ATTACHMENT VII

RATIONALE FOR AMENDING LOCAL LAW 19

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1.0 INTRODUCTION

The success of recycling in New York City (City) is a testament to those City public officials who crafted Local Law 19 of 1989 (LL19) to help launch and advance the City's Recycling Program. Important provisions of LL19 include mandatory recycling requirements for City residents, businesses and institutions; authorization of enforcement that includes penalties for those who do not set out Recyclables in accordance with the law; and other standards that helped to establish the City's Recycling Program as one of the strongest in the nation.

However, lessons learned during the past 15 years demonstrate that changes to LL19 are needed. Specifically, the tonnage mandates in LL19 have led to years of litigation over whether the City was in compliance with the statute. In the most recent decision on this matter, the New York State Supreme Court recognized that these tonnage mandates were "simply unattainable." The City therefore believes that LL19 should be amended to reflect what DSNY is actually collecting from residents and institutions. As the tonnage diversion requirements of LL19 are not attainable, they should be replaced by laudable and aggressive percentage goals.

Furthermore, LL19 should reflect the standards and methods of calculating recycling diversion established in most other urban jurisdictions throughout the nation. This will enable city-to-city comparisons that do not put the City at a disadvantage.

2.0 IMPORTANT CONSIDERATIONS

The rationale for amending LL19 of 1989 is based on the following conclusions and considerations, and is discussed in greater detail on the pages to follow.

- **The City should apply an adaptive recycling goal that reflects fluctuations in the waste stream**. Quantities of municipal solid waste (MSW) and Recyclable materials fluctuate with demographic and economic changes. For example, as the economy grows and population changes, it can be expected that the quantity of Recyclable material in the waste stream also changes over time. Quantity of Recyclables as a percentage of DSNY-managed Waste may change over time. A flat tonnage diversion requirement does not capture these changes. However, a percentage goal –

based on the quantity of recyclable material as a percentage of total waste generation – does capture the variability. Therefore, an adaptive recycling rate that reflects actual changes in generation of waste and Recyclable material in the waste stream should replace the current static tonnage requirement.

- **The City must recognize the inherent limitations of applying a tonnage diversion requirement to DSNY**. Establishment of mandatory tonnage requirements for DSNY implies that DSNY has direct control over how much City waste ultimately is recycled. DSNY can (and does) provide frequent (i.e., weekly) Recyclables collection service, conduct massive public education campaigns and enforce the recycling law by issuing summonses. But, DSNY cannot force people to recycle through the agency's implementation of the LL19 administrative code. Establishment of recycling percentage goals will help address the inherent limitations of achieving the current tonnage requirements.

- **The City should set realistic recycling goals**. The initial results of the 2004 Preliminary Waste Characterization Study suggest that 34% of the curbside waste stream consists of paper, metal, glass and plastic materials currently designated for recycling under the Curbside Recycling Program. There have been periods when 34% of the waste stream has been less than the current 4,250-tpd-tonnage requirement. Consequently, current LL19 tonnage mandates have required a "capture rate" (tons of DSNY-collected Recyclables divided by estimated total tons of Recyclables generated by New Yorkers) of greater than 100% -- an unattainable requirement.

- **The City should apply recycling industry norms and City waste composition data in setting realistic recycling goals**. It is not realistic to set a goal of capturing 100% of Recyclable materials in the waste stream through recycling. Given the challenges of recycling education and enforcement in the City discussed within the SWMP, goals should be ambitious but not unrealistic. Although other U.S. cities do not track actual capture rates, a rate of 70% is considered within the industry to be at the extreme end of what can be expected to be captured by curbside collection programs. This should be the target capture rate, but not a mandated achievement. This rate, combined with an estimate of 34% designated paper and MGP composition in the waste stream, and the limited short-term potential of other forms of curbside and containerized diversion, argues for a 25% diversion goal.

- **The City should consider experience in other jurisdictions**. The City should revise its diversion goals to be consistent with other U.S. cities. For example, no other U.S. city expresses diversion goals as tonnage requirements. Among those cities that do have state-legislated diversion mandates, all use percentages. Similarly, New York State does not mandate that localities recycle specific tonnage amounts. Instead, the New York State Department of Environmental Conservation (NYSDEC) calculates the state's recycling rate on a percentage basis and, in calculating this recycling rate, it includes recycled commercial and industrial materials that LL19 does not allow the City to count.

- **The City should examine the restrictions on what is counted as recycling diversion**. No other major U.S. city restricts the materials counted towards diversion goals to exclude the recycling and reuse of inert materials from construction and demolition (C&D) debris and fill waste (with the exception of Seattle, which does so by choice, not by law). Portland, Oregon counts redeemed beverage containers from its bottle and can deposit law in its recycling rate. LL19, however, restricts the materials that are counted toward diversion. Any material that would end up in the DSNY -managed Waste stream if not for recycling should be included in the calculation of the LL19 recycling diversion rate.

- **Set goals that reflect "apples to apples" comparisons**. Most major U.S. cities with diversion rate goals set a target rate of 30% or lower. Exceptions are Los Angeles and San Francisco (50% mandated by the State of California), and Portland and Seattle (60% by 2010, under non-binding city ordinances). However, these goals are not comparable to the City due to: (1) calculation methods used; and (2) the fact that they count diversion of commercial and industrial materials toward attainment of goals.

3.0 A 25% DIVERSION GOAL FOR THE CURBSIDE WASTE STREAM

While it is not reasonable to require DSNY to achieve mandatory recycling levels, it is reasonable to establish percentage-based recycling goals that DSNY must seek to attain through provision of collection services, effective contracts for processing and marketing collected Recyclable materials, public education and enforcement.

The curbside waste stream (which also includes a small amount of containerized waste) is the largest fraction of DSNY-managed Waste. It includes refuse and recycling generated by residents, City agencies and non-profit institutions. Since 1989, this stream has been the focus of DSNY's extensive Recycling Program that targets paper, metal, glass and plastic Recyclables for diversion.

DSNY's Preliminary Waste Characterization Study, conducted in May and June of 2004 and attached in Appendix D, found that an estimated 34% of the curbside waste stream consists of paper, metal, glass and plastic materials currently designated for recycling collection by DSNY from residents and public institutions in the City. Although the waste characterization study findings are very preliminary, the 34% figure suggests that this is the sum total of all potentially recyclable paper, metal, glass and plastic materials that is either properly recycled or improperly thrown out with the refuse.

Knowledge of the baseline presence of designated paper and MGP in the overall waste stream, combined with a realistic target capture rate, allows the calculation of a realistic target diversion rate goal. In the City, applying the current level of knowledge, realistic goals are derived as follows:

- Preliminary waste characterization data indicate that approximately 34% of the waste stream is potentially Recyclable Paper and MGP;
- To achieve a 25% diversion rate for these materials would require a capture rate of 71% (25% diversion ÷ 34% total designated Paper and MGP); and
- Both a 25% diversion goal and a 70% capture goal are ambitious, yet reflect a cognizance of the realities of the waste stream and human behavior.

Given the challenge of attaining 25% diversion through paper and MGP recycling alone, as discussed above, it is recommended that an overall goal of 25% from the curbside and containerized waste stream be set through 2007, to be revisited after that time should the serious barriers to composting and other forms of curbside diversion change.

