

Rethinking Waste



Dutchess County
Final Local Solid Waste Management Plan
2012 - 2022

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Acknowledgements

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Dutchess County

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Cover photos:

Dutchess County resident, Mason, with his reusable shopping bags.

Girl Scout Troop 10205 of Hyde Park. The troop has collected thousands of gift cards from local businesses for recycling.

The Dutchess County Resource Recovery Facility. The facility converts waste into electricity.

One of Dutchess County's clean streams. Environmentally sound solid waste management practices help to keep our streams and our environment healthy.

Dutchess County Local Solid Waste Management Plan

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Solid Waste Terms

Ag Bag (Agricultural Bag): Woven plastic bags used for silage storage and composting.

Ash: The residuals generated from the combustion of MSW. In accordance with federal law, waste-to-energy ash is tested to ensure it is non-hazardous.

Biosolid: Dewatered sewage sludge.

C & D (Construction and Demolition Debris): Materials resulting from building, demolition or refurbishment of structures, roads or utilities. Examples include wall coverings, asphalt pavement and piping.

Commingled: A mixture of several recyclable materials (glass, plastics and metal containers) in one bin. In a dual-stream recycling system, commingled material is sorted separately from paper material.

Composting: A controlled decomposition process which turns organic residuals such as food scraps, biosolids and yard waste into a beneficial soil amendment.

DCRRA: Dutchess County Resource Recovery Agency.

Diversion: Reusing or recycling materials rather than disposing of them.

Dual-stream: A recycling system which processes commingled and paper materials separately.

E-waste (Electronic Waste): Waste that has electronic components, such as computers and televisions.

Flow Control: A legal provision allowing local government to designate facilities where municipal solid waste (MSW) is taken for processing, treatment, recycling, composting, or disposal.

HHW (Household Hazardous Waste): Waste that is hazardous, such as pesticides and cleaning materials.

Landfill: A facility where garbage is buried in the ground with engineered environmental protection measures in place for air and water quality integrity.

LSWMP: Local Solid Waste Management Plan.

NYS DEC: New York State Department of Environmental Conservation.

MRF (Material Recovery Facility): A specialized plant that receives, separates and bales recyclable materials as marketable commodities to end-user manufacturers.

MSW (Municipal Solid Waste): The combined residential, institutional and commercial solid waste generated in an area. The term MSW for this Plan is referring to solid waste generated within Dutchess County.

NSF (Net Service Fee): The cost difference between revenue and expenses generated by the Resource Recovery Agency operations. Dutchess County is obligated to pay this fee when expenses are greater than revenues per the 1984 Solid Waste Disposal Service Agreement.

Organic Waste: Readily degradable organic material that has been separated from the non-compostable material at the point of generation including food waste, soiled or unrecyclable paper, and yard waste.

PAYT/SMART (Pay-As-You-Throw and Save-Money-And-Reduce-Trash): In these systems, generators pay only for the amount of garbage they create. As a result, waste minimization through reuse, recycling and composting increases.

Product Stewardship: Extended producer responsibility. The role and responsibility of the manufacturer (also known as the producer or brand owner) of a product or package to cover the entire life cycle, including ultimate disposition of that product or package at the end of its useful life.

Recyclable: The ability to use recovered materials, such as plastics, metals or glass, in the manufacturing of a product.

Reuse: Products and packaging that can be used over again several times for its original purpose.

RRF (Resource Recovery Facility): The waste-to-energy facility overseen by the Resource Recovery Agency.

Service Fee: The set fee paid to the operator of the waste-to-energy facility for each ton of municipal solid waste processed per the 1989 Service Agreement.

Single-stream: A recycling system which processes commingled and paper materials together.

Solid Waste: Any discarded materials. Solid wastes can be solid, liquid, semi-solid or containerized gaseous material. This includes durable goods, non-durable goods, containers and packaging, food wastes and yard trimmings, and miscellaneous inorganic wastes generated.

Source Separation: Separating recyclable materials from solid waste at the source. A source can be a residence, institution or place of business.

Spot Market Waste: Waste that is received for waste-to-energy processing after contractual obligations for 140,000 tons of material delivered to the facility are met.

Supplemental Waste: Waste that is received for waste-to-energy processing which is brought to the facility by the operator of the RRF. This waste is from outside the County and does not count toward the 140,000 ton minimum contractual obligation. The Operator can only bring in supplemental waste by agreement with the RRA under a short-term contract.

T/P/Y: Tons per year.

Tipping Fee: The cost to haulers to unload material at the RRF and MRF.

Transfer Station: Facilities accepting solid waste for the purpose of subsequent transfer to another solid waste management facility for further processing, treating or disposal.

WTE (Waste-to-Energy): A facility that destroys MSW through combustion. The steam generated from this process in Dutchess County is used to operate a turbine generator. The facility generates enough electricity to power approximately 10,000 homes per year, which is equivalent to saving about 160,000 barrels of oil per year. The facility recovers ferrous (steel) metal and recycles approximately 6,000 tons of metal per year.

Executive Summary

Solid waste is any discarded material. Solid waste can be solid, liquid, semi-solid or containerized gaseous material. That is the simple definition, and an even simpler definition is: it's "garbage." It is something most people forget about once it is picked up by a carter or dropped off at a transfer station.

Solid waste does not just disappear and, more importantly, should not always be considered "garbage." To manage solid waste in the most environmentally sound manner, and to protect the health and safety of all County residents, we need to rethink our definition of garbage.

A lot of what people consider garbage, to be thrown out and buried somewhere, no longer has to be disposed of. Much of the material we throw out can be recycled into new products, reused or repurposed. Materials such as paper, glass, metals, food scraps, leaves, branches, and plastics can be taken out of the waste stream. A good portion of these materials are already being taken out, but there is room for improvement.

A Local Solid Waste Management Plan identifies how much solid waste we are currently generating, how much we currently recycle and reuse, and sets a plan for how we can decrease generation of solid waste and increase what we divert (take out of the waste stream for reuse and recycling). Ultimately, the main goal of the Dutchess County Local Solid Waste Management Plan (Plan) is to help view our solid waste not as garbage, but as a resource.

In preparation of writing the Dutchess County Local Solid Waste Management Plan previous reports and documents were extensively used for background information and research. The following were main sources of information:

- *Final Solid Waste Management Plan* (1992 Plan), prepared by Rudikoff & Rohde, Inc., 1992 and adopted by Dutchess County in 1992;
- *Flow Control & Solid Waste Management Alternatives*, prepared for the Dutchess County Resource Recovery Agency by Germano & Cahill, P.C. and Gerhardt, LLC, 2009;
- *The Green Ribbon Task Force report*, prepared by Dutchess County Legislative Committee, 2009;
- *Resource Recovery Agency Working Group Recommendations*, prepared by Dutchess County Legislative Committee, 2010;
- *Beyond Waste A Sustainable Materials Management Strategy for New York State* (Beyond Waste), prepared by the New York State Department of Environmental Conservation, 2010;
- *Local Solid Waste Management Plan* (LSWMP) prepared by Germano & Cahill, P.C. and Gerhardt, LLC, 2010; and
- *Independent Review of Solid Waste Management System and LSWMP* (MSW Report) prepared by MSW Consultants, 2011.

While all of these documents contain a vast amount of information, and were helpful in crafting this Plan, two documents in particular pertain to current solid waste management practices within the County, the LSWMP (2010) and the MSW Report (2011). Both documents are well written and contain useful information, and the intent of the following observations are not meant to judge the worthiness of either document, but as an explanation of why neither document directly reflects the desired solid waste management system for Dutchess County. This Plan does include many of the ideas, initiatives and goals outlined within both documents, but stands alone as the final assessment of the County's priorities and current focus concerning the future of solid waste management in Dutchess County.

The 2010 *Local Solid Waste Management Plan* (LSWMP) was prepared when the Dutchess County Resource Recovery Agency (DCRRA) was the Planning Unit for the County and responsible for writing the Plan. The proposed LSWMP was made public in 2010 and reviewed by New York State Department of Environmental Conservation, Dutchess County and the public. A review of comments received indicates that one of the main criticisms of the LSWMP was the concentration on the waste-to-energy facility and a lack of focus on recycling and reduction initiatives.

The LSWMP included mention of possible changes to the Resource Recovery Facility (RRF) including an upgrade to the existing turbine, the possible future addition of a third boiler line to increase capacity and the possibility of a future local ash landfill for the residue from the RRF. The plan also included the possibility of a new single stream materials facility (MRF) and the addition of a transfer station in the southern part of the County.

In response to the proposed LSWMP the County Legislature approved an independent evaluation of Dutchess County's waste management system by MSW Consultants, with particular emphasis on the LSWMP prepared for the DCRRA by Germano & Cahill, P.C. and Gerhardt, LLC. The evaluation report was funded by a grant from a local non-profit foundation. As with the LSWMP, the report contains valuable information and provides a good analysis of Dutchess County's solid waste management system.

Both documents were written prior to the County of Dutchess becoming the Planning Unit in January of 2012 (Resolution No. 2012021), providing the County the ability to realize one of the original goals of our first solid waste management law, and that is to provide for the management of solid waste generated within the County of Dutchess. The County, as the Planning Unit, now has the responsibility of preparing the Local Solid Waste Management Plan (Plan), as well as the responsibility of implementing the initiatives within the Plan. The DCRRA is no longer responsible for preparing the LSWMP, but continues to have a role in the implementation of some portions of the Plan and the responsibility of the oversight of the Material Recovery Facility until its closure at the end of 2012.

There are some major differences with this Plan, as opposed to the 2010 LSWMP and the MSW Report. This Plan equally considers all aspects of the County's solid waste management system, with the Resource Recovery Facility being just one element. This Plan does not include a new boiler for the RRF or a new single stream materials recovery facility, which was \$68 million of the MSW Report analysis of the financial impacts of an expanded waste-to-energy facility versus waste export.

Finally, and most importantly, the major difference from the MSW Report and this Plan is that waste export is not considered as a preferred alternative to waste-to-energy. Dutchess County made a commitment in the early 1980s to providing a substitute to land burial of solid waste, which was reaffirmed in 2005 with the Clean Air Act upgrades funding. There are acknowledged costs and environmental impacts of having a waste-to-energy facility, but the environmental impacts of landfilling still outweigh considering export of waste as a viable or sustainable alternative. While there is waste to be disposed of, waste-to-energy disposal is the County's preferred method.

What this Plan, and all previous documents agree on, is that the County must find ways to reduce the amount of waste that is generated and increase reuse and recycling of the remaining solid waste. *Beyond Waste*, the LSWMP and the MSW Report were all very helpful in indentifying ways to accomplish this, and most of their initiatives and ideas have been included in this Plan. This Plan also details our current solid waste management system, how we got to where we are now, and where we want to be in the future. The Plan identifies where the County would like to be in the future in terms of recycling and reduction rates, and spells out specific tasks that need to be done to realize our goals. The specific tasks are listed in Appendix D, Table 1.

In summary, the three main goals of the Dutchess County Local Solid Waste Management Plan are to decrease solid waste generation, increase reuse and recycling and minimize the use of landfills for solid waste disposal. The accomplishment of these goals are reflected in the diversion projections found in the Municipal Solid Waste (MSW) Combined Composition Analysis and Projections chart found in Appendix B, Table 4.

It should be noted, due to the changes in the designation of Planning Unit from the Resource Recovery Agency to the County in 2012, and the need to craft a new Local Solid Waste Management Plan once the change was made, the planning period for the Plan is 2012 to 2022. The Projections chart uses the year 2010 as the base, due to the availability of data for 2010, but the projections start for the year 2012. The Implementation Schedule starts with the year 2012 and goes through to the end of 2021, with the next Plan due in 2022.

The Plan cannot guarantee the County will be able to accomplish all of the tasks outlined and specified within the Implementation Schedule in Appendix D. The schedule is comprehensive and ambitious, and will take a major commitment by the County to realize all of the tasks. A commitment to the goals of the Plan, as well as the commitment to take the necessary steps for implementation is essential. As stated in *Beyond Waste's* Agenda for Action, "The state's ability to implement these initiatives and achieve the goals of this Plan will depend on its ability to increase available staff and financial resources." This is also the reality for Dutchess County.

Chapter 1: Dutchess County Planning Unit Description



Panorama of Dutchess County and the Hudson Valley Region

The Planning Unit

Dutchess County Government is the planning unit for Dutchess County and is responsible for developing the Local Solid Waste Management Plan (LSWMP). The County has a land area of approximately 801.6 square miles. We are located in the center of the Mid-Hudson Valley, halfway between New York City and Albany. Dutchess is one of seven counties that make up the Hudson Valley Region, along with Westchester, Putnam, Orange, Rockland, Ulster and Sullivan. The County borders over 45 miles of the Hudson River on its western boundary and borders the state of Connecticut to the east.

When looking at solid waste management for a planning unit, it is important to know who is generating the waste, and what types of waste are generated. It is expected that if the planning unit is growing in population, businesses and tourists, waste generation is also increasing. Also, the type of waste a resident generates will be different than for a commercial entity, such as a restaurant or an industrial generator, such as a manufacturing company. Dutchess County has it all: a growing population, a vibrant business community and plenty of attractions, which draw over 4 million visitors to our County every year.

Dutchess County had a population of 297,488 in 2010, which was 6.2 percent higher than reported in 2000. This translates into an average increase of over 1,700 people per year during the decade. Out of the total population, the 2010 Census showed that Dutchess County had a household population (not living in group quarters such as a correctional institution, nursing home or college dormitory) of 277,523, with an average household size of 2.57. Of the 118,638 housing units in the County, 107,965 are occupied. Appendix A; Table 1, lists each of the County's municipalities and the associated population figures from 1980 to 2010, according to the U.S. Census Bureau, and Appendix A; Table 2 shows the housing unit counts for each municipality based on the 2000 and 2010 Census.

Knowledge of population densities can be helpful in evaluating waste generation data and waste management methods, and is necessary to estimate the composition and quantities of waste generated in the County. The New York State Department of Environmental

Conservation's (DEC) waste composition and recovery projection calculators, which break out variations in the waste stream based on the percentages of urban, suburban and rural generators, as well as the percentages of residential versus commercial/institutional generators within each population density, were used for the calculations. Based on the population versus land area of each of the cities, towns and villages in the County, the population densities for the County are estimated to be 10% urban, 68% suburban and 22% rural (see Appendix B: Table 2). Based on these population densities and using State averages for residential versus commercial/institutional percentages for each population density, the weighted average for the entire County population is 55% residential and 45% commercial/institutional (see Appendix B: Tables 1, 2, 3, and 6 for details).

Members of the Planning Unit and Functions

The Dutchess County Division of Solid Waste Management is responsible for the formulation and implementation of programs for the collection and disposal of solid waste generated within the County. The Division of Solid Waste Management, under the direction of the Director and the Deputy County Executive, Acting as the Commissioner, is charged with:

- Development of the LSWMP and subsequent biennial compliance reports;
- Implementation of the Local Solid Waste Management Plan;
- Creating solid waste financial models;
- Implementing recycling initiatives;
- Oversight of the Resource Recovery Agency;
- Oversight of hauler licensing;
- Tracking waste quantities and types;
- Enforcement of Solid Waste Rules and Regulations and Local Laws;
- Implementing education and awareness programs; and,
- Providing the County Executive and County Legislature with appropriate recommendations regarding integration of both public and private facilities for accepting, hauling, processing and disposing of solid waste.

The County Legislature, comprised of 25 part-time Legislators, is the policy-making and appropriating body of Dutchess County Government. Among the powers and duties of the Legislature, in general and for Solid Waste Management, is to adopt the County budget and enact, amend or rescind local laws, ordinances, legalizing acts or resolutions, subject to approval of the County Executive as provided by the County Charter.

The Dutchess County Resource Recovery Agency (RRA) is a county-wide local benefit corporation responsible for providing solid waste management services for Dutchess County. Since its creation in 1983, the RRA has been engaged in the planning, financing, construction and operation of a waste-to-energy facility (RRF) to process solid waste in the County. Since 1990 the RRA has also overseen the Materials Recovery Facility for recyclables.

The County consists of 30 incorporated municipalities; two cities (Poughkeepsie, Beacon), twenty towns (Amenia, Beekman, Clinton, Dover, East Fishkill, Fishkill, Hyde Park, LaGrange, Milan, North East, Pawling, Pine Plains, Pleasant Valley, Poughkeepsie, Red Hook, Rhinebeck, Stanford, Union Vale, Wappinger, Washington), and eight villages (Fishkill,

Millbrook, Millerton, Pawling, Red Hook, Rhinebeck, Tivoli, Wappingers Falls). Each municipality individually determines collection practices, whether it's municipal curbside collection, transfer stations, private collection or a combination of these methods. Appendix C, Table 1 and Map 1 list and graphically show the transfer stations within the County.

Solid waste management in Dutchess County is determined by these entities in a collaborative and cooperative manner. The goal for all concerned is to protect the health, safety and welfare of residents concerning waste management.

Connections to Neighboring Planning Units

Dutchess is part of the seven county Mid-Hudson Region and each county is usually represented at the Hudson Valley Regional Council Solid Waste Committee meetings. The meetings allow for sharing of information and knowledge, and also open up opportunities for partnerships concerning solid waste initiatives. All of the Mid-Hudson counties are also represented as part of the Materials Management Working Group of the Mid-Hudson Regional Sustainability Plan (MHRSP). The MHRSP is part of the Cleaner, Greener Communities program and is funded by the New York State Energy Research and Development Authority (NYSERDA). The materials management group's task is to identify regional objectives concerning solid waste and develop a list of projects and initiatives that promote greenhouse gas emission reduction goals.

As in Dutchess, none of the seven neighboring counties has an active municipal solid waste landfill. Dutchess County and Westchester County are the only two that have a waste-to-energy facility, allowing for an in-county alternative to landfill use. The two waste-to-energy facilities within the Mid-Hudson Region provide an alternative to the economic and environmental costs of transport to a distant landfill for all the neighboring counties. While there are discussions among the counties of siting a regional landfill as an alternative to long-haul transport of waste, discussion of the waste-to-energy alternative is warranted. For Dutchess County, taking outside waste at the waste-to-energy facility would help to meet the waste tonnage needed to run at full capacity. If flow control is reinstated, the facility would not have the capacity to take outside waste, given the current facility size and in-county waste quantity. Under the flow control scenario, once in-county waste is significantly reduced, the option of taking outside waste would be a viable option.

Our neighboring counties each differ in how recyclables are processed, with a mixture of in-county dual-stream or single-stream facilities, or exportation of some or all materials. Dutchess County recently ceased dual-stream operations and now has access to an in-county, privately owned, state-of-the-art single-stream facility. This facility has the ability to take some materials that not all of our neighboring planning units can accept at this time, such as clamshell plastics and milk cartons. Since not all County haulers use the in-county facility at this time, this is a concern which will be addressed in the assessment section of Chapter 4 and within Chapter 5: Program Assessment, as well as a task of the Recycling Education and Local Regulations sections of the Implementation Schedule.

Our neighbors all share one common issue with Dutchess, and that is how to increase organics recovery and increase composting. The advantages and disadvantages of having a regional facility or several smaller local facilities is an ongoing discussion at regional

meetings. Also, one of the main objectives to come out of the MHRSP materials management working group is to develop composting opportunities while reducing carbon output by minimizing the transport of materials. The issue of having a regional facility versus local facilities is being analyzed in terms of not just availability of a composting facility for the region, but the environmental effects of transportation for users that are not local to the facility.

The group is also considering regional cooperative development of markets for recycled/reclaimed materials and regional strategizing of purchasing and procurement ideas that maximize material conservation and minimize material being wasted. The coordination between counties is not only helpful in sharing of ideas and programs, such as Westchester's "Leaves: Love 'Em and Leave 'Em" promotion and Ulster's new composting initiative, but an opportunity to identify common concerns and collaborate on solutions. The members recognize that increasing recycling, waste reduction and organics recovery is beneficial to everyone working in solid waste management, and while each county must have its own plan we all must think regionally when planning to manage waste in the most economically and environmentally beneficial way. Regional networking will continue as identified in the Implementation Schedule in Appendix D under Partnerships.

Seasonal Variations and Unique Circumstances Affecting Solid Waste Management

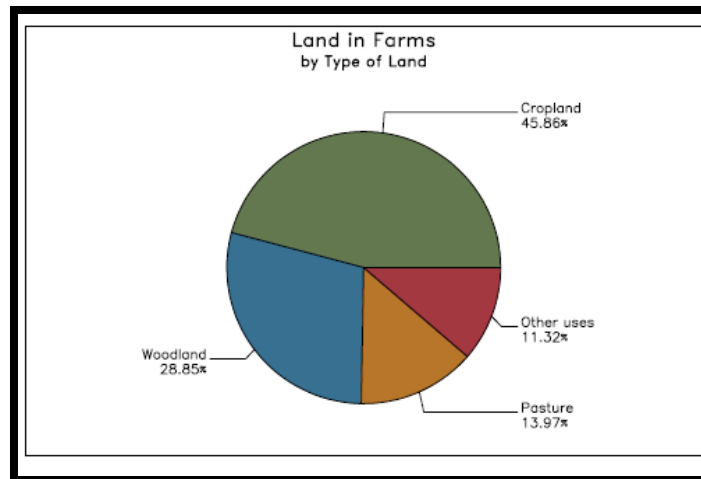


Our County is a mix of urban, suburban and rural areas. Land use is mainly residential and commercial, with some industrial uses and open space areas. There are concentrations of residential and commercial activity, mostly in our centers. The centers are the two cities, our villages and historic hamlet areas. Outside the centers are our concentrations of greenspaces. The mix provides for a wide variety of economic activities.

Walkway Over The Hudson

Dutchess County is not only a natural system of scenic and historic beauty; it is also part of an important regional economy. The multiplier effect from outside visitors in terms of restaurants, overnight accommodations and other purchases makes cultural and tourism attractions among the top economic generators in the County. From the historic sites in Hyde Park, the majestic Bardavon Opera House in Poughkeepsie, the antique shops of Beacon and Millbrook, the Walkway Over The Hudson, the annual balloon festival and air show events, to the wineries and farm markets of eastern and northern Dutchess, the wide variety of area attractions that bring in the 4 million visitors are far too numerous to list.

The County contains four agricultural districts, with over 650 farms and over 102,000 acres of land being farmed. According to the 2007 U.S. Census of Agriculture, 46,938 of the acreage is cropland, with the rest used for livestock facilities, woodlands and pastureland.



Large institutions in the County include five colleges, seventy public schools and thirty-four private schools, as graphically shown in Appendix A, Map 5. Some of our larger institutions in commerce and industry include International Business Machines Corporation (IBM), Central Hudson Gas & Electric Corp., GAP Inc., and Vassar Brothers Medical Center. There are almost 8,000 businesses in the County, employing over 110,000 workers. We also have four state prisons and one jail, for an inmate population of over 5,700.

The quantitative and qualitative impacts of these unique qualities of Dutchess County will be detailed in later chapters. For a more detailed look at our unique generators, Appendix A; Maps 1, 2, 3 and 4 graphically show population densities, major institutions, significant industries and retail centers, major attractions and parks. You can also reference Dutchess County's *Greenway Connections* for a more detailed description of the County's unique characteristics. www.co.dutchess.ny.us/CountyGov/Departments/Planning/17334.htm

Changes to the Planning Unit Since the Last Plan

Since the adoption of the 1992 Solid Waste Management Plan (SWMP) for Dutchess County there have not been any changes to the geographic boundaries of the Planning Unit. While the boundaries have not changed, there has been a significant increase in population. Between the 1990 Census and the 2010 Census, population has increased by over 14% and housing units by over 21%.

When the 1992 SWMP was adopted there were still six local municipal landfills and one private landfill being operated. At the time all were under Consent Order to bring their facilities into compliance by upgrading or submitting closure plans. All landfills have since closed and there are no active landfills in operation.

As of 1991 there were seven municipal transfer stations in the County and one private transfer station operated by Royal Carting. Currently there are twenty transfer stations, both private and municipally run, with only one not accepting household trash. Also, the RRA facility accepts commingled recyclables and fiber at no charge and the service is available to all residents of the County.

The amount of waste the waste-to-energy facility is permitted to process has increased from 146,000 tons per year (tpy) when opened in 1988, to the current 164,000 tpy. This allows the facility to handle a large percentage of the non-recycled waste, with the remainder going to landfills.

One other major change was the designation of the County of Dutchess as the Planning Unit. At the time of the 1992 Plan, and up until 2012, the DCRRA was the designated Planning Unit. The County now has the responsibility of preparing the Local Solid Waste Management Plan (Plan), as well as the responsibility of implementing the initiatives within the Plan. The DCRRA continues to have a role in the implementation of the Plan and the responsibility of the oversight of the Resource Recovery Facility (RRF), and until the end of 2012, the Materials Recovery Facility (MRF).

Historic Management Practices

The historic management practice for solid waste, before the opening of the RRF in 1989, was the use of landfills. In 1992, when the first Solid Waste Management Plan for Dutchess County was adopted, there were still seven operating landfills and 115 inactive landfill sites, with over 60 of the inactive landfills identified as hazardous waste disposal sites. At that time all of the remaining active landfills were in the process of being phased out, which was completed by end of 1992. The Plan called for wastes currently being landfilled at these remaining sites to be either source separated for recycling or brought to the RRF. But, it was also recognized that there would still be a need for a landfill for residual wastes, and plans for an ash residue disposal site, a residual solid waste land disposal facility and a composting facility were identified. None of these were ever constructed. However, as discussed in Chapter 5: Program Assessment and Evaluations and as tasks listed in the Implementation Schedule, there are plans to continue to seek alternatives to long-distance ash disposal, to minimize and eventually eliminate the need for residual solid waste landfill disposal and to expand composting opportunities.

According to a survey done in June of 1990 for the 1992 Plan, only 4 of the 30 municipalities had mandatory recycling programs. The survey, done for residential, commercial, institutions and major industry sectors, also revealed that, in general, recycling activity had just barely begun in most areas. In 1990 Dutchess County adopted the county-wide source separation law for recyclables, Local Law No. 4 of 1990, which took effect January 1, 1991. With the implementation of this law in 1991, both residential and commercial recyclable materials generated were required to be source separated. In 1990 the Dutchess County Materials Recovery Facility opened to process the recyclables, with oversight of the facility by the DCRRA.

Historically, collection of solid waste materials has been done through private collection, municipal-run collection and drop-off at transfer stations, and this is still true today. Collection of household hazardous waste (HHW) by the County started in 1990 with a one-day collection event. The 1992 Plan envisioned a collection day every two years with an eventual permanent HHW facility. Currently, the DCRRA holds eight collection events per year and there is no permanent collection site.

Assessment

The Dutchess County Planning Unit is a thriving and successful county with rural, suburban and urban communities that are home to a mix of residential and commercial sectors. The County has colleges, farms, tourist attractions, manufacturers, small retailers, large malls and more. Dutchess County has it all. While this is a terrific statement when promoting the County, it also means we have all types of waste being produced by all types of generators.

Solid waste is much more than just household waste and recyclables and a plan for solid waste management must include all types of waste. In Chapter 5 the plan includes how waste from generators such as construction sites, tourist sites, industry, manufacturing, agriculture and sewage treatment facilities are to be handled. Chapters 4 and 5 also identify ways to decrease the generation of waste, as well as how to increase the amount that is reused and recycled. Lastly, Chapter 5 determines the best management method of the residual waste that is disposed of. Chapter 6, Implementation Plan and Schedule and Appendix D, Table 1 outline the tasks needed to identify, track and increase recycling of all types of waste.

The following three chapters, Solid Waste Quantity and Type, Existing Program Description, and Administrative, Legislative and Financial Structures, will provide more detail as to the various types of waste, the quantities of each type of waste, the existing solid waste management programs and the County's solid waste management structure

The last three chapters, Program Assessment, Implementation Plan and Schedule, and Projections, provide an assessment of the County's solid waste management system, provides projections on solid waste generation and recycling goals, and detail the tasks needed for the management of Dutchess County solid waste. The Implementation Schedule in Appendix D provides a detailed task list identifying the work that will be needed to reach the target recycling and waste reduction goals outlined in the projections chart in Appendix B, Table 4. The accomplishment of the tasks is what will determine if the County successfully manages solid waste in the coming years.

Chapter 2: Solid Waste Quantity and Type

Dutchess County estimates of solid waste generation quantities and composition, found in Appendix B, Table 4, Municipal Solid Waste (MSW) Combined Composition Analysis and Projections (Composition Chart), were calculated using:

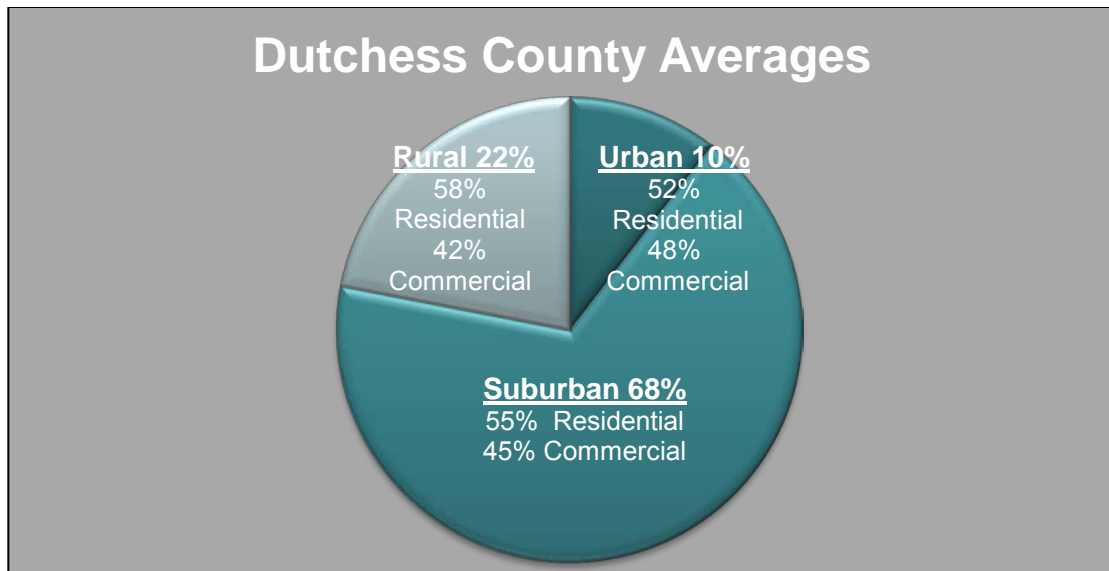
- The *2010 Dutchess County Report Form – Planning Unit Recycling Report* (2010 Planning Unit Report), to NYS DEC from the RRA;
- *Dutchess County Waste/Material Flow from 2010 Facility Annual Reports* (Facility Report), to NYS DEC from waste destination facilities;
- The NYS DEC Composition Calculators;
- 2010 Census population statistics.

