP) for the New SWMP Planning Period.

As stated in the Commercial Waste Management Study Final Scope of Work, one of the Study's objectives is to "*evaluate trends in the supply and cost of waste disposal capacity that will be available to the City."* Specifically, *"The Study will evaluate the volume of out-of-City waste disposal capacity that is economically accessible by export in transfer trailers from the City. If the Study projects a decline, the Study will also identify the means to encourage a shift in commercial waste transport operations to barge or rail modes to ensure access to more remote disposal sites."*

In addition to this Volume IV, the Study consists of five other volumes:

- Volume I: Private Transfer Station Evaluations;
- Volume II: Commercial Waste Generation and Projections;
- Volume III: Converted Marine Transfer Stations – Commercial Waste Processing and Analysis of Potential Impacts;
- Volume V: Manhattan Transfer Station Siting Study; and
- Volume VI: Waste Vehicle Technology Assessment.

This Volume IV: Evaluation of Waste Disposal Capacity Potentially Available to New York City, examines the waste disposal capacity potentially available within seven states (Georgia, New York, New Jersey, Ohio, Pennsylvania, South Carolina and Virginia) for accepting City waste, either via truck transfer or by barge or rail. Historic market price information was also gathered and reviewed.

EXECUTIVE SUMMARY

Scope of Analysis/Approach

The survey was primarily based on interviews with landfill and waste-to-energy (WTE) operators and municipal solid waste management employees. (The surveyed area includes states that can be reasonably accessed by truck transfer, ocean-going vessel transport, and rail.)

In addition to conducting the surveys, data on historic market prices in the surveyed area were reviewed. Historical market price information was gathered from *Solid Waste Digest* published reports.

An attempt was made to develop a reasonable econometric model based on the survey results. The econometric model approach was formulated and a determination was made that the data gathered was not sufficient to obtain meaningful results, primarily due to the lack of responses from the landfill operators on questions concerning long-term contract tip fees. Though the econometric model was not developed, the data was analyzed to estimate or determine:

- The excess capacity at high-capacity[1] landfills;
- Trends of historical spot market disposal price (i.e., tip fee) levels;
- Ownership of high-capacity landfills with rail access;
- Comparison of tip fees at rail-accessible and non-rail-accessible landfills; and
- Inflation-adjusted, real per ton tip fees.

[1] High-capacity landfills are those that accepted at least 1,000 tons per day (tpd) of municipal solid waste (MSW) in 2003.

Findings

The results of this assessment are summarized below:

- In the list of high-capacity[2] disposal sites, there are a number of mega-landfills (landfills with a substantially larger capacity than 1,000 tons per day [tpd]) in states within the mid-Atlantic, Southeast and Midwest regions, exclusive of Pennsylvania and New York, that appear to have sufficient physical capacity to meet the additional demand of both DSNY-managed Waste and commercial waste generated by the City.

- Dispose of all the DSNY-managed Waste and commercial waste generated by the City over the New SWMP Planning Period. Most of the identified long-term disposal capacity is located more than 400 miles from the City and, therefore, is most likely economically accessible by rail, and to a lesser extent, by barge.

- Assuming the continuation of existing regulatory policies, landfill capacity in Pennsylvania will continue to decrease, and real tip fees should increase. (It is reasonable to assume, however, that some additional landfill capacity will be permitted to accommodate waste generated in Pennsylvania.) Data gathered during 2002 and 2003 indicate that there have been limited expansion/modification permits granted to mega-landfills in Pennsylvania, and while real (inflation-adjusted) spot market tip fee prices decreased over the six-year period of 1997 to 2003, these fees have increased in real dollars during the past two years (2002 to 2003). Part, but not all, of this increase is due to the Pennsylvania Department of Environmental Protection (PADEP)-imposed $4.00 per ton fee applied to all solid waste disposed of in Pennsylvania municipal solid waste (MSW) landfills, which went into effect in June of 2002.

- Assuming a relatively competitive marketplace, and given that there appears to be a sufficient amount of landfill capacity in the surveyed area, it is reasonable to expect that the long-term real (inflation-adjusted) contract tip fees in the surveyed area (exclusive of New York and Pennsylvania) will remain relatively stable in the near term.