4.0 35% DIVERSION GOAL FOR THE DSNY-MANAGED WASTE STREAM

In addition to the curbside/containerized waste stream generated by residents and some public/non-profit institutions, DSNY manages a number of other waste stream categories. These include:

<u>For Disposal</u>:

- Other DSNY Refuse Collections (Bulk Refuse, Lot Cleaning, Street Dirt, Residual Refuse from Self-Help recycling drop-off centers).
- Refuse collected by other public agencies and non-profit institutions outside of the curbside/containerized system, and disposed of under DSNY's export contracts.

For Composting, Recycling or Reuse:

- Interagency clean fill and road material (inert C&D debris from public construction projects reused at DSNY facilities for road building, paving, landscaping and erosion control).
- Asphalt and millings (inert debris from City Department of Transportation [NYCDOT] road work used at DSNY facilities for road building, paving, landscaping and erosion control).
- Clean dirt (from lot cleaning used in DSNY projects for landscaping and erosion control).
- Abandoned automobiles (collected and recycled under private contract to DSNY)[1]
- Redeemed beverage containers.[1]
- Furniture and other donated goods handled by the DSNY-funded non-.profit organization "Materials for the Arts"
- Automobile Tires (from lot cleaning).
- Bulk Metal (from self-help recycling drop-off centers, lot cleaning operations and special Housing Authority collections).
- Wood and Grass dropped off by private landscapers at DSNY's leaf composting sites.
- Clean fill and road material (dropped off by private firms at DSNY facilities for road building, paving, landscaping and erosion control).[1,2]

With the exception of the last two categories, which fall under the classification of "Commercial Technical Assistance," other DSNY-managed Wastes come entirely from government agencies within the City and City non-profit institutions entitled to DSNY assistance. Some of these wastes are disposed of, some are diverted for reuse or recycling. Together, they represent a distinct waste stream that is managed by DSNY. For this reason, it makes little sense to exclude many of these items from the calculation of "diversion."

The diversion rate from this waste stream, due to the high presence of reusable inerts that it comprises, is very high. But overall, this diversion adds only modestly to the diversion achieved

[1] Currently excluded from counting as diversion under LL19.
[2] Private sector materials.

from the curbside and containerized waste stream. There is no apparent reason to exclude any forms of diversion in the calculation of an overall rate, and a near-term (2007) goal of 35% diversion for the total DSNY-managed Waste stream, including the currently "excluded" materials, is reasonable.

5.0 DIVERSION GOALS IN OTHER CITIES

Each year, the trade journal Waste News publishes basic program data on the 30 most populous U.S. cities. Among U.S. cities, New York stands alone in mandating a flat diversion tonnage.

Although the Waste News Annual Municipal Recycling Survey does not gather data on what municipalities can count towards the diversion goals they report, DSNY's research into the methods in use in other municipalities reveals no restrictions of the type imposed in New York.

For example, in California, which requires municipalities to meet a 50% diversion mandate for the combined residential, institutional, commercial and industrial waste streams – or face monetary penalties – jurisdictions are explicitly permitted to include the beneficial reuse of clean fill, C&D debris and asphalt in Section 41781.3 of the Public Resources Code.[3]

California municipalities are not required by the state to break out or report diversion by material type, or even to directly measure the amount of waste recycled or otherwise diverted from disposal. Instead, California's waste regulatory agency, the California Integrated Management Board, estimates each jurisdiction's generation tonnage using results of a statewide waste characterization conducted in 1999, which is adjusted annually to reflect inflation, taxable sales, employment and population shifts in that jurisdiction. Diversion is then calculated from this estimate by subtracting the tonnage of waste disposed, using the following formula:[4]

[3] At www.ciwmb.ca.gov under "Diversion Rate Measurement", accessed August 17, 2004.
[4] CIWMB "What is Diversion?" no date, www.ciwmb.ca.gov/lglibrary/dsg/whatis.htm, accessed March 4, 2004.

California Diversion Rate: estimated tonnage of total waste - directly measured tons of refuse disposed = estimated tonnage of total waste

Any tonnages estimated to have been generated, but not directly measured as disposed, are assumed to have been recycled, composted, reused or prevented. Municipalities are not required to report the composition of diverted materials, or to break down diverted tonnages by their particular method of diversion.

More can be learned about what is counted toward diversion in California municipalities by looking at local solid waste management planning in some of the state's larger cities. In San Francisco, Norcal Inc., the private firm that serves all residential and institutional generators, as well as most commercial sources, recently constructed a C&D recovery facility for materials generated by commercial and residential sources. Wood and metal are among the materials recovered at the facility, as are cement, sheet rock, brick and other inert solids, which make up 15% of the over 6,400 monthly tons processed at that facility alone – all of which count toward diversion.[5] Among San Francisco city agencies, 75% of diversion, or an annual tonnage of 72,143 tons, consists of C&D debris – nearly all of which is inert material reused in fill and erosion control.[6]

San Jose and Alameda County also count C&D debris recycling in their rate calculation.[7] And, in Los Angeles, the L.A. City Bureau of Sanitation's AB 939 Report for 2000 shows that diversion of commercial and public C&D materials "including concrete, asphalt, soils and mixed construction and demolition debris" is counted towards that city's diversion rate.[8]

[5] Quillen, Maurice B. and Robert Reed. " Mixed C&D Recycling On-Line in San Francisco." Biocycle, February 2004.
[6] http://temp.sfgov.org/sfenvironment/aboutus/recycling/municipal.pdf accessed August 10, 2004.
[7] Quillen, Maurice B. and Robert Reed. " Mixed C&D Recycling On-Line in San Francisco." Biocycle, February 2004.
[8] Los Angeles City Bureau of Sanitation. AB 939 Report for 2000, p. 3-13 at www.lacity.org/san/publications/publications.cfm, accessed August 10, 2004.

Florida similarly permits counting of diversion through C&D recycling in its 30% diversion requirements for combined residential and commercial wastes applied to counties of 75,000 or greater in population. Its Statute 403.706(4)(a) requires that no more than one-half of this percentage be met by a combination of yard waste, white goods, C&D debris and process fuel diversion.[9]

In Portland, Oregon the waste reduction plan addresses the city's 60% diversion goal (again for combined residential and commercial tonnages) by 2005, and explicitly states that "the C&D sector contributes a large amount of materials to the waste stream and will be the primary focus for the SW&R division to increase recovery."[10] Its non-binding city policy NCP-ENN.2.03 notes that for the city to achieve its goals, "it will be necessary to place a stronger emphasis on the recycling and waste prevention of food, *construction and demolition* and fiber (office paper) waste."[11] (emphasis added).

In short, there is simply no precedent for excluding the counting of beneficial reuse of inert materials, or abandoned automobile recycling, from a city's diversion rate. In passing LL19 of 1989, an unintended result has been under-reporting of the City's recycling diversion rate in comparison with other cities due to the methodology inherent in the legislation.

When the difficult task of isolating any city's residential/institutional paper, metal, glass and plastic recycling tonnages from municipal C&D recovery and commercial recycling tonnages (including C&D recovery) is complete, the factor that undermines the City's recycling potential in comparison with other cities is quite clear. That factor is the City's relative lack of yard waste – and all that such yard waste entails for increasing curbside diversion in leafy cities with ample

[9] Florida Department of Environmental Protection, Solid Waste Management in Florida 2001-2002, at www.dep.state.fl.us/waste, accessed August 11, 2004.
[10] City of Portland. "Beyond 60%: Program Strategies for Achieving the 2005 Solid Waste Recycling Goal," at www.portlandonline.com, accessed August 11, 2004.
[11] City of Portland. "Beyond 60%: Program Strategies for Achieving the 2005 Solid Waste Recycling Goal," at www.portlandonline.com, accessed August 11, 2004.

backyards and open spaces for compost siting.[12] The diversion rates for residential/institutional paper and MGP achieved in the City before the cuts to the program in 2002 are comparable with, and in many cases superior to, rates achieved in other major cities.