The 2010 Planning Unit Report and the 2010 Facility Report can be found in Appendix B.

Sources for the numbers used for the Composition Chart are as follows:

- For MSW total tons generated the number was based on the totals for disposed MSW and recycled MSW, which are based on a combination of the 2010 Planning Unit Report and the 2010 Facility Report.
- For the tons generated by material and percent of total by material, the statewide recovery rate percentages were used.
- For the 2010 (Actual) tons diverted column the numbers were based on a combination of the 2010 Planning Unit Report and the 2010 Facility Report.
- In the tons diverted column the subcategories for certain materials are estimates based on statewide recovery rate percentages when actual data was not available.
 - For example, the percentage estimates had to be used for such categories as returnable container act materials, lead acid batteries, glass containers and magazines.
- The 2012 to 2021 projection columns were based on the NYS DEC Composition Calculators and estimations of diversion based on the implementation of the tasks as listed on Appendix D, Table 1, Implementation Schedule.

The DEC waste composition tool first requires determination of the population in rural, suburban or urban densities, shown in Appendix B, Tables 1 and 2. The composition tool estimates types and quantities of wastes based on rural, urban and suburban populations, as well as the percentages of residential and commercial/institutional populations within those sectors. The residential versus commercial/institutional percentages are State averages from the NYS DEC MSW detailed composition analysis calculator tool. The total amount of waste generated in Dutchess County in 2010 was then determined using the 2010 Planning Unit Report and 2010 Facility Report.



The *Waste Composition and Recovery Rate Projection Tool*, Appendix B; Table 4, indicates that of the 255,678 tons of municipal solid waste generated in 2010 in Dutchess County, we diverted 58,530 tons, for a diversion percentage of 22.89%. The latest estimated recycling rate for New York State is 20.32% and the latest Environmental Protection Agency (EPA) country-wide rate is estimated to be 34.1%. This puts Dutchess County in the “average” range for the State and below average for the Country. For a detailed comparison of EPA, NYS and Dutchess County waste generation percentages see Appendix B, Table 5.

The 2010 Facility Report shows that of the remaining 197,148 tons of MSW, 143,622 tons were disposed of at the Dutchess County Resource Recovery Facility, where it was converted to electricity and the metals recovered for recycling. 51,169 tons were sent to upstate landfills (including 184 tons that went to the Ulster County Resource Recovery Agency transfer station), and 2,357 tons were sent to WM Wheelabrator, the waste-to-energy facility in Westchester County. The Dutchess County RRF processed 72.8% of the disposed MSW that was generated in Dutchess County in 2010.

The same process was used to determine Construction and Demolition Debris (C & D) generation and diversion rates. Appendix B, Table 6 shows that an estimated 17% of C & D is generated by the residential sector, 25% by the non-residential sector, and 58% by infrastructure and other. Using the 2010 Planning Unit Report and the 2010 Facility Annual Report, Dutchess County generated 131,750 tons of C & D and diverted 43,792 tons, resulting in a diversion rate of 33.24%. For details and projections see Appendix B, Table 7.

The 2010 base numbers reflect known data for Dutchess County, but there are some flaws in relying on the data from the 2010 reports. Not all recycling data is collected on a consistent basis for the Planning Unit Recycling Report, as it is done by survey, responded to on a voluntary basis and not all generators of MSW are reflected in the report. Therefore, these numbers are likely an underestimation, as they do not capture all recycling in the County that fall outside our current data reporting/collection program.

The NYS DEC Facility Reports also do not include all MSW diverted, either because there is no reporting requirement, such as for textiles donations and some organics composting, or because the materials are generated and handled by private entities and are processed at facilities not included in facility reports to New York State.

The County will have more definitive waste composition numbers starting in 2013 with enforcement of annual reporting by all haulers in Dutchess County. We will also be working with NYS DEC and the Regional Solid Waste Committee on how to better capture data on waste generation and diversion numbers for materials not collected by the haulers reporting to the County. Table 4, MSW Composition Analysis and Projections, can then be updated annually to track reduction and diversion rates. As reflected in the Implementation Schedule in Appendix D, Table 1, the requirement of an annual MSW report from licensed haulers, as well as plans for identifying current generation and diversion rates for the commercial, institutional, industrial, and agricultural sectors within the County, will provide better generation and diversion data over time.

The complete profile of Dutchess County solid waste generation, disposal and recovery quantities, types and rates can be found in Appendix B; Tables 1 through 9. These profiles will be assessed and updated regularly as better data is acquired and new programs are implemented. Current target goals for diversion rates, found in Appendix B, Table 4, will also be updated as we track our successes in increasing diversion within the County.

Chapter 3: Existing Program Description



Dutchess County Waste-to-Energy Facility, located on the banks of the Hudson River in the Town of Poughkeepsie.

Facility Inventory

Dutchess County's solid waste is managed through a combination of public and private facilities. For municipal solid waste disposal the Resource Recovery Agency oversees the waste-to-energy facility, which is currently operated by Covanta Hudson Valley Renewable Energy, LLC. The RRA entered into an agreement with the County, called the *Solid Waste Disposal Agreement of 1984* (most recently amended in 2007), to furnish the County with the service of accepting, processing and/or disposing of solid waste within the County. The agreement provides for the County to guarantee payment to the RRA, a Net Service Fee, to close any budget gap between the RRA's expenses and its revenue from all sources. The RRA owns the site and buildings.

For recyclables processing, the RRA also oversees the materials recovery facility. The RRA entered into an agreement with the County, most recently called the *Recyclables Processing Agreement of 1997*, to furnish the County with the service of accepting, processing and marketing recyclable materials within the County. The agreement provides for the County to guarantee payment to the RRA, a Net Processing Fee, to close any budget gap between the RRA's expenses and its revenue from all sources. The RRA oversees the facility, which is operated by a private entity (ReCommunity). The site and building is owned by the County and leased to the RRA for the term of the Agreement for \$1.00. The equipment is owned by the RRA. Currently the MRF is not processing materials, but is used as a transfer location only. The MRF is scheduled to close by end-of-year 2012. The condition of the MRF is discussed further on pages 27 and in the Assessment section of Chapter 4.

Neither the RRA nor the County provides collection services, or owns or operates a MSW transfer station. The RRA site does provide convenience drop-off for recyclable materials, including commingled, fiber and textile collection.

Dutchess County Facilities		
Facility Name	Materials	Operating Status
Dutchess County Resource Recovery Facility	MSW to Energy	Full-time
Dutchess County Materials Recovery Facility	Recyclables	Full-time (2012)
Dutchess County Resource Recovery Agency	Commingled/Fiber/Textiles	Full-time
Dutchess County Resource Recovery Agency	HHW Collection/Electronics	Part-time
*Commingled includes glass, tin, aluminum and plastic		

Of the thirty municipalities, eighteen have transfer stations (drop off areas for MSW). The Towns of Fishkill, East Fishkill, Pine Plains, and North East do not have a municipal transfer station. One town with a transfer station, the Town of Poughkeepsie, does not accept waste or recyclables but accepts yard waste, some bulk materials and metals. Some villages have the use of the adjacent town's transfer station. Collection methods for residents not using the transfer station, or with no available transfer station, can be by private collection, municipal collection or municipal-wide collection on a contract basis with a private hauler. Operation of the transfer stations is either by the municipality or by contract with a private company.

There are a variety of services offered at the transfer stations other than garbage and recycling collection, such as bulk collection days for larger materials (couches for example) or electronics collection days. There is also a variety of materials accepted at the transfer stations, such as yard waste or tires. If "compost" is listed, they have a composting facility for yard waste. The Village and Town of Fishkill have a compost site for yard waste, but no transfer station. Appendix C, Table 1 provides more information on the transfer stations and what they accept, and Appendix C, Map 1 provides a map of the transfer station locations.

Municipal Transfer Stations		
Facility Name	Materials	Operating Status
Town of Amenia	MSW/Recyclables/Compost	Part-time
City of Beacon	MSW/Recyclables/Compost	Part-time
Town of Beekman	MSW/Recyclables	Part-time
Town of Clinton	MSW/Recyclables	Part-time
Town of Dover	MSW/Recyclables	Part-time
Town of Hyde Park	MSW/Recyclables	Part-time
Town of LaGrange	MSW/Recyclables	Part-time
Town of Milan	MSW/Recyclables	Part-time
Town of Pawling*	MSW/Recyclables/Compost	Part-time
Town of Pleasant Valley	MSW/Recyclables	Part-time
City of Poughkeepsie	MSW/Recyclables/Compost	Part-time
Town of Poughkeepsie	Bulk/Yard Waste	Part-time
Town of Red Hook*	MSW/Recyclables	Part-time
Town of Rhinebeck*	MSW/Recyclables/Compost	Part-time
Town of Stanford	MSW/Recyclables	Part-time
Town of Union Vale	MSW/Recyclables	Part-time
Town of Wappinger**	MSW/Recyclables/Compost	Part-time
Town of Washington*	MSW/Recyclables/Compost	Part-time
*Village also has use of transfer station **Village residents within Town of Wappinger only		

There are numerous private businesses within the County that provide recycling services. Most services are provided at a cost to the user. The Implementation Schedule in Appendix D includes tasks to identify the potential capacity of the existing facilities in order to identify possible need for additional materials management facilities within the County.

Private In-County Facilities	
Facility Name	Materials Managed/Products
American Lamp Recycling, Wappinger	Universal waste ⁴ , lighting recycling
Blacktop Maintenance Corp., Poughkeepsie	C&D ¹ processing (inerts ² only)
Duffy Layton, Inc., Stanford	Yard waste compost, wood mulch
Harlem Valley Transfer Station, Dover	MSW ³ transfer station
McEnroe Organic Farm, North East	Organics compost
ReCommunity Recycling, Beacon	Source-separated recyclables
Recycle Depot, Poughkeepsie	C&D ¹ and concrete and masonry processing, wood mulch
Recycling Crushing Technology (RCT), Poughkeepsie	Concrete and masonry processing
Royal Carting, East Fishkill	MSW ³ transfer station
Soil Tech, Hyde Park	C&D ¹ processing (inerts ² only)
Sweet Peet, Pawling	Manure compost
Thalle Industries, Inc., Fishkill	C&D ¹ processing (inerts ² only)
Westhook Sand & Gravel, East Fishkill	C&D ¹ processing (inerts ² only), yard waste compost
Retailers, county wide	Plastic bags, cell phones, e-waste, batteries
¹ “C&D” is Construction and Demolition Debris ² “Inerts only” refers to the acceptance and processing of materials such as concrete, asphalt, pavement, brick soil and rock for recycling ³ Municipal Solid Waste ⁴ Universal waste means any of the following hazardous wastes that are subject to the universal waste requirements of NYS DEC Subpart 374-3: Standards for Universal Wastes; batteries, pesticides, thermostats and lamps, as described in subdivision 374-3.1(b-d).	

Municipal Solid Waste (MSW) Disposal

The RRF, by NYS DEC Permit, has a waste capacity of 164,000 tons per year and a turbine that converts energy from the waste, which is then sold to Central Hudson Gas & Electric under the *Power Sales Agreement*. The RRF is fully operational and will remain functional, with routine maintenance, for the life of the Plan and beyond. In 2010, 143,622 tons of MSW generated within the County was disposed of at the RRF. The facility can turn 450 tons of MSW into 9.3 megawatts (MW) of power every day, enough to power over 10,000 homes. Private haulers and municipal haulers bring waste to the facility. No recyclables or hazardous waste is accepted at the facility, or waste from unlicensed haulers.

Residents of municipalities with transfer stations that accept MSW have the option of using the transfer station or contracting for private pick-up. Some municipalities charge an annual fee for the use of the transfer station, usually with a senior citizen rate option, and then charge a per bag fee, which varies depending on the size of the bag. None of the facilities charge for recyclables, but two charge \$1.00 if garbage is not brought in with the recyclables.

The rates for use of the transfer stations vary, but the use of this option, in most cases, is financially beneficial to the resident. In some municipalities there is no annual fee and it is a “pay as you throw” system. A resident has monetary incentive at these facilities to minimize garbage that needs to be bagged and paid for and to maximize recyclables which are generally free of charge.

Some MSW is taken to waste-to-energy facilities in other counties. According to the *2010 Facility Annual Report* data from NYS DEC, 2,357 tons of MSW was taken to Wheelabrator Westchester in Peekskill, N.Y., approximately 32 miles from Dutchess.

A portion of the MSW is transported to out-of-county landfills. In 2010, 50,985 tons of residential/institutional and commercial MSW went to out-of-county landfills. The closest landfill that MSW was transported to is over 240 miles from Dutchess County. In addition, 184 tons of MSW was taken to the Ulster County Resource Recovery Agency transfer station to then be transported to a landfill. To our knowledge, no MSW goes to out-of-state destinations.

A portion of our Construction and Demolition Debris (C & D) goes to landfills for disposal or for a beneficial reuse as an alternate daily cover (ADC) at a landfill. In 2010, 20,451 tons of processed C & D was used as ADC at a New York State landfill, and 1,057 tons was disposed of at New York State landfills. According to the 2010 Facility Report, 27,987 tons of C & D went to other processors and transfer stations in other Planning Units.

The County will continue to identify and track all of the waste streams to determine how much is generated, how much is being diverted, how much is being disposed of or recycled within the County and how much is going outside the County for disposal or recycling. The Implementation Schedule in Appendix B, Table 1 identifies the tasks needed to identify and assess all generators of waste, including commercial, institutional, agricultural and industrial sectors. The requirement of an Annual MSW Report from Dutchess County licensed haulers, as identified in the Implementation Schedule, and the Dutchess County Waste Flow from Facility Annual Reports provided to NYS DEC, will help in the identification of the destinations

and the generation amounts of solid waste on an annual basis. The tasks on the Implementation Schedule also include exploring and indentifying ways to minimize generation of all wastes.

The waste capacity at the RRF is expected to remain 164,000 tons per year. The capacity of the RRF, and the remaining capacity at New York State landfills, is adequate to handle waste generated within Dutchess County for the Plan timeframe and beyond.

Dutchess County Waste Going to NY Landfill Disposal Facilities (2010)								
Landfill	MSW (tons)	C & D (tons)	C & D as ADC (tons)	Industrial (tons)	Asbestos (tons)	Annual Capacity (tons/year)	Remaining Capacity (tons)	Distance from Dutchess County (miles)
Albany Rapp Road	0	1	0	0	0	275,100	3,629,101	76
Allied Waste Niagara Falls Landfill	0	0	0	0	9	800,000	6,882,000	372
Hakes C & D Disposal	0	474	0	0	0	n/a	n/a	219
High Acres Western Expansion Landfill	0	0	0	0	23	1,074,500	47,386,000	292
Ontario County Sanitary Landfill	35,162	0	0	31	126	1,200,000	5,316,664	250
Seneca Meadows Landfill	15,823	582	20,451	0	0	2,190,000	31,529,655	244
Totals	50,985	1,057	20,451	31	158	5,539,600	94,743,420	
Source: Dutchess County Waste Flow from 2010 Facility Annual Reports (NYS DEC), 2010 Solid Waste Capacity Chart (NYS DEC), MapQuest.								

Existing Efforts to Collect Recyclables



Vassar College, collection bin station for paper, commingled and compostable materials.

Reduce, Reuse, Recycle: The County mandates source separation of materials for all residents, commercial institutions and businesses. This means that recyclable materials must be segregated from the waste stream at the point of generation for separate collection. The RRA-operated MRF accepts recyclable materials, which are then transferred to the new in-county single stream facility owned and operated by

ReCommunity Beacon in the City of Beacon. The County promotes the use of the privately run single stream facility as a way to increase recycling, as it accepts an expanded list of materials and is an easier method of recycling. The facility accepts commingled and paper products, as well as all plastics, except plastic bags. The RRA operated MRF does not have the capacity to handle all of the recyclable materials diverted within the County and no longer processes any materials. All recyclable materials are processed at the privately run facility or at facilities in neighboring counties. By the end of 2012 the MRF will be closed and all recyclables will be handled and processed by private entities.

The new private facility also provides the County with the ability to increase recycling through education, promotion and ease of recycling. Included on the tasks list found in Appendix D, Table 1, Implementation Schedule, is the promotion of single stream recycling, expanding the list of materials that can be recycled and initiating partnerships for educational opportunities. Currently, the materials the County requires to be source separated under Local Law No. 4 of 1990 are, newspapers, corrugated cardboard, office paper, metal cans, glass containers, 1, 2, 3, 5 and 7 plastic containers, aluminum foil and pans/trays, white goods and yard waste. The County will be updating the list of recyclable materials, as indicated on the Implementation Schedule in Appendix D, Table 1 under Recycling Education. The promotion of single stream recycling and promotion of not using resin identification codes on plastics to determine recyclability has already started within County Office buildings on a rollout basis (see attached *Dutchess County Recycles* flyer in Appendix B).

Nineteen transfer stations, both municipal and privately run, accept recyclables. In addition, residents can drop off recyclable materials in the bins on the Resource Recovery Agency site for free. As was stated above, residents with permits for transfer stations are not charged for recyclable material disposal. This is a financial incentive to reduce garbage, which requires a bag fee to dispose of. For residents with private hauler collection, most offer a reduced rate for a recycling bin with a smaller waste bin. Again, this provides financial incentive to reduce and recycle.

RRA staff and County staff also promote recycling through presentations, media releases, website information and tours. The RRA conducts tours of the RRF, reaching approximately 400 citizens per year. Tours are no longer conducted at the County MRF, but all tours of the waste-to-energy facility include information concerning Dutchess County recycling, and the promotion of recycling and reuse. The ReCommunity facility provides recycling tours, and when the County requests a tour for local groups, they always respond with a "yes." The Implementation Schedule includes plans for continued education and promotion of recycling, and the accomplishment of these tasks is reflected in the projected diversion targets on the Composition Chart found in Appendix B, Table 4.

Local colleges, secondary and elementary schools, as well as numerous local civic organizations, promote recycling. The colleges have extensive reduction and recycling programs, including "trayless dining", food weighing systems for organics reduction, free-cycle programs, compostable utensils and reusable containers, as well as convenient and plentiful recycling containers available throughout the campuses. Local

civic organizations hold forums and presentations concerning recycling.

Two recent examples of efforts to increase recycling are:

- Vassar College just installed solar-powered trash and recycling units on campus.
- Girl Scout Troop 10205 of Hyde Park collects used gift cards from local businesses for recycling, and has collected thousands of cards so far.



County parks and Dutchess Stadium provide recycling bins and collection. The Rail Trails are carry in/carry out parks. County offices recycle paper, commingled, ink cartridges, waste oil, light bulbs, spent aerosol cans, electronics, tires, batteries and motor oil. A terrific example of public venue recycling is in the Village of Rhinebeck. The Village recently purchased and installed solar powered trash compactors for both trash and recyclables at two public locations.

Village of Rhinebeck, solar powered containers.

One of the County's largest events, the Dutchess County Fair, has a Green Initiative Program. The program ensures that none of the approximate 97 tons of solid waste generated at the fair goes to a landfill. What is not recycled goes to the waste-to-energy facility to produce electricity. The Dutchess County Agricultural Society continually increase efforts to decrease the amount of materials disposed of, and increase the amount recycled, at all events held at the fairgrounds.

All of the larger institutions such as IBM Corp, supermarkets, shopping malls and schools have recycling programs in place. Paper and cardboard comprise a large portion of the materials from manufacturing, offices and schools; therefore, it is a large part of the County's commercial/institutional waste stream. For example, in 2011 the two IBM facilities in the County recycled over 500 tons of cardboard and 170 tons of mixed paper. Stop & Shop grocery store, which has six locations in Dutchess, recycled over 2,100 tons of cardboard. The one local Price Chopper recycled over 470 tons of cardboard in 2011.

The County plans to increase efforts to partner with municipalities, event sponsors and institutions to better identify how much waste is generated, how much is recycled and to identify ways to increase recycling and decrease waste generation. Tasks to form partnerships and opportunities are outlined within the Implementation Schedule, Appendix D, Table 1.

Recycling collection will continue to be through curbside collection and transfer station drop off. All haulers, transfer stations and the RRA have the ability to accept recyclable materials. The County and the RRA do not directly market the recyclable materials that have been collected at the MRF, but receive a share of the revenue from the processor.

The recyclables collected and not brought to the MRF are marketed by the processing facility, the private hauler or the municipality.

The private in-county recycling facility can handle all of Dutchess County's recyclable material, as well as materials from surrounding counties. The RRA operated MRF cannot handle all of the County's recyclables, no longer processes recyclables at the facility and plans to close the facility by the end of 2012 have begun. The County must assess the effects of closing the existing MRF. This is a significant concern, as the revenue through marketing of recyclables would greatly help to fund recycling education and promotion programs. These concerns will be addressed again in Chapter 4: Administrative, Legislative and Financial Structures, Chapter 5: Program Assessment and Evaluations, and will be part of the discussions with Ulster County identified under Partnerships on the Implementation Schedule.

The County needs to get better data concerning recycling efforts and diversion amounts within the County, including generation by tourism, public events and institutions. Identifying areas of concern, such as entities not in compliance with the County's source separation law, is also needed. Reuse, reduction and recycling promotion is on-going and will be increased through media, the web and events.

The Implementation Schedule found in Appendix D, Table 1 includes tasks to better identify reduction and recycling within the County, for partnering with the educational sector on recycling and reduction efforts and implementing increased public event and public space recycling opportunities. As more residents and institutions increase recycling it is the County's goal to quantify the result of the efforts, track the resulting diversion percentage changes and reflect the changes on the projections sections of the Composition Chart in Appendix B, Table 1.



RRA Household Hazardous Waste collection

Household Hazardous Waste (HHW) and E-waste: Since 1990 the RRA has sponsored HHW collection events. Currently the RRA holds eight household hazardous waste collections days every year. Residents can bring in containers that are marked with, "Warning: Hazardous, Flammable, Poisonous, Corrosive" and electronic equipment. It is estimated that 60-70 tons of electronics, 30,000 gallons of hazardous chemicals and 800-900 lamps (fluorescent lights and compact fluorescent lamps) are recycled at these events every year. The RRA contracts with Advanced Recovery Inc., American Lamp Recycling and CARE Environmental Group to divert the materials from the waste stream responsibly.

Civic organizations, such as the Dutchess County Regional Chamber of Commerce, also host electronics collection events for residents and businesses. Local retailers, under the NYS Electronic Equipment Recycling and Reuse Act, accept electronics at no cost to the consumer.

The County and RRA websites have a dedicated page to help residents manage and dispose of HHW, with information on various types of waste, and how and where to dispose of the materials. A copy of the 2012 HHW events flyer can be found in Appendix C. For website information: www.dccra.org/hhwaste.html and www.co.dutchess.ny.us/CountyGov/Departments/SolidWasteMgmt/21899.htm

The County, through the HHW events hosted by the RRA and partially funded by the NYS Department of Environmental Conservation, does a good job in safely disposing of household hazardous waste. The events are promoted by the RRA and the County through the media and websites. The County currently does not hold events for Conditionally Exempt Small Quantity Generators (CESQG) of hazardous waste, but this is identified as a task in the Implementation Schedule for implementation by 2013.

Pharmaceuticals: The waste-to-energy facility provides Dutchess County, and surrounding counties, the ability to safely dispose of pharmaceuticals, keeping toxins out of the soils, water and the hands of children. Taking medications to collection sites, such as the RRA's, is promoted by NYS State and the U.S. Environmental Protection Agency as the preferred method of disposal rather than flushing. Collection days for unused and expired medications were added at the RRA in 2009. In 2010, 3,765 pounds of medications were disposed of at the RRF. In the third year of collection 3,752 pounds were collected and disposed of responsibly.

The County, through the pharmaceutical collection events held by the RRA, does an excellent job in reducing the amount of medications that are flushed or disposed of in a landfill. As identified in the Implementation Schedule, the need for a permanent in-county pharmaceutical waste collection, in cooperation with Police/Sheriff oversight, will be explored.

Construction and Demolition Debris: There are numerous private facilities within the County that dispose of and/or recycle concrete and other masonry waste as identified on the Private In-County Facilities table on page 22. The RRF does not accept C & D materials and encourages private haulers to keep these materials separate for proper disposal or recycling at a C & D processing facility. The County Highway Department also recycles asphalt for use in roadway pavement maintenance. Since 2002, almost 35 miles of pavement have been recycled on County roads.

The 2010 Facility Annual Report shows that 1,057 tons of C&D debris was disposed of at NY State landfills, and 20,451 tons of C & D debris was beneficially reused as alternate daily cover at an upstate landfill. The 2010 Facility Report shows that 43,792 tons of construction and demolition debris were recycled.

The above numbers may not accurately reflect the total amount of C & D debris generated and recycled within Dutchess County due to current reporting deficiencies. The Annual MSW Report Form data will help in having better data in the future. Working with private C & D debris recyclers to identify reduction and reuse needs, and better reporting by haulers, are tasks as listed on the Implementation Schedule.

Commercial/Institutional Waste: The County does not currently have a good handle on commercial/institutional waste quantities and types. Identification of the commercial and institutional generators in the County is a task as identified on the Implementation Schedule. Identifying quantities of waste for other institutions, such as schools, is also needed. In conjunction with these tasks, partnering with these sectors on ways to increase diversion of the materials generated by each sector will be an ongoing task.

Industrial Waste: Industrial waste includes discarded materials generated by manufacturing or industrial processes. One of the larger manufactures in Dutchess County is IBM. Solid waste materials generated include electronics, corrugated cardboard and office paper. Identifying industrial waste generators, the types of wastes generated and the volumes are part of the Implementation Schedule under Industrial Sector.

Yard waste: Yard waste is not accepted at the RRF, but is accepted at most of the twenty local transfer stations within the County (see Appendix C, Table 1). Some municipalities also offer seasonal curbside pick-up of yard waste on designated days. There is no County program for the collection or composting of yard waste and residents are encouraged to backyard compost. There is information about composting on the RRA website and they also provide a list of facilities that offer composting services for both yard and food waste. In addition, Cornell Cooperative Extension of Dutchess County offers programs on composting and has a composting demonstration area featuring different types of composting systems suitable for home use.

Yard waste is composted at some municipal facilities, with some offering free woodchips and mulch to residents. IBM, Bard College, Vassar College, Culinary Institute of America, Dutchess Community College and Marist College are just a few institutions that also recycle yard waste. Compost facilities in the County that take yard waste for a fee include McEnroe Organic Farm, Westhook Sand & Gravel, Duffy Layton, Recycle Depot, and two facilities offer stump recycling, Outback Stump Recycling and Recycle Depot.

All municipalities in Dutchess have access to drop-off locations and/or curbside seasonal pick-up of yard waste. The yard waste is composted and used for municipal landscaping needs and in many cases is available to residents. The need for additional yard waste composting capacity will be assessed and promotion of programs that decrease yard waste through mulching and backyard composting will be ongoing. This is part of the Partnerships and Organics Management sections of the Implementation Schedule in Appendix D, Table 1.



McEnroe Organic Farm compost operation

Food Waste: Since 2007 all five colleges within the County have had ongoing diversion programs for food waste recovery as part of their extensive sustainability and recycling programs. The colleges either compost food waste on-site or transport, through private haulers, to an off-site location such as McEnroe Organic Farm in the Town of North East. McEnroe Farm operates under a NYS DEC permit which allows for processing of up to 40,000 cubic yards per year. They accept food waste, manure from horse and dairy farms, leaves, brush, grass clippings and other organics.

Vassar and Marist Colleges recently celebrated diverting over 1 million pounds of organics since starting the organics recovery programs in 2007. The Culinary Institute of America diverts approximately 1.7 tons *per day*. In 2012, Bard College finished first in the U. S. in the Food Service Organics category in the national RecycleMania competition. In 2010 and 2011, Marist College was the Organics Reduction Champion in the EPA Game Day Challenge. One other institution diverting food scraps from the waste stream is the Omega Institute in Rhinebeck. They collect food scraps from their dining hall and café for composting at McEnroe Organic Farm.

The three State prisons in Dutchess County also compost food residuals. The composting operation for Green Haven Prison and Fishkill Correctional are on the grounds of the prison, with the Beacon Correctional Facility's material taken to the Fishkill site. In 2011 Beacon Correctional diverted 103,150 pounds of food residuals, Fishkill Correctional diverted 413,077 pounds and Green Haven Prison diverted 560,595 pounds.

The County will continue to identify entities with food diversion programs, better identify quantities that are being diverted and identify available composting capacity. The Implementation Schedule also includes tasks that will promote, and hopefully increase the quantities and entities diverting food wastes.

Biosolids (sewage sludge): There is one in-county compost facility for biosolids, Tri-Municipal Sewage. According to NYS DEC 2009/2010 POTW (publicly-owned treatment works) Use/Disposal Information, composting, landfill and incineration are the methods used to dispose of or reuse biosolids. Appendix B, Table 8 provides more information on County treatment facilities, the dry tons generated by each facility and the treatment method. As with all organic wastes, further identification of quantities and opportunities for expansion of composting facilities will be explored.

Animal Mortality Composting: In 2004, Dutchess County DPW responded to approximately 400 deer mortalities on county roads. Previous to 2004, the County had been landfilling the carcasses, but when the landfill no longer accepted the carcasses, the County participated in a deer composting pilot project with Green Haven Correctional Facility. Based on the success of the project in 2005 Dutchess County DPW, in cooperation with NYS DEC, began composting deer carcasses at the Millbrook DPW Outpost.

Assessing the need for additional animal mortality composting within the County is a task on the Implementation Schedule, Appendix D, Table 1.

Metals: The RRF facility recovers metals from the MSW ash. Approximately 5,500 tons of metals, on average, are recovered for recycling from the waste stream each year. The metals are marketed through Upstate Shredding, under contract with the RRA for this service.