- The above conclusion assumes a relatively competitive marketplace for disposal capacity. Two firms own approximately 70% of the high-capacity landfills with rail access, including 100% of the capacity in both Georgia and South Carolina, and more than 80% of the landfills meeting this criteria in Pennsylvania. The result of this effective duopoly could lead to market conditions and pricing structures that deviate from normal, competitive marketplaces.

[2] There were 87 high-capacity landfills identified in this report. Of these 87 landfills, 30 have rail access and one has barge access.

EVALUATION OF WASTE DISPOSAL CAPACITY POTENTIALLY AVAILABLE TO NEW YORK CITY

1.0 OVERVIEW AND SUMMARY CONCLUSIONS

To better understand New York City's (City's) requirements for a commercial waste transfer infrastructure over the New SWMP Planning Period, as part of the Commercial Waste Management Study (Study), an economic study was performed to develop information on the economic market for the disposal of waste exported from the City. As part of the assessment, surveys were conducted of 282 landfill and waste-to-energy (WTE) facility operators and municipal solid waste management employees in seven states (Georgia, New York, New Jersey, Ohio, Pennsylvania, South Carolina and Virginia – collectively referred to as the "surveyed area"). In addition to these surveys, available data from state regulatory agencies and *Solid Waste Digest* published reports were analyzed. From this data, an assessment was made of the potential available disposal capacity and pricing, which included consideration of the regulatory policies, economic accessibility and market competition that may affect the pricing.

The results of this assessment are summarized below:

- In the list of high-capacity[1] disposal sites, there are a number of mega-landfills (landfills with a substantially larger capacity than 1,000 tons per day [tpd]) in states within the mid-Atlantic, Southeast and Midwest regions, exclusive of Pennsylvania and New York, that appear to have sufficient physical capacity to meet the additional demand of both DSNY-managed Waste and commercial waste generated by the City.

- Dispose of all the DSNY-managed Waste and commercial waste generated by the City over the New SWMP Planning Period. Most of the identified long-term disposal capacity is located more than 400 miles from the City and, therefore, is most likely economically accessible by rail, and to a lesser extent, by barge.

- Assuming the continuation of existing regulatory policies, landfill capacity in Pennsylvania will continue to decrease, and real tip fees should increase. (It is reasonable to assume, however, that some additional landfill capacity will be permitted to accommodate waste generated in Pennsylvania.) Data gathered during 2002 and 2003 indicate that there have been limited expansion/modification permits granted to mega-landfills in Pennsylvania, and while real (inflation-adjusted) spot

[1] There were 87 high-capacity landfills identified in this report. Of these 87 landfills, 30 have rail access and one has barge access.

market tip fee prices decreased over the six-year period of 1997 to 2003, these fees have increased in real dollars during the past two years (2002 to 2003). Part, but not all, of this increase is due to the Pennsylvania Department of Environmental Protection (PADEP)-imposed $4.00 per ton fee applied to all solid waste disposed of in Pennsylvania municipal solid waste (MSW) landfills, which went into effect in June of 2002.

- Assuming a relatively competitive marketplace, and given that there appears to be a sufficient amount of landfill capacity in the surveyed area, it is reasonable to expect that the long-term real (inflation-adjusted) contract tip fees in the surveyed area (exclusive of New York and Pennsylvania) will remain relatively stable in the near term

- The above conclusion assumes a relatively competitive marketplace for disposal capacity. Two firms own approximately 70% of the high-capacity landfills with rail access, including 100% of the capacity in both Georgia and South Carolina, and more than 80% of the landfills meeting this criteria in Pennsylvania. The result of this effective duopoly could lead to market conditions and pricing structures that deviate from normal, competitive marketplaces.

2.0 METHODOLOGY

The survey was primarily based on interviews with landfill and WTE operators and municipal solid waste management employees. (The surveyed area includes states that can be reasonably accessed by truck transfer, ocean-going vessel transport, and rail.)

In addition to conducting the surveys, data on historic market prices in the surveyed area were reviewed. Historical market price information was gathered from *Solid Waste Digest* published reports.

An attempt was made to develop a reasonable econometric model based on the survey results. The econometric model approach was formulated and a determination was made that the data gathered was not sufficient to obtain meaningful results, primarily due to the lack of responses from the landfill operators on questions concerning long-term contract tip fees. Though the econometric model was not developed, the data was analyzed to estimate or determine:

- The excess capacity at high-capacity[2] landfills;
- Trends of historical spot market disposal price (i.e., tip fee) levels;
- Ownership of high-capacity landfills with rail access;
- Comparison of tip fees at rail-accessible and non-rail-accessible landfills; and
- Inflation-adjusted, real per ton tip fees.