6.0 70% COMBINED WASTE DIVERSION GOAL BY 2015

So what should be counted as the City's official diversion rate? The NYSDEC's Division of Solid and Hazardous Materials requires an Annual Recycling Report from all New York State municipalities that gathers data on residential, institutional and commercial waste management and counts diversion as recycling, reuse or composting of a broad range of categories including reuse of inert materials, recycling of automobile bodies, and even beneficial land use application of biosolids and paper mill sludge, in addition to paper, metal, glass, plastic and other materials recycling; and food waste, yard waste and leaf composting. For calendar year 2003, the most recent DSNY report to the NYSDEC, this method yielded a diversion rate of 54% for DSNY-managed and Commercial Wastes combined.

It is DSNY's conclusion that the materials considered by New York State to count towards diversion should be counted by the City in fulfillment of a non-mandatory 70% combined diversion goal, to be achieved by 2015. Such a goal is in step with the most ambitious in the nation as well as with reporting standards in place in municipalities throughout the U.S.

[12] Isolating municipal diversion rates to compare with what the City is limited to counting as diversion under the current provisions of LL19 is an exercise that must be done for each city, based on published and unpublished data, and constantly updated. For a discussion of how the City compares to other U.S. cities in this regard, see the DSNY's New York City Recycling - In Context, August 2001 and Processing and Marketing Recyclables in New York City, August 2003.

7.0 THE 70% DIVERSION GOAL SHOULD INCLUDE BOTTLE BILL REDEMPTION

In calculating the City's diversion rate, beverage containers redeemed by New Yorkers at retail locations pursuant to the New York State Returnable Beverage Container Act (the "Bottle Bill") should be included in the City's diversion rate goal. In June 2004, the City Independent Budget Office testified before the City Council in favor of an expanded Bottle Bill, and cited NYSDEC's estimate that 1.4 billion containers were redeemed in the City in 2001.

To consider the recycling tonnage impact of the Bottle Bill in the City, it is necessary to convert the estimated number of redeemed containers to a weight estimate. Extrapolating from a July 2000 Michigan Great Lakes Protection Fund study of the Michigan Bottle Bill, which calculated that 3.9 billion deposit containers resulted in 271,000 tons of redeemed Bottle Bill material, it is roughly estimated that more than 97,000 tons of beverage containers were redeemed for recycling in the City in 2001.

DSNY's promotional materials, including the agency's web site, encourage people to return bottles and cans for the deposit. Thus, DSNY actively promotes recycling via the redemption system and should be allowed to include the tonnage in the diversion rate calculation.

Furthermore, there is precedent in other states to include redeemed bottles and cans, and no apparent basis for exclusion in reporting. For example, Oregon has a Bottle Bill, and Portland includes the tonnage in its diversion rate.

It also appears inconsistent that LL19 allows the City to include recycling of automotive batteries but not redeemed beverage containers. This discrepancy is puzzling since there is a reverse distribution system operated by retailers in the automotive battery industry similar to the private sector infrastructure for redemption of deposit bottles and cans.

Excluding redeemed bottles and cans also places the City on uneven footing with other municipalities located in states without a Bottle Bill. These locales do not lose recyclable beverage containers to the redemption system, enabling them to appear to recycle these materials at a higher rate than can be counted in the City.

Finally, while efforts to promote producer responsibility by industry is discussed in this SWMP as an area to explore, the exclusion of redeemed beverage containers indicates negative implications for calculation of future diversion rates of additional items recycled in cooperation with the private sector. For example, if the City or state succeeds in establishing a system whereby sellers of electronics or other consumer products take responsibility (voluntarily or as a result of legislation), shouldn't the recycling results be counted in the City diversion totals? Otherwise, the City will provide itself with a disincentive to take steps to encourage or require those who profit from the sale of "problem wastes" to take responsibility for recycling these wastes, since the City will be "robbing" itself of materials included in the recycling diversion rate. Therefore, the exclusion of redeemable beverage containers appears to set a conflicting precedent for allowing inclusion of other DSNY-managed materials that may occur in the future when there is private sector involvement in acceptance of items from the public for recycling.

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EXHIBIT 1

47-15-51A(1/03)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

ANNUAL RECYCLING REPORT

1. Calendar year: 2003

2. Solid Waste Management Planning Unit or Reporting Municipality: New York City Department of Sanitation

3. Legal Form of Entity (i.e., Authority, Department, Agency, etc.): Agency

4. Address:
Bureau of Waste Prevention, Reuse and Recycling
Department of Sanitation
44 Beaver Street, 6th floor
New York, NY 10010

Phone: (917) 237-5656 Fax: (917) 237-5662

Email address: rwlange.nycrecycles@verizon.net

☑ Please check here if you do not want your email address printed in the NYS Recycling Bulletin.

5. Counties or Towns (names) that comprise planning unit: Counties: Bronx, Kings, New York, Queens, Richmond

6. Total Population: 8,008,278

7. Number of Towns: N/A

8. Number of Villages: N/A

9. Cities (names): New York City

10. Program Contact Person & Title: Robert Lange, Director

Department Head & Title:

11. For responses 12 & 13, please state if data is actual measurements (i.e., scale data), estimates (i.e., from SWMP) for other source (explain): For DSNY-managed waste (residential and institutional), data are scale data. For commercial waste, data are reported by transfer stations and recycling/composting firms. Full details on data sources are on page 2

12. Solid waste generated within the planning unit for the reporting calendar year: (NHIW: Non-Hazardous Industrial Waste; C&D: Construction & Demolition Debris) (Total Generated=Total Recycled (Grand Total from Page 8)+Total Disposed (#13 on Page 1))

MSW: 6,220,550.65 C&D: 9,423,576.50 NHIW:

Sewage Sludge: 615,076.00 Total Tons Generated: 16,259,203.15

13. Quantity and method of disposal for all waste generated by the planning unit (PU):

	Landfilled		Waste-to-Energy		Other or Unaccounted for (describe):
	(Inside PU)	(Outside PU)	(Inside PU)	(Outside PU)	
MSW		347,725.00		478,700.64	1,841,050.00
C&D					1,651,485.42
NHIW					
Sewage Sludge					
Total:	0.00	347,725.00	0.00	478,700.64	3,492,535.42
				Grand Total:	4,318,961.06

14. Material received for recycling from outside of planning unit or reporting municipality. (*For information purposes only. This is not calculated as part of the recycling rate.*) Outside entities (municipality or private source):

Grand total: 0.00

15. ☐ Please check if your planning unit has an approved Comprehensive Solid Waste Management Plan and there have been no program changes.

If you have had any changes to your local laws governing recycling, msw and enforcement of solid waste/source separation/recycling laws please describe.

Per Local Law 11 of 2002, curbside/containerized recycling of plastic and glass containers with commingled recycling was suspended as of July 1, 2002. Curbside collection of household metal and paper (in two separate streams) continued through June of 2003. Thereafter, plastic bottles and jugs were reintroduced to the commingled portion of the program, and collected with household metal.