Product Stewardship: There are also materials that are recycled and/or reused, but primary oversight is done by New York State. Many of these wastes fall under the Product Stewardship program and are difficult to track at the County level. Product Stewardship, also known as extended producer responsibility (EPR), extends the role and responsibility of a manufacturer (also known as the producer or brand owner) of a product or package to cover the entire life cycle of the product. Stewardship can be either voluntary or required by law. New York State has adopted in law and regulations product stewardship requirements for a number of problem wastes, including electronics, rechargeable batteries and plastic bags.

While plastic bag recycling is offered by retail establishments as required by the NYS Plastic Bag Reduction, Reuse and Recycling Law, many establishments offer incentives to deter plastic bag use, such as \$0.05 off the bill for each reusable bag used. The County promotes reducing the use of plastic bags, but also promotes the proper recycling of plastic bags and identifying and promoting local EPR (extended producer responsibility) opportunities.

The NYS DEC website provides a wealth of information concerning product stewardship and take back programs. As stated on their website, “Product stewardship can be a powerful driver for the reduction of waste volume and toxicity. By placing the responsibility for end-of-life management on the manufacturer, these programs ensure that end-of-life impacts of the product or package are considered during the earliest stages of design. Product stewardship programs create incentives for manufacturers to redesign products and packaging to be less toxic, less bulky and lighter, as well as more recyclable. Reducing material use and toxicity and increasing recycling results in significant environmental, economic, energy and GHG reduction benefits.”
www.dec.ny.gov/chemical/66746.html

The RRA and County websites also provide information on local resources for take back programs, as well as information on what products require product stewardship by the retailer, such as automotive batteries and small electronics. www.dccra.org/index.html
www.co.dutchess.ny.us/CountyGov/Departments/SolidWasteMgmt/21814.htm

The County fully supports all efforts by New York State and other National Product Stewardship programs to properly recycle or dispose of wastes, and compliance and promotion of EPR is identified as a task on the Implementation Schedule under Reduce and Reuse.

Other: There are several waste streams that cannot be easily tracked by Dutchess County or New York State, such as scrap metals and textiles. There are several scrap metal recyclers in the County for businesses and homeowners, including Millens Recycling, Eisner Bros. and AW Scrap, but there is no reporting requirement to the County on volumes.

Automobile recycling is one of the largest recycling industries in the United States, and Dutchess County has at least fourteen NYS DEC registered facilities. Automobile recyclers ensure proper disposal of vehicle fluids, mercury and lead-acid batteries. A listing of in-county facilities can be found in Appendix B, Table 9. The disposal of hazardous materials from vehicle dismantling, including waste tires are regulated by NYS, but the metals recycled from automobiles are not tracked.

The County has many conveniently located bins and drop-off locations for used clothing and furniture throughout the County, including a collection bin for clothing at the RRA facility. The clothing is either reused or repurposed by charitable foundations. This is also not easily tracked by the County or the State.

The County will continue to explore ways to track the types and volume of these recyclable materials generated within Dutchess County. We will work with New York State and other Solid Waste Planning Units to identify ways to better track these waste streams as part of our Reduce and Reuse and Partnership tasks outlined within the Implementation Schedule, Appendix D, Table 1.

Other Programs

A portion of the County's waste materials are taken to neighboring counties and states for recycling, reuse and disposal. Facilities for recycling materials, including organics, waste oil, commercial hazardous waste, institutional and commercial bulk items and plate glass, are available out-of-county. Some of these facilities can be found listed on the following website: www.dccra.org/want-to-recycle.html

Use of out-of-county facilities is due to a combination of lack of availability for some of these facilities within County, and the geographical location of facilities. The proximity of out-of-county facilities to some municipalities within the County makes it easier to dispose and/or recycle materials in neighboring counties.

It is unknown how much is taken to other counties or states. This uncertainty will change in 2013 with the required annual report and we will be able to track how much is diverted and where the recyclables go on a yearly basis. The ability to track these wastes will help to assess the need for additional facilities within the County and increased diversion promotion.

Assessment

Dutchess County has access to the facilities needed to have a successful solid waste management program. We have a waste-to-energy facility that processes waste in an environmentally sound manner, recovers metals from the waste and produces electricity. The County collects and properly disposes of electronics, household hazardous waste and pharmaceuticals. We have a materials recovery facility to accept recyclable materials to be transferred to the in-county state-of-the-art single stream recycling facility. In addition, there are several composting facilities, C & D debris recyclers, vehicle recyclers and scrap metals recyclers in-county.



Culinary Institute of America collection station for commingled, fibers, organics, grease, and cooking oil.

The County also has some very successful recycling, reduction and reuse programs already in place. We are fortunate to have five colleges in the County with sustainability programs that can be used as models for other institutions. There are elementary and secondary school clubs and civic groups that promote recycling. The County and RRA staff regularly hear from residents and businesses that express interest in partnering to promote reduction and recycling efforts. The Implementation Schedule includes tasks that will initiate programs and partnerships in our efforts to increase county-wide reduction, reuse and recycling goals. Determining if the County can designate where recyclables are taken will be addressed in Chapter 4: Administrative, Legislative and Financial Structures and Chapter 5: Program Assessment and Evaluations.



LaGrange Middle School Team S.O.S. being recognized by the Dutchess County Legislature for being 2012 finalists in the Lexus ECO Challenge

The question to be answered is: why are we still just average in our reduction, reuse and recycling rates, and what can we do to change that? This will be discussed in Chapter 5.

Chapter 4: Administrative, Legislative and Financial Structures

Administrative and Legislative Structure

The County is the Planning Unit for the Dutchess County Local Solid Waste Management Plan. The Dutchess County Department of Solid Waste Management, which becomes the Division of Solid Waste Management within the Department of Planning and Development in 2013, is currently under the direction of a Commissioner of Solid Waste. Under Executive Order No. 3 of 2012, the County Executive accepted the responsibility for the Commissioner of Solid Waste Management in order to effectuate the intent of the Dutchess County Charter, Code and all laws, rules and regulations insofar as the Department of Solid Waste Management is concerned. The same Order, pursuant to the authority granted by Local Law No. 1 of 2012, delegated the authority to the Deputy County Executive.

Also in 2012, the position of Solid Waste Coordinator was created within the Department of Planning and Development. With the creation of the Division of Solid Waste Management starting January 2013, this position will now be Director of Solid Waste Management. The Division has a Senior Program Assistant as direct support staff to the Director. The position of Solid Waste Compliance Inspector is vacant at the time of this writing, but is planned to be filled by January 2013.

Under Article XVII of the County Charter and Code, the Commissioner is the chief administrative officer of the Department of Solid Waste Management, and is responsible for the formulation and implementation of a workable program for the collection and sanitary disposal of solid waste in the County. Local Law No. 1 of 1984, providing for the management of solid waste generated within the County, and Local Law No. 4 of 1990, providing for the mandatory collection and disposition of recyclables, outline the responsibilities of the Commissioner. The County Charter and Code, as well as all Solid Waste Management Local Laws, will be updated to reflect the new Division of Solid Waste Management in 2013. See Appendix C; Local Laws for current regulations.

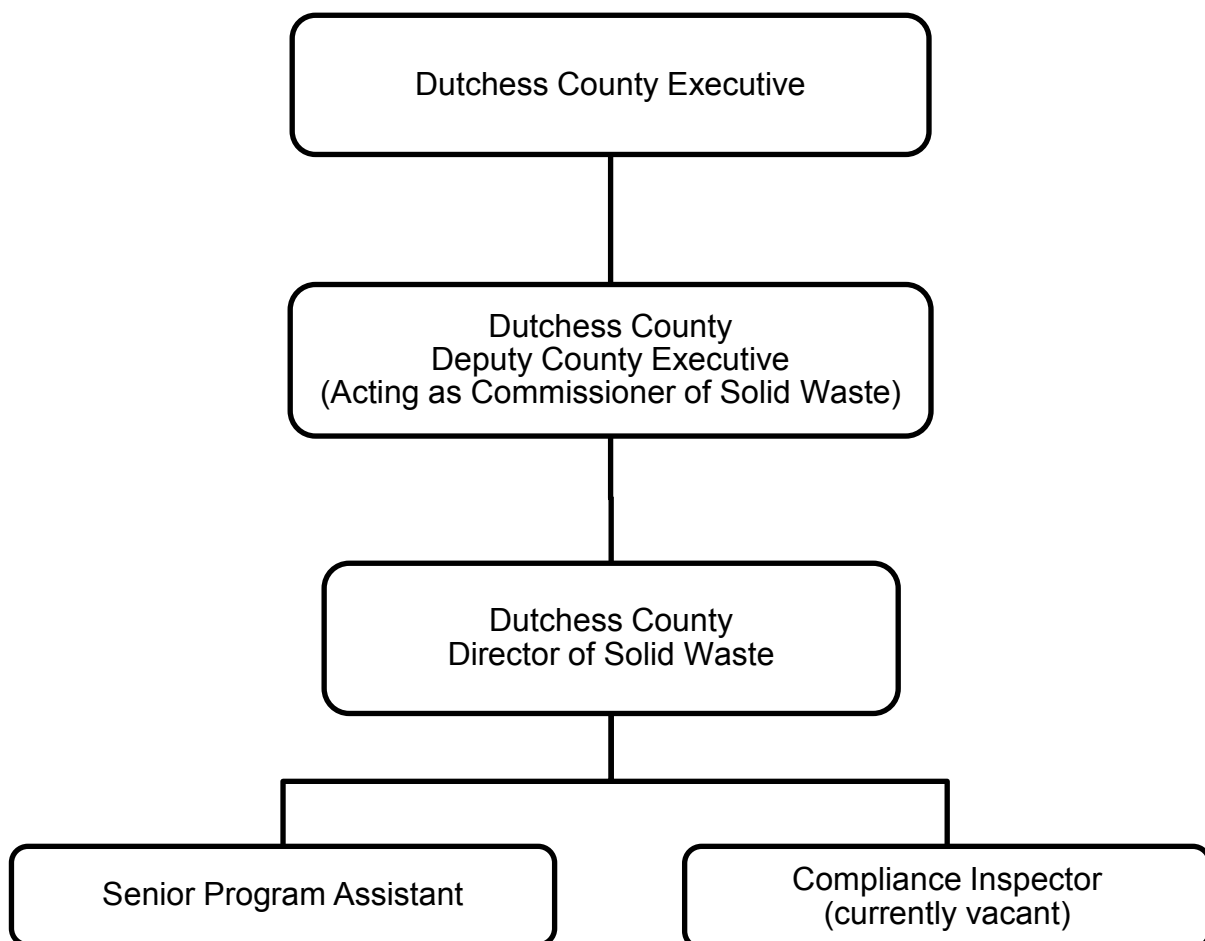
The Solid Waste Director administers the Solid Waste Management Plan and is responsible for the planning, development and coordination of the implementation of a comprehensive, environmentally-sound solid waste plan. This position is tasked with increasing the County's recycling rate through:

- education and awareness;
- oversight of the Resource Recovery Agency (RRA), its budget, procedures and operating agreements;
- conducting performance, environmental and financial analyses of the County's Solid Waste Management program;
- oversight of the licensing and regulation of private solid waste services; and
- enforcement of local laws relating to solid waste and recycling.

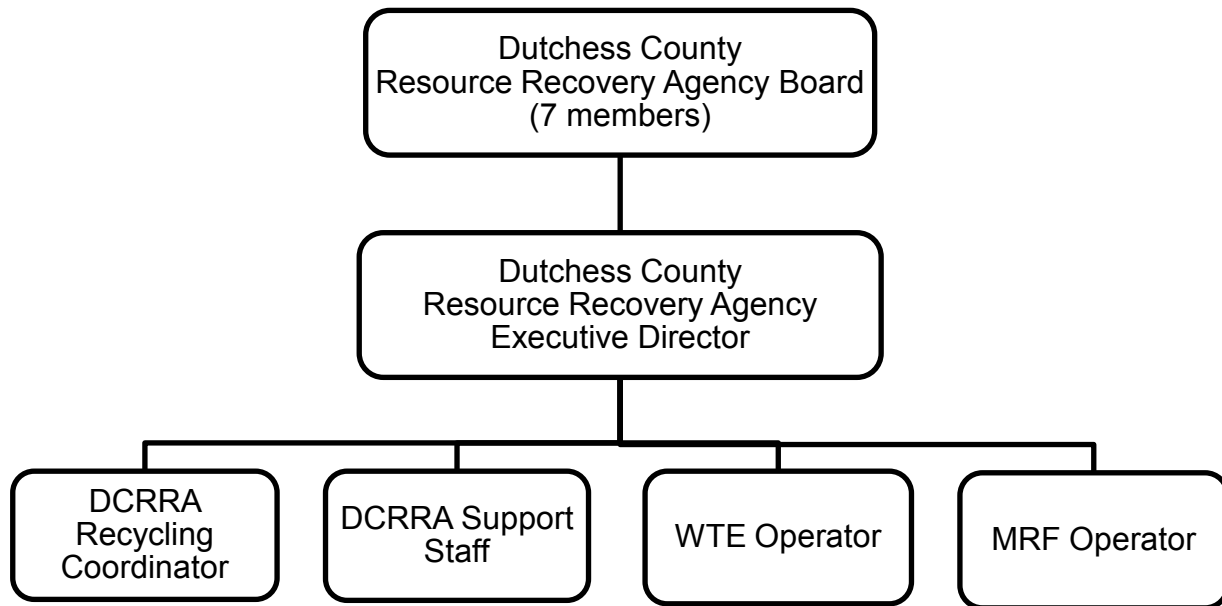
The Resource Recovery Agency (RRA) is responsible for the financing, construction and operation of the Resource Recovery Facility (RRF), the oversight of the MRF, and the coordination of city, town and village waste services within the overall integrated system. Once the RRF was opened in 1989, the operation of the RRF was through contract (Service Agreement) between the RRA and a private entity, currently Covanta Energy (Operator). The RRA establishes and collects fees for use of RRA facilities, and these fees provide the primary revenue source for operation of the public solid waste system. The County, by agreement with the RRA, is responsible for appropriation of supplemental funding, as needed, to support the solid waste system. The full responsibilities of the RRA can be found under New York Code, Title 13-D Dutchess County Resource Recovery Agency. <http://codes.lp.findlaw.com/nycode/PBA/8/13-D>

Dutchess County Solid Waste Management Organizational Structure

As of January 2013



Dutchess County Resource Recovery Agency Organizational Structure



The County and the RRA work collaboratively to logically achieve our solid waste goals through inclusiveness and fairness, creating economic benefit for county taxpayers, reducing the Net Service Fee and enhancing residents' overall quality of life.

Assessment

Over the past twenty years the administrative structure of the Solid Waste Management Department has varied. The first Department of Solid Waste Management Commissioner was also the Executive Director of the Resource Recovery Agency. That practice continued until 2003 when there was an Acting Executive Director of the RRA and the Commissioner of the Dutchess County Department of Public Works was also the Acting Commissioner of Solid Waste Management. Between 2006 and 2007 an Executive Director of the RRA was appointed and the Commissioner of the Department of Planning and Development took over as Acting Commissioner of Solid Waste. From 2003 until 2010 the Dutchess County Solid Waste Management Department consisted solely of an Acting Commissioner. The Commissioner position was vacant in 2010 and 2011, and the Budget and Finance Director at the Dutchess County Health Department processed solid waste disposal license applications during this period.

Currently, the Deputy County Executive has the authority of the Commissioner of Solid Waste. A Solid Waste Coordinator position was filled within the Department of Planning and Development and a Senior Program Assistant was hired to assist the Coordinator. The current County staff devoted to solid waste management is the largest it has ever been. As of the writing of this plan, the 2013 County budget includes the Division of Solid Waste Management, with a Director, Senior Program Assistant, and a Compliance Inspector. Further staffing and intern assistance is dependent upon the outcome of

future budgetary decisions. As with most counties within the State, staffing is very much dependent on the current finances of the County.

An important staffing function for any solid waste management plan is a Recycling Coordinator. Currently this position is part of the RRA staff. Originally the work program of the RRA Recycling Coordinator met the requirements, as set forth in the 1997 Recyclables Processing Agreement between the County of Dutchess and the Dutchess County Resource Recovery Agency, to provide recycling education. Specifically, the agreement states, "The Agency shall provide an ongoing recycling education program as described in Local Law No. 4 and the Agency's Recycling Implementation Plan annexed hereto as Appendix C." The Coordinator position was partially funded by the Environmental Protection Fund (EPF) through a program established to help municipalities meet environmental goals, with the funding distributed through NYS DEC.

The current work program of the RRA Recycling Coordinator does not meet the requirements for funding by NYS DEC, and therefore the full salary is now paid by the RRA. The position and work program should be reviewed by the RRA and changes to the work program made in order to have the Recycling Coordinator perform the recycling educational functions as outlined in the Agreement and to restore NYS DEC funding. The alternative is to add this position to the County's solid waste management staff, with a work program that meets the requirements for funding by NYS DEC. This is identified as an upcoming task on the Implementation Schedule.

Local Law No. 1 of 1984 was adopted when the County was implementing flow control for solid wastes. Flow control is the regulatory ability to direct wastes to be delivered to local publicly owned facilities, and private haulers must comply with this directive. In 1994, a court case known as the *Carbone* decision, ruled that flow control in the Town of Clarkstown, New York was unconstitutional. In response many municipalities chose to no longer enforce their flow control laws, as did Dutchess County. This action eliminated the ability to direct solid waste to the RRF and recyclables to the MRF.

In 2007, after years of protracted legal battles, the US Supreme Court ruled that local governments are permitted to engage in flow control to government-owned and operated facilities in specific circumstances. Dutchess County has not, to date, re-implemented flow control. Re-implementation has been extensively studied over the years, as have management alternatives such as a Countywide Refuse District. All of the studies, including the most recent in 2009, have not resulted in taking action.

To re-implement flow control or to create a refuse district, the County must have the ability to direct the solid waste to publicly owned facilities. Since the existing RRF and MRF cannot handle all of the County's solid waste, the County would have to acquire transfer station capability, a landfill facility and a materials recovery facility that could process all of the recyclable materials (the new single stream in-county facility is privately owned), or contract with a publically owned facility/facilities in a neighboring county/counties to transfer the waste to.

The benefits of flow control would be that the RRF would operate at full capacity and the County would benefit from the current profitability of recyclables. The tip fee at the RRF would be the same for all users, and the revenue from recyclables could help fund solid waste management staff, educational initiatives and public recycling programs.

Municipalities, including Dutchess County, have been cautious in deciding to once again enforce their flow-control ordinances. There are still legal uncertainties, as flow control ordinances continue to be legally challenged across the country. It is also a financial decision, as acquiring or contracting with publically owned facilities takes time and money.

There are other forms of flow control, such as economic flow control, which is when a municipality can offer the lowest cost tip fee and is therefore the most economically attractive facility for local haulers. This alternative would work attracting solid waste to the RRF as the facility could lower its tip fees to compete with the costs associated with transport and tipping fees to out-of-county landfills. Unfortunately, this would not address recyclable materials. Currently, the MRF is a low cost alternative, there is no tip fee. But the existing MRF cannot compete with the privately run facility, which also has no tip fee. The difference is, the privately run facility also pays the collector to tip the materials at their facility. Without a publically owned recyclable facility that could compete with the private sector, there is no possibility of economic flow control for all solid wastes.

The County, in conjunction with the RRA, will continue to study options for creating a solid waste management system that is both environmentally and financially sound. Flow control, and all forms of flow control, will be a part of the study. In addition, the Solid Waste Working Group of the Mid-Hudson Regional Sustainability Plan, have submitted a Project Nomination Form to study combining jurisdictions to establish Regional Flow Control. Whether the project receives funding or not the idea will be pursued with participants within the Mid-Hudson Region. The existing solid waste Local Law No 1 of 1984 will be amended as necessary as decisions are made.

Local Law No. 4 of 1990 which regulates the separation of recyclable material from solid waste will be reviewed and amended as needed. The current law provides for flow control of recyclables, which as stated above, will be studied and reviewed. The current enforcement provisions will also be reviewed. The law also contains a section describing a Recyclables Oversight Committee. The Committee has not been staffed or active in many years. Recent conversations with some former members of the Committee have resulted in mixed reviews of the worth of reinstituting a Committee. Review of the functions and worth of such a Committee is planned, and the law will be amended as needed.

The Dutchess County Department of Solid Waste Rules and Regulations are in the process of being reviewed and will be updated as necessary.

Financial Structure

The financial structure of the Resource Recovery Agency pursuant to its authorizing statute, bond indenture agreements, service agreement¹ and agreements with the County², is obligated to pay:

- debt service obligations to bond holders;
- operating expenses for the RRF; and
- all other RRA costs.

Payment is made through the collection of tipping fees for use of the facility, together with revenues gained from the sale of energy, recyclable materials, or other sources. The County is responsible for any shortfalls when the RRA's revenues do not meet expenses. The County is obligated to pay this *Net Service Fee* for the RRF and a *Net Processing Fee* for the MRF. The County is also obligated to provide a minimum of 140,000 tons of waste to the RRF.

Expenses

Costs for the operation of the RRF consist of four (4) major components:

- a service fee to the Operator;
- pass-through costs to the Operator;
- bond payments; and
- residue disposal.

Service Fee: The service fee is the set fee paid to the operator for each ton of municipal solid waste (MSW) processed. The revenue from tipping fees varies depending on market forces and who is bringing the waste to the facility. The fees are an expense for the RRA to the Operator, and a source of revenue to the RRA, as outlined below in the revenue section. In order to attract locally-generated waste, the RRA must set its disposal fees at a competitive level within the larger solid waste marketplace, while keeping a margin of profit and attracting waste to the facility. The RRA, in order to help meet the 140,000 ton guaranteed minimum to the operator, offers a reduced tipping fee to haulers that can guarantee a set amount of waste to be delivered to the facility.

The split on the fee with the RRF operator (Service Fee) also varies depending on if the waste is part of the 140,000 ton minimum, spot market waste (waste above the 140,000 ton minimum) or supplemental waste (waste brought in by the Operator from outside the County), as outlined below.

¹ Resource Recovery Facility Amended and Restated Service Agreement of 1989 (Service Agreement), including Amendments First through Fourth, with the operator of the Facility (Operator).

² The Solid Waste Disposal Service Agreement of 1984 with the County of Dutchess, and the Recyclables Processing Agreement of 1997 with the County of Dutchess.

The Service Agreement sets the calculation for the payment of the Service Fee for the 140,000 ton minimum. The Service Fee started at a base fee of \$36.00 per ton in 1989, and as stated in the Agreement, is adjusted monthly based on a formula using statistics of the U.S. Department of Labor, Bureau of Labor Statistics. The Service Fee per ton is currently approximately \$65.00. This means for example, if the tipping fee is \$80, the Operator receives \$65.00 and the RRA receives \$15.00.

For spot market waste the tip fee is split 50/50, but to attract this additional waste to the facility, the tip fee is generally lower than the standard daily fee. For example, if the tipping fee is \$76 for spot market waste, the operator gets \$38.00 and the RRA gets \$38.00.

The RRA and the Operator can enter into an agreement, normally lasting no longer than a year, to determine if supplemental waste can be brought to the RRF and what the rate will be. There is no obligation to the Operator to procure supplemental waste, and the RRF can refuse delivery of the waste with 24 hours notice to the Operator. The current agreement provides that the Operator pay the RRA a \$30.00 tip fee, and in lieu of a service fee the RRA pays the Operator a processing fee of \$7.00, for a net gain of \$23.00 per ton to the RRA.

Pass-through costs: Pass-through costs are direct costs incurred by the Operator that are paid for by the RRA. There are a variety of direct costs to the Operator, including equipment repair and replacement, insurance premiums, air pollution control materials and monitoring, fuel and other expenses. Pass-through costs total over \$3 million a year on average and have been increasing yearly.

The current Service Agreement with Covanta Energy will expire in June 2014, and prior to that date, the RRA will have to procure a new operating contract for the RRF through competitive bidding under General Municipal Law §120-w. It is anticipated that the new Service Agreement will have more equitable terms for sharing costs to operate the RRF.

Bond payments: The RRF was financed by the sale, in 1984, of \$40 million in revenue bonds of the RRA (the "1984 Bonds"), plus a grant contribution by the State of New York of \$13,449,000 in Environmental Quality Bond Act funds. Due to the default by the original Operator (PRS) under the Construction Agreement, Amendment No. 1 to the Solid Waste Disposal Agreement issued Solid Waste Management System Revenue Bonds, known as the "1990 Bonds" to redeem the 1984 Bonds. The 1990 Bonds are scheduled to be retired January 2014. The bonds could be retired as early as January 2013 if the RRA applies the debt reserve fund which has been maintained over the life of the bonds, and this is actively being pursued by the RRA as of this writing. This will eliminate an annual bond expense of approximately \$2.8 million, significantly reducing the potential Net Service Fee.

In 2007, due to the capital improvements to the RRF to comply with the Clean Air Act, revenue bonds were issued, the "Series 2007 Bonds." From 2015 through 2027 the RRA is responsible for the repayment of \$16,140,000 in principal on the 2007 (series revenue) bonds. The RRA's debt service obligations are approximately \$4,500,000 per

year from 2010 through 2014 (or 2013). In 2015 (or 2014), these payments will decrease to \$1,667,000 per year as the initial bond obligation is satisfied.

Residue disposal: The RRF produces approximately 50,000 tons of ash residue annually from the combustion of approximately 150,000 tons of MSW. Under the Service Agreement, as amended in 1998, the RRA is responsible for the cost of ash disposal for up to 33.3% of the amount of MSW processed, with the operator being responsible for any additional costs. The cost of ash disposal is a significant expense, with current costs approximately \$2.0 million a year.

One hundred percent of the ash residue is used as an alternative daily cover under Beneficial Use Determinations (BUDs, granted by the New York State Department of Environmental Conservation) at the Colonie Landfill in Albany County. The cost of disposal of ash residue from the RRF includes disposal fees and transportation costs. The landfill accepts the ash from the RRF under BUD, which allows the ash to be used as alternate daily cover (ADC) material and the landfill facility does not count the material towards the landfills disposal permit limits.

In addition, the landfill can save valuable space by using an ADC such as ash residue. Regulations mandate that landfills use daily cover to overlay deposited waste. If earthen material is used, six inches of cover must be added at the end of each operating day, taking up space that could have been used for waste disposal. Using an ADC does not require six inches of material, thereby extending the life of the landfill.

The RRA also accounts for costs associated with its Household Hazardous Waste program and other disposal expenses under its residue disposal budget line. The costs of the program are partially funded by the New York State Department of Environmental Conservation.

Revenue

The sources of revenue to the RRA are:

- tipping fees charged to users of the RRF;
- sale of electric power generated at the RRF to Central Hudson;
- sale of recyclables brought to the MRF;
- sale of metals recovered from the RRF, and;
- Net Service Fee provided by the County.

Tipping fees: As stated above, tipping fees are a cost to the RRA as well as a revenue source. All tipping fees charged to the hauler are split between the Operator (Service Fee) and the RRA. The revenue from these fees varies from month to month.

Electric sales: After tipping fees, the second major source of revenue for the RRF comes from the sale of electricity to Central Hudson Gas & Electric. The RRA sells electric power to Central Hudson under a long-term contract that guarantees a floor price of \$0.06 per KWh, plus additional payments reflecting the avoided cost to Central Hudson if it had to purchase an equal amount of power from another independent

power producer. Assuming an average annual energy production of 48.3 million KWh for export to Central Hudson, the RRA could expect to receive \$2.9 million in electric revenue annually based on the \$0.06/KWh floor price. Actual revenue from the sale of electric energy, including avoided cost revenue, was \$2.93 million in 2004, \$3.84 million in 2005, \$3.17 million in 2006, \$3.53 million in 2007 and \$4.21 million in 2008, an increase of 43.6% over five (5) years. However, with the contraction of the economy in 2009, electric demand and electric revenues to the RRF have fallen to under \$3 million a year.

As with the tipping fees, the revenue to the RRA from the sale of electricity varies. Under the agreement with the operator of the RRF, the revenue split with the Operator is based on tonnage of waste and annual steam production. The Operator receives 15% of electric revenue up to 120,000 tons of processed waste brought to the facility, 50% of revenue on processed waste in excess of 120,000 tons, with an additional 15% of revenue for annual steam production in excess of 654 million pounds, for a possible total of 65% of the revenue. Payments of electric fees to the operator are approximately 23% of the yearly total for electric revenues.

Recyclables: The third source of revenue is from the sale of recyclables collected at the MRF on Fulton Street in the Town of Poughkeepsie. The amount of recyclable materials coming into the facility, as well as the marketable price of the materials, fluctuates. Tonnage received at the MRF has gone from approximately 16,500 tons in 2006, to less than 5,400 tons in 2011. The primary users of the MRF are local municipalities, mainly the City of Poughkeepsie, but there is no obligation to any of the haulers to use the facility.

Prices for materials vary, and in some years the market prices were so low a tipping fee was charged to haulers bringing materials to the facility. Currently the market prices are good, and there is no tip fee charged to bring in materials. On the downside, when market prices are good, both generators and collectors seek other outlets to gain a financial benefit. With the closing of the MRF there will no longer be any revenue from recyclables.

The sale of metals recovered from the RRF is currently another source of revenue. This is again based on market prices for metals, which are good at this time. Fluctuations in market prices make this another uncertain revenue stream. The ash handling system at the RRF recovers 5,000 to 8,500 tons of ferrous metal from the ash annually, representing 30-33% of the ash stream by weight.

Net Service Fee: The last source of revenue for the RRA is the Net Service Fee (NSF), which also fluctuates based on the revenue stream of the first four sources. When determining the amount of the expected NSF, the RRA must look at the worst-case scenario, as all other sources of revenue can vary so much. Since 2006 there has been as much as a \$2 million difference in budgeted and actual NSF, with the actual always being less than budgeted. The actual NSF reached a high of \$4.9 million in 2009, but has ranged between \$1.2 million and \$4 million in other years. In 2011 the net service fee was a little over \$3.8 million.