[2] High-capacity landfills are those that accepted at least 1,000 tpd of municipal solid waste (MSW) in 2003.

3.0 RESULTS

3.1 Potentially Available Long-Term Disposal Capacity

The survey results were not sufficient to estimate the actual remaining excess capacity of all or most of the landfills in the surveyed area. This was due to both a lack of complete responses to the survey and responses indicating landfills with "unlimited" permitted capacity that didn't provide the physical capacity information, which would have been used to estimate excess capacity of the landfill. However, the information gathered from the sources mentioned above was combined to assess the available capacity. The results of this assessment are shown in Table 3.1-1.

Table 3.1-1
Available Landfill Capacity and Average Tip Fees

One-Way Travel Distance from New York City (miles)[1]	Number of Landfills[2]	2003 Calculated Available Excess Capacity[3] (tpd)	2003 Average Spot Market Tip Fees ($/ton)
0-150	7	N/A[4]	$57.60
150-400	5	1,750	$42.80
>400	16	44,000	$31.10
TOTAL	**28**	**45,750**	

Notes:

(1) Over-the-road distance.

(2) Of the 282 surveyed landfills, these are the only ones that met the criteria of having a significant (1,000 tpd) amount of excess capacity, or in the case of the landfills within 150 miles of the City, having 2003 average levels of intake of at least 2,500 tpd.

(3) For landfills with no daily limits on capacity, tpd excess capacity was calculated based on an assumed 20-year landfill life and subtraction of the 2003 tpd intake.

(4) Unless current regulatory policy trends change, there appears to be less than 20 years of remaining capacity within 150 miles of the City, assuming a continuation of current intake levels.

A total of 28 landfills within the surveyed area with current significant available capacity are included in the results from this survey and research effort. Sixteen of the landfills are located more than 400 miles from the City. The cost of truck transportation increases significantly once the distance that a single driver can travel (round trip) in one day without an extended off-duty break is exceeded, as required by the U.S. Department of Transportation Federal Motor Carrier Safety Administration guidelines. These guidelines limit the hours that drivers may drive

without going off-duty. A truck relay is an option, but the increased operations or capital costs required for this option increases the truck transportation costs. While barging is also an export option, only one landfill surveyed (located in Virginia) is accessible by barge.

The 44,000 tpd of estimated excess capacity in landfills greater than 400 miles from the City is primarily attributable to six remote regional mega-landfills with no daily permit limits. The operators of these six landfills indicated having a minimum of 30 million tons of remaining capacity. The available daily capacity at these landfills was based on an assumed 20-year landfill life. In addition to the predominance of capacity available in the 400-mile plus range, these landfills reported significantly lower tip fees than those closer to the major centers of waste generation. As indicated in Table 3.1-1, costs tend to decrease inversely with distance from the New York metropolitan area.

3.2 Disposal Capacity in Pennsylvania

The primary results of "A Report on Pennsylvania Landfill Capacity for the New York Department of Sanitation" completed in April 2002 for the City Department of Sanitation (DSNY) are:

- *"Based on current utilization rates and assuming a favorable permit renewal policy, the existing permitted capacity in Pennsylvania that is within 250 miles of New York City would be exhausted in approximately 7.6 years and all of the state's landfill capacity would be exhausted in 11.1 years. This assumes a continuation of steady-state conditions. But data obtained from landfill operators shows a significant increase [in] utilization rates in 2001 over 2000 and the City is but one of numerous out-of-state sources that are heavily dependent on Pennsylvania's landfill capacity."*

- *"There are applications for an additional 50,000,000 tons of landfill capacity within the 250-mile radius pending before the Pennsylvania Department of Environmental Protection ([PA]DEP)[3]. Approval of all of these applications for expansions and renewals would increase the available capacity within a 250-mile radius of New York by 32%."*

[3] Based on survey information obtained by HDR from [PA]DEP and landfill operators/owners.