Copy(s) of any new law(s) appended ☐

16. There are many issues that can account for program differences resulting in variations of recycling rates. If you would like, provide an explanation below that characterizes your planning unit. This will help us to provide more information about planning units than just a recycling rate.

System Overview

The New York City Planning Unit is the Department of Sanitation (DSNY), which manages New York City's. residential and public institution waste streams. These streams include MSW generated by residents and institutions, and C&D generated by institutions. Sewage sludge is separately managed by the Department of Environmental Protection (DEP). Commercial waste, including MSW, C&D and sludge, is managed privately.

Reporting Requirements

DSNY contracts with private recycling vendors located in New York City for the recycling of residential and public institutional materials; and with private transfer stations for the export of residential and public institutional refuse. These transfer stations are not required to report method of disposal to DSNY post-export.

NYC-based commercial waste generators and waste haulers are required to abide by the recycling regulations of the City's Local Law 87, but are not required to report tonnages of materials generated as refuse or recycling. Commercial waste transfer stations located within New York City boundaries are required to report tonnages exported for disposal, and tonnages recycled, to DSNY on a quarterly basis in "Commercial Transfer Station Quarterly Reports". Recyclers located in NYC are not required to report recycled tonnages of commercial materials of NYC origin, although those with whom DSNY holds contracts for recycling of DSNY-managed materials may do so as a courtesy. The commercial data reported herein therefore reflect data reported in "Commercial Transfer Station Quarterly Reports" and from recycling vendors with whom DSNY has an existing relationship.

However, not all commercial generators/haulers utilize NYC-based transfer stations. Transfer stations located outside of NYC that receive commercial materials from NYC-based commercial generators are not required to report any information to DSNY, nor are recycling vendors inside or outside the City. The commercial data in this report does not include tonnages managed by these entities.

Impact of FY02-03 Budget Cuts on Curbside Recycling

Due to the mid-year suspension of glass and plastics from the DSNY curbside recycling program, the curbside diversion rate for the DSNY managed waste stream was 12%, down from roughly 20% prior to cuts to the Recycling Program in 2002 described above. This diversion rate reflects the recycling of metal, plastic, and paper collected from residents and public institutions, plus a very small amount of food composting and materials reuse. This rate is expected to increase with the reintroduction of glass to the curbside recycling program in April 2004, as well as the reinstatement of DSNY's leaf and yard waste composting program, which was cut in FY02.

The recycling rate for the C&D portion of the DSNY-managed waste stream is 100%, as is the recycling rate for DEC sewage sludge. Thus the overall recycling rate for the PU is 34%. Factoring in commercial recycling of MSW, C&D and sludge, as calculated on page 9, raises diversion to 57%.

If there is not enough room on page 1 or on any of the other pages, please answer on a separate 8 ½" x 11" sheet. Use the number corresponding to the question when answering.

General Definitions

Recyclables: those materials recovered from the solid waste stream and transported to a processor or end user for recycling. (National Recycling Coalition, 1995)

Recycling: the series of activities by which recyclables are collected, sorted, processed and converted into raw materials and used in the production of new products. Excludes the use of these materials as a fuel substitute or for energy production.

Reuse: the use of a product or component in its original form for its original purpose, more than once. Examples include: refilling glass or plastic bottles, repairing wood pallets, using corrugated or plastic containers for storage, and returning milk crates.

Additional definitions regarding specific materials are included in Appendix A and B.

Instructions

The attached standardized report forms have been developed to ensure consistent, accurate and complete information. Forms A and B provide for reporting both municipal program (planning unit/system) recycling and non-program/private recycling.

The following appendices are attached at the end of this package to assist in identifying, defining and quantifying recyclables:

Appendix A:	Description of Component Categories
Appendix B:	Material handling of special or unique materials considered recycling (applicable to percentages and goals)
Appendix C:	Volume to weight conversion factors
Appendix D:	Industrial Wastes

Form A

Recyclables are those materials which would, unless recycled, be disposed of in a refuse disposal system. Material categories are described in Appendix A and B.

Planning units must report quantities for individual material categories wherever possible. Totals may be used only when the breakdown is unknown.

Column categories:

Column 2
Solid waste management program or planning unit recycling (Column 2) is that which is operated under the authority of a planning unit. Report mandatory curbside and drop off program material here if it is managed by the planning unit/system. Mark the tonnage with an “M” mandatory or a “V” for voluntary. Materials that are recycled at private facilities, independent of any planning unit contract, should be reported under columns 3 and 4. These would be materials not accepted at a municipally owned MRF; for example, white goods. If a material is a mandated recyclable and is recycled at a private facility, it should be reported under column 3. If a material is not a mandated recyclable being recycled through a private facility, it should be reported in column 4.

Column 3
Column 3 is that mandated recycling which is generally managed by the private sectors, and often includes commercial, industrial or institutional generators which place their recyclable materials with private recyclers. An example may be a local law requiring commercial office paper recycling without any provision by the planning unit/system to handle or contract for the handling of such material. The non-system tonnage may also be reported by generators or recyclers. Care must be taken not to double count material.

Column 4
Non-program non-mandated recycling (Column 4) is that which takes place even though there is no system/planning unit requirement to recycle the specific materials. An example would be a special industrial waste, such as brewer's grain or foundry sand.

Column 5
Place totals from across the row in this column. Total of this column should equal grand total.

Instructions for Reporting Bottle Bill Tonnages

It is very important that these instructions are followed to avoid any double counting. We utilize the figures on redeemed containers received from surveys completed by distributors (deposit initiators) to calculate New York State's recycling data.

If you are reporting any returnable beverage containers that have been redeemed through the New York State Returnable Container Act, enter that information in the Deposit Containers Category on Form A Page 7. Also, please indicate the method used to calculate this redemption data (i.e., estimate of containers redeemed in the planning unit, information obtained from redemption centers, planning unit sorted and redeemed the containers; include whether it is an estimate of the number of units, estimate of weight or scale data).

Deposit containers that are not redeemed but are recycled along with other collected materials should be included in the total tonnages of the appropriate category of material.

Which Column to Use:

Column 2 - Report containers that have been handled and redeemed by the planning unit. (Examples, the planning unit sorts unredeemed deposit containers that have been placed in recycling bins and then takes them to a redemption center to receive the five-cent per container refund or the planning unit actually operates a redemption center.) **This data can be included in the total amount recycled for the planning unit.** The data from this category will be added to the appropriate category of material(s) (i.e., commingled, plastic, aluminum, and/or PET #1) and included in your final summary report published in the New York State Annual Recycling Bulletin.

Column 3 - Non-program/private mandated recycling - If you choose to report containers that have been redeemed in your planning unit but have not been handled by the planning unit. (Examples, you have contacted redemption centers for the number of containers redeemed in your planning unit or you are estimating based on your county's population.) **This total is not to be included in your total amount recycled and therefore should not be used to calculate your recycling rate.**

Form B

Recycling Rate -This form provides the formula for determining the recycling rate.

This form also provides for reporting both planning unit/municipal program waste reduction and reuse and non-program/private waste reduction and reuse. It is provided so that you may document reuse and waste reduction activities.

*Please see Appendices A and B for descriptions of material categories.

FORM A

RECYCLING REPORT

for the calendar year 2003

Report only outgoing and marketed materials, not incoming.
Exception: yardwaste and other compostables should be reported as incoming.