Expenses	Revenues
Per ton of processed MSW tipping fee share to Operator	Per ton of processed MSW tipping fees share
Electricity sales share to Operator	Electricity sales share
Pass-through costs to Operator	Recyclables revenue (depending on markets)
Bond payments	Sale of metal residuals (depending on markets)
Cost of ash residue disposal	Net Service Fee from County
Cost of metals residue transport	
(if metals are marketed by Operator, then a share of revenue goes to Operator)	

Assessment

The payment obligations to the Operator of the RRF have continually risen and the cost of ash disposal is significant. As indicated above, many of the costs to operate the RRF fluctuate yearly, and some from month-to-month. The bond payments are the only expense that is set. All revenue fluctuates, not only from year to year, but from month to month. This requires the RRA to have a very flexible projected budget, and requires the County to encumber a “worst case scenario” amount for the projected NSF.

As was stated previously, the Service Agreement with the Operator of the RRF expires June 2014. The process to craft a Request for Proposals (RFP) has started. This is a collaborative effort of both the RRA and the County. The desired result is to have a qualified operator of the RRF in place for 2014, with a new Service Agreement. The new Agreement will have a more equitable cost and revenue sharing arrangement, one which eliminates the NSF.

The other major cost, ash disposal, will be actively evaluated. Prior to the 1990s some residues were found to contain high levels of lead and cadmium, but after the U.S. Environmental Protection Agency (EPA) enforced the implementation of the Maximum Available Control Technology (MACT) regulations in the 1990s, emissions have been reduced to the point that the EPA named waste-to-energy “one of the cleanest sources of energy.” There are several U.S. states that allow reuse of the ash for construction and/or road materials, and about 60% of ash in European countries is reused, yet the actual reuse rate of ash in the U.S. has remained at about 10%³.

³ *Waste-To-Energy Residues – The Search for Beneficial Uses*, Karsten Millrath, Frank J. Roethel, David M. Kargbo.

The Dutchess County RRF combines the fly ash (residue trapped by the plant's air pollution control devices) and bottom ash (collected beneath the combustion chamber) and the combined mixture meet all requirements to be used as alternate daily cover under BUDs. Dutchess County or an end user could petition NYS DEC for a BUD for the ash residue, both the fly and bottom ash, and receive approval for an alternative use such as road base material in addition to use as an ADC. This could turn a significant expense into a revenue source. A feasibility study of alternative reuses of ash is listed as a task on the Implementation Schedule.

In the meantime, the RRA and the County will be looking at alternatives to the transport of ash to faraway landfills. The costs of transportation are significant, and if an alternative location can be found to store the ash for future reuse within or closer to Dutchess County the transportation costs would be greatly reduced. We will continue to communicate with Solid Waste staff in Westchester County, who also transport ash to upstate landfills, to find less expensive ash residue disposal options. If a beneficial use is found in the future, other than as landfill cover, the ash could be reused and possibly become a revenue source rather than an expense.

While Dutchess County recycles, and plans to significantly increase our diversion rate, the revenue the RRA receives from recyclable materials is dwindling. The materials are being marketed by others, and less and less are taken to the MRF. In addition, the MRF would need significant and costly repairs to remain open. Plans for the closure of the MRF by the end of the year have begun. An alternative location to continue to accept recyclables has not been established, and ways to continue to receive revenue from recycling is needed. The current revenue from recyclables minimally reduces the NSF and provides no funding for staffing and education. As discussed previously in this chapter, re-implementing flow control may be an option that would possibly reduce or eliminate the NSF and provide revenue to fund recycling programs.

The ultimate financial goals of the RRA and the County are to eliminate the NSF and increase revenues. Revenue is required to increase educational programs, to produce educational materials, to initiate public recycling programs, to start a recycling bin loan program, to increase staff, to help increase composting through pilot programs and to initiate all the other programs outlined in this plan.

Chapter 5: Program Assessment and Evaluations



Culinary Institute of America 2012 Earth Day event

Disposal of Solid Waste Programs: The County's priority option for disposal of waste that has not been diverted has not changed in over twenty years - the waste-to-energy facility. In a consulting engineer's report dated October 19, 2007, prepared in connection with the issuance of the 2007 Bonds, the RRA's engineer, Henningson Durham & Richardson Architects and Engineers (HDR), found that the RRF was in good operating condition with no major operating deficiencies identified. HDR concluded that the useful life of the RRF can be expected to exceed the term of the 2007 Bonds (2027) if operated and maintained in accordance with the Service Agreement and accepted industry practice.

MSW that is not disposed of at the RRF is ultimately brought to out-of-county landfills. The landfills provide the disposal capacity necessary for all non-recyclable waste that cannot be processed by the RRF. It is anticipated that adequate capacity for current quantities of Dutchess County waste at such facilities will remain available for several years.

Other wastes, such as construction and demolition debris (C & D) and industrial waste, go to both in-county and out-of-county facilities. This is expected to continue, with new facilities being driven by private enterprise. The existing facilities within the County, such as Recycle Depot and Royal Carting, are well established and successful facilities. The County will identify major generators and assess the need for expanded recycling opportunities, as identified in the Implementation Schedule.

There are no plans during the planning period covered in this document, to develop a local MSW landfill or to expand the RRF to accept additional MSW. The plan is, with a new Service Agreement, to make it economically feasible for the haulers to use the RRF rather than a landfill. With a new agreement and a decrease in bond payments, it is anticipated that the RRF can be the more economic alternative for haulers and a revenue stream for the RRA. Another option, flow control, could be re-implemented to ensure waste goes to the RRF.

In addition, if all of the County generated MSW is processed at the RRF, and if the projected estimated diversion and generation rates found in Appendix B, Table 4, are realized, the total amount of waste that is disposed of will eventually be less than the capacity of the RRF. For example, it is projected that by 2015 the MSW amount per year that is not diverted will be 154,897 tons. The RRF is permitted to process 164,000 tons per year. In this case, waste would need to be imported from other planning units to keep the facility operating at capacity. Exploration of contractual agreements for disposal of solid waste at the RRF with neighboring counties is part of the partnership tasks listed on the Implementation Schedule.

In order to increase the electricity sales revenue, an upgraded turbine for the waste-to-energy facility is needed. The energy recovery technology employed in the RRF was designed to provide steam sales to IBM in addition to electric generation. With the permanent loss in 1998 of a steam sales customer the existing system was never upgraded to provide maximum electric generation. The upgrade would be beneficial to both the Operator and the RRA. The new Service Agreement will include plans for a turbine upgrade, with a sharing of the costs for the system and revenue sharing of the sales. The task of creating and maintaining financial models as identified on the Implementation Schedule, includes working with RRA staff to determine the cost of upgrading the turbine and the payback period.

In the immediate future, the RRA will continue to contract with haulers and landfills for ash residue disposal. At the same time, the County and RRA will actively advocate for alternative uses for ash residue. There is ongoing research looking at alternative uses, as this is a significant cost to all waste-to-energy facility operators. The work of entities such as the University Ash Consortium and the Waste-to-Energy Research and Technology Council (WTER) will be followed closely, in an effort to work with the NYS DEC in approving alternative uses.

Exploration into the possibility of a location for the ash residue until additional BUDs are approved will also be ongoing. The storage of ash would be a temporary solution, until a profitable use for the ash could be determined. The County will work with the RRA in identifying possible sites and partners for a location, and determining, in cooperation with NYS DEC, the permitting process to establish alternatives to long-distance transport.

The transfer station system works well within the County. Visits to the municipal transfer stations revealed well-run systems. They all accept recyclables and encourage diversion by not charging for recyclables when dropped off, other than the yearly permit fee. Six of the municipal locations contracts with a private company to run the stations, with one town currently in negotiation to have a private company take over the operation. The reason for contracting for the operation is primarily due to the savings in labor costs for the municipality.

While convenient for residents, the consensus when asked is that the main users are long-time customers, and as one person stated, "People with long driveways." It appears to be a matter of convenience versus finance. Many residents prefer the convenience of pick-up, even if it would be a cost savings to use a transfer station.

The County plans, as part of the partnership tasks in the Implementation Schedule, to work with municipalities to determine best management plans for solid waste within the localities.

Recycling Programs: At the end of Chapter 3 the question was asked, “Why is our rate of recycling still just average?” We believe the answer is as stated in *Beyond Waste*, “While there is no single explanation for why some communities have performed better than others, data and anecdotal information suggest that success in recycling is related to the municipalities’ commitment of both staff and financial resources to education, enforcement and infrastructure, and the level of dedication and drive behind the program as well as financial incentives in place, such as PAYT/SMART⁴, to drive participation.”⁵

Dutchess County, while promoting and mandating recycling for over twenty years now, needs to increase the educational and enforcement components of its program. The RRA has had the main responsibility for recycling education in the past, even though its main function is to oversee the operation of the RRF. The County needs to take a more active role in the promotion of recycling and work as a partner with the RRA.

Staff of the Solid Waste Management section of County Government has begun the process of promoting recycling. Events and meetings have been attended, press releases on solid waste matters have been published and numerous emails and phone calls on solid waste matters have been answered. The most frequently asked questions have to do with what can be recycled in the County. This is a clear indication that education and promotion must be a priority. The Solid Waste Management website was recently updated and information added about reduction, reuse, recycling and household hazardous waste events.

www.co.dutchess.ny.us/CountyGov/Departments/SolidWasteMgmt/SWindex.htm

Currently, RRA staff, Covanta Energy (RRF operator) and ReCommunity Beacon also actively promote recycling. The RRA, Covanta and ReCommunity have agreed to work with the County in promoting recycling by holding educational tours and participating in events and meetings. These entities already have literature and website recycling educational materials.

- www.dccrra.org;
- www.recommunity.com;
- www.covantaenergy.com/what-we-do/energy-from-waste/energy-from-waste-recycling.aspx

The entities above, and NYS DEC Region 3 staff, have provided educational and promotional materials to the Solid Waste Coordinator. The County also recently purchased some materials to promote recycling at public events.

⁴PAYT/SMART: “Pay-as-you-throw” (PAYT) and “save money and reduce trash” (SMART)

⁵*Beyond Waste, A Sustainable Materials Management Strategy for New York State*, NYS DEC, 2010.

There is much left to do. County web-based information needs to be updated as appropriate and literature needs to be developed in order to reach a wider audience and to educate the public on what materials can be recycled. The perfect opportunity to promote recycling is now, especially with the expanded list of materials accepted at ReCommunity Beacon.

Public space recycling opportunities need to be expanded. Obtaining recycling containers for occasional events such as flea markets and festivals would enable the County to provide a loan program. Enforcement of recycling at events, in public spaces, at residential complexes and at commercial entities is crucial. The effects of tourism on solid waste generation and the need for public space recycling opportunities for tourist attractions will be assessed. One example of this is the Walkway Over the Hudson. This venue attracts thousands of visitors and there is solid waste generated, such as plastic water bottles. An assessment needs to be done to determine the types and quantities of waste being generated, as well as the assessment of: are recyclable materials being recycled?

Recycling as a fund-raising program in elementary and secondary schools will be explored. Currently Bard College is working with a company that provides bins for mixed paper collection, provides free pick-up service and pays the school for the materials. The company uses the material to produce insulation. Staff will be exploring an opportunity with the schools, the licensed haulers and a recycling facility to see if a similar program can be set up that is localized within the County. This would require the schools to make a commitment to ensure recycling is maximized, and a commitment from the hauler to revenue share. It would also require obtaining bins exclusively for the paper being recycled for the program.

Some of the promotional activities can be done with current staff, but developing literature, providing loaner recycling bins and staffing an enforcement position requires funding. If the NSF for the RRF is eliminated, and the County can turn the recycling program into more of a revenue generator, there could be funding for solid waste management. Until then, current staff and community partners can promote recycling through no-cost and low-cost venues. Staff will also be exploring grant opportunities for funding of recycling bins and public space recycling efforts.

Another way to increase recycling is to use PAYT/SMART systems. "Pay-as-you-throw" (PAYT) and "save money and reduce trash" (SMART) are systems where generators are charged for disposal based on the amount of waste picked up or dropped off, with recycling and composting provided for free. This is an incentive-based program which gives the generator a financial reason to reduce the amount of trash disposed of.

Currently most private haulers provide the option of a smaller container than the standard size, for a reduced rate, which gives residents some incentive to increase diversion. In order to incentivize customers to increase recycling, the price differential for the smaller container would have to be significant. A review of websites of licensed haulers revealed that this is not an advertised service, but can be provided when asked.

Municipal haulers, such as the City of Poughkeepsie, require the resident to provide the container, up to 32 gallons. The cost to the resident is the same, no matter how little or how much is in the container. The City provides information on its website that lets residents know that in the long run increasing recycling is not only good for the environment, but saves money, as disposal of trash costs the City significantly more than recyclables.

All of the transfer stations charge for trash disposal, but provide recycling services for free, again giving an incentive to reduce trash. All of these programs leave it up to the resident to decide if it is enough of a financial savings to work at increasing their diversion rates. The County can provide the public information on the various programs, and how increasing diversion should ultimately lower the costs of solid waste management.

All of the above tasks can be found as part of the Implementation Schedule in Appendix D, Table 1. Working on partnerships both within and outside the County is planned, as well as aggressive promotion of recycling. Some tasks have already been started. One example of this is the task to promote single stream recycling. While this has not been done countywide yet, the County Office Buildings are all single stream and the Solid Waste Coordinator and Senior Program Assistant have started the promotion of this. Department heads have been notified of the initiative and audits of each building to ensure enough recycling bins are available have begun. To help promote the expanded list of materials that can now be processed in the County, we did not list the numbers that can be recycled, but used the method that is being called by some in the recycling industry *Education Without Numbers*. The County Office Buildings single stream recycling promotion flyer only lists what plastic cannot be recycled in the office bins and does not designate numbers for recycling plastics (see Dutchess County Recycles flyer in Appendix B).

The implementation of a listed task, and the degree of success once implemented, will directly impact the diversion projections found in Appendix B, Table 4. For example, according to NYS DEC *Beyond Waste*, some single stream operators report that recovery rates increase 20 to 40 percent above dual stream collection. Education and promotion of single stream collection within Dutchess County could cause a significant increase in the County's recycling rate over the next two years. The projections table can only predict the expected increase based on estimates and the success of promotional efforts. The schedule and projections will be updated biennially to determine if the implementation schedule should be adjusted and to adjust the projections table as needed.

Household Hazardous Waste (HHW): The RRA will continue to hold HHW collection days. There are no current plans to increase the number of collection events. Due to New York State legislation, product stewardship and the decrease in hazardous products for daily use, it is expected that the need for collection events should decrease rather than increase. The RRA will continue to assess the volume collected at the events, and add or eliminate scheduled events as necessary.

The RRA holds approximately four medication disposal events yearly, and will continue to do so. The RRF provides a safe and environmentally responsible way to dispose of pharmaceuticals for both Dutchess County residents and surrounding counties. The volume will be assessed on a regular basis to determine the number of events necessary.

Construction and Demolition Debris: Dutchess County is fortunate to have several private facilities that properly recycle and/or dispose of C & D materials. As with other wastes that can be diverted from the waste stream, the County needs better data to determine the amounts of C & D debris that is generated. Identifying the quantities and finding ways to better divert these materials is part of the solid waste management plan for the County. Working with municipalities on requiring a materials management plan when issuing a building permit, would help to bring awareness to the benefits of properly handling C & D materials, as well as other building materials such as wood, metal and yard waste. Identifying which municipalities already require this, if any, is the first step. For municipalities that do not currently have any requirements there are good examples from other counties to model after, such as the Orange County Solid Waste Management Recyclable Material Permit Application.

Education and enforcement are needed to keep C & D materials out of the waste stream. One construction and demolition recycler facility owner described it as the “black bag syndrome.” This means some C & D debris is put in with trash in a black plastic garbage bag and it is not visible to the collector due to the black bag. This C & D debris ends up at the waste-to-energy facility or landfills, which is not the proper disposal method for these materials. Residents and businesses need to know how and where to recycle or dispose of these materials properly.

The Implementation Schedule includes tasks concerning the above needs for all sectors, such as commercial/institutional, residential and industrial generators.

Organics Recovery: As stated in previous chapters, there are several facilities for organics recovery within the County, and there are several very successful existing programs. Most of the facilities available to the public have capacity to receive more material. The County will work with larger institutions, such as hospitals and secondary schools, to develop organic diversion programs. The colleges already have successful programs and lessons learned on how to create successful programs can be used by other institutions. The County will promote the successful programs for replication by other institutions.

One facility, Greenway Environmental in the City of Poughkeepsie, is not operational as of this writing. The proposed facility will have an educational and training component. The plan is to have an educational program geared toward fourth graders and a training program on their composting techniques, as well as a retail operation. The company would also like to expand over time to have facility-trained employees to operate similar small-scale composting facilities across the County.

For backyard composting projects, Dutchess County Cornell Cooperative Extension is a good resource. They have a demonstration garden project that features different types of composting systems suitable for home use. Their Master Gardener volunteers also hold workshops on backyard composting. County staff has contacted Cornell to discuss collaboration on some of their environmental events, such as their rain barrel workshops, to include recycling and composting information.

The need for expansion of yard waste composting programs is currently unknown, but the availability of transfer stations to accept yard waste for composting, the numerous municipalities that offer seasonal curbside pick-up and existing homeowner mulching and composting indicate that it may not be of immediate concern. Assessing the need for expanded facilities is included in the Implementation Schedule for 2014, and promotion of homeowner mulching and composting will be ongoing.

In 2010 the City of Beacon and Royal Carting operated a voluntary pilot program for the collection of food waste from 177 individual households over a six week period. Each household was provided a 1.5 gallon locking bin designed for countertop use. The same container was set out for collection, the same time as the weekly waste and recyclables collection. A separate second collection was also held during the week, just for food waste. The collected food waste was taken to McEnroe Organic Farm.

The food collection program had less than 20% participation. We believe there were several reasons for the low participation. The countertop containers were also the containers used for collection, and participants complained about the smells and the inconvenience of having the containers sit for days in the house. The inconvenience of twice a week collection was also a concern. A program that includes an outdoor, large sized, and lidded bin collection container for disposal of the countertop materials, and once a week collection, may help the next pilot program. There would still be concern of odor issues, especially with a single weekly collection. The use of biodegradable bags for both the countertop and outdoor bins would help to ease these concerns.

There are both financial and location obstacles to initiating pilot residential food waste collection programs. There are costs associated with providing containers, biodegradable bags and pick-up services, as well as a cost to tip the materials at a compost facility. There are limited locations to bring the materials to, with one of the larger ones in the northeast corner of the County. This location does not have easy access from the more populated western and central areas of the County.

Learning from past experience, plans are included on the Implementation Schedule to identify a willing community that will participate in a pilot program for a PAYT system, which will include food waste collection. The first step will be to solicit interest from municipalities and partner on developing a program.

Organics management will also include working with the agricultural sector and conducting a needs assessment for expanded organic and animal mortality composting. The assessment will include determining the amount of plastic bag waste generation, due to the use of ag bags for silage storage and other agricultural uses, and the need for a collection program.

Currently there is one facility within the County that does onsite composting of biosolids. Other generators of biosolids within the County either transport the material to out-of-county landfills or incinerators. An assessment of the need and feasibility of expanding in-county composting of biosolids is planned, as well as identification and cooperation with municipalities concerning publicly owned sewage treatment works.

Evaluation

It is apparent that Dutchess County has work to do in identifying the types and volumes of waste within the County. The waste stream involves much more than “garbage.” Identifying wastes generated by tourism, manufacturing, sewage treatment plants, construction and demolition projects, industry, agriculture and institutions is essential in providing a complete plan for solid waste management. It was stated in Chapter 1, when discussing the Planning Unit, Dutchess County has it all: a growing population, a vibrant business community and plenty of tourist attractions. When discussing solid waste this translates into having many types of waste and varying quantities of waste materials.

The Implementation Schedule in Appendix D, Table 1 lists fifty-two tasks. The tasks include plans to find ways to reduce waste generation and increase recycling and reuse, but in order to track the success of these efforts we must identify what our waste volumes and types are. This effort of indentifying waste streams and volumes has started already, and will continue throughout the next few years as indentified on the Schedule.

Chapter 6: Implementation Plan and Schedule



Girl Scout Cadette Troop 10205 of Hyde Park taking a recycling facility tour, 2012

The Dutchess County Local Solid Waste Management Plan is meant to be a working document, with a realistic plan for solid waste management. In order to accomplish the tasks outlined in previous chapters and to reach the target goals listed in Chapter 7, a work program is needed.

The detailed Implementation Schedule is found in Appendix D; Table 1. As with any implementation plan, it is expected that most tasks will be completed, some will not, some may be modified and other tasks will be added. The same holds true for the timing of the tasks. Some will be completed on time, some may not start as scheduled, and some may take longer than anticipated.

Implementation plans change due to new technology, new ideas, new or lost funding opportunities and/or time constraints. It is the County's intent to follow the schedule as closely as possible, allowing for flexibility as new tasks develop and technologies change. The County will update the implementation plan as necessary and appropriate when submitting the biennial compliance reports to NYS DEC.

Chapter 7: Projections



Dutchess County Airport Landfill, 1971



County Executive Molinaro at the ReCommunity Beacon recycling facility opening, 2012

Dutchess County's management of solid waste has changed over the years. At the time of the last plan (adopted in 1992), there were seven operating landfills, six municipal and one private; 115 inactive landfills, 22 municipal and 93 private; and over 60 inactive hazardous waste disposal sites. Fortunately, the County had recognized long before 1990 that landfills for waste were not sustainable and had started planning for disposal alternatives. The plan the County chose was waste-to-energy technology, which processes waste into electricity.

Prior to 1990, collection and separation of recyclables was voluntary. The County realized early on that recycling is beneficial, and in 1990 the County mandated that recyclables be diverted out of the waste stream. At the writing of the last plan it was estimated that the 1990 recycling rate was about 9%. The recycling rate goal for 2010, in the 1992 Plan, was 40.21%¹. This very ambitious projected goal for recycling was not reached.

Today, the County recognizes that recycling and diversion rates need to increase, and once again has set very ambitious goals in terms of reduction, reuse and recycling. In 2010 the amount of materials taken out of the waste stream through recycling was 58,530 tons, for a rate of 22.89%². The projected amount for diversion of materials from the municipal solid waste stream in 2021 is 152,225 tons, a 59.54% recycling rate³. This would leave 102,427 tons of municipal solid waste to be disposed of in 2021, if projected waste generation is correct.

As in the 1992 Plan, Construction and Demolition Debris (C & D) is analyzed as a separate waste stream from municipal solid waste. The 1992 Plan acknowledged that many C & D materials had a strong potential for recovery, although none were being recovered at the time. In 1992 all of the C & D debris wastes generated in Dutchess County were disposed of in out-of-county landfills as no permitted C & D debris landfills existed within the County and no C & D debris processing and recovery facilities existed within the County. It was also stated that it was anticipated that 75% of the materials could eventually be recycled¹.

The goal of 75% recycling of C & D debris was not reached, and although there are still no C & D debris landfills within the County, there are privately run C & D debris recycling facilities within the County. In 2010 the total amount of C & D debris generated in the County was 131,750 tons and the C & D debris tons diverted was 43,792, for a rate of diversion of 33.24%². The projected amount for diversion of C & D materials from the waste stream in 2021 is 102,745 tons, a 77.98% recycling rate⁴.

As with all projections, the actual results will depend on the success of efforts to increase recycling, to divert organics out of the waste stream and to reduce the amount of waste generated. Progress in achieving the projections will be reviewed every year, as will the implementation plan. It will be an on-going process that will be updated and adjusted as needed, including compliance with the required review by NYS DEC every two years.

It is acknowledged that the projected scenario would require the County to import waste from other communities to keep the waste-to-energy facility in full operation. This is a realistic option. As was stated in Chapter 1, we are in the center of the Hudson Valley and within transporting distance, by rail or truck, from New York City and the tri-state area. It is projected that surrounding communities will still have waste needing disposal in coming years. The waste-to-energy facility puts the County in a better position for handling waste than many of our neighbors, most of which do not have a local landfill or a waste-to-energy facility. The County will continue to study the feasibility of partnership with surrounding counties, and continue looking at regional waste disposal collaborations through the Hudson Valley Regional Council Solid Waste Committee and other means.

Current projections for annual diversion rates through 2021 can be found in Appendix B; Table 4: Municipal Solid Waste (MSW) Combined Composition Analysis and Projections, and Appendix B; Table 7: Construction and Demolition (C&D) Debris Combined Composition Analysis and Projections.

¹ Final Solid Waste Management Plan for Dutchess County, February 1992

² Based on the Dutchess County Waste/Materials Flow 2010 Facility Annual Report, and the 2010 Dutchess County Planning Unit Annual Report

³ Projections based on NYS DEC composition calculators, Cornell population projections, and the Implementation Schedule, Appendix D, Table 1

⁴ Projections based on NYS DEC C & D composition analysis calculator tool

Appendix A

Appendix A: Table 1
1980-1990-2000-2010 Population by Municipality
Dutchess County Planning Unit

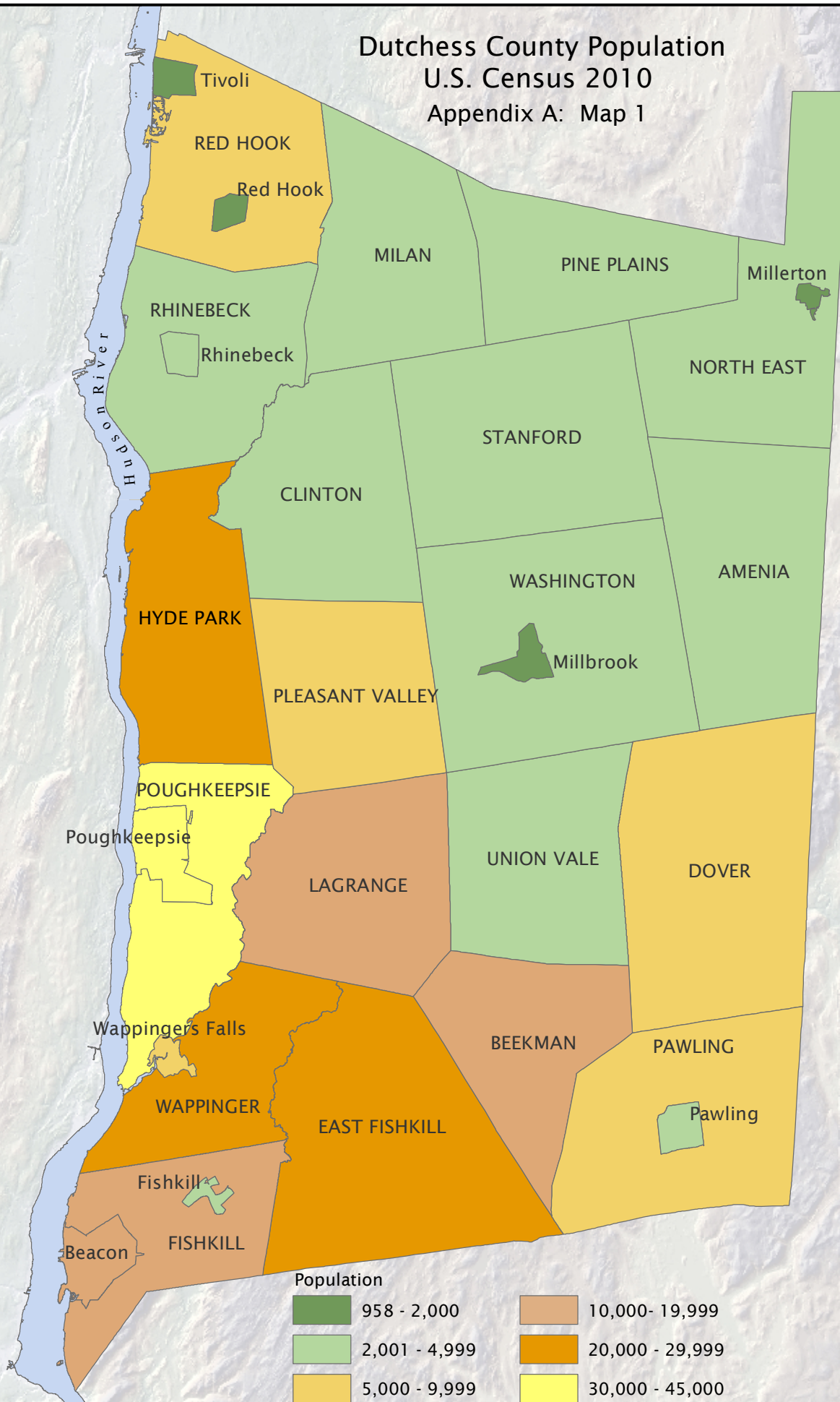
Name	Population 1980	Population 1990	Population 2000	Population 2010	Population Change 1980-2010		Population Change 2000-2010	
						% Change		% Change
Dutchess County	245,055	259,462	280,150	297,488	52,433	21.4%	17,338	6.2%
C/Beacon	12,937	13,243	14,810	15,541	2,604	20.1%	731	4.9%
C/Poughkeepsie	29,757	28,844	29,871	32,736	2,979	10.0%	2,865	9.6%
T/Amenia	6,299	5,195	4,048	4,436	-1,863	-29.6%	388	9.6%
T/Beekman	7,139	10,447	13,655	14,621	7,482	104.8%	966	7.1%
T/Clinton	3,394	3,760	4,010	4,312	918	27.0%	302	7.5%
T/Dover	7,261	7,778	8,565	8,699	1,438	19.8%	134	1.6%
T/East Fishkill	18,091	22,101	25,589	29,029	10,938	60.5%	3,440	13.4%
T/Fishkill	13,951	15,698	17,521	19,936	5,985	42.9%	2,415	13.8%
T/Hyde Park	20,768	21,230	20,851	21,571	803	3.9%	720	3.5%
T/La Grange	12,375	13,274	14,928	15,730	3,355	27.1%	802	5.4%
T/Milan	1,668	1,895	2,356	2,370	702	42.1%	14	0.6%
T/North East	1,874	2,034	2,077	2,073	199	10.6%	-4	-0.2%
T/Pawling	3,799	3,973	5,288	6,116	2,317	61.0%	828	15.7%
T/Pine Plains	2,199	2,287	2,569	2,473	274	12.5%	-96	-3.7%
T/Pleasant Valley	6,892	8,063	9,066	9,672	2,780	40.3%	606	6.7%
T/Poughkeepsie	38,594	39,254	41,800	43,341	4,747	12.3%	1,541	3.7%
T/Red Hook	5,948	6,736	7,440	8,240	2,292	38.5%	800	10.8%
T/Rhinebeck	4,520	4,833	4,685	4,891	371	8.2%	206	4.4%
T/Stanford	3,319	3,495	3,544	3,823	504	15.2%	279	7.9%
T/Union Vale	2,658	3,577	4,546	4,877	2,219	83.5%	331	7.3%
T/Wappinger	22,611	22,292	22,322	21,526	-1,085	-4.8%	-796	-3.6%
T/Washington	3,039	3,140	3,313	3,289	250	8.2%	-24	-0.7%
V/Fishkill	1,555	1,957	1,735	2,171	616	39.6%	436	25.1%
V/Millbrook	1,343	1,339	1,429	1,452	109	8.1%	23	1.6%
V/Millerton	1,013	884	925	958	-55	-5.4%	33	3.6%
V/Pawling	1,996	1,974	2,233	2,347	351	17.6%	114	5.1%
V/Red Hook	1,692	1,794	1,805	1,961	269	15.9%	156	8.6%
V/Rhinebeck	2,542	2,725	3,077	2,657	115	4.5%	-420	-13.6%
V/Tivoli	711	1,035	1,163	1,118	407	57.2%	-45	-3.9%
V/Wappingers Falls	5,110	4,605	4,929	5,522	412	8.1%	593	12.0%