- *"Pennsylvania environmental officials are advocating legislation on the state and federal level that would, respectively: (i) legalize what is now a temporary moratorium on issuance of permit expansions and renewals; and (ii) increase state authority to limit and otherwise regulate imports.*[4] *In recent actions, Pennsylvania DEP has denied landfill expansion (Empire Alliance) and renewal (Tullytown) applications."*

Since the submittal of the above report, there have been several developments in the status of the permit expansions/modifications for mega-landfills in Pennsylvania, as summarized below:

- Tullytown Resource Recovery Facility – PADEP approved an expansion that will add about 2.5 years of disposal life to the landfill at its current average daily volume. Without expansion, the landfill would have reached capacity in about six months or less.

- Southern Alleghanies Landfill – PADEP approved a modification that increased the capacity of the landfill by approximately 60 acres of disposal area, but does not increase the daily tonnage of waste to be accepted.

- Conestoga Landfill – PADEP approved a modification that increased the average daily volume of waste by 2,000 tpd.

- J&J Landfill – PADEP approved an expansion that increases waste acceptance from 650 tpd on average to 1,200 tpd. Expansion of the J&J Landfill will extend the operational life of the facility by approximately 11 years.

- Dauphin Meadows Landfill – PADEP denied an expansion on the basis that the harms outweighed the benefits.

- Pottstown Landfill – the operators have dropped their plans for a vertical expansion on the western portion of the landfill.

In addition to the permit expansion and modification updates since the time of the April 2002 report, remaining capacity information in Pennsylvania was gathered, as shown in Table 3.2-1. These data shows the remaining capacity in Pennsylvania continuing to decline in 2002, albeit at a lower rate than the previous two years. It is reasonable to assume, however, that additional capacity will be permitted to dispose of waste generated in Pennsylvania.

[4] 2001 Testimony of David Hess, Secretary of Pennsylvania DEP [PADEP] before state and federal legislative committees.

Table 3.2-1
Pennsylvania Landfill Remaining Capacity

Year	Remaining Capacity (Tons)	Year over Year % Change
1999	255,897,000	
2000	230,849,000	-10%
2001	203,945,000	-12%
2002	187,869,000	-7.9%

Both the permit expansion/modification updates and remaining capacity quantities for 2002 support the conclusions reached in the April 2002 report. While the expansion/modification permits granted to Tullytown, Southern Alleghanies, Conestoga and J&J landfills may increase the time period originally estimated for the exhaustion of landfill capacity, the data continues to support the conclusion that the landfill capacity in Pennsylvania over the New SWMP Planning Period will not be sufficient to dispose of both DSNY-managed Waste and commercial waste.

3.3 Landfill Disposal Tip Fee Pricing Structure

While only seven mega-landfill operators were willing to discuss possible long-term contract fees, the information gathered from these operators proved valuable. On average, these landfill operators indicated these long-term (defined as 20 years) contract tip fees to be approximately 50% lower than the spot market tip fees. This supports the reasonable assumption that a party that can make a long-term commitment of a large volume of waste would obtain a substantially better price than the spot market rate.

In order to make an assessment of the overall pricing structure, trends of spot market tip fees of high-capacity landfills over the six-year period between 1997-2003 were analyzed. Tip fee data was provided by *Solid Waste Digest* published reports. Only those landfills where all six years of spot market tip fee data were available were included. Table 3.3-1 shows the results of the analysis of all the landfills satisfying the above criteria.

Table 3.3-1
Trends in Average Spot Market Tip Fees by State and by Year of Selected High-Capacity Landfills