Material categories	(1) Material	(2) Planning Unit/System Solid Waste Program Recycling tons Mandatory (M) or Voluntary (V)	M or V	(3) Non-program/private mandated recycling in tons	(4) Non-program/ private non-mandated recycling in tons	(5) Total Tons
PAPER	Newspaper	233,898.00	M			233,898.00
	#6 Mix					0.00
	#8 Mix					0.00
	Mixed Paper	36,546.64	M			36,546.64
	Mixed Paper (animal bedding only)					0.00
	Magazines					0.00
	Corrugated Cardboard	87,711.94	M			87,711.94
	Kraft Paper					0.00
	Gable Top/Drink Boxes					0.00
	Paperboard Chipboard/Boxboard					0.00
	Hardcover Books					0.00
	Softcover Books					0.00
	Office Paper					0.00
	"Junk Mail"					0.00
	Telephone Directories					0.00
	Commingled Paper (Specify) see note 1 to page 5, at end.			275,829.00		275,829.00
	Other Paper (Specify) Other Miscellaneous Paper	7,309.00	M			7,309.00
	PAPER TOTAL	365,465.58		275,829.00	0.00	641,294.58

PAGE TOTAL	365,465.58	275,829.00	0.00	641,294.58

FORM A (Continued)

Material Categories	(1) Material	(2) Planning Unit/System Solid Waste Program Recycling tons Mandatory (M) or Voluntary (V)	M or V	(3) Non-program/ private mandated recycling in tons	(4) Non-program/ private non-mandated recycling in tons	(5) Total Tons
PLASTIC	PET #1	5,480.00	M			5,480.00
	HDPE #2	14,920.00	M			14,920.00
	LHDPE #2					0.00
	PVC #3					0.00
	LDPE #4					0.00
	LLDPE #4					0.00
	PP #5					0.00
	PS #6					0.00
	Mixed Plastic (specify) see note 1 to page 6	3,600.00	M			3,600.00
	Other Plastic (specify)					0.00
	PLASTIC TOTAL	24,000.00		0.00	0.00	24,000.00
ORGANICS (Yard waste listed separately below)	Food Waste	5,106.40	V			5,106.40
	MSW Compost					0.00
	Other Organic					0.00
	ORGANICS TOTAL	5,106.40		0.00	0.00	5,106.40
METAL	Ferrous and Bi-metal Food Containers (inc. aerosol cans)					0.00
Ferrous	Enameled Metal Appliances (white goods)	4,742.40	V			4,742.40
	Whole Autos and Parts	13,496.60	V			13,496.60
	Other Ferrous	58,357.00	M		53,999.00	112,356.00
	FERROUS TOTAL	76,596.00		0.00	53,999.00	130,595.00
Non-ferrous	Aluminum Cans/Foil					0.00
	Other Aluminum					0.00
	Other Non-Ferrous					0.00
	NON-FERROUS TOTAL	0.00		0.00	0.00	0.00

PAGE TOTAL	105,702.40	0.00	53,999.00	159,701.40

FORM A (Continued)

Material Categories	(1) Material	(2) Planning Unit/System Solid Waste Program Recycling tons Mandatory (M) or Voluntary (V)	M or V	(3) Non-program/private mandated recycling in tons	(4) Non-program/ private non-mandated recycling in tons	(5) Total Tons
GLASS	Glass - Clear					0.00
	Glass - Green					0.00
	Glass - Brown					0.00
	Glass - Mixed					0.00
	Glass - Plate					0.00
	Other Glass					0.00
	GLASS TOTAL	0.00		0.00	0.00	0.00
COMMINGLED	Glass, metal, plastic containers, other (specify) See Notes page			78,339.30		78,339.30
DEPOSIT CONTAINERS* This data is optional. See Page 4 for **important** reporting instructions.	PET#1					Column 2 Total Only 0.00
	GLASS					Column 2 Total Only 0.00
	ALUMINUM					Column 2 Total Only 0.00
	COMMINGLED					Column 2 Total Only 0.00
	DEPOSIT CONTAINERS TOTAL	Add to the page and grand total 0.00		Do not add to the page and grand total 0.00		Column 2 Totals Only 0.00
	Method used to calculate this data (see page 4 instructions):					
RUBBER	Rubber, tires	3,120.00	V			3,120.00
	Other rubber					0.00
	RUBBER TOTAL	3,120.00		0.00	0.00	3,120.00
TEXTILES	Textiles/leather	167.31	V			167.31
WOOD	Wood Pallets					0.00
	Wood-Lumber					0.00
	Other wood (including C&D wood)					0.00
	WOOD TOTAL	0.00		0.00	0.00	0.00
CONSTRUCTION & DEMOLITION DEBRIS (C&D)/ INERT/ CONTAMINATED SOIL	Asphalt	140,873.20	V			140,873.20
	Concrete/Brick/Rock/Fines	646,552.40	V			646,552.40
	Other C&D/Inert	1,609.40	V		6,983,056.08	6,984,665.48
	Contaminated Soil					0.00
	C&D/INERT/SOIL TOTAL	789,035.00		0.00	6,983,056.08	7,772,091.08

PAGE TOTAL	792,322.31	78,339.30	6,983,056.08	7,853,717.69

FORM A (Continued)

Material Categories	(1) Material	(2) Planning Unit/ System Solid Waste Program Recycling tons Mandatory (M) or Voluntary (V)	M or V	(3) Non-program/ private mandated recycling in tons	(4) Non-program/ private non-mandated recycling in tons	(5) Total Tons
YARDWASTE (including yardwaste to be composted) Report as incoming only	Leaves					0.00
	Grass				6,708.00	6,708.00
	Brush					0.00
	Wood-Stumps					0.00
	Mixed yardwaste					0.00
	Other yardwaste					0.00
	YARDWASTE TOTAL	0.00		0.00	6,708.00	6,708.00
BATTERIES, HHW & PAINT	Lead Acid Batteries	52.77	V			52.77
	Dry Cell Batteries	8.20	V			8.20
	Paint					0.00
	Misc. Solvents					0.00
	Other Household Hazardous	14.59	V			14.59
	BATT., HHW, PAINT TOTAL	75.56		0.00	0.00	75.56
REFRIGERANTS	Refrigerants	7.40	M			7.40
SLUDGES	Sewage Sludge (wet tons)	597,076.00				597,076.00
	Water Treatment Plant Sludge					0.00
	Paper Mill Sludge				18,000.00	18,000.00
	SLUDGES TOTAL	597,076.00		0.00	18,000.00	615,076.00
OIL, ANTIFREEZE	Used Motor Oil	26.60	V			26.60
	Used Oil Filters	156.10	V			156.10
	Antifreeze	6.00	V			6.00
	Other (specify; such as vegetable oils)					0.00
	OIL & ANTIFREEZE TOTAL	188.70		0.00	0.00	188.70
OTHER INDUSTRIAL	Specify material (type and quantity) on separate sheet. See Appendix D for examples					0.00

PAGE TOTAL	597,347.66	0.00	24,708.00	622,055.66

GRAND TOTAL	1,860,837.95	354,168.30	7,061,763.08	9,276,769.33

The above information was determined from: Scale data: ☐ Estimates: ☐
Combination of actual measurements and estimates: ☐

FORM B

FORMULA FOR DETERMINING RECYCLING RATE:

Total tons recycled (Grand Total from Column 5, Form A) = A = 9,276,769.33

Total tons solid waste generated (Item 12, cover sheet) = C = 16,259,203.15

RECYCLING RATE = A ÷ C x 100% = 57%

WASTE REDUCTION AND REUSE

See Below for Source Reduction Strategies
Please include methods even if tonnages are unknown.
(Examples: Report pallet reconditioning and textiles reused here.)