Source: US Census Bureau

Town data does not include Village populations

Appendix A: Table 2				
Dutchess County Housing Units				
Place Name	2000 Units	2010 Units	Change 2000-2010	% Change
Dutchess County	106,103	118,638	12,535	11.81%
C/Beacon	5,410	5,715	305	5.64%
C/Poughkeepsie	13,153	13,984	831	6.32%
T/Amenia	1,814	2,045	231	12.73%
T/Beekman	4,180	4,797	617	14.76%
T/Clinton	1,734	1,915	181	10.44%
T/Dover	3,266	3,637	371	11.36%
T/East Fishkill	8,495	10,039	1,544	18.18%
T/Fishkill	7,036	9,246	2,210	31.41%
T/Hyde Park	7,704	8,416	712	9.24%
T/La Grange	5,240	5,668	428	8.17%
T/Milan	1,090	1,279	189	17.34%
T/North East	1,366	1,627	261	19.11%
T/Pawling	3,101	3,593	492	15.87%
T/Pine Plains	1,161	1,284	123	10.59%
T/Pleasant Valley	3,614	4,049	435	12.04%
T/Poughkeepsie	15,132	16,116	984	6.50%
T/Red Hook	3,840	4,384	544	14.17%
T/Rhinebeck	3,255	3,653	398	12.23%
T/Stanford	1,712	1,913	201	11.74%
T/Union Vale	1,464	1,911	447	30.53%
T/Wappinger	10,144	10,908	764	7.53%
T/Washington	2,192	2,459	267	12.18%
V/Fishkill	1,011	1,138	127	12.56%
V/Millbrook	744	798	54	7.26%
V/Millerton	412	461	49	11.89%
V/Pawling	945	996	51	5.40%
V/Red Hook	798	947	149	18.67%
V/Rhinebeck	1,463	1,424	-39	-2.67%
V/Tivoli	531	549	18	3.39%
V/Wappingers Falls	2,119	2,443	324	15.29%
Source: US Census Bureau				
Town numbers include Village numbers				

Dutchess County Population U.S. Census 2010 Appendix A: Map 1



Dutchess County Institutions

Appendix A: Map 2

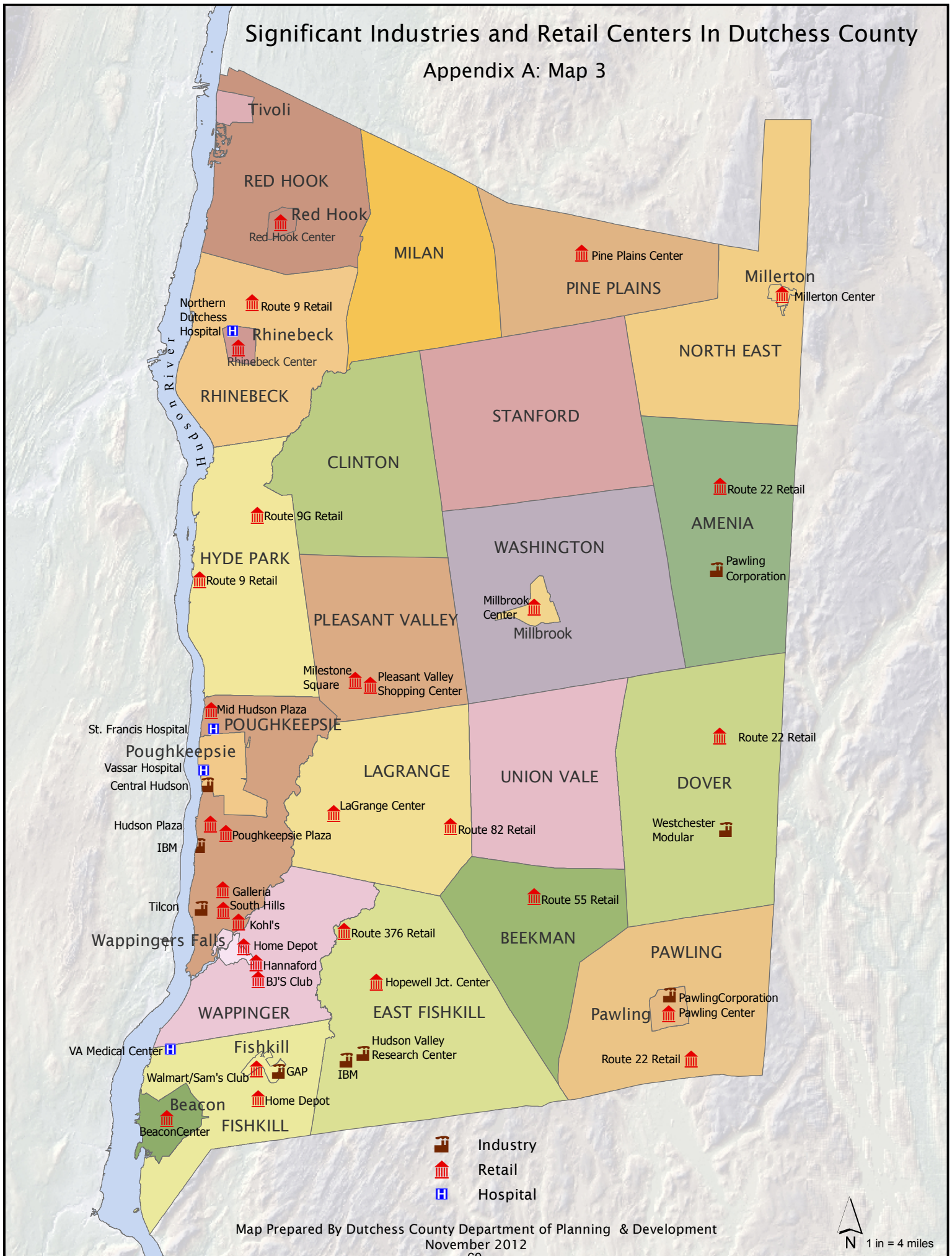


Map Prepared By Dutchess County Department of Planning & Development
November 2012

N
1 in = 4 miles

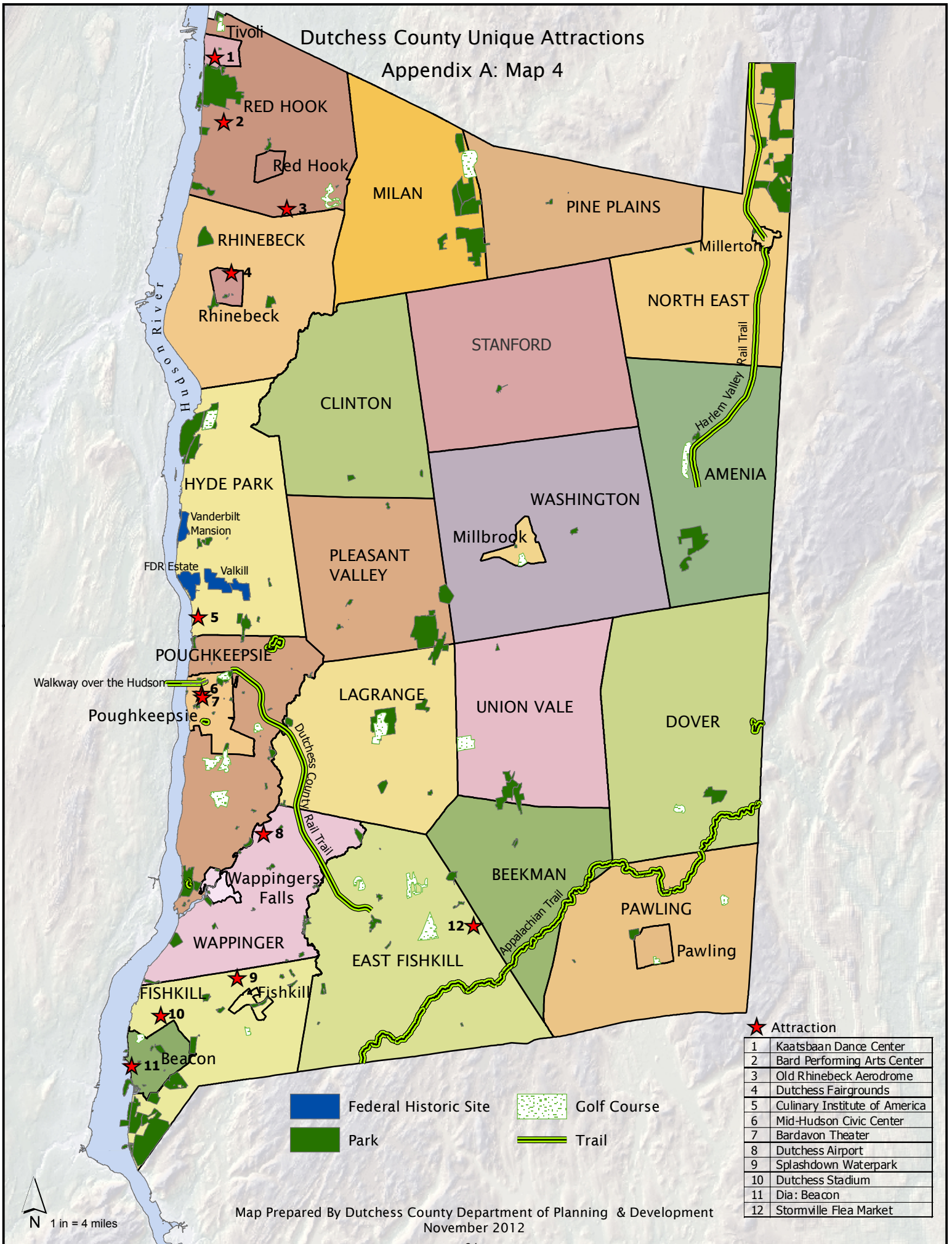
Significant Industries and Retail Centers In Dutchess County

Appendix A: Map 3



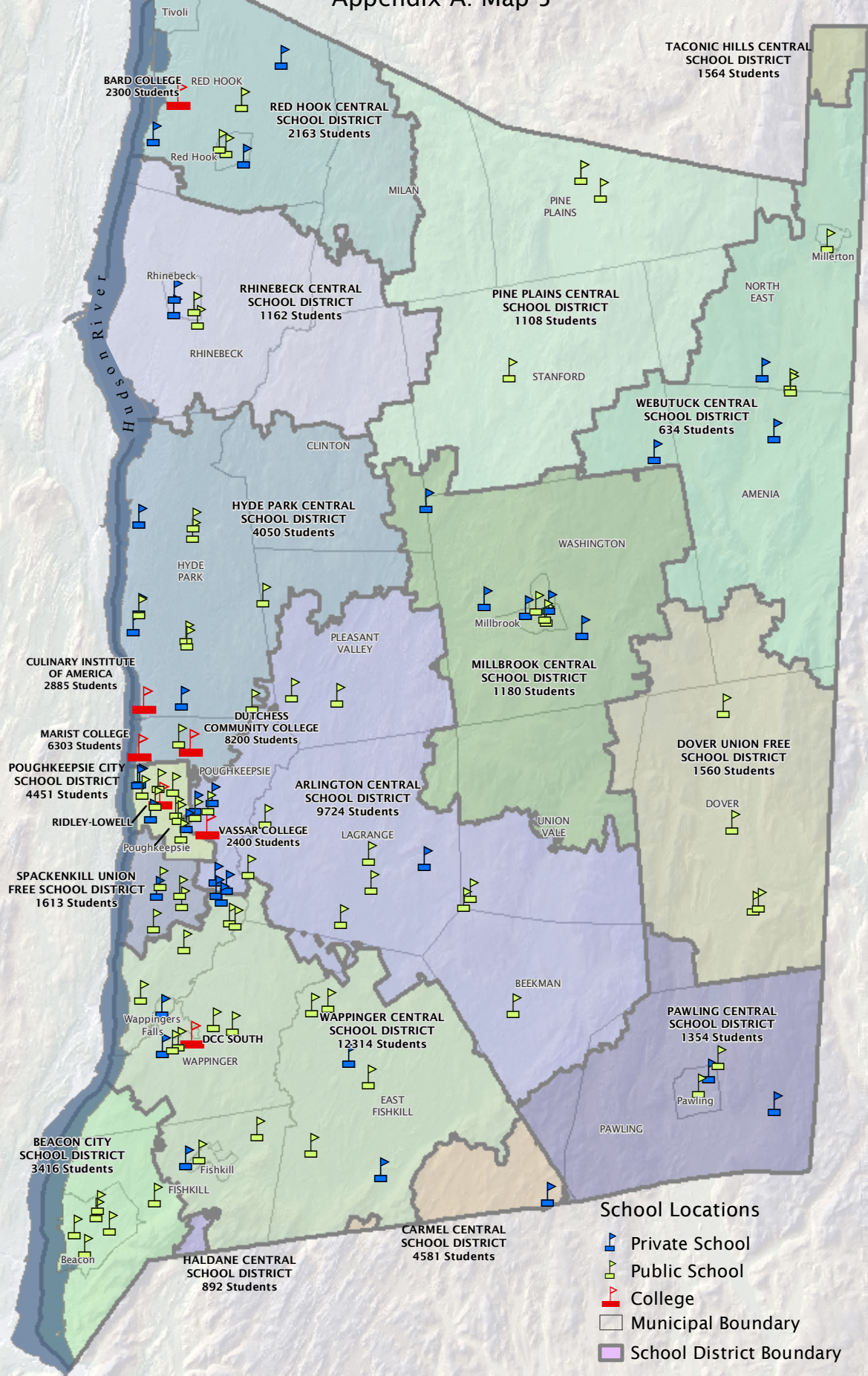
Dutchess County Unique Attractions

Appendix A: Map 4



Dutchess County School Districts

Appendix A: Map 5



Map Prepared By Dutchess County Department of Planning & Development
October 29, 2012

N 1 in = 4 miles

Appendix B

Appendix B: Table 1
Total Population, Land Area, and Population Density
Dutchess County, 2010
2010 Census Data

Name		Population Total	Land Area (Sq. Mi.)	Density (Persons/ sq. mi.)
Dutchess County		297,488	795.6	373.9
Cities	Beacon	15,541	4.7	3,279.6
	Poughkeepsie	31,045	5.1	6,035.4
Towns	Amenia	4,436	43.2	102.6
	Beekman	14,621	29.8	490.0
	Clinton	4,312	38.1	113.0
	Dover	8,699	55.2	157.6
	East Fishkill	29,029	56.5	513.8
	Fishkill	19,936	26.5	752.3
	Hyde Park	21,571	36.7	588.4
	La Grange	15,730	39.9	394.4
	Milan	2,370	36.1	65.6
	North East	2,073	42.6	48.7
	Pawling	6,116	41.8	146.3
	Pine Plains	2,473	30.6	80.9
	Pleasant Valley	9,672	32.6	296.9
	Poughkeepsie	44,090	28.1	1,569.0
	Red Hook	8,240	33.5	246.0
	Rhinebeck	4,891	34.2	143.0
	Stanford	3,823	49.6	77.0
	Union Vale	4,877	37.5	130.1
	Wappinger	22,468	26.3	854.3
	Washington	3,289	56.3	58.4
Villages	Fishkill	2,171	0.8	2,646.3
	Millbrook	1,452	1.9	752.0
	Millerton	958	0.6	1,549.0
	Pawling	2,347	2.0	1,175.5
	Red Hook	1,961	1.1	1,778.9
	Rhinebeck	2,657	1.5	1,744.1
	Tivoli	1,118	1.6	694.4
	Wappingers Falls	5,522	1.1	4,983.1

U.S. Census 2010 data, including changes due to the Count Question Resolution program

Town data **does not** include Village data

NYS DEC Density Standards are as follows:

Green equals Rural, which is less than 325 people/square mile

White equals Suburban, which is between 325 and 5,000 people/square mile

Yellow equals Urban, which is greater than 5,000 people/square mile

Appendix B: Table 2
Urban, Suburban and Rural Generation Rates
Dutchess County, 2010
DEC's Waste Composition Analysis Tool

Waste Generation by Population

	Municipality	Urban	Suburban	Rural
Cities	Beacon		15,541	
	Poughkeepsie	31,045		
Towns	Amenia			4,436
	Beekman		14,621	
	Clinton			4,312
	Dover			8,699
	East Fishkill		29,029	
	Fishkill		19,936	
	Hyde Park		21,571	
	La Grange		15,730	
	Milan			2,370
	North East			2,073
	Pawling			6,116
	Pine Plains			2,473
	Pleasant Valley			9,672
	Poughkeepsie		44,090	
	Red Hook			8,240
	Rhinebeck			4,891
	Stanford			3,823
	Union Vale			4,877
	Wappinger		22,468	
	Washington			3,289
Villages	Fishkill		2,171	
	Millbrook		1,452	
	Millerton		958	
	Pawling		2,347	
	Red Hook		1,961	
	Rhinebeck		2,657	
	Tivoli		1,118	
	Wappingers Falls		5,522	
	Total	31,045	201,172	65,271
	Percentage	10.44%	67.62%	21.94%

U.S. Census 2010 data

**Appendix B: Table 3: Dutchess County
Municipal Solid Waste (MSW) Detailed Composition Analysis Year 2010**

Material	MSW GENERATED									
	Rural			Suburban			Urban			Planning Unit/ Municipality Percentages
	21.94%			67.62%			10.44%			
	Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	
	58.00%	42.00%	100.00%	55.00%	45.00%	100.00%	52.00%	48.00%	100.00%	100.00%
Newspaper	5.20%	1.90%	3.81%	5.00%	1.90%	3.61%	6.60%	2.00%	4.39%	3.73%
Corrugated Cardboard	6.60%	13.90%	9.67%	6.60%	13.90%	9.89%	6.90%	13.70%	10.16%	9.87%
Other Recyclable Paper										
Paperboard	3.20%	1.10%	2.32%	3.30%	1.00%	2.27%	3.60%	0.90%	2.30%	2.28%
Office Paper	0.80%	3.80%	2.06%	0.90%	4.20%	2.39%	1.10%	5.80%	3.36%	2.42%
Junk Mail	3.00%	0.70%	2.03%	3.20%	0.70%	2.08%	3.50%	0.70%	2.16%	2.07%
Other Commercial Printing	1.70%	2.30%	1.95%	1.70%	2.40%	2.02%	2.30%	2.60%	2.44%	2.05%
Magazines	1.10%	0.90%	1.02%	1.00%	0.80%	0.91%	1.10%	1.00%	1.05%	0.95%
Books	0.50%	0.30%	0.42%	0.50%	0.30%	0.41%	0.60%	0.40%	0.50%	0.42%
Bags	0.50%	0.20%	0.37%	0.50%	0.20%	0.37%	0.60%	0.20%	0.41%	0.37%
Phone Books	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.20%	0.25%	0.29%
Poly-Coated	0.20%	0.30%	0.24%	0.20%	0.20%	0.20%	0.30%	0.20%	0.25%	0.21%
Other Recyclable Paper (Total)	11.30%	9.90%	10.71%	11.60%	10.10%	10.93%	13.40%	12.00%	12.73%	11.07%
Other Compostable Paper	6.80%	6.80%	6.80%	6.40%	6.40%	6.40%	6.80%	6.80%	6.80%	6.53%
Total Paper	29.90%	32.50%	30.99%	29.60%	32.30%	30.82%	33.70%	34.50%	34.08%	31.20%
Ferrous/Aluminum Containers										
Ferrous Containers	1.90%	1.00%	1.52%	1.20%	0.70%	0.98%	1.40%	0.70%	1.06%	1.10%
Aluminum Containers	0.70%	0.40%	0.57%	0.60%	0.30%	0.47%	0.50%	0.40%	0.45%	0.49%
Ferrous/Aluminum Containers (Total)	2.60%	1.40%	2.10%	1.80%	1.00%	1.44%	1.90%	1.10%	1.52%	1.59%
Other Ferrous Metals	5.20%	5.40%	5.28%	5.00%	5.80%	5.36%	3.30%	3.70%	3.49%	5.15%
Other Non-Ferrous Metals										
Other aluminum	0.20%	0.30%	0.24%	0.20%	0.30%	0.25%	0.20%	0.30%	0.25%	0.24%
Automotive batteries	0.80%	0.50%	0.67%	0.70%	0.40%	0.57%	0.20%	0.20%	0.20%	0.55%
Other non-aluminum	0.50%	0.30%	0.42%	0.30%	0.40%	0.35%	0.40%	0.20%	0.30%	0.36%
Other Non-Ferrous Metals (Total)	1.50%	1.10%	1.33%	1.20%	1.10%	1.16%	0.80%	0.70%	0.75%	1.15%
Total Metals	9.30%	7.90%	8.71%	8.00%	7.90%	7.96%	6.00%	5.50%	5.76%	7.89%
PET Containers	1.10%	0.80%	0.97%	0.90%	0.80%	0.86%	1.20%	1.00%	1.10%	0.91%
HDPE Containers	1.10%	0.60%	0.89%	0.90%	0.70%	0.81%	1.00%	0.70%	0.86%	0.83%
Other Plastic (3-7) Containers	0.20%	0.10%	0.16%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.19%
Film Plastic	5.70%	5.90%	5.78%	5.50%	5.80%	5.64%	5.80%	5.80%	5.80%	5.68%
Other Plastic										
Durables	3.10%	3.20%	3.14%	3.00%	3.20%	3.09%	3.20%	3.30%	3.25%	3.12%
Non-Durables	1.60%	1.80%	1.68%	1.60%	1.80%	1.69%	1.80%	1.90%	1.85%	1.71%
Packaging	1.40%	1.10%	1.27%	1.40%	1.10%	1.27%	1.50%	1.10%	1.31%	1.27%
Other Plastic (Total)	6.10%	6.10%	6.10%	6.00%	6.10%	6.05%	6.50%	6.30%	6.40%	6.09%
Total Plastics	14.20%	13.50%	13.91%	13.50%	13.60%	13.55%	14.70%	14.00%	14.36%	13.71%
Glass Containers	4.10%	3.80%	3.97%	3.90%	3.80%	3.86%	4.30%	3.80%	4.06%	3.90%
Other Glass	0.50%	0.40%	0.46%	0.30%	0.40%	0.35%	0.40%	0.40%	0.40%	0.38%
Total Glass	4.60%	4.20%	4.43%	4.20%	4.20%	4.20%	4.70%	4.20%	4.46%	4.28%
Food Scraps	12.70%	13.30%	12.95%	12.90%	15.50%	14.07%	17.20%	25.20%	21.04%	14.55%
Yard Trimmings	3.10%	1.10%	2.26%	11.30%	9.10%	10.31%	4.20%	1.50%	2.90%	7.77%
Total Organics	15.80%	14.40%	15.21%	24.20%	24.60%	24.38%	21.40%	26.70%	23.94%	22.32%
Clothing Footwear, Towels, Sheets	4.60%	3.00%	3.93%	4.40%	3.20%	3.86%	4.80%	2.50%	3.70%	3.86%
Carpet	1.40%	1.30%	1.36%	1.70%	1.40%	1.57%	1.70%	0.90%	1.32%	1.49%
Total Textiles	6.00%	4.30%	5.29%	6.10%	4.60%	5.43%	6.50%	3.40%	5.01%	5.35%
Total Wood	4.10%	9.00%	6.16%	2.90%	4.10%	3.44%	2.00%	3.50%	2.72%	3.96%
C&D Materials	8.00%	7.60%	7.83%	3.80%	2.70%	3.31%	4.40%	3.80%	4.11%	4.38%
Other Durables	1.90%	1.70%	1.82%	1.60%	1.50%	1.56%	1.90%	1.50%	1.71%	1.63%
Diapers	1.90%	1.10%	1.56%	2.10%	1.20%	1.70%	2.30%	1.10%	1.72%	1.67%
Electronics	1.30%	1.40%	1.34%	1.60%	1.70%	1.65%	1.30%	1.30%	1.30%	1.54%
Tires	1.80%	1.80%	1.80%	1.70%	1.40%	1.57%	0.50%	0.40%	0.45%	1.50%
HHW	0.60%	0.00%	0.35%	0.60%	0.00%	0.33%	0.50%	0.00%	0.26%	0.33%
Fines	0.60%	0.60%	0.60%	0.10%	0.20%	0.15%	0.10%	0.10%	0.10%	0.24%
Total Miscellaneous	16.10%	14.20%	15.30%	11.50%	8.70%	10.24%	11.00%	8.20%	9.66%	11.29%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Dutchess County composition analysis using NYS DEC calculators based on population densities for Dutchess County, as included in Appendix B. Percentages for Residential and Commercial populations are NYS averages.

Appendix B: Table 4: Dutchess County Municipal Solid Waste (MSW) Combined Composition Analysis and Projections																									
Material	Tons Generated	% of Total		2010 (Actual)		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021	
				Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted
Newspaper	9,545	3.73%		5,577	58.43%	5,727	60.00%	6,299	65.99%	6,920	72.50%	7,397	77.50%	7,636	80.00%	7,874	82.49%	7,874	82.49%	8,113	85.00%	8,113	85.00%	8,590	89.99%
Corrugated Cardboard	25,225	9.87%		12,909	51.18%	13,874	55.00%	15,135	60.00%	18,162	72.00%	18,919	75.00%	19,550	77.50%	20,180	80.00%	20,811	82.50%	21,442	85.00%	21,442	85.00%	22,703	90.00%
Other Recyclable Paper																									
Paperboard	5,831	2.28%		886	15.19%	875	15.01%	1,050	18.01%	1,458	25.00%	1,749	29.99%	2,041	35.00%	2,332	39.99%	2,624	45.00%	3,207	55.00%	3,207	55.00%	3,790	65.00%
Office Paper	6,175	2.42%		854	13.83%	926	15.00%	1,852	29.99%	2,470	40.00%	3,087	49.99%	3,705	60.00%	4,322	69.99%	4,322	69.99%	4,631	75.00%	4,631	75.00%	4,940	80.00%
Junk Mail	5,304	2.07%		723	13.63%	796	15.01%	955	18.01%	1,326	25.00%	1,591	30.00%	1,856	34.99%	2,122	40.01%	2,387	45.00%	2,917	55.00%	2,917	55.00%	3,448	65.01%
Other Commercial Printing	5,231	2.05%		629	12.02%	785	15.01%	1,569	29.99%	2,092	39.99%	2,616	50.01%	2,877	55.00%	3,139	60.01%	3,139	60.01%	3,400	65.00%	3,400	65.00%	3,662	70.01%
Magazines	2,424	0.95%		407	16.79%	364	15.02%	436	17.99%	606	25.00%	727	29.99%	848	34.98%	970	40.02%	1,091	45.01%	1,333	54.99%	1,333	54.99%	1,697	70.01%
Books	1,077	0.42%		14	1.30%	54	5.01%	65	6.04%	81	7.52%	162	15.04%	215	19.96%	323	29.99%	377	35.00%	485	45.03%	538	49.95%	592	54.97%
Bags	950	0.37%		12	1.26%	47	4.95%	57	6.00%	71	7.47%	142	14.95%	285	30.00%	380	40.00%	427	44.95%	522	54.95%	522	54.95%	617	64.95%
Phone Books	754	0.29%		60	7.96%	113	14.99%	136	18.04%	189	25.07%	226	29.97%	377	50.00%	566	75.07%	581	77.06%	603	79.97%	641	85.01%	679	90.05%
Poly-Coated	549	0.21%		45	8.20%	55	10.02%	66	12.02%	137	24.95%	137	24.95%	137	24.95%	165	30.05%	165	30.05%	192	34.97%	192	34.97%	220	40.07%
Other Recyclable Paper (Total)	28,295	11.07%		3,630	12.83%	4,014	14.19%	6,186	21.86%	8,430	29.79%	10,438	36.89%	12,342	43.62%	14,318	50.60%	15,112	53.41%	17,291	61.11%	17,383	61.43%	19,644	69.43%
Other Compostable Paper	16,694	6.53%		0	0.00%	334	2.00%	417	2.50%	835	5.00%	1,252	7.50%	2,504	15.00%	3,339	20.00%	3,756	22.50%	4,174	25.00%	4,591	27.50%	5,008	30.00%
Total Paper	79,759	31.19%		22,116	27.73%	23,949	30.03%	28,037	35.15%	34,347	43.06%	38,006	47.65%	42,032	52.70%	45,711	57.31%	47,553	59.62%	51,020	63.97%	51,529	64.61%	55,945	70.14%
Ferrous/Aluminum Containers																									
Ferrous Containers	2,823	1.10%		2,121	75.13%	2,118	75.03%	2,188	77.51%	2,259	80.02%	2,329	82.50%	2,329	82.50%	2,400	85.02%	2,400	85.02%	2,400	85.02%	2,400	85.02%	2,400	85.02%
Aluminum Containers	1,247	0.49%		753	60.38%	748	59.98%	823	66.00%	904	72.49%	935	74.98%	935	74.98%	966	77.47%	966	77.47%	997	79.95%	997	79.95%	1,091	87.49%
Ferrous/Aluminum Containers (Total)	4,070	1.59%		2,874	70.61%	2,866	70.42%	3,011	73.98%	3,163	77.71%	3,264	80.20%	3,264	80.20%	3,366	82.70%	3,366	82.70%	3,397	83.46%	3,397	83.46%	3,491	85.77%
Other Ferrous Metals	13,163	5.15%		7,691	58.43%	7,898	60.00%	9,214	70.00%	10,530	80.00%	10,860	82.50%	11,189	85.00%	11,189	85.00%	11,518	87.50%	11,518	87.50%	11,847	90.00%	11,847	90.00%
Other Non-Ferrous Metals																									
Other aluminum	626	0.24%		146	23.32%	156	24.92%	172	27.48%	188	30.03%	219	34.98%	250	39.94%	313	50.00%	313	50.00%	375	59.90%	375	59.90%	438	69.97%
Automotive batteries	1,408	0.55%		1,408	100.00%	1,408	100.00%	1,408	100.00%	1,408	100.00%	1,408	100.00%	1,408	100.00%	1,408	100.00%	1,408	100.00%	1,408	100.00%	1,408	100.00%	1,408	100.00%
Other non-aluminum	911	0.36%		200	21.95%	205	22.50%	228	25.03%	251	27.55%	319	35.02%	364	39.96%	455	49.95%	455	49.95%	547	60.04%	547	60.04%	638	70.03%
Other Non-Ferrous Metals (Total)	2,945	1.15%		1,754	59.56%	1,770	60.10%	1,808	61.39%	1,846	62.68%	1,946	66.08%	2,023	68.69%	2,177	73.92%	2,177	73.92%	2,330	79.12%	2,330	79.12%	2,484	84.35%
Total Metals	20,178	7.89%		12,319	61.05%	12,534	62.12%	14,033	69.55%	15,539	77.01%	16,070	79.64%	16,476	81.65%	16,732	82.92%	17,061	84.55%	17,245	85.46%	17,574	87.09%	17,822	88.32%
PET Containers	2,320	0.91%		1,285	55.39%	1,276	65.00%	1,392	60.00%	1,508	65.00%	1,589	68.49%	1,623	69.96%	1,681	72.46%	1,681	72.46%	1,739	74.96%	1,739	74.96%	1,797	77.46%
HDPE Containers	2,128	0.83%		725	34.07%	958	60.00%	1,064	50.00%	1,170	54.98%	1,224	57.52%	1,277	60.01%	1,277	60.01%	1,277	60.01%	1,277	60.01%	1,277	60.01%	1,596	75.00%
Other Plastic (3-7) Containers	488	0.19%		175	35.86%	176	25.00%	195	39.96%	207	42.42%	220	45.08%	220	45.08%	232	47.54%	232	47.54%	244	50.00%	244	50.00%		