State		1997	1998	1999	2000	2001	2002	2003	Average Spot Market Tip Fee (1997-2003) in 2003$	6-yr Change (1997-2003)
Ohio	Avg Spot Mkt Price per Ton	$29.87	$29.90	$30.38	$29.62	$29.29	$29.58	$30.40		**$0.52**
	Inflation Adjusted Avg Spot Mkt Price per Ton	$34.24	$33.74	$33.55	$31.64	$30.43	$30.25	$30.40	$32.03	
	Inflation Adjusted Annual Percent Change in Tip Fees	-	-1.4%	-0.6%	-5.7%	-3.8%	-0.6%	0.5%		**-11.2%**
South Carolina	Avg Spot Mkt Price per Ton	$27.20	$27.78	$29.82	$30.97	$31.00	$31.33	$33.94		**$6.74**
	Inflation Adjusted Avg Spot Mkt Price per Ton	$31.17	$31.35	$32.94	$33.08	$32.21	$32.05	$33.94	$32.39	
	Inflation Adjusted Annual Percent Change in Tip Fees	-	0.6%	5.1%	0.4%	-2.6%	-0.5%	5.9%		**8.9%**
Georgia	Avg Spot Mkt Price per Ton	$29.94	$30.61	$32.17	$32.24	$32.73	$32.75	$33.98		**$4.03**
	Inflation Adjusted Avg Spot Mkt Price per Ton	$34.32	$34.54	$35.52	$34.45	$34.00	$33.49	$33.98	$34.33	
	Inflation Adjusted Annual Percent Change in Tip Fees	-	0.7%	2.8%	-3.0%	-1.3%	-1.5%	1.4%		**-1.0%**
Virginia	Avg Spot Mkt Price per Ton	$41.02	$39.72	$39.86	$41.01	$41.26	$42.11	$42.83		**$1.81**
	Inflation Adjusted Avg Spot Mkt Price per Ton	$47.02	$44.83	$44.02	$43.81	$42.87	$43.06	$42.83	$44.06	
	Inflation Adjusted Annual Percent Change in Tip Fees	-	-4.7%	-1.8%	-0.5%	-2.1%	0.4%	-0.5%		**-8.9%**
New York	Avg Spot Mkt Price per Ton	$45.03	$42.04	$42.51	$42.58	$42.65	$41.38	$38.50		**-$6.53**
	Inflation Adjusted Avg Spot Mkt Price per Ton	$51.60	$47.44	$46.94	$45.49	$44.31	$42.31	$38.50	$45.23	
	Inflation Adjusted Annual Percent Change in Tip Fees	-	-8.1%	-1.1%	-3.1%	-2.6%	-4.5%	-9.0%		**-25.4%**
Pennsylvania	Avg Spot Mkt Price per Ton	$48.32	$48.45	$49.32	$49.71	$49.36	$50.54	$53.11		**$4.80**
	Inflation Adjusted Avg Spot Mkt Price per Ton	$55.37	$54.67	$54.46	$53.10	$51.28	$51.69	$53.11	$53.38	
	Inflation Adjusted Annual Percent Change in Tip Fees	-	-1.3%	-0.4%	-2.5%	-3.4%	0.8%	2.8%		**-4.1%**
New Jersey[(1)]	Avg Spot Mkt Price per Ton		N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**

Note:
(1) There were no high-capacity New Jersey landfills.

Table 3.3-1 shows that the average spot market tip fees are less expensive in states that are a greater distance from the New York metropolitan area. In addition, the data on this table show that in all states except South Carolina, spot market tip fees decreased in real (inflation-adjusted) dollars from 1997 to 2003. The trends shown for tip fees in Pennsylvania support the discussion earlier in this report on the diminishing remaining capacity and the resulting increasing tip fees, as can be observed in the 2002 and 2003 real (inflation-adjusted) increases in tip fees.

3.4 Potential Effect of Ownership of Landfills on the Competition in the Disposal Marketplace

As shown in Table 3.4-1, two firms own approximately 70% of the high-capacity landfills with rail access, including 100% of the capacity in both Georgia and South Carolina, and more than 80% of the landfills meeting this criteria in Pennsylvania. The result of this effective duopoly could lead to market conditions and pricing structures that deviate from normal, competitive marketplaces.

Table 3.4-1
Ownership of Selected High-Capacity Landfills with Rail Access

State	Number of Landfills Meeting Selection Criteria	Number of Landfills owned by Two Companies	Percent of Total Selected Landfills Owned by Two Companies
Georgia	2	2	100%
South Carolina	4	4	100%
Pennsylvania	12	10	83%
Ohio	8	5	63%
Virginia	2	0	0%
New York	2	0	0%
Totals	**30**	**21**	**70%**

ATTACHMENT A

QUESTIONS FOR LANDFILL OWNERS/OPERATORS

Questions for Landfill Owners/Operators

State/Landfill Name:

Public/Private Ownership:

Date/Time:

Person Called/Title:

Phone Number:

The questions below pertain to a survey that HDR Engineering Inc., as consultants to the New York City Department of Sanitation, is conducting to determine the putrescible solid waste landfill market.

1. What wastes (MSW, Commercial, C&D, ash residue, hazardous waste) are accepted at the landfill?

2a. What is your historical spot market tip fee? Please specify number of days/week and days/year that are used in your calculations.