METHOD OF REDUCTION	MATERIALS	TONS (if available)
SEE ATTACHED FORM.		
	Grand Total:	0.00

SOURCE REDUCTION STRATEGIES

Use to describe waste reduction and reuse activities.

EDUCATIONAL STRATEGIES
- Elementary/Secondary School Curricula
- Home Composting/Leave It On The Lawn Campaign
- Consumer Source Reduction Shopping Tips
- Junk Mail Reduction Campaign
– Source Reduction Literature, News Articles, Events, etc.

UNIT PRICING
- Pay By Weight or Volume
  •Residential
  •Institutional/Government

STRATEGIES FOR BUSINESSES/INSTITUTIONS
– Waste audits to identify source reduction opportunities
- On-site Business/Institutional composting
- Programs to reduce office paper waste
- Promote business purchasing policy change
- Promote operational changes
- Source reduction for specific sectors
- Reuse, repair and exchange centers

LEGISLATION/REGULATION
- Source Reduction Procurement Policies
- Packaging Regulations
- Bans at disposal facilities
- Hazardous Materials Labeling Regulations

Appendix A

DESCRIPTION OF COMPONENT CATEGORIES

Material	Component Categories	Examples
Paper	Newspaper	Daily, weekly newspapers
	#6 Mix	Newspaper that may include certain amounts of other paper materials depending on mill specs.
	#8 Mix	Newspaper that may include inserts and magazines, but does not include paper such as any brown fibers or mixed paper.
	Mixed Paper (animal bedding only)	Newspaper, magazines, telephone directories and other mixed paper that will be processed for animal bedding.
	Magazines	Periodicals, journals, catalogs and glossy publications.
	Corrugated Cardboard	Multi-layer kraft corrugated shipping boxes and inserts.
	Kraft Paper	Grocery bags and other brown paper bags.
	Gable Top/Drink boxes	Milk and juice paper cartons and aseptic packaging.
	Paperboard/Chipboard/Boxboard	Cereal boxes, shoe boxes, gift boxes and other lightweight cardboard.
	Hardcover Books	Books and novels with hard covers.
	Softcover Books	Books and novels with soft covers.
	Office Paper	Copy paper, computer printout, ledger and letterhead paper.
	Junk Mail	Direct mail, flyers, brochures, envelopes, sweepstake forms, coupons, magazines, school paper and office paper.
	Telephone Directories	Soft cover telephone books both, yellow and white pages.
	Commingled	Mixed recyclable paper, news, junk mail, magazines, etc.
	Other Paper	Tissue paper, towels, or as specified.
Plastic	PET (#1)	Soda bottles, liquor bottles.
	HDPE (#2)	Milk jugs, shampoo bottles.
	LHDPE (#2)	Grocery bags.
	PVC (#3)	Oil bottles, salad dressing.
	LDPE (#4)	Margarine tubs, coffee can lids, mustard containers.
	LLDPE (#4)	Dry cleaning bags, trash bags.
	PP (#5)	Yogurt cups, squeeze-it (burst) bottle.
	PS (#6)	Cups, egg cartons, packing foam.
	Other Plastic	Ketchup bottles, pancake syrup.
Organics	Food Waste	Kitchen scraps, dog food, food processing wastes.
	Other Organics	Brewery waste, fish processing waste.

Appendix A (Continued)

Material	Component Categories	Examples
Ferrous Metal	Food Containers/Bi-metal (inc. Aerosols)	Pet food cans, soda cans, hair spray.
	White Goods/Enameled	Household appliances.
	Auto and Auto Parts	Whole autos, pumps, fenders, doors.
	Other Ferrous	Coat hangers, scrap metal.
Non-Ferrous Metal	Aluminum Cans/Foil	Soda cans, beer cans, pie plates, foil.
	Other Aluminum	Siding, cookware, machine parts.
	Other Non-Ferrous	Eating utensils, electrical wiring.
Glass	Clear Containers	Soda bottles, pickle jars.
	Green Containers	Beer bottles, wine bottles.
	Brown Containers	Beer Bottles, wine bottles.
	Plate Glass	Auto glass, window glass.
	Other Glass	Ceramic glass, light bulbs.
Wood	Pallets	Forklift pallets.
	Lumber	Plywood sections, particle board.
	Other Wood	Crates, sawdust, animal bedding.
Rubber	Rubber	Tires, inner tubes, housewares.
Textiles	Textiles/Leather	Clothes, drapes, shoes, rugs.
Inert	Asphalt - shingles	Roofing, siding.
	Asphalt - paving	Road surfacing.
	Concrete/Brick/Rock	Gravel, house bricks, stones.
	Contaminated Soil	Soil, sand.
	Other Inert	Sheetrock, plaster, insulation.
Yard waste	Leaves	Foliage.
	Grass	Lawn clippings.
	Wood - stumps	Logs and tree stumps.
	Other Yard Waste	Prunings, brush.
Household Hazardous Waste, Batteries, Paint	Lead/Acid Batteries	Auto batteries, marine batteries.
	Dry Cell Batteries	Radio batteries, flashlight batteries, lithium, nickel-cadmium, mercuric oxide and silver oxide button cell batteries, and small sealed lead-acid rechargeable batteries.
	Household Hazardous Waste	Solvents, pesticides.
	Paint	Latex & oil-based paints.

Appendix B

Material handling of special or unique materials, considered recycling (or waste reduction/reuse) by the Department of Environmental Conservation.

Materials	Acceptable
Metals	Lead acid batteries, i.e., automotive batteries.
	Ferrous or non-ferrous materials recovered from waste stream at a MSW disposal facility.
	Ferrous and non-ferrous metal recovered post incineration.
	Any other metals deemed acceptable by the NYSDEC.
Glass	Glass used for leachate collection, landfill cover and landfill gas venting. Cover must be approved by DEC. Cover includes daily, intermediate and final [Part 360-1.15(b)(1) and Part 360-2].
	Uncontaminated glass when used as a substitute for conventional aggregate in asphalt or subgrade applications. Material must substitute for an analogous raw material and not constitute disposal.
Paper	Office/Computer paper. Any paper typically found in an office that is not contaminated by glue, plastic or other foreign matter (e.g., computer print out green bar/blue bar) white or colored writing paper, copier paper, etc.)
	Magazines. Any coated publication (e.g., magazines, catalogues, etc.)
	Mixed paper. Any combination of the above or any other papers that are recycled e.g., telephone directories, window envelopes, books, bulk mail, paperboard, kraft paper.
	Paper, sewage and other sludges used for landfill cover and C&D material used for landfill cover, PROVIDED A BENEFICIAL USE DETERMINATION (BUD) OR OTHER DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) APPROVAL HAS BEEN OBTAINED.
Commingled	Any combination of food, beverage, detergent or other containers made from glass, plastic and/or metal.
Compost/Mulch	Tonnage documentation of yard waste at time of collection, as long as there is evidence that material will be composted/mulched and marketed. Compost/mulch is considered to be marketed when the material is sold, given away or used in lieu of soil or other soil amendments.
	Grass - clippings from residential or commercial sources. Leaves - from residential or commercial sources. Brush/Branches - small trimmings from trees and shrubs from residential and/or commercial sources. Mixed - any combination of above.
	Compost used for landfill cover. Compost made on-site from waste brewers grain, prison food waste, manure, etc. and used on-site or off-site or compost made from backyard composting.