Appendix B: Table 5: Dutchess County Waste Generation
MSW Composition - Dutchess County
Materials Generated and Recovered
Year 2010

	Waste Generation Composition (%)			Generation (Tons)	Recovered (Tons)
Material	EPA Percentages	NYS Percentages	Dutchess Percentages	Dutchess County	Dutchess County
Newspaper	4.30%	4.06%	3.73%	9,545	5,577
Corrugated Cardboard	12.30%	10.00%	9.87%	25,225	12,909
~ Other Recyclable Paper ~					
Paperboard	2.30%	2.29%	2.28%	5,831	886
Office Paper	2.40%	2.86%	2.42%	6,175	854
Junk Mail	2.30%	2.11%	2.07%	5,304	723
Other Commercial Printing	2.50%	2.24%	2.05%	5,231	629
Magazines	1.00%	1.00%	0.95%	2,424	407
Books	0.50%	0.46%	0.42%	1,077	14
Bags	0.40%	0.39%	0.37%	950	12
Phone Books	0.30%	0.27%	0.29%	754	60
Poly-Coated	0.20%	0.23%	0.21%	549	45
Other Recyclable Paper (Total)	11.90%	11.86%	11.07%	28,295	3,630
Other Compostable Paper	4.20%	6.68%	6.53%	16,695	0
<i>Total Paper</i>	32.70%	32.61%	31.20%	79,759	22,116
~ Ferrous/Aluminum Containers ~					
Ferrous Containers	1.10%	1.11%	1.10%	2,823	2,121
Aluminum Containers	0.70%	0.48%	0.49%	1,247	753
Ferrous/Aluminum Containers (Total)	1.80%	1.59%	1.59%	4,070	2,874
Other Ferrous Metals	5.10%	4.34%	5.15%	13,163	7,691
~ Other Non-Ferrous Metals ~					
Other aluminum	0.20%	0.25%	0.24%	626	146
Automotive batteries	0.50%	0.39%	0.55%	1,408	1,408
Other non-aluminum	0.60%	0.33%	0.36%	911	200
Other Non-Ferrous Metals Total	1.30%	0.97%	1.15%	2,945	1,754
<i>Total Metals</i>	8.20%	6.89%	7.89%	20,178	12,319
PET Containers	1.10%	1.01%	0.91%	2,319	1,285
HDPE Containers	0.90%	0.85%	0.83%	2,128	725
Other Plastic (3-7) Containers	0.20%	0.19%	0.19%	488	175
Film Plastic	2.20%	5.75%	5.68%	14,535	275
~ Other Plastic ~					
Durables	4.10%	3.18%	3.12%	7,972	0
Non-Durables	2.20%	1.77%	1.71%	4,360	0
Packaging	1.40%	1.29%	1.27%	3,251	0
Other Plastic (Total)	7.70%	6.25%	6.09%	15,582	0
<i>Total Plastics</i>	12.10%	14.05%	13.71%	35,053	2,460
Glass Containers	4.50%	3.98%	3.90%	9,978	5,774
Other Glass	0.80%	0.39%	0.38%	960	0
<i>Total Glass</i>	5.30%	4.38%	4.28%	10,938	5,774
Food Scraps	12.50%	17.65%	14.55%	37,207	3,237
Yard Trimmings	12.80%	5.02%	7.77%	19,868	10,751
<i>Total Organics</i>	25.30%	22.68%	22.32%	57,075	13,988
Clothing Footwear, Towels, Sheets	3.70%	3.78%	3.86%	9,864	0
Carpet	1.20%	1.40%	1.49%	3,819	0
<i>Total Textiles</i>	4.90%	5.18%	5.35%	13,682	0
<i>Total Wood</i>	5.60%	3.49%	3.96%	10,128	0
DIY C&D Materials	0.30%	4.47%	4.38%	11,205	0
Other Durables	0.50%	1.68%	1.63%	4,163	293
Diapers	1.50%	1.69%	1.67%	4,268	0
Electronics	1.20%	1.41%	1.54%	3,944	102
Tires	1.90%	1.00%	1.50%	3,836	1,462
HHW	0.20%	0.30%	0.33%	835	16
Fines	0.30%	0.19%	0.24%	614	0
<i>Total Miscellaneous</i>	5.90%	10.73%	11.29%	28,865	1,873
Total	100.00%	100.00%	100.00%	255,678	58,530

Appendix B: Table 6: Dutchess County

Construction and Demolition (C&D) Debris Detailed Composition Analysis Year 2010

Material	C & D DEBRIS GENERATED									
	Residential				Non- Residential				Infrastructure/ Other	Planning Unit/ Municipality Percentages
	17.00%				25.00%				58.00%	
	New Construction	Renovation	Demolition	Combined Residential	New Construction	Renovation	Demolition	Combined Non- Residential	Infrastructure/ Other	
	11.00%	29.00%	60.00%	100.00%	13.00%	48.00%	39.00%	100.00%	100.00%	100.00%
Concrete/Asphalt/Rock/Brick	9.80%	16.10%	21.50%	18.65%	30.70%	19.10%	23.10%	22.17%	46.00%	35.39%
Wood	29.90%	19.10%	25.70%	24.25%	22.70%	12.40%	24.20%	18.34%	10.50%	14.80%
Roofing	6.00%	22.00%	6.10%	10.70%	2.10%	21.20%	5.10%	12.44%	0.00%	4.93%
Drywall	15.60%	7.90%	5.10%	7.07%	4.60%	6.40%	4.30%	5.35%	0.00%	2.54%
Soil/Gravel	11.30%	7.10%	18.50%	14.40%	13.10%	6.50%	15.60%	10.91%	38.00%	27.22%
Metal	5.30%	11.30%	5.20%	6.98%	12.00%	15.50%	11.10%	13.33%	2.40%	5.91%
Plastic	1.50%	0.70%	0.30%	0.55%	0.50%	0.70%	0.30%	0.52%	0.30%	0.40%
Corrugated/Paper	9.30%	2.90%	3.10%	3.72%	7.10%	4.60%	4.20%	4.77%	0.30%	2.00%
Other	11.30%	12.90%	14.50%	13.68%	7.20%	13.60%	12.10%	12.18%	2.50%	6.82%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: NYS DEC C&D composition analysis calculator tool.

Appendix B: Table 7: Dutchess County

Construction and Demolition (C&D) Debris Combined Composition Analysis and Projections

Material	Tons Generated	% of Total		2010 (Actual)		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021			
				Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted		
Concrete/Asphalt/Rock/Brick	46,629	35.39%		14,717	31.56%	14,921	32.00%	18,652	40.00%	20,983	45.00%	25,646	55.00%	27,977	60.00%	32,640	70.00%	33,806	72.50%	34,972	75.00%	36,137	77.50%	37,303	80.00%		
Wood	19,496	14.80%		5,044	25.87%	5,069	26.00%	5,849	30.00%	6,823	35.00%	7,798	40.00%	8,773	45.00%	10,723	55.00%	11,697	60.00%	11,697	60.00%	11,697	60.00%	11,697	60.00%		
Roofing	6,493	4.93%		0	0.00%	0	0.00%	0	0.00%	325	5.01%	649	10.00%	974	15.00%	1,948	30.00%	2,273	35.01%	2,597	40.00%	2,922	45.00%	3,247	50.01%		
Drywall	3,344	2.54%		0	0.00%	0	0.00%	0	0.00%	167	4.99%	167	4.99%	334	9.99%	669	20.01%	836	25.00%	1,003	29.99%	1,170	34.99%	1,338	40.01%		
Soil/Gravel	35,856	27.22%		21,339	59.51%	21,514	60.00%	21,514	60.00%	23,306	65.00%	25,099	70.00%	26,892	75.00%	30,477	85.00%	31,374	87.50%	32,270	90.00%	32,270	90.00%	32,270	90.00%		
Metal	7,788	5.91%		2,665	34.22%	2,726	35.00%	3,504	44.99%	4,283	54.99%	5,062	65.00%	5,451	69.99%	5,841	75.00%	6,035	77.49%	6,230	79.99%	6,425	82.50%	6,619	84.99%		
Plastic	523	0.40%		0	0.00%	0	0.00%	26	4.97%	52	9.94%	78	14.91%	105	20.08%	209	39.96%	261	49.90%	287	54.88%	300	57.36%	314	60.04%		
Corrugated/Paper	2,634	2.00%		27	1.03%	26	0.99%	659	25.02%	1,317	50.00%	1,449	55.01%	1,449	55.01%	1,712	65.00%	1,844	70.01%	1,976	75.02%	2,041	77.49%	2,107	79.99%		
Other	8,988	6.82%		0	0.00%	0	0.00%	0	0.00%	0	0.00%	449	5.00%	449	5.00%	899	10.00%	1,348	15.00%	1,348	15.00%	1,348	15.00%	1,348	15.00%		
Total	131,750	100.00%		43,792	33.24%	44,256	33.59%	50,204	38.11%	57,256	43.46%	66,397	50.40%	72,404	54.96%	85,118	64.61%	89,474	67.91%	92,380	70.12%	94,310	71.58%	96,243	73.05%		

Sources: NYS DEC Dutchess County Waste/Material Flow form 2010 Facility Annual Reports, 2010 Dutchess County Planning Unit Recycling Report

Appendix B: Table 8
2009/2010 Dutchess County Biosolids

FACILITY	DRY TONS PER YEAR	DESTINATION
Arlington STP	673	Incinerate On-Site
Beacon (C) WPCP	1304	Incinerate Veolia WWTP, CT
Country Club Estates SD	3	Incinerate through Arlington
Dover Ridge Estates – SEC 1 & 2	2	Incinerate Earthcare - All County
Fishkill (V) WWTP	90	Landfill Earthcare – North Star Waste Company
Fleetwood Manor SD WWTP	8	Landfill by Coppola Services to NJ
Greenfields SD WWTP	8	Landfill Earthcare – All County
Midpoint PK SD WWTP	10	Landfill by Coppola Services to NJ
Millbrook (V) STP	33	Landfill Upstate NY
Noxon Knolls SD STP	7	Landfill, sent to Beacon
Pawling Joint Sewer Commission	50	Incinerate Naugatuck STP in CT
Poughkeepsie (C) WPCP	1900	Incinerate Veolia Water
Rhinebeck STP	70	Landfill by Earthcare
Rombout STP	66	Landfill, sent to Beacon
Titusville SD STP	40	Landfill, sent to Beacon
Tivoli (V) WWTP	12	Store on-site Reed Beds
Tri-Municipal WWTP	246	Compost On-Site
Valley Dale STP	10	Landfill, sent to Beacon
Vanderburgh Cove SD #1	5	Incinerate Sent to Poughkeepsie
Wildwood SD (L&A)	16	Landfill by Coppola Services
Total Dry Tons Per Year = 4,553		
Source: Biosolids Management in New York State, NYS DEC June 2011		

Appendix B, Table 9	
Dutchess County Vehicle Dismantlers	
FACILITY	LOCATION
A & T Auto Parts	Hyde Park
AW Scrap Processors, Inc.	Wappingers Falls
AALCO	Poughkeepsie
Baroni Recycling, Inc.	Pleasant Valley
Beacon Auto Salvage, Inc.	Beacon
Charles Efron & Son, Inc.	Poughkeepsie
Double Z Motors, Inc.	Fishkill
East Park Used Auto & Truck Parts, Inc.	Hyde Park
Green's Auto Repair, Inc.	Beekman
KB Performance, Inc.	Dover
Molt's Used Auto Parts, Inc.	Hyde Park
Redl's Parkway Auto Parts, Inc.	Poughkeepsie
Salt Point Towing Auto Sales	Pleasant Valley
South East Auto Recycle, Inc.	Dover
Source: NYS DEC	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS
ANNUAL REPORT FORM – PLANNING UNIT RECYCLING REPORT



(Use additional sheets if necessary)

REPORT YEAR: 2010	PLANNING UNIT NAME: Dutchess County Resource Recovery Agency			
ADDRESS: 96 Sand Dock Road, Poughkeepsie, NY 121601			COUNTY: 14 - DUTCHESS	
CONTACT PERSON: William Calogero		EMAIL: wcalogero@dcrra.org	TELEPHONE NUMBER: 845 463-6020	
SOURCES OF DISPOSAL AND RECYCLING DATA (check all appropriate boxes):				
<input checked="" type="checkbox"/> Scale Weights <input checked="" type="checkbox"/> Hauler Surveys <input type="checkbox"/> Estimates <input type="checkbox"/> Truck Counts <input type="checkbox"/> Facility Surveys <input type="checkbox"/> Other				
LIST PLANNING UNIT FACILITIES WHICH ARE COVERED UNDER THIS REPORT				
FACILITY NAMES			REGISTRATION / PERMIT NUMBER	
1.	Dutchess County Resource Recovery Facility		3-1346-00019/00012	
2.	Dutchess County Materials Recovery Facility			
3.				
4.				
WASTE DISPOSED				
WASTE STREAMS	LANDFILLED		COMBUSTED	
	Name & Address	Tons	Name & Address	Tons
Municipal Solid Waste (MSW)	1.		Covanta Hudson Valley Renewable Energy LLC	152,623
	2.			
	3.			
C & D Debris (C&D)	1.	N/A		
	2.			
	3.			
Non – Hazardous Industrial Waste	1.	N/A		
	2.			
Biosolids	1.	N/A		
	2.			

ANNUAL REPORT FORM - PLANNING UNIT RECYCLING REPORT

(continued)

(Use additional sheets if necessary)

RECYCLABLES RECOVERED		
Do not report recyclables that result from the Returnable Container Act or are part of a Beneficial Use Demonstration		
PAPER::	END USE OR DESTINATION FACILITY (Name and Address)	TONS (to each facility)
Newspaper	1. Hudson Baylor, Recycle City, Elizabeth, NJ	4,727
	2. American Independent Paper, Tarrytown, NY	
	3.	
Corrugated Cardboard	1. Hudson Baylor, Fox Run Recycling, Automated Materials, Berlin, CT,	24,347*
	2. American Independent Paper, Tarrytown, NY	
	3. *Due to a reporting error in 2010, a correction was made by Dutchess County in 2012.	
Paperboard / Boxboard (e.g. cereal, shoe, gift boxes & light cardboard)	1. Included in Mixed Paper	
	2.	
	3.	
Office Paper	1. Included in Mixed Paper	
	2.	
	3.	
Magazines	1. Included in Mixed Paper	
	2.	
	3.	
Junk Mail	1. Included in Mixed Paper	
	2.	
	3.	
Other Paper (specify):	1. Mixed Paper: magazines, junk, confidential and paperboard	2,789
	2. Hudson Baylor, American Independent Paper, Generation II, Peekskill, NY	
	3.	
GLASS:	END USE OR DESTINATION FACILITY (Name and Address)	TONS (to each facility)
Glass Containers (all colors)	1. Included in Comingle	
	2.	
Glass Non - Containers (e.g. vases, windows)	1. Included in Comingle	
	2.	
Industrial Scrap Glass	1. Included in Comingle	
	2.	
Other Glass (specify):	1. N/A	
	2.	

ANNUAL REPORT FORM – PLANNING UNIT RECYCLING REPORT

(continued)

(Use additional sheets if necessary)

RECYCLABLES RECOVERED		
Report on recyclables that result from the Returnable Container Act or are part of a Beneficial Use Determination		
METAL:	END USE OR DESTINATION FACILITY (Name and Address)	TONS (to each facility)
Tin / Aluminum Containers	1. Included in Comingle	
	2.	
Aluminum Foil / Trays	1. Included in Comingle	
	2.	
Enameled Appliances / White Goods	1. Included in Scrap	
	2.	
Bulk Metal (from residents)	1. Charles Effron & Sons, B. Millens & Sons, Rubino Brothers, (CT), A&W Scrap	3,480
	2.	
Metal Reported By (automobile dismantlers, junkyards, scrap metal processing)	1. Included in Scrap	
	2.	
Metal Recovery from Municipal Waste Combustor	1. Upstate Shredding, 15 West Main Street, Owego, NY 13827	6,469
	2.	
Industrial Scrap Metal	1. Included in Scrap	
	2.	
Other Metal (specify):	1. N/A	
	2.	
PLASTICS:	END USE OR DESTINATION FACILITY (Name and Address)	TONS (to each facility)
PET (Plastic #1)	1. Included in Comingle	
	2.	
HDPE (Plastic #2)	1. included in Comingle	
	2.	
Other Rigid Plastics (#3 - #7) (Identify quantity & type if available)	1. Included in Comingle	
	2.	
Plastic Containers (#1 - #7) (if collected & sorted containing)	1. Included in Comingle	
	2.	
Plastic Film & Bags	1.	278
	2.	
Industrial Scrap Plastic	1. Included in Comingle	
	2.	
Other Plastic (specify):	1.	
	2.	

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ANNUAL REPORT FORM – PLANNING UNIT RECYCLING REPORT

(continued)

(Use additional sheets if necessary)


RECYCLABLES RECOVERED <small>Do not report recyclables that result from the Returnable Container Act or are part of a Beneficial Use Determination</small>		
COMMINGLED:	END USE OR DESTINATION FACILITY (Name and Complete Address)	TONS (to each facility)
Commingled (paper & containers)	1. Hudson Baylor	1,119
	2.	
Commingled (containers only)	1. Hudson Baylor, New Journey, Middlesex, NJ, Recycle City, Elizabeth, NJ Recycle Kingdom, New Brunswick, NJ	9,986
	2.	
ORGANICS:	END USE OR DESTINATION FACILITY (Name and Complete Address)	TONS (to each facility) <small>(Do NOT use SA BIC YARD)</small>
Leaves & Grass	1. Included with Brush	
	2.	
Brush / Branches / Trees / Stumps	1. Duffy Layton Contracting, New Milford Farms, CT. Seaward Valley, Fultonville, NY, Profex, Inc	5,569
	2.	
Food Scraps (e.g. kitchen scraps, grocery & restaurant food waste)	1. Duffy Layton, Tremson, Stormville, NY, New Milford Farms, West Hook	1,538
	2.	
Food Processing Waste (e.g. brewery waste, fish, fruit, vegetable & dairy processing waste)	1. Darling International	285
	2.	
Biosolids	1. Superior Sanitation, M&J Sanitation	3,868
	2.	
Other Organics (specify):	1. Manure to Duffy Layton, The Model Organic Farm	1,648
	2.	
MISCELLANEOUS:	END USE OR DESTINATION FACILITY (Name and Complete Address)	TONS (to each facility)
Textiles	1. N/A	
	2.	
Electronics	1. Advanced Recovery, American Lamp, CRT Recycling,	158
	2.	
Tires	1. Empire Tires, Plainfield, CT, Don Stevens, Casings, Inc	758
	2.	
Wood Pallets	1. N/A	
	2.	
Other Miscellaneous (specify):	1. Furniture	1,525
	2.	

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ANNUAL REPORT FORM – PLANNING UNIT RECYCLING REPORT

(continued)

(Use additional sheets if necessary)

RECYCLABLES RECOVERED		
Do not report materials that result from the Returnable Container Act or are part of a Beneficial Use Determination.		
C & D DEBRIS:	END USE OR DESTINATION FACILITY (Name and Complete Address)	TONS (to each facility)
Asphalt / Pavement	1. Included in Masonry Materials	
Brick	1. Included in Masonry Materials	
Concrete	1. Included in Masonry Materials	
Drywall	1. N/A	
Other Masonry Materials	1. Recycling Crushing Technology, Poughkeepsie, Profex, Inc, Middlehope, NY	26,489
Petroleum Contaminated Soil (PCS)	1. N/A	
Rock	1. Included in Masonry Materials	
Soil (Clean)	1. N/A	
Roofing Shingles	1. N/A	
Wood	1. Included in Yardwaste	
Land Clearing Debris (including brush, branches, trees, & stumps N/A) (included in Organics Section)	1. N/A	
Other (specify): C&D	1. Royal Carting, Taylor Recycling Facility	24,420
NAME: William Calogero		DATE: March 1, 2011
SIGNATURE: 		TITLE & ORGANIZATION: Executive Director Dutchess County Resource Recovery Agency

Send Completed Forms to the Addresses Listed in Appendix A

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Dutchess County Waste/Material Flow from 2010 Facility Annual Reports

Note: To avoid double counting, the amounts below do not reflect material/waste movement within the Planning Unit.

Waste Imported into Dutchess County is not included.

Waste Generated in Dutchess County Destined for Disposal/Thermal Treatment in NY

DEC Region of Facility	Destination Facility Name	Activity Number	Waste Type	Amount (in tons)	
9	Allied Waste Niagara Falls Landfill	32S11	Asbestos (Friable & Non-Friable)	9	
8	High Acres Western Expansion Landfill	28S32	Asbestos (Friable & Non-Friable)	23	
8	Ontario County Sanitary Landfill	35S11	Asbestos (Friable & Non-Friable)	126	
			Subtotal:	158	
4	Albany Rapp Road	01S02	Construction & Demolition Debris	1	
8	Hakes C&D Disposal; Inc.	51D03	Construction & Demolition Debris	474	
8	Seneca Meadows LF	50S08	Construction & Demolition Debris	582	
			Subtotal:	1,057	
8	Ontario County Sanitary Landfill	35S11	Industrial	31	
			Subtotal:	31	
8	Ontario County Sanitary Landfill	35S11	MSW (Residential/Institutional & Commercial)	35,162	
8	Seneca Meadows LF	50S08	MSW (Residential/Institutional & Commercial)	15,823	
3	Dutchess County Resource Recovery Facility	[14E01]	MSW (Residential/Institutional & Commercial)	143,622	
3	WM Wheelabrator (RESCO)	[60E01]	MSW (Residential/Institutional & Commercial)	2,357	
			Subtotal:	196,963	
8	Ontario County Sanitary Landfill	35S11	Sewage Treatment Plant Sludge	211	
			Subtotal:	211	
			Total:	198,421	

Waste Generated in Dutchess County Going to Out of State Destinations

Region	Facility	Activity Number	Waste Type	Amount (in tons)	Destination State
3	All County Resource Mgmt. Corp. (Residuals Mgt Serv)	14Z01	Sewage Treatment Plant Sludge	4,316	NJ
3	All County Resource Mgmt. Corp. (Residuals Mgt Serv)	14Z01	Sewage Treatment Plant Sludge	21	PA
3	Beacon Recycling & Transfer	14R07	Sewage Treatment Plant Sludge	4,304	NJ
3	Beacon Recycling & Transfer	14R07	Sewage Treatment Plant Sludge	21	PA
			Subtotal:	8,662	
3	Rhinebeck T.S.	14R19	Waste Tires	4	CT
3	Stanford T.S. (T)	14R16	Waste Tires	4	CT
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Waste Tires	143	CT
			Subtotal:	150	
			Total:	8,812	

Waste Generated in Dutchess County Going to Transfer Stations in Other Planning Units

Transfer Station	Destination Facility	Destination Region	Destination Planning Unit	Waste Type	Amount (in tons)
Not Reported/Not Available	Environmental Products & Services of Vermont; Inc.	7	Onondaga County Resource Recovery Agency	Asbestos (Friable & Non-Friable)	0.55
				Subtotal:	1
Not Reported/Not Available	Environmental Products & Services of Vermont; Inc.	7	Onondaga County Resource Recovery Agency	Industrial	0.01
Not Reported/Not Available	Environmental & Industrial Contracting Services; Inc.	9	Niagara County	Industrial	10
				Subtotal:	10
Not Reported/Not Available	Mahopac Septic; Inc	3	Putnam County	Septage	167
Not Reported/Not Available	Tyndall Septic Systems	3	Putnam County	Septage	810
				Subtotal:	977
Not Reported/Not Available	Mahopac Septic; Inc	3	Putnam County	Sewage Treatment Plant Sludge	209
Beacon Recycling & Transfer (14R07)	Not Reported	4	Capital Region Solid Waste Mgt Partnership (CRSWMP)	Sewage Treatment Plant Sludge	122
All County Resource Mgmt. Corp. (14Z01)	Not Reported	4	Capital Region Solid Waste Mgt Partnership (CRSWMP)	Sewage Treatment Plant Sludge	122
				Subtotal:	453
Watch Hill Holding Corp./Royal Carting Service (14T03)	Not Reported	3	Ulster County Resource Recovery Agency	MSW (Residential/Instt & Comm)	184
				Subtotal:	184
				Total:	1,625

Dutchess County Waste/Material Flow from 2010 Facility Annual Reports

Note: To avoid double counting, the amounts below do not reflect material/waste movement within the Planning Unit.

Waste Imported into Dutchess County is not included.

CD Processor Material Generated in Dutchess County Going to CD Processors and Transfer Stations in Other Planning Units					
Facility	Destination Facility	Destination Region	Destination Planning Unit	Material/Waste Type	Amount (in tons)
Not Reported/Not Available	Thalle Industries Inc. Elmsford Facility	3	Westchester County	Asphalt	3,305
				Subtotal:	3,305
Not Reported/Not Available	LaMela Sanitation T.S.	3	Ulster County Resource Recovery Agency	Brush; Branches; Trees; & Stumps	6.65
				Subtotal:	6.65
Not Reported/Not Available	LaMela Sanitation T.S.	3	Ulster County Resource Recovery Agency	Bulk Metal	0.97
				Subtotal:	0.97
Not Reported/Not Available	LaMela Sanitation T.S.	3	Ulster County Resource Recovery Agency	Concrete	11
Not Reported/Not Available	Thalle Industries Inc. Elmsford Facility	3	Westchester County	Concrete	5,912
				Subtotal:	5,912
Not Reported/Not Available	LaMela Sanitation T.S.	3	Ulster County Resource Recovery Agency	Construction & Demolition Debris	2,754
				Subtotal:	2,754
Not Reported/Not Available	LaMela Sanitation T.S.	3	Ulster County Resource Recovery Agency	Paper/Cardboard	27
Recycle Depot (14W04)	Hudson Baylor Corp.	3	Orange County	Paper/Cardboard	27
				Subtotal:	54
Not Reported/Not Available	Thalle Industries Inc. Elmsford Facility	3	Westchester County	Rock	15,950
				Subtotal:	15,950
Not Reported/Not Available	LaMela Sanitation T.S.	3	Ulster County Resource Recovery Agency	Waste Tires	4
				Subtotal:	4
				Total:	27,987
Waste Generated in Dutchess County Being Used as ADC at NY Landfills					
Region	Destination Facility Name	Activity Number	Waste Type	Amount (in tons)	
8	Seneca Meadows LF	50S08	Processed C&D	20,451	
			Subtotal:	20,451	
			Total:	20,451	
Dutchess County MSW Ash from Dutchess County Resource Recovery Agency MWC Used as ADC at NY Landfills					
Region	Destination Facility Name	Activity Number	Waste Type	Amount (in tons)	
8	Bath Sanitary Landfill	51S21	MSW/Wood Ash	12,541	
			Subtotal:	12,541	
			Total:	12,541	

Dutchess County Waste/Material Flow from 2010 Facility Annual Reports

Note: To avoid double counting, the amounts below do not reflect material/waste movement within the Planning Unit.

Waste Imported into Dutchess County is not included.