2b. What is your average contract tip fee? Please provide public rate schedule.

3a. At current rate of usage, what is the permitted remaining life of the landfill (in tons)? And what is the physical remaining life of the landfill?

3b. What is your permitted average tons per day (tpd)?

3c. What is the permitted maximum tpd?

3d. What is the current average tpd?

4. Do you accept waste from sources outside of your state? From New York City (NYC)? How much waste is currently accepted from the NYC, tpd?

5. Do you have a host community agreement to accept out-of-state waste? Example: Would you require a host community agreement with a city in another community, region, or state, such as NYC?

6. Do you accept waste from Municipalities and/or Private companies? What is your % breakdown between municipal and private customers?

7. Which municipalities are currently sending waste to your landfill? Please provide a copy of any contracts you have with municipalities.

8. Which private companies are currently sending waste to your landfill? Please provide a copy of any contracts you have with private companies.

9. Is the landfill accessible by rail? If so, is there a transfer facility at the landfill for loading and unloading rail cars?

10. Have you filed for an expansion permit for the landfill? How big is the expansion? What is the status of the expansion permit?

11. What are the operational hours and days for receiving waste?

12. How many operational days are there in one calendar year?

13. When does the landfill's operational permit expire? How many years is a typical permit for?

14. What would the tip fee be for a contract to deliver 600-1,200 tpd of commercial waste to the landfill for 20 years?

ATTACHMENT B

QUESTIONS FOR WASTE-TO-ENERGY FACILITY OWNERS/OPERATORS

Questions for Waste-to-Energy Facility Owners/Operators

State/Facility Name:

Public/Private Ownership:

Date/Time:

Person Called/Title:

Phone Number:

The questions below pertain to a survey that HDR Engineering Inc., as consultants to the New York City Department of Sanitation, is conducting to determine the putrescible solid waste marketplace.

1. What wastes besides Municipal Solid Waste (MSW) are accepted at the facility?

2. What is your historical spot market disposal fee? (Please specify number of days/week and days/year that are used in your calculations.)

3a. What is your average contract tip fee? (Please provide public rate schedule.)

3b. What is your permitted average tons per day (tpd)?

3c. What is the permitted maximum tpd?

3d. What is the current average tpd?

4. Do you accept waste from sources outside of your state? From New York City (NYC)? How much waste is currently accepted from NYC, tpd?

5. Do you have a host community agreement to accept out-of-state waste? Example: Would you require a host community agreement with a city in another community, region, or state, such as NYC? What is the host community fee payment (per ton)? Please provide a copy of the host community agreement.

6. Do you pay a PILOT (Payment in Lieu of Taxes) payment to your community? If so, how much is this payment (per ton)?

7. Do you accept waste from Municipalities and/or Private companies? What is your % breakdown between municipal and private clients?

8. Which municipalities are currently sending waste to your facility? Please provide copies of any contracts you have with municipalities.

9. Which private companies are currently sending waste to your facility? Please provide copies of any contracts you have with private companies.

10. Is the facility accessible by rail? If so, is there a transfer facility at the facility for loading and unloading rail cars?

11. What are the operational hours and days for receiving waste?

12. How many operational days are there in one calendar year?

13. When does the facility's operational permit expire? How many years is a typical permit for?

14. Do you have plans for expansion at your facility?

15. What would the tip fee be for a contract to deliver 600-1,200 tpd of commercial waste to your facility for 20 years?

ATTACHMENT C

QUESTIONS FOR MUNICIPAL SOLID WASTE MANAGEMENT EMPLOYEES

Questions for Municipal Solid Waste Management Employees

State/Community Name:

Date/Time:

Person Called/Title:

Phone Number:

The questions below pertain to a survey that HDR Engineering Inc., as consultants to the New York City Department of Sanitation, is conducting to determine the putrescible solid waste landfill market.

1. How many tons of MSW (Municipal Solid Waste) does your community export per day? Per year?

2. What landfills and/or Waste-to-Energy facilities are you currently sending your waste to?

3. Please estimate the percent of your community's waste going to each of these landfills/facilities.

4. Please list the tipping/disposal fees that you pay for each of the landfills/facilities.

5. Please list any Private companies that transport your community's waste. Please also provide approximate tonnage that these Private companies transport.

6. Please provide a copy of any contracts you have with landfills/Waste-to-Energy facilities.