Appendix B (Continued)

Material	Acceptable
Wood	Wood material [waste lumber, (residential sources), pallets, crates, etc.] that is chipped and used to create a raw material or product that is returned to the marketplace or used in lieu of purchased materials is acceptable NYSDEC tonnage. Pallets that have been refurbished by actually replacing pieces of the pallet can be counted, such as for waste reduction. (Wood chipped and used as fuel is not to be counted.)
Animal and Vegetable Fat	Solid animal fats which are recycled. Grease/oil from restaurants etc., and animal renderings which are reprocessed (such as for animal feed).
Asphalt	Recycling asphalt into new asphalt.
Ash	Ash used for any DEC BUD approved uses. Bottom ash used as road sand, PROVIDED BUD OR OTHER DEPARTMENT APPROVAL HAS BEEN OBTAINED. Materials recovered from bottom ash, such as glass, metals, etc.
Food	Outdated or postdated foods to farmers as feed supplement or for food banks.
Textiles	Verification must be obtained as to the destination and use.
Batteries	Only dry cell batteries that are actually recycled (and not just collected) qualify. Typically, these are mercuric oxide and silver oxide button cell batteries, nickel-cadmium and small sealed lead-acid rechargeable batteries. Large lead-acid (i.e., vehicle) batteries can be assumed to be 100% recycled.
HHW	Only HHW that is actually recycled (and not just collected) qualifies.
Oil	Only oil that is actually recycled (and not just collected) qualifies. Most vehicle oil is reprocessed for burning.
Tires	Tires that are recapped, remanufactured or otherwise made into raw material or product may count toward recycling. Tires chips may be counted when used for civil engineering projects, such as road embankments, PROVIDED BUD OR OTHER DEPARTMENT APPROVAL HAS BEEN OBTAINED. Material must substitute for an analogous raw material and not constitute disposal.
Scrap Automobiles	Scrapped vehicles generated within the jurisdiction and recycled.
Scrap Metal	Ferrous and non-ferrous from industrial, etc., generators.
Waste Grain	Waste grain (e.g., “spent hops”) waste whey, etc., used for animal feed.
Other	Septage, yard waste, sludge, food/food processing waste etc., used for proven beneficial uses (such as agricultural, horticultural and silvicultural applications). Compost; paper, sewage, water treatment plant and other sludges; C&D materials; and other materials used for landfill covers, PROVIDED BUD OR DEC APPROVAL HAS BEEN OBTAINED. To count landfill cover material toward recycling, it must substitute for a soil cover material that would, otherwise, have to be brought in from off-site. DEC approved BUDs not noted above. Only those BUDs [either Part 360-1.15(b) or case-specific Part 360-1.15(d)] that are not for energy use (such as TDF or other non-recycling uses) are acceptable.

Appendix C

Volume to Weight Conversion Factors

MATERIAL	EQUIVALENT	
GLASS-whole bottles	1 cubic yard	0.35 tons
GLASS-semicrushed	1 cubic yard	0.70 tons
GLASS-crushed mechanically	1 cubic yard	0.88 tons
GLASS-uncrushed-manually broken	55 gallon drum	0.16 tons
NEWSPRINT-loose	1 cubic yard	0.29 tons
NEWSPRINT-compacted	1 cubic yard	0.43 tons
CORRUGATED-loose	1 cubic yard	0.15 tons
CORRUGATED-baled	1 cubic yard	0.55 tons
PAPER-high grade loose	1 cubic yard	0.18 tons
PAPER-high grade baled	1 cubic yard	0.36 tons
PAPER-mixed loose	1 cubic yard	0.15 tons
PLASTIC-PET-whole	1 cubic yard	0.015 tons
PLASTIC-PET-flattened	1 cubic yard	0.04 tons
PLASTIC-PET-baled	1 cubic yard	0.38 tons
PLASTIC-HDPE-whole	1 cubic yard	0.012 tons
PLASTIC-HDPE-flattened	1 cubic yard	0.03 tons
PLASTIC-HDPE-baled	1 cubic yard	0.38 tons
PLASTIC-mixed	45 gallon bag	0.01 tons
PLASTIC-grocery bags	45 gallon bag	0.01 tons
PLASTIC-styrofoam	45 gallon bag	0.01 tons
PLASTIC-styrofoam	1 cubic yard	0.02 tons
ALUMINUM-cans-whole	1 cubic yard	0.03 tons
ALUMINUM-cans-flattened	1 cubic yard	0.125 tons
FERROUS METAL-cans-whole	1 cubic yard	0.08 tons
FERROUS METAL-cans-flattened	1 cubic yard	0.43 tons
WHITE GOODS-uncompacted	1 cubic yard	0.10 tons
WHITE GOODS-compacted	1 cubic yard	0.5 tons

Appendix C (Continued)

MATERIAL	EQUIVALENT	
YARDWASTE-grass clippings-loose	1 cubic yard	0.3 tons
YARDWASTE-grass clippings-compacted	1 cubic yard	0.6 tons
YARDWASTE-leaves-loose	1 cubic yard	0.125 tons
YARDWASTE-leaves-vacuumed	1 cubic yard	0.15 tons
YARDWASTE-leaves-compacted	1 cubic yard	0.25 tons
YARDWASTE-brush-loose	1 cubic yard	0.25 tons
YARDWASTE-brush-compacted	1 cubic yard	0.5 tons
LEAD-ACID BATTERIES-car	one (39.4 lbs)	0.0197 tons
LEAD-ACID BATTERIES-truck	one (53.3 lbs)	0.0267 tons
LEAD-ACID BATTERIES-motorcycle	one (9.5 lbs)	0.005 tons
LEAD-ACID BATTERIES-combination	use average of 34 lbs	0.017 tons
WASTE OIL	1 gallon	0.004 tons
ANTIFREEZE	1 gallon	0.005 tons
WASTE TIRES-passenger car	one	0.01 tons
WASTE TIRES-truck	one	0.03 tons
WOOD - PALLETS	one	0.14 tons
WOOD - loose dimensional	1 cubic yard	0.12 tons
WOOD - compacted dimensional	1 cubic yard	0.35 tons
WOOD - other	1 cubic yard	0.18 tons
TEXTILES-loose	1 cubic yard	0.10 tons

Appendix D

Industrial Waste - sample categories

This is only a guide to assist in filling out the industrial material identification and quantification on Page 8 and is not meant to be an inclusive list.