Dutchess County Material Recovered from Dutchess County Resource Recovery Agency C&D Processors Going to NY Destinations

<u>Region</u>	<u>Facility</u>	<u>Activity Number</u>	<u>Waste Type</u>	<u>Amount (in tons)</u>	
3	Recycle Depot	14W04	Aggregate & Concrete	28	
3	West Hook Sand & Gravel	14W06	Aggregate & Concrete	10	
			Subtotal:	38	
3	Recycle Depot	14W04	Asphalt	165	
3	Thalle Industries Inc.	14W	Asphalt	10,302	
			Subtotal:	10,467	
3	Recycle Depot	14W04	Brick	252	
			Subtotal:	252	
3	Duffy Layton Contracting	14W05	Brush; Branches; Trees; & Stumps	412	
3	Recycle Depot	14W04	Brush; Branches; Trees; & Stumps	542	
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Brush; Branches; Trees; & Stumps	124	
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Brush; Branches; Trees; & Stumps	414	
			Subtotal:	1,492	
3	Recycle Depot	14W04	Bulk Metal	1,337	
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Bulk Metal	1,328	
			Subtotal:	2,665	
3	Recycle Depot	14W04	Concrete	2,256	
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Concrete	1,060	
			Subtotal:	3,315	
3	Blacktop Maintenance Corp	14W03	Mixed Fill	21,233	
			Subtotal:	21,233	
3	Recycle Depot	14W04	Soil (Clean)	6	
			Subtotal:	6	
3	Duffy Layton Contracting	14W05	Wood (Clean)	210	
3	Recycle Depot	14W04	Wood (Clean)	1,877	
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Wood (Clean)	646	
			Subtotal:	2,733	
3	Duffy Layton Contracting	14W05	Wood Chips	565	
3	Recycle Depot	14W04	Wood Chips	8	
			Subtotal:	573	
			Total:	42,774	

Dutchess County Material Recovered from Dutchess County Resource Recovery Agency C&D Processors Going to Out of State Destinations

<u>Region</u>	<u>Facility</u>	<u>Activity Number</u>	<u>Waste Type</u>	<u>Amount (in tons)</u>	<u>Destination State</u>
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Wood (Clean)	11	CT
			Subtotal:	11	
			Total:	11	

Dutchess County Material Recovered from Dutchess County Resource Recovery Agency MWC

<u>Region</u>	<u>Destination Facility Name</u>	<u>Activity Number</u>	<u>Waste Type</u>	<u>Amount (in tons)</u>	
7	Upstate Shredding		Bulk Metal	6,079	
			Subtotal:	6,079	
			Total:	6,079	

Dutchess County Waste/Material Flow from 2010 Facility Annual Reports

Note: To avoid double counting, the amounts below do not reflect material/waste movement within the Planning Unit.

Waste Imported into Dutchess County is not included.

Dutchess County Recyclables Going to NY Destinations

<u>Dutchess County Resource Recovery Agency Facility</u>	<u>Destination Facility</u>	<u>Destination Region</u>	<u>Destination Planning Unit</u>	<u>Material</u>	<u>Amount (in tons)</u>
LaGrange Waste T.S. (T) (14R11)	Dutchess County	3	Dutchess County Resource Recovery Agency	Brush, Branches, Trees, & Stumps	12
Poughkeepsie T.S (C) (14R04)	Dutchess County	3	Dutchess County Resource Recovery Agency	Brush, Branches, Trees, & Stumps	3
Watch Hill Holding Corp./Royal Carting Service (14T03)	Tremson Recycling	3	Dutchess County Resource Recovery Agency	Brush, Branches, Trees, & Stumps	179
Watch Hill Holding Corp./Royal Carting Service (14T03)	West Hook Sand & Gravel	3	Dutchess County Resource Recovery Agency	Brush, Branches, Trees, & Stumps	41
				Subtotal:	235
Milan Disposal Site T.S. (14R10)	Charles Effron & Son, Inc.	3	Dutchess County Resource Recovery Agency	Bulk Metal	23
Pawling T.S. (T) (14R17)	Charles Effron & Son, Inc.	3	Dutchess County Resource Recovery Agency	Bulk Metal	66
Poughkeepsie (14R13)	Charles Effron & Son, Inc.	3	Dutchess County Resource Recovery Agency	Bulk Metal	161
Poughkeepsie T.S (C) (14R04)	Charles Effron & Son, Inc.	3	Dutchess County Resource Recovery Agency	Bulk Metal	2
Red Hook T.S. (T) (14R18)	B. Millens, Inc	3	Ulster County Resource Recovery Agency	Bulk Metal	50
Union Vale Transfer Sta. (14R15)	B. Millens, Inc	3	Ulster County Resource Recovery Agency	Bulk Metal	119
Washington (T) T.S. (14R14)	B. Millens, Inc	3	Ulster County Resource Recovery Agency	Bulk Metal	42
Watch Hill Holding Corp./Royal Carting Service (14T03)	B. Millens, Inc	3	Ulster County Resource Recovery Agency	Bulk Metal	1,165
				Subtotal:	1,629
Milan Disposal Site T.S. (14R10)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Containers	50
Dutchess County	Casella Recycling	4	Columbia County	Commingled Containers	1,110
Dutchess County	UCRRA Materials Recov Facility	3	Ulster County Resource Recovery Agency	Commingled Containers	37
Stanford T.S. (T) (14R16)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Containers	54
Washington (T) T.S. (14R14)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Containers	38
				Subtotal:	1,289
Stanford T.S. (T) (14R16)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Paper	41
Dutchess County	UCRRA Materials Recov Facility	3	Ulster County Resource Recovery Agency	Commingled Paper	38
Dutchess County	American Independent Paper Mills Supply Co.	3	Westchester County	Commingled Paper	2,410
Union Vale Transfer Sta. (14R15)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Paper	90
Washington (T) T.S. (14R14)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Paper	56
				Subtotal:	2,636
Milan Disposal Site T.S. (14R10)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Paper & Containers	49
Poughkeepsie T.S (C) (14R04)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Paper & Containers	712
Washington (T) T.S. (14R14)	Dutchess County	3	Dutchess County Resource Recovery Agency	Commingled Paper & Containers	56
Watch Hill Holding Corp./Royal Carting Service (14T03)	Dutchess County	4	Columbia County	Commingled Paper & Containers	157
Watch Hill Holding Corp./Royal Carting Service (14T03)	Bria Sanitation	3	Westchester County	Commingled Paper & Containers	9
Watch Hill Holding Corp./Royal Carting Service (14T03)	Hudson Baylor Newburgh	3	Orange County	Commingled Paper & Containers	284
				Subtotal:	1,267
Watch Hill Holding Corp./Royal Carting Service (14T03)	Rte 82 Sand & Gravel	3	Dutchess County Resource Recovery Agency	Concrete	610
				Subtotal:	610
Dutchess County Materials Recycling Facility (14M01)	Port of Coeymans	4	Not Affiliated - Coeymans (Town)	Container Glass	1,398
Union Vale Transfer Sta. (14R15)	Dutchess County	3	Dutchess County Resource Recovery Agency	Container Glass	61
				Subtotal:	1,459
Dover T.S. (T) (14R02)	Dutchess County	3	Dutchess County Resource Recovery Agency	Corrugated Cardboard	5
Kejem Properties (Harlem Valley Transfer Station) (14T11)	Dutchess County	2	New York City	Corrugated Cardboard	323
Red Hook T.S. (T) (14R18)	UCRRA Materials Recov Facility	3	Ulster County Resource Recovery Agency	Corrugated Cardboard	46
Rhinebeck T.S. (14R19)	Resource Recovery Systems	4	Columbia County	Corrugated Cardboard	29
Union Vale Transfer Sta. (14R15)	Dutchess County	3	Dutchess County Resource Recovery Agency	Corrugated Cardboard	40
Watch Hill Holding Corp./Royal Carting Service (14T03)	Interstate Waste	3	Rockland County SWMA	Corrugated Cardboard	595
Watch Hill Holding Corp./Royal Carting Service (14T03)	Bria Sanitation	3	Westchester County	Corrugated Cardboard	53
Watch Hill Holding Corp./Royal Carting Service (14T03)	Gen II	3	Westchester County	Corrugated Cardboard	16
Watch Hill Holding Corp./Royal Carting Service (14T03)	Casella Recycling	4	Columbia County	Corrugated Cardboard	117
Watch Hill Holding Corp./Royal Carting Service (14T03)	Hudson Baylor Newburgh	3	Orange County	Corrugated Cardboard	3,647
Watch Hill Holding Corp./Royal Carting Service (14T03)	American Independent Paper Mills Supply Co	3	Westchester County	Corrugated Cardboard	774
				Subtotal:	5,644

Dutchess County Waste/Material Flow from 2010 Facility Annual Reports

Note: To avoid double counting, the amounts below do not reflect material/waste movement within the Planning Unit.

Waste Imported into Dutchess County is not included.

Union Vale Transfer Sta. (14R15)	American Lamp Recycling, LP	3	Ulster County Resource Recovery Agency	Electronics	7
Watch Hill Holding Corp./Royal Carting Service (14T03)	Dutchess County	Not Reported	Not Reported	Electronics	51
				Subtotal:	58
Dutchess County Materials Recycling Facility (14M01)	Effron Scrap	3	Dutchess County Resource Recovery Agency	Industrial Scrap Metal	3
				Subtotal:	3
Red Hook T.S. (T) (14R18)	Dutchess County	3	Dutchess County Resource Recovery Agency	Junk Mail	52
				Subtotal:	52
Red Hook T.S. (T) (14R18)	UCRRA Materials Recov Facility	3	Ulster County Resource Recovery Agency	Newspaper	75
Rhinebeck T.S. (14R19)	Dutchess County	3	Dutchess County Resource Recovery Agency	Newspaper	99
Watch Hill Holding Corp./Royal Carting Service (14T03)	Interstate Waste	3	Rockland County SWMA	Newspaper	52
Watch Hill Holding Corp./Royal Carting Service (14T03)	Bria Sanitation	3	Westchester County	Newspaper	38
Watch Hill Holding Corp./Royal Carting Service (14T03)	Casella Recycling	4	Columbia County	Newspaper	49
Watch Hill Holding Corp./Royal Carting Service (14T03)	Hudson Baylor Newburgh	3	Orange County	Newspaper	773
Watch Hill Holding Corp./Royal Carting Service (14T03)	American Independent Paper Mills Supply Co	3	Westchester County	Newspaper	51
				Subtotal:	1,137
Red Hook T.S. (T) (14R18)	UCRRA Materials Recov Facility	3	Ulster County Resource Recovery Agency	Other Rigid Plastics	69
Union Vale Transfer Sta. (14R15)	Dutchess County	3	Ulster County Resource Recovery Agency	Other Rigid Plastics	38
				Subtotal:	107
Watch Hill Holding Corp./Royal Carting Service (14T03)	Hudson Baylor Newburgh	3	Orange County	Single Stream	9,892
				Subtotal:	9,892
Dutchess County Materials Recycling Facility (14M01)	B. Millens, Inc.	3	Ulster County Resource Recovery Agency	Tin & Aluminum Containers	307
Union Vale Transfer Sta. (14R15)	B. Millens, Inc	3	Ulster County Resource Recovery Agency	Tin & Aluminum Containers	27
				Subtotal:	335
Watch Hill Holding Corp./Royal Carting Service (14T03)	Seward Valley Organics	4	Montgomery-Otsego-Schoharie SWMA	Wood (Chips)	249
Watch Hill Holding Corp./Royal Carting Service (14T03)	Bria Sanitation	3	Westchester County	Wood (Chips)	5
				Subtotal:	254
Watch Hill Holding Corp./Royal Carting Service (14T03)	McEnroe	3	Dutchess County Resource Recovery Agency	Yard Waste	355
				Subtotal:	355
				Total:	26,960

Dutchess County Recyclables Going to Out of State Destinations

<u>Region</u>	<u>Facility</u>	<u>Activity Number</u>	<u>Material</u>	<u>Amount (in tons)</u>	<u>Destination State</u>
3	Pawling T.S. (T)	14R17	Bulk Metal	66	CT
			Subtotal:	66	
3	Dutchess County Materials Recycling Facility	14M01	Corrugated Cardboard	1,352	NJ
3	Kejem Properties (Harlem Valley Transfer Station)	14T11	Corrugated Cardboard	2,090	CT
			Subtotal:	3,442	
3	Dutchess County Materials Recycling Facility	14M01	HDPE	343	NJ
			Subtotal:	343	
3	Dutchess County Materials Recycling Facility	14M01	Newspaper	1,380	NJ
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Newspaper	43	NJ
			Subtotal:	1,423	
3	Dutchess County Materials Recycling Facility	14M01	PET	272	NJ
			Subtotal:	272	
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Single Stream	138	NJ
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Single Stream	22	NJ
			Subtotal:	160	
3	Dutchess County Materials Recycling Facility	14M01	Tin & Aluminum Containers	60	GA
			Subtotal:	60	
3	Watch Hill Holding Corp./Royal Carting Service	14T03	Wood (Chips)	6	CT
			Subtotal:	6	
			Total:	5,771	

Note: These totals do not include Amounts from the Bureau of Waste Reduction & Recycling, Organic Recycling and Beneficial Use Section.

DUTCHESS COUNTY RECYCLES

Good news! It is no longer necessary to separate different recyclables (paper, glass, metal, and plastics) into separate bins. Now all recyclables can be placed in the same bin. This reduces everyone's time and increases recycling.



What is recyclable?



Glass – Bottles, jars, and food containers

Metal – Aluminum cans and foil, metal cans, metal jar lids, bottle caps



Paper – Newspaper, magazines, brochures, corrugated cardboard, cardboard beverage carriers, paper bags, paperback books, cartons, greeting cards, mail, phone books, dry food cartons, paperboard boxes, file folders, office paper

All plastics (except plastic bags) – plastic food and beverage containers including bottles, jars, and jugs



Please: Flatten cardboard boxes and rinse residues from containers – they don't have to be spotless!

Please no styrofoam, wet paper or boxes, plastic film, waxed paper, batteries, ceramic or Pyrex dishware, mirrors, aerosol cans, scrap metal, syringes, electronic waste, stickers, or hazardous materials containers

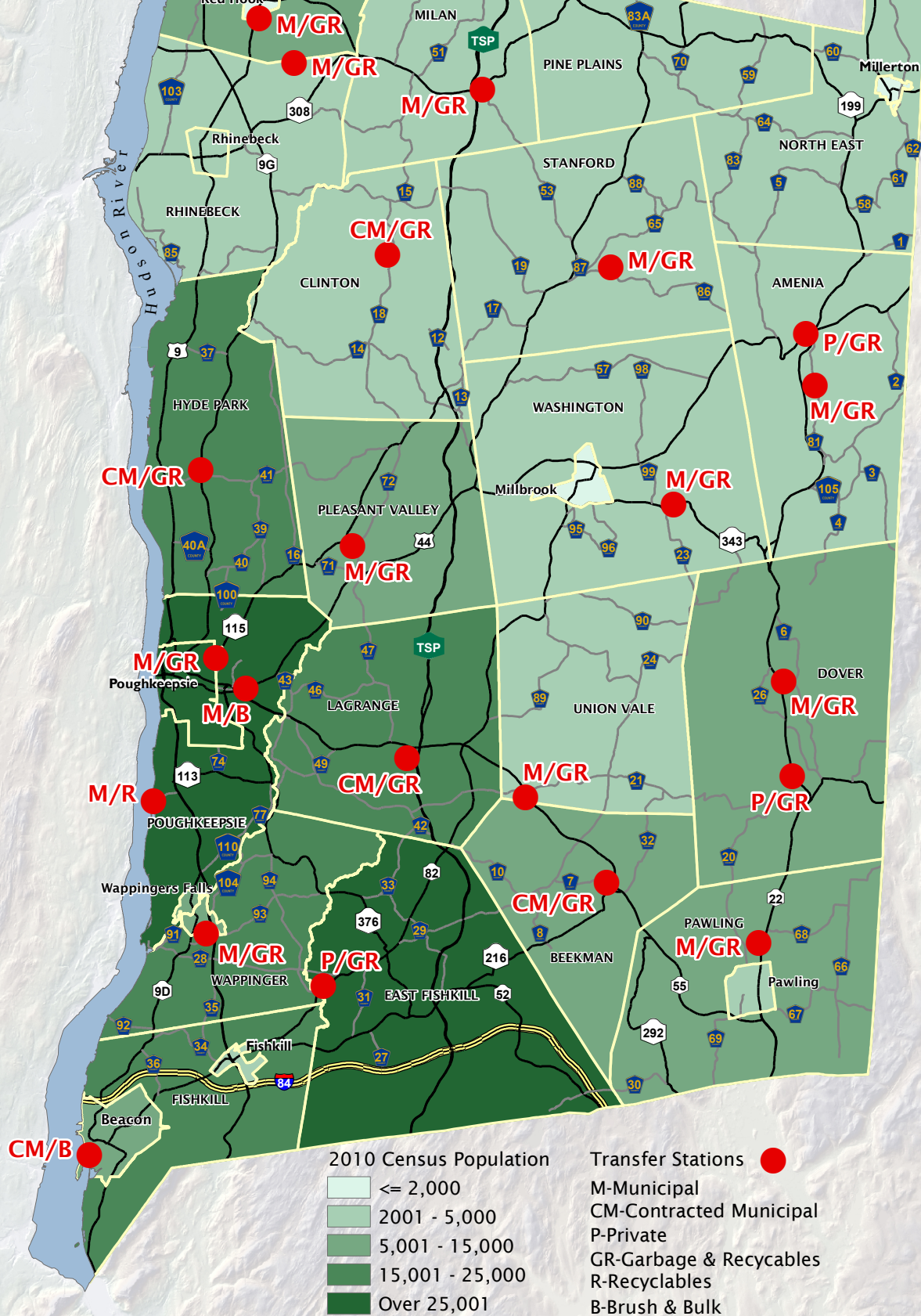
Appendix C

Appendix C: Table 1
Dutchess County Transfer Stations

Town/City	Owner/ Operator	Garbage	Plastic bottles	Aluminum Cans	Glass, Jars, Bottles	Newspaper	Corrugated Cardboard	Brush	Electronics	Tires	Vehicle Batteries	Hazardous Materials	Motor Oil	Appliances	Construction Debris	Comments
C/Beacon	Muni/Muni	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Electronics are only accepted on specified days during the year.
C/Poughkeepsie	Muni/Muni	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Brush is only collected curbside seasonally. HHW is only accepted on specified "Clean-Up" days
T/Amenia	Allen Sand & Gravel/Muni	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	No	They do not accept yard waste, but the sand and gravel company on which the transfer station sits does, so they can bring yard waste to the same location, just further back
T/Beekman	Muni/Royal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Residents of the Town of Beekman are also able to use either the transfer station in the Town of Union Vale
T/Clinton	Muni/Welsh	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	Yes	No	
T/Dover	Muni/Muni	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No	No	
T/Dover	Welsh/Welsh	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	
T/East Fishkill	Royal/Royal	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	
T/Hyde Park	Muni/Royal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
T/LaGrange	Muni/Royal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	
T/Milan	Muni/Welsh	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	No	
T/Pawling*	Muni/Muni	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
T/Pleasant Valley	Muni/Muni	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	No	Refrigerators and freezers are accepted, but the doors must be removed
T/Poughkeepsie	Muni/Muni	No	No	No	No	No	No	Yes	No	Yes	No	No	No	Yes	No	The Town of Poughkeepsie transfer station is only open 10 Saturdays per year to collect bulk items and some metal items
T/Poughkeepsie	DCRRA/DCRRA	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	Electronics and HHW are accepted on designated HHW event days
T/Red Hook*	Muni/Muni	No	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	No	
T/Rhinebeck*	Muni/Royal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	They only accept appliances that do not contain freon
T/Stanford	Muni/Muni	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	
T/Union Vale	Muni/Muni	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	They accept fluorescent light bulbs
T/Wappinger	Muni/Muni	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Only the Wappingers side of the Village of Wappingers Falls can use the transfer station
T/Washington*	Muni/Muni	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	They only accept appliances that do not contain freon
*Village also has use of the transfer station																

Dutchess County Transfer Stations

Appendix C: Map 1



Map Prepared By Dutchess County Department of Planning & Development
November 2012

N 1 in = 4 miles

2012 HOUSEHOLD HAZARDOUS & ELECTRONIC WASTE DISPOSAL DAYS

YOU MUST PRE-REGISTER AND PRE-PAY

Call 486-7340 or 463-6020 or visit www.DCRRRA.org to register and schedule an appointment,
then send a check for \$5.00 payable to:

'DCRRRA' Dutchess County Resource Recovery Agency, 96 Sand Dock Road, Poughkeepsie, NY 12601
7:30 A.M. - 9:30 A.M.

This Program Is For Dutchess County Residents Only

These events are partially funded by the NY State Department of Environmental Conservation

Advanced Recovery Inc. American Lamp Recycling
CARE Environmental Corp.

PLEASE BRING:

Product Containers Marked:

"Warning", "Hazardous", "Flammable", "Poisonous", "Corrosive"

Photo chemicals, non latex driveway sealer, pool chemicals, creosote, kerosene, flammable liquids, metal polish, turpentine, stains, varnishes, strippers, thinners, gasoline/oil mixture, brake fluid, auto fluids, pesticides, herbicides, fungicides, chemical fertilizers, adhesives, resins, solvents, oil & lead based paints (no latex!), mercury containing devices, button cell batteries for watches & hearing aids, computer monitors, CPU's, fax machines, printers, TV's, stereos, telephones and cell phones, lithium & sealed lead acid batteries, fluorescent bulbs & tubes

PLEASE DO NOT BRING:

Ammunition or explosives, asbestos products, latex driveway sealer & latex paint, building or construction debris, tires, furniture, medical waste or medicines, propane or other flammable gas cylinders, radioactive materials, scrap metal, metal drums or empty containers, motor oil, car batteries and antifreeze

Latex Paint - Add kitty litter or sawdust to dry out remaining paint, and then place the can in your regular trash

AAA, AA, C, D, 9 Volt and lantern batteries are regular household trash

Rechargeable Nickel Cadmium Batteries - Call 1-800-8-Battery for most convenient local disposal location

Automotive Batteries, Motor Oil and Antifreeze - Drop off at auto centers

Collections will be on the following Saturdays at the following locations:

- DCRRRA in Poughkeepsie on April 7, June 2, July 7, November 3
- Pawling Fire Department on May 5
- Amenia Transfer Station on August 4
- Cornell Cooperative Extension in Millbrook on September 8
- Rhinebeck at Town Highway Department, 119 Rhinecliff Road, on October 6

All events begin at 7:30 A.M.

Pre-registration and pre-payment for HHW events is mandatory. DCRRRA must receive your \$5.00 registration fee no later than the Wednesday prior to each Saturday's event. No monies will be accepted at the collection site.

Medications Drop Off - Poughkeepsie Only: 4/7, 6/2, 7/7, 11/3
8:00 a.m. - 10:00 a.m.; No Fee; Pre-Registration Required

Dutchess County Government Cares

LOCAL LAW NO. 1 1984

A LOCAL LAW PROVIDING FOR THE MANAGEMENT
OF SOLID WASTE GENERATED WITHIN THE
COUNTY OF DUTCHESS

BE IT ENACTED by the Legislature of the County of Dutchess as follows:

SECTION 1. Short Title. This local law shall be known and may be cited as the solid waste management law.

SECTION 2. Purposes. This local law is adopted pursuant to Chapter 675 of the Laws of 1982 of the State of New York for the purpose of (1) effectuating the management on a county-wide basis of all solid waste generated within or coming into from outside of the County of Dutchess in order to protect the public health and safety and to improve the environment by control of air, water and land pollution, and (2) carrying out the expressed policy of the State to displace competition with regulation or monopoly public service.

SECTION 3. Definitions. As used or referred to in this local law, unless the context otherwise requires:

1. "Agency" shall mean the Dutchess County Resource Recovery Agency created under Chapter 675 of the Laws of 1982 of the State of New York.

2. "Commissioner of Solid Waste Management" shall mean the Commissioner of Solid Waste Management of the County of Dutchess.

3. "County of Dutchess" shall mean the entire County of Dutchess as constituted and existing under the Laws of the State of New York.

4. "Disposal of Solid Waste" shall mean the transporting or delivery of solid waste to a solid waste facility.

5. "Municipality" shall mean any county, city, town, village, improvement district (or a county, city, town or village acting on behalf of an improvement district), public corporation, municipal corporation, political subdivision, government agency, department or bureau of the state or federal government.

6. "Person" shall mean any natural person, individual, partnership, co-partnership, association, joint venture, corporation form, trust, estate or any other legal entity inclusive of a "municipality."

7. "Solid Waste" shall mean all materials or substances discarded or rejected within the County of Dutchess as being spent, useless, worthless, or in excess to the owners at the time of such discard or rejection, including, but not limited to garbage, refuse, industrial and commercial waste, sludges from air or water pollution control facilities or water supply treatment facilities, rubbish, ashes, contained gaseous material, incinerator residue, demolition and construction debris and offal, but not including sewage and other highly diluted water-carried materials or substances and those in gaseous form, special nuclear or by-product material within the meaning of the United States Atomic Energy Act of 1954, as amended, and waste which appears on the list of hazardous waste promulgated by the Commissioner of Environmental Conservation pursuant to Section 27-0903 of the Environmental Conservation Law of the State of New York.

8. "Solid Waste Management-Resource Recovery Facility" shall mean any facility, plant, works, system, building, structure, improvement, machinery, equipment, fixture or other real or personal property which is to be used, occupied or employed for the collecting, receiving, transporting, storage, processing or disposal of solid waste or the recovery by any means of any material or energy product or resource therefrom including, but not limited to, recycling centers, transfer stations, baling facilities, rail haul or maritime facilities, collection

vehicles, processing systems, resource recovery facilities, steam and electric generating and transmission facilities, including auxiliary facilities to supplement or temporarily replace such generating facilities, steam distribution facilities, sanitary landfills, plants and facilities for compacting, composting or pyrolyzation of solid wastes, incinerators and other solid waste disposal, reduction or conversion facilities and resource recovery equipment and disposal equipment as defined in subdivisions four and five of Section 51-0903 of the Environmental Conservation Law of the State of New York.

SECTION 4. Disposal of Solid Waste. The Commissioner of Solid Waste Management is hereby authorized and directed to designate in writing, from time to time, one or more solid waste management-resource recovery facilities to be used for the disposal of solid waste generated within the County of Dutchess, which designation may include a determination that a particular solid waste management-resource recovery facility shall be the only facility used for the disposal of solid waste generated within all of, or a described area within, the County of Dutchess or by a particular person or persons. In making any such designation the Commissioner of Solid Waste Management shall give due consideration to the capacity of any facility so designated, the size and population of the area or person or persons to be served and such other factors as shall enable the Commissioner of Solid Waste Management to determine that the public interest is served by such designation. No person shall dispose of solid waste generated within or coming into from outside of the County of Dutchess, except at a solid waste management-resource recovery facility designated by the Commissioner of Solid Waste Management in accordance with this Section. The Commissioner of Solid Waste Management is hereby authorized and directed to promulgate such rules and regulations as he shall determine to be necessary to effectuate the purposes of this local law, including the requirement that all private haulers of solid waste be licensed by the Commissioner of Solid Waste Management. All acts and proceedings taken by the Commissioner of Solid Waste Management pursuant to this local law shall, in all respects, be consistent with the Environmental Conservation Law and other applicable laws and rules and regulations promulgated pursuant thereto.

SECTION 5. Enforcement. It shall be the responsibility of the Commissioner of Solid Waste Management, in consultation with the County Attorney, to enforce the provisions of this local law and all rules, regulations and designations made pursuant thereto. Such enforcement shall be by such legal or equitable proceedings, including without limitation a proceeding for specific performance, brought in the name of the County of Dutchess as may be provided or authorized by law.

SECTION 6. Penalties. Any person who violates this local law shall be guilty of an offense and subject to a fine of not more than Five Hundred Dollars (\$500.00) and/or imprisonment for not more than fifteen (15) days and/or suspension or revocation of collecting, receiving, transporting and/or disposing privileges in conjunction with solid waste within the County of Dutchess. Each and every act of disposal committed which is prohibited by Section 4 hereof shall constitute a separate violation of this local law.

SECTION 7. Priority. Pursuant to Section 1 of Chapter 675 of the Laws of 1982 of the State of New York, this local law takes precedence over and shall supercede any inconsistent provisions of any local law enacted by any municipality within the County of Dutchess.

SECTION 8. Separability. If any section, provision, or part thereof, in this local law, or the application thereof to any person or circumstances, is adjudged invalid or unconstitutional by a court of competent jurisdiction, then such adjudication shall not affect the validity of the remainder of the local law or the validity of the local law as a whole or any sections, provisions, or part thereof, not so adjudged invalid or unconstitutional and the application of the local law or any section, provision or part thereof, to other persons or circumstances shall not be affected by said adjudication.

SECTION 9. Effective Date. This local law shall take effect immediately.

RESOLUTION NO. 339 1983

RE: LOCAL LAW NO. 1 OF 1984; A LOCAL
LAW PROVIDING FOR THE MANAGEMENT OF
SOLID WASTE GENERATED WITHIN THE
COUNTY OF DUTCHESS

Government Services Committee

COMMUNITY SERVICES COMMITTEE

offers the following
and moves its adoption:

RESOLVED, that the County Legislature of the
County of Dutchess does hereby adopt Local Law No.
of 1983 which is being presented herewith.

CA-236-83

SJW:ld

8/22/83

APPROVED

*Lucille P. Pattison*LUCILLE P. PATTISON
County ExecutiveDone 1/16, 1984STATE OF NEW YORK)
COUNTY OF DUTCHESS) ss:

This is to certify that I, the undersigned, Clerk of the Legislature of the County of Dutchess, have compared the
foregoing resolution with the original resolution now on file in the office of said clerk, and which was adopted by said
Legislature on the 14th day of August, 1983, and that the same is a true and correct trans-
cript of said original resolution and of the whole thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of said Legislature this 15 day
of December, 1983

DEC 20 1983

Patricia J. Richard
Deputy CLERK OF THE LEGISLATURE

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LOCAL LAW NO. 4 OF 1990

A LOCAL LAW PROVIDING FOR THE MANDATORY COLLECTION AND DISPOSITION OF
RECYCLABLES IN DUTCHESS COUNTY

BE IT ENACTED by the County Legislature of the County of Dutchess, State of New York, as follows:

Section 1. Purpose.

Whereas, the conservation, recovery, and reuse of recyclable materials is now a necessity in order to conserve natural resources, reduce the impact of the ever increasing cost of solid waste disposal, ensure safe processing of solid waste, help maximally reduce the quantity of solid waste that must be disposed of and preserve capacity at the solid waste management/resource recovery facilities, it is the intent of the Dutchess County Legislature to establish a resource recovery system which includes the mandatory separation of recyclable material from solid waste in the county.

The purpose of this local law of the County of Dutchess is to regulate as a proper governmental function, the separation of recyclable material from the solid waste by persons within the county.

Section 2. Statutory Authority for Local Law.