Absorbent material
Alum recovered from water treatment plants
Animal protein, carcasses, renderings
Ash - bottom
Ash
Ash - fly
Boiler cinders
Boiler slag
Books - unsold and recycled (documented)
Carpet remnants returned for remanufacture
Catalogues
Circuit boards
Cloth/textiles - reprocessed
Contaminated soil
Demolition Debris
Drums - plastic
Drums - steel
Electronic Scrap
Fiberboard
Fluorescent tubes
Foundry waste, may be used in asphalt mix
Furniture
Grain waste from brewery, may be sold for animal feed
Hatchery waste processed into protein supplement
Industrial scrap generated and recycled
Ink
Litho-plates
Masonry
Mattresses - processed and remanufactured
Metal - mixed
MSW for composting
Paint
Pallets (report reconditioning on Form B only)
Paper from manufacturing process
Plastic - Acetate
Plastic - other rigid
Plastic - other flexible
Plastic - nylon
Plastic - lead coated
Plastic - Acrylic
Plastic - ABS
Roof Shingles from manufacturing process
Scrap metal from landfill or incinerator
Sludges
Tires burned as fuel
Tires retreaded and sold
Toner cartridges
Vegetable waste from processor
Zoo stall waste composted

Use this page if there is not enough space for any additional information that you need to include. Use the number corresponding to the question answering.

Notes to page 1

1. Planning Unit (PU) data are scale weights recorded for calendar year 2002. Private generator data are reported by private transfer stations within the PU and some private recycling processors within the PU.

2. Method of disposal is not recorded for private generators.

Note to page 5

1. The entry for non-program/private mandated recycling of "Commingled Paper" is based on estimates made of recycled tons of commercial paper of NYC origin as reported by the five paper recycling vendors and one paper mill located in New York City with whom DNSY holds paper recycling contracts. This information was provided to DSNY as a courtesy and does not reflect the sum total of paper recycling from NYC sources, either within or outside NYC boundaries, which neither commercial generators or recyclers are required to report.

Notes to page 6

1. Data list for "Mixed Plastic" in Column 2 represent commingled plastic containers in curbside/containerized collections under the NYC Recycling Program, other than HDPE and PET bottles. No finer breakdown is available.

2. Data listed for "Other Ferrous" in Column 2 represent commingled metal in curbside/containerized collections under the NYC Recycling Program, including aluminum and ferrous cans and some household bulk metal. No finer breakdown is available.

3. Data listed for "Other Ferrous" in Column 3 is based on estimates made of recycled tons of commercial metal of NYC origin as reported by the commingled metal, glass and plastic recycling vendor with whom DNSY holds recycling contracts. This information was provided to DSNY as a courtesy and does not reflect the sum total of metal recycling from NYC sources, either within or outside NYC boundaries, which neither commercial generators or recyclers are required to report.

Notes to page 7

1. Glass for Column 3 (Non-program/private mandated recycling) is included in the "Commingled" category.

2. Unredeemed deposit containers collected under the NYC Recycling Program are included in the "Other Ferrous" and "Plastic" categories in Col. 2 on page 6. This figure does not include deposit containers redeemed in NYC, for which the PU has no data.

3. Col. 3 (private material) data for C&D and INERT materials are reported in one lump sum.

WASTE REDUCTION AND REUSE
SOURCE REDUCTION STRATEGIES

METHOD OF REDUCTION	MATERIALS	TONS (if available)
EDUCATIONAL STRATEGIES		**1,263 tons**
Consumer Source Reduction Shopping Tips	A **Waste Prevention While Shopping** page and **Virtual Shopping Tour** was added to the **NYCWasteLe$$ website www.nycwasteless.org**. Both features provide information to consumers on how to make environmentally friendly purchasing decisions for a variety of everyday services and products.	
Junk Mail Reduction Campaign	Waste prevention tips and resources on reducing junk mail were added to the individual, government, business sections of the NYCWasteLe$$ website. A downloadable pdf of DSNY's **"Stop Junk Mail" post card** was also added to the site. With the cooperation of the Direct Marketing Association, anyone can fill out the card and send it in to the DMA to be removed from national mailing lists.	
Source Reduction Literature, News Articles, Events, etc.	DSNY completed the development of the **NYCWasteLe$$ website** - a web based public education tool that presents comprehensive practical information on how New Yorkers can prevent waste, cut energy costs, and conserve resources while at home, work, or school. The website URL is www.nycwasteless.org. Divided into three sections, the site contains practical suggestions and interactive features geared to assist the following audiences:	
	NYC residents - **NYCWasteLe$$ individual** shows New Yorkers how to save money and reduce waste through every day choices at home, school, work, and while shopping. The virtual home tour offers tips and conservation information for every room. Through the virtual shopping trip, consumers learn to make environmentally friendly purchasing decisions part of their everyday lives.	
	NYC government agencies and institutions - **NYCWasteLe$$ government** describes describes how city agencies can cut waste, improve recycling, reduce toxics, save energy, and incorporated environmental concerns into purchasing decisions. The virtual agency tour offers practical tips for every aspect of government operations.	
	NYC businesses - **NYCWasteLe$$ business** provides local businesses with information on how they can enhance their bottom line by taking advantage of waste prevention, recycling, green building, extended producer responsibility, and energy efficiency. In the virtual business tour users will find tips for different commercial sectors: offices, healthcare facilities, restaurants, manufacturing, and retail facilities.	
	DSNY continued to provide support to **Materials for the Arts (MFTA),** a citywide materials exchange warehouse providing materials donations to NYC non-profit arts organizations and public schools. In 2003, MFTA launched its new interactive materials exchange website, diverted **507 tons** of material from NYC waste stream, and received more than 1,000 material donations.	
	DSNY continued to update and run the **NYC Stuff Exchange** - a toll free telephone service providing information about where New Yorkers can donate, buy, sell, rent or repair second hand goods.	
	DSNY administered the one year City Council-sponsored **Waste Prevention Community Coordinator Program**. Community Coordinators conducted waste prevention education and technical assistance programs at different NYC Housing Authority locations and NYC Department of Education schools, held a series of electronics recycling events, established a building materials reuse center, set up numerous community food and yard waste collection sites and educational forums. The combined effort of roughly 10 non-profit organizations diverted **756 tons** of material from the City's waste stream.	

WASTE REDUCTION AND REUSE
SOURCE REDUCTION STRATEGIES

METHOD OF REDUCTION	MATERIALS	TONS (if available)
STRATEGIES FOR BUSINESSES AND INSTITUTIONS		**3,712 tons**
Waste Audits, Operational Changes, Sector Specific Source Reduction, Office Paper Reduction, Exchange Services	As cited earlier, DSNY completed and launched the **NYCWasteLe$$ business website**. The site provides detailed waste prevention information on numerous general and business sector specific topics. It also contains measurement tools and detailed lists of recycling vendors, donation outlets, case studies, and resources available to NYC businesses.	
	DSNY continued to support the **NY WasteMatch Program.** Entering its 7th year in operation, the materials exchange and technical assistance program broadened its manufacturing customer base to also concentrate on the building and construction, property management,and healthcare sectors. NY WasteMatch held 2 deconstruction training courses for local community development corporations, trade unions, and construction companies. They also entered into an agreement with a developer to provide services for 2 pilot deconstruction projects.	
	NYWasteMatch overhauled and relaunched its website to make their materials exchange service easier to facilitate. A citywide publicity campaign for the new site was carried out during the Summer and Fall. In 2003, NY WasteMatch diverted **3,712 tons** from the commercial waste stream and saved NYC business $780,002 in avoided purchasing and disposal costs.	

LEGISLATION/REGULATION		
Source Reduction Procurement Policies	DSNY developed an Environmentally Preferable Purchasing Guide for government agency purchasing personnel and held a series of training classes in 2001. The resulting course was incorporated into the NYC Procurement Training Institute's curriculum in 2002 and the first class held independently of DSNY sponsorship occurred in Spring 2003.	

Grand Total	4975

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