This local law is adopted pursuant to Section 10 of the Municipal Home Rule Law, (Section 2047-t(3) of the Public Authorities Law) and Local Law #1 of 1984, it being the intent of this Legislature that both Local Laws should provide a comprehensive regulation of the solid waste stream in the county. Nothing in this local law shall be deemed to conflict with or supersede Local Law #1 of 1984.

Section 3. Definitions.

As used in this local law, the following terms shall have the following meanings:

"Agency" shall mean the Dutchess County Resource Recovery Agency created under Chapter 675 of the Laws of 1982 of the State.

"Aluminum Products" shall mean uncontaminated aluminum packaging, such as pie plates and frozen dinner trays.

"Cans" shall mean containers comprised of aluminum, tin, steel, or a combination thereof, which contain or formerly contained only food and/or beverage substances.

"Cardboard" shall mean all corrugated cardboard normally used for packing, mailing, shipping or containerizing goods, merchandise or other material, but excluding plastic, foam or wax-coated or soiled cardboard.

"Commingled" shall mean source separated, non-putrescible, non-contaminated recyclable materials that have been placed in the same container.

"Commissioner" shall mean the Commissioner of Solid Waste Management of the County.

"County" shall mean the entire County of Dutchess as constituted and existing under the Laws of the State.

"Economic Markets" shall mean instances in which the full avoided costs of proper collection, transportation and disposal of source separated materials are equal to or greater than the cost of collection, transportation and sale of said materials less the amount received from the sale of said material.

"Garbage" shall mean putrescible animal, fish, fowl, fruit or vegetable waste incident to and resulting from the use, preparation, cooking and consumption of food.

"Glass" shall mean all products made from silica or sand, soda ash and limestone, the product being transparent or translucent and being used for the packaging or bottling of various matter and all other material commonly known as glass excluding, however, ceramics, light bulbs, blue and flat glass and glass commonly known as window glass.

"Major appliances" shall mean large and/or bulky household appliances (refrigerator, washer, dryer, stove, etc.) ordinarily operated by gas or electric current.

"Municipality" shall mean any county, city, town, village, improvement district (or a county, city, town or village acting on behalf of an improvement district), public benefit corporation, municipal corporation, political subdivision, government agency, department or bureau of the state or federal government.

"Newspaper" shall mean all uncontaminated paper commonly referred to as newsprint and distributed at stated intervals, usually daily or weekly, having printed thereon news and opinion and containing advertisements and other matter of public interest, and shall include supplements, comics and enclosures.

"Office paper" shall mean all bond paper including computer print-outs, stationery, photo copy, and ledger from commercial waste generators.

"Person" shall mean any natural person, individual, partnership, co-partnership, association, owner or manager of a business, commercial or industrial establishment, joint venture, corporation, trust, estate or any other legal entity inclusive of a municipality or any other waste generator.

"Plastic" shall mean all containers made from high density polyethylene or polyethylene terephthalate (PET) including, but not limited to bottles having contained the following products: milk, water, juice, detergent, bleach, antifreeze and soda; or other resins that may be designated as a recyclable material in accordance with this law once economic markets exists.

"Recyclable commercial and industrial by-products" shall include all materials which are by-products of production utilized in production or sale after sale by a commercial enterprise or industrial enterprise.

"Recyclable material" shall mean office paper, cardboard, newspaper, cans, glass, and plastic, aluminum products, tires, major appliances and such other materials as may be designated by the Commissioner and the Recyclables Oversight Committee in accordance with this law.

"Recyclables Oversight Committee" means the committee established and appointed pursuant to this local law.

"Recyclers" shall mean those who deal with recyclable material both as collectors, separators and marketers. This definition shall include not-for-profit corporations and charitable corporations which collect recyclables for fund raising purposes.

"Recycling" shall mean any process by which materials, which would otherwise become solid waste, are collected, separated or processed and returned to the economic mainstream in the form of raw materials or products.

"Solid waste" shall mean all materials or substances discarded or rejected within the County of Dutchess as being spent, useless, worthless, or in excess to the owners at the time of such discard or rejection, including, but not limited to garbage, refuse, industrial and commercial waste, sludges from air or water pollution control facilities or water supply treatment facilities, rubbish, ashes, contained gaseous material, incinerator residue, demolition and construction debris and offal, but not including sewage and other highly diluted water-carried materials or substances and those in gaseous form special nuclear or by-product material within the meaning of the United States Atomic Energy Act of 1954, as amended, and waste which appears on the list of hazardous waste promulgated by the Commissioner of Environmental Conservation pursuant to Section 27-0903 of the Environmental Conservation Law of the State.

"Solid waste management-resource recovery facility" shall mean any facility, plant, works, system, building, structure, improvement machinery, equipment, fixture or other real or personal property which is to be used, occupied or employed for the collecting, receiving, transporting, storage, processing or disposal of solid waste or the recovery by any means of any material or energy product or resource therefrom including, but not limited to, recycling centers, transfer stations, baling facilities, rail haul or maritime facilities, collection vehicles, processing systems, resource recovery facilities, steam and electric generating and transmissions facilities, including auxiliary facilities to supplement or temporarily replace such generating facilities, steam distribution facilities, sanitary landfills, plants and facilities for compacting, composting or pyrolyzation of solid wastes, incinerators and other solid waste disposal, reduction or conversion facilities and resource recovery equipment and disposal equipment as defined in subdivisions four and five of Section 51-0903 of the Environmental Conservation Law of the State of New York.

"Source separation" means the segregation of recyclable materials from the solid waste stream at the point of generation for separate collection, sale or

other disposition.

"State" shall mean the State of New York.

"Uncontaminated" shall mean free of materials that are not recyclable or free of materials that, if present, either reduce the value of a recyclable material or render it unrecyclable.

"Vehicular tires" shall mean tires from cars and trucks and their casings.

"Yard Waste" shall mean grass clippings, leaves, and cuttings from shrubs, hedges, trees, brush and garden debris.

Section 4. Designation or Removal of Recyclable Materials.

In addition to the recyclable materials defined in Section 3 of this law, the Commissioner, subject to Section 17 of this local law, shall be authorized to designate recyclable materials to be separated from other solid waste or to remove previously designated recyclable materials from the list of recyclable materials.

If removal of the recyclable material is based upon the lack of an economic market for the material in accordance with Section 120-aa of the General Municipal Law, then the Commissioner shall conduct such studies as he deems necessary and proper to establish the lack of an economic market, and shall state specifically in the notice of his action removing the recyclable material and the grounds for his action and shall make all studies upon which his determination is based. Such designation or removal shall be made in writing, published in the Environmental News Bulletin and the official newspapers of the County, and shall take effect thirty (30) days after such publication.

Section 5. Program Established.

A program is hereby established for the mandatory source separation of recyclable materials within the County. All persons shall separate recyclable materials from solid waste before either setting out solid waste for collection pursuant lawful procedure or disposing of it at an authorized solid waste management/resource recovery facility.

Section 6. Preparation, Separation, and Ownership of Recyclable Materials.

(a) The commissioner, from time to time, may promulgate rules and regulations specifying requirements for preparation of recyclable materials. Such rules and regulations shall be promulgated in accordance with Section 16 hereof. All persons shall prepare recyclable materials in accordance with the Commissioner's rules and regulations.

(b) All recyclable materials shall be placed in a separate container or containers.

(c) Once deposited in the containers, all recyclable materials become the property of the county.

Section 7. Recycling of source separated materials.

(a) Upon the effective date of this Local Law after adequate notice has been published, posted and publicized for a garbage and refuse district or for a particular collection area, all persons in the county shall separate recyclable materials for the purposes of collection and recycling. Where permitted by the rules or regulations of a municipality or private hauler, different types of recyclable materials may be commingled.

(b) No person shall dispose of recyclable materials except as directed by the Commissioner pursuant to this Local Law, or if the Commissioner has not acted, the Municipality.

(c) The Commissioner may, from time to time, as required, alter, delete, or add designated recyclables based on market availability, technology or other factors, subject to Section 17 of this law.

(d) Source separated recyclable material placed for collection shall be collected and retained separately from garbage and shall be transported to a solid waste management-resource recovery facility/or facilities as designated by the Commissioner of Solid Waste Management, as more fully set forth herein.

(e) All collectors of designated source separated solid waste shall be responsible for proper collection of recyclable materials that have been separated at the point of generation and the collector of such recyclable materials shall be responsible for transporting such recyclable materials to a designated solid waste management/resource recovery facility as shall be determined by the Commissioner.

(f) All solid waste management/resource recovery facilities, whether municipal or private, shall provide adequate facilities for the acceptance of recyclable materials and further, no such facility or collector shall accept solid waste unless the materials designated by the Commissioner as recyclable materials are separated therefrom.

(g) Nothing in this Local Law shall be deemed to make it unlawful to dispose of recyclables by means of donating them to a recycler.

Section 8. Private Drop-off Program for Multi-Domicile Buildings and Complexes.

(a) There is hereby established a program ("private drop-off program") for the source separation and delivery to a recycling drop-off of recyclable materials from all residents of apartment complexes, condominium complexes, cooperative apartments, hotels, motels, bungalow or resort colonies.

(b) The owner of and manager of every multi domicile building or complex, within the county shall provide and maintain, in a neat and sanitary condition, recycling drop-off(s) to receive all recyclable materials generated by residents of the building or complex. In cases where a condominium association exists, the condominium association shall be responsible for provision and maintenance of the recycling drop-off(s). It shall be the tenant's responsibility to separate designated recyclable materials from the solid waste and deposit the recyclables in the facilities provided by the owner.

(c) The owner or manager of every multi domicile building or complex shall arrange for the collection for recycling of all recyclable materials from said drop-offs.

Section 9. Reporting to Commissioner.

All collectors of recyclables shall be required to keep and maintain records reflecting the tons of recyclable materials collected and to report the results of such collection to the Commissioner on a quarterly basis.

Section 10. Regulated Waste Haulers and Collectors.

Any waste hauler licensed under the provisions of Local Law #1 of 1984 and the Rules and Regulations of the Commissioner of Solid Waste Management shall be subject to the provisions of this Local Law.

Section 11. Designated Solid Waste Management Facilities.

The Commissioner is hereby delegated the authority to designate appropriate solid waste management/resource recovery facilities for the purposes of recyclable materials processing and disposition. A person shall deliver recyclable materials only to a solid waste management/resource recovery facility designated by the Commissioner. However, if no facility is designated, the collector of a particular recyclable material may deliver recyclable material to an appropriate facility.

Section 12. Separation and Collection of Tires and Major Household Appliances.

Deleted.

Section 13. Preparation and Disposal of Residential Yard Waste.

(a) All yard waste shall be separated from solid waste. It shall be unlawful to place such material in a solid waste management-resource recovery facility.

(b) Each city, town and/or village within the county may provide, or obtain rights in, a site for the disposal of residential yard waste.

(c) Yard Waste may be composted at a site or sites designated by the municipality or at a facility as may from time to time be designated by the Commissioner of Solid Waste Management.

(d) This section shall not prohibit private composting, or onsite disposal in compliance with any existing law, of yard waste by any individual.

Section 14. Unlawful Activities; Nuisances.

It shall be unlawful for:

(1) Any person, other than those persons authorized, to collect any recyclable material which has been placed at the curb or roadside for collection or within a recycling drop-off pursuant to this law or to scavenge or remove any articles from any containers.

(2) Any person to violate or to assist in the violation of any provision of this law.

(3) Any person to place or to cause to be placed any material other than a recyclable material in or near a recycling drop-off.

(4) Any person to hinder, to obstruct, to prevent or to interfere with the county or any other authorized persons in the performance of any duty under this local law or in the enforcement of this local law.

(5) Any person to commingle in a landfill or other solid waste management-resource recovery facility, any designated recyclable with solid waste.

(6) Any person to operate a landfill or other solid waste management-resource recovery facility without adequate provisions for the collection of source separated recyclable materials.

(7) Any person to dispose of or place tires, yard waste or household appliances (white goods) in a landfill or other solid waste management-resource recovery facility.

Section 15. Enforcement: Penalties for Persons Violating.

(a) Any person who violates this Local Law shall be guilty of an offense and subject to a fine. Conviction of a first offense provided by this article shall be punishable by a fine of fifty dollars (\$50), and in addition, anyone convicted of a first offense hereunder shall be liable to pay a civil penalty of fifty dollars (\$50). Conviction of a second offense within a year of the first offense shall be punishable by a fine of one hundred dollars (\$100), and in addition anyone convicted of a second offense thereunder shall be liable to pay a civil penalty of one hundred (\$100), and in addition anyone convicted of a subsequent offense thereunder shall be liable to pay a civil penalty of one thousand dollars (\$1000). Where applicable, a person who violates this Local Law may be subject to suspension or revocation of collecting, receiving, transporting and/or disposing privileges in conjunction with solid waste disposed within the county.

(b) Each and every act of disposal committed which is prohibited hereunder shall be deemed a separate violation of this Local Law.

County of Dutchess
Local Law No. 8 of the year 1990

A Local Law Amending Local Law No. 4 of 1990, Providing for the Mandatory Collection and Disposition of Recyclables in Dutchess County.

Be it enacted by the County Legislature of the County of Dutchess as follows:

BE IT ENACTED BY THE COUNTY LEGISLATURE OF THE COUNTY OF DUTCHESS, NEW YORK, AS FOLLOWS:

SECTION 1. The intent of this Local Law shall be to amend Section 15 of Local Law No. 4 of 1990, as follows:

Section 15. Enforcement and Penalties.

(a) All provisions of this local law are enforceable by the Dutchess County Commissioner of Solid Waste or his designees.

(b) Any person who violates this Local Law shall be guilty of an offense and subject to a fine. Conviction of a first offense provided by this article shall be punishable by a warning. Conviction of a second offense within a year of the first offense shall be punishable by a fine of fifty dollars (\$50), and in addition anyone convicted of a second offense thereunder shall be liable to pay a civil penalty of fifty dollars (\$50), and in addition anyone convicted of a subsequent offense thereunder shall be liable to pay a civil penalty of five hundred to one thousand dollars (\$500 - \$1000). Where applicable, a person who violates this Local Law may be subject to suspension or revocation of collecting, receiving, transporting and/or disposing privileges in conjunction with solid waste disposed within the county.

(c) Each and every act of disposal committed which is prohibited hereunder shall be deemed a separate violation of this Local Law.

(d) The Commissioner of Solid Waste or his designees shall enforce all

the provisions of this Local Law.

(e) The following shall be excluded from penalties: Infirm, blind, handicapped or otherwise incapable of physically separating materials for recycling, such infirmity to be certified by a medical doctor.

SECTION 2. Local Law No. 4 of 1990 is hereby ratified and confirmed in all other respects.

SECTION 3. This Local Law shall take effect immediately upon full compliance with all the requisite statutes and laws applicable to its adoption and promulgation.

Section 16. Rules and Regulations.

The commissioner may from time to time by resolution promulgate rules and regulations consistent with the provisions of this Local Law in order to effect the purposes thereof. The procedure for rule making shall be as follows:

(a) The proposed rules or synopsis thereof shall be published twice in the official newspapers of the County. Such publications shall contain a notice of public hearing, which shall be held by the Commissioner at a convenient facility open to the public on no less than 30 days notices;

(b) the Commissioner shall prepare the record of the public hearing and shall prepare a document responding to the comments received by the Commissioner at the public hearing. The record of public comment and the response document shall be made available for public review;

(c) the final rules, or synopsis thereof, shall be published in the same manner as the proposed rules no less than 10 days after the response document is made available for public review. The final rules shall take effect 20 days after publication.

Section 17. Recyclables Oversight Committee.

A committee consisting of not more than seven (7) members to be appointed by the Dutchess County Legislature and the County Executive is hereby created and established for the purpose of advising the Commissioner of Solid Waste Management regarding adding or removing materials from the definition of recyclable materials; establishing procedures and operating standards for municipal recyclable material collection points; monitoring the progress toward meeting the percent reduction goals established in the 1988 State Law; and such other matters as the commissioner or committee may suggest. Three members shall be appointed by the County Executive; three members shall be appointed by the County Legislature and one member shall be appointed jointly by the County Executive and County Legislature. The members of the oversight committee shall consist of an appointee from the following:

- (1) Resource Recovery Agency Ad Hoc Recycling Committee;
- (2) Town Supervisor's Association;
- (3) Environmental Committee of the County Legislature;
- (4) Carting Industry;
- (5) Environmental Management Council;
- (6) County Mayor's Association
- (7) Group of Local Recycling Coordinators in the County.

The above mentioned appointments shall be for a three year term from the date of appointment. No member shall serve more than two full three year terms. A chairman shall be elected by the members of the oversight panel at its first regular meeting and the panel shall adopt operating by-laws as they deem appropriate. The committee shall meet at least quarterly and the majority of the members shall constitute a quorum. Any recommendation issued by the committee shall be approved by a majority of its membership. The commissioner shall request and receive the recommendation and approval of the committee before he orders the removal or the addition of any material from designation as a recyclable material, except that if such recommendation and approval is not received within thirty days after request by the commissioner he may act without such recommendation.

County of Dutchess
Local Law No. 9 of the year 1990

A Local Law Amending Local Law No. 4 of 1990, Providing for the Mandatory Collection and Disposition of Recycling in Dutchess County.

Be it enacted by the County Legislature of the County of Dutchess as follows:

BE IT ENACTED BY THE COUNTY LEGISLATURE OF THE COUNTY OF DUTCHESS, NEW YORK, AS FOLLOWS:

SECTION 1. The intent of this Local Law shall be to amend Section 17 of Local Law No. 4 of 1990, as follows:

Section 17. Recyclables Oversight Committee.

A committee consisting of not more than seven (7) members to be appointed by the Dutchess County Legislature and the County Executive is hereby created and established for the purpose of advising the Commissioner of Solid Waste Management regarding adding or removing materials from the definition of recyclable materials; establishing procedures and operating standards for municipal recyclable material collection points; monitoring the progress toward meeting the percent reduction goals established in the 1988 State Law; and such other matters as the commissioner or committee may suggest. Three members shall be appointed by the County Executive; three members shall be appointed by the County Legislature and one member shall be appointed jointly by the County Executive and County Legislature. The members of the oversight committee shall consist of an appointee from the following:

- (1) Resource Recovery Agency Ad Hoc Recycling Committee; appointed by the County Executive
- (2) Town Supervisor's Association; appointed by the County Legislature
- (3) Environmental Committee of the County Legislature; appointed by the County Legislature
- (4) Carting Industry; appointed by the County Executive and County Legislature
- (5) Environmental Management Council; appointed by the County Legislature
- (6) County Mayor's Association; appointed by the County Executive
- (7) Group of Local Recycling Coordinators in the County; appointed by the County Executive.

The above mentioned appointments shall be for a three year term from the date of appointment. No member shall serve more than two full three year terms. A chairman shall be elected by the members of the oversight panel at its first regular meeting and the panel shall adopt operating by-laws as they deem appropriate. The committee shall meet at least quarterly and the majority of the members shall constitute a quorum. Any recommendation issued by the committee shall be approved by a majority of its membership. The commissioner shall request and receive the recommendation and approval of the committee before he orders the removal or the addition of any material from designation as a recyclable material, except that if such recommendation and approval is not received within thirty days after request by the commissioner he may act without such recommendation.

SECTION 2. Local Law No. 4 of 1990 is hereby ratified and confirmed in all other respects.

SECTION 3. This local Law shall take effect immediately upon full compliance with all the requisite statutes and laws applicable to its adoption and promulgation.

County of Dutchess
Local Law No. 2 of the year 1991

A Local Law Amending Local Law No. 4 of 1990 and Amending Local Law No. 9 1990 Providing for the Mandatory Collection and Disposition of Recyclables in Dutchess County.

Be it enacted by the County Legislature of the County of Dutchess as follows:

BE IT ENACTED BY THE COUNTY LEGISLATURE OF THE COUNTY OF DUTCHESS, NEW YORK, AS FOLLOWS:

SECTION 1. The intent of this Local Law shall be to amend Section 17 of Local Law No. 4 of 1990 as amended by Local Law No. 9 of 1990 as follows:

Section 17. Recyclables Oversight Committee.

A committee consisting of not more than nine (9) members to be appointed by the Dutchess County Legislature and the County Executive is hereby created and established for the purpose of advising the Commissioner of Solid Waste Management regarding adding or removing materials from the definition of recyclable materials; establishing procedures and operating standards for municipal recyclable material collection points; monitoring the progress toward

meeting the percent reduction goals established in the 1988 State Law; and such other matters as the commissioner or committee may suggest. Four members shall be appointed by the County Executive; four members shall be appointed by the Chairman of the County Legislature; one member shall be appointed jointly by the County Executive and the Chairman of the County Legislature. The members of the Oversight Committee shall consist of an appointee from the following:

- (1) Resource Recovery Agency Ad Hoc Recycling Committee; appointed by the County Executive
- (2) Town Supervisor's Association; appointed by the Chairman of the County Legislature
- (3) Environmental Committee of the County Legislature; appointed by the Chairman of the County Legislature
- (4) Carting Industry; appointed by the County Executive and Chairman of the County Legislature
- (5) Environmental Management Council; appointed by the Chairman of the County Legislature
- (6) County Mayor's Association; appointed by the County Executive
- (7) Group of Local Recycling Coordinators in the County; appointed by the County Executive
- (8) the County Legislature; appointed by the Chairman of the County Legislature
- (9) the general public; appointed by the County Executive

The above mentioned appointments shall be for a three year term from the date of appointment. No member shall serve more than two full three year terms. A chairman shall be elected by the members of the Oversight panel at its first regular meeting and the panel shall adopt operating by-laws as they deem appropriate. The Committee shall meet at least quarterly and the majority of the members shall constitute a quorum. Any recommendation issued by the Committee shall be approved by a majority of its membership. The commissioner shall request and receive the recommendation and approval of the Committee before he orders the removal or the addition of any material from designation as a recyclable material, except that if such recommendation and approval is not received within thirty days after request by the commissioner he may act without such recommendation.

SECTION 2. Local Law No. 4 of 1990, as amended by Local Law No. 9 of 1990, is hereby ratified and confirmed in all other respects.

SECTION 3. This Local Law shall take effect immediately upon full compliance with all the requisite statutes and laws applicable to its adoption and promulgation.

Section 18. Separability.

If any section, provision, or part thereof, in this Local Law, or the application thereof to any person or circumstances, is adjudged invalid or unconstitutional by a court of competent jurisdiction, then such adjudication shall not affect the validity of the remainder of the Local Law or the validity of the Local Law as a whole of any sections, provisions, or part thereof, not so adjudged invalid or unconstitutional and the application of the Local Law or any section, provision or part thereof, to other persons or circumstances shall not be affected by said adjudication.

Section 19. Priority.

Pursuant to Section 1 of Chapter 675 of the Laws of 1982 of the State of New York, this local law takes precedence over and shall supersede any inconsistent provisions of any local law enacted by any municipality within the county.

Section 20. Effective Date.

This local law shall be effective throughout the county on January 1, 1991, except that this local law shall not be effective with regard to recyclable materials generated by commercial establishments until July 1, 1991. For the purposes of this section, the term "commercial establishments" means businesses which are operated for profit.

4. (Subject to permissive referendum, and final adoption because no valid petition filed requesting referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. 4 of 1990 of the County of Dutchess was duly passed by the County Legislature on June 11, 1990 and was approved by the County Executive on: July 5, 1990. Such local law was subject to a permissive referendum and no valid petition requesting such referendum was filed as of August 20, 1990 in accordance with the applicable provisions of law.

6. (County local law concerning adoption of Charter.)

I hereby certify that the local law annexed hereto, designated as local law No. of 19 of the County of , State of New York, having been submitted to the Electors at the General Election of November , 19 , pursuant to the subdivisions 5 and 7 of section 33 of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of the cities of said county as a unit and of a majority of the qualified electors of the towns of said county considered as a unit voting at said general election, became operative. (If any other authorized form of final adoption has been followed, please provide an appropriate certification.)

I further certify that I have compared the preceding local law with the original on file in this office and that the same is a correct transcript therefrom and of the whole of such original local law, and was finally adopted in the manner indicated in paragraph 4 above.

Patricia A. Homan
 Clerk of the Legislative Body

Date: August 20, 1990

(Seal)

(Certification to be executed by County Attorney, Corporation Counsel, Town Attorney, Village Attorney or other Authorized Attorney of locality.)

STATE OF NEW YORK
 COUNTY OF DUTCHESS

I, the undersigned, hereby certify that the foregoing local law contains the correct text and that all proper proceedings have been had or taken for the enactment of the local law annexed hereto.

[Signature]
 Ian MacDonnell
 County Attorney

Date: August 20, 1990

County
 of Dutchess

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Appendix D

#		TASK	2012 Jan	2012 Feb	2012 March	2012 April	2012 May	2012 June	2012 July	2012 Aug	2012 Sept	2012 Oct	2012 Nov	2012 Dec	2013 Jan-June	2013 July-Dec	2014	2015	2016	2017	2018	2019	2020	2021
Dutchess County Solid Waste Management Plan Implementation Schedule																								
Staff																								
1	Hire Solid Waste Coordinator																							
2	Hire Solid Waste Senior Program Assistant																							
3	Hire Solid Waste Compliance Officer																							
4	Define Dutchess County Solid Waste and DCRRA organizational structure																							
a.	Redefine current DCRRA Recycling Coordinator work program																							
5	Temporary intern staff (Fall 8hrs/wk, Spring 25hrs/wk, Summer 35hrs/wk)																							
Local Regulations																								
6	Increased enforcement of Local Law No. 1 providing for the management of solid waste generated within the County of Dutchess																							
a.	Ensure compliance with requirement that haulers be licensed																							
b.	On-site and visual inspection of compliance with hauler licensing*																							
c.	Review current law and make amendments as needed																							
7	Increased enforcement of Local Law No. 4 providing for the mandatory collection and disposition of recyclables in Dutchess County																							
a.	Respond to reports of non-compliance with mandatory source separation of recyclable material law*																							
b.	On-site inspection of compliance with law*																							
c.	Fine enforcement*																							
d.	Review current law and make amendments as needed																							
8	Expand list of materials that can be recycled in the County																							
9	Update Solid Waste Management Rules and Regulations																							
10	Dutchess County Local Solid Waste Management Plan (LSWMP)																							
a.	Create Draft LSWMP																							
b.	Review of Draft LSWMP																							
c.	Approve LSWMP																							
d.	Implement LSWMP																							
11	Solid Waste Management website																							
a.	Local Laws and Regulations on website																							
b.	Draft LSWMP available on website for public review																							
12	Create & maintain financial models for budgets, staffing and initiatives																							
Hauler Licensing and Data Management																								
13	Process and monitor hauler licensing																							
14	Update hauler license application																							
15	Create annual MSW hauler report form																							
a.	Track MSW volumes annually through hauler reporting																							
16	RFP for hauler licensing Private Investigation firm																							
17	Relicensing of Dutchess County haulers																							
18	Solid Waste Management website																							
a.	Listing of licensed haulers																							
b.	License application and renewal forms on website																							
c.	Annual County-wide MSW report on website																							
Waste-to-Energy Facility																								
19	Development of an alternative method of ash disposal																							
a.	Feasibility study of ash storage site																							
b.	Ongoing feasibility study of reuse of ash for other than landfill cover																							
20	Development of a RFP for a Resource Recovery Facility operator																							
a.	New Service Agreement with Operator																							
b.	Feasibility of turbine upgrade																							

Appendix D: Table 1																							
Dutchess County Solid Waste Management Plan Implementation Schedule																							
#	TASK	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2013	2013	2014	2015	2016	2017	2018	2019	2020	2021
		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan-June	July-Dec								
Reduce and Reuse																							
21	Support PAYT concept and initiate community pilot																						
a.	Determine program criteria and solicit interest from municipalities																						
b.	Select a municipality for the pilot																						
c.	Form working group to plan PAYT rollout																						
d.	Initiate pilot program in selected municipality																						
22	Extended Producer Responsibility (EPR) product/packaging initiatives																						
a.	Work with the state on EPR compliance (e-waste, plastic bags, etc.)*																						
b.	Identify and promote local EPR opportunities***																						
23	Explore further utilization of the New Paltz Reuse Center																						
a.	Meet with the New Paltz Recycling Coordinator to identify facility protocols**																						
b.	Create reuse case studies from Dutchess entities already using the center to promote reuse**																						
c.	Explore feasibility of a Dutchess County reuse center																						
Recycling Education																							
24	Continue public presentations & attend green events to promote recycling																						
a.	CIA Earth Day yearly event**																						
b.	DC Cornell Cooperative Extension Earth Day yearly event**																						
25	Update public website and keep current PDF downloads promoting recycling																						
a.	Identify and promote the list of what can be recycled in the County																						
b.	Create a video link to ReCommunity educational tour																						
c.	Development of recycling contests and awards**																						
26	Shift from dual stream to single stream recycling education																						
a.	Promote single stream recycling in Dutchess County Government offices																						
b.	Promote single stream recycling for the County**																						
27	Create infrastructure for more public space recycling																						
a.	Bin loan program for public events																						
b.	Identify tourism impacts and need for recycling infrastructure**																						
c.	Meet with Civic Center, Dutchess Stadium, DC Fair, and other large event organizations on their recycling infrastructure**																						
Organics Management																							
28	Promote mulching leaves and grass clippings at the source																						
29	Identify available composting capacity at existing facilities																						
30	Survey major generators of food waste to identify volumes***																						
31	Assess the need to increase yard waste and food scrap composting capacity																						
32	Identify opportunities for food diversion to local pantries/kitchens																						
33	Assess the viability of composting biosolids																						
Special Wastes																							
34	Add CESQG wastes generated by small business to HHW events																						
35	Explore the need for a permanent in-county pharmaceutical waste collection opportunity with police/sheriff																						
36	Evaluate the need for additional animal mortality composting																						

#		TASK	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2013	2013	2014	2015	2016	2017	2018	2019	2020	2021
			Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan-June	July-Dec								
Partnerships																								
37	Maintain active participation in Hudson Valley Regional Council Solid Waste Committee meetings																							
a.	Continue to develop a sustainability plan for the Hudson Valley																							
b.	Feasibility of creating a regional composting facility																							
38	Continue to accept pharmaceutical wastes from surrounding counties for proper destruction																							
39	Communicate with municipalities to assist them with solid waste management and transfer station operations																							
a.	Inform about local and state recycling laws*																							
b.	Work to ensure all town sites have e-waste drop off centers***																							
c.	Promote grant opportunities for drop off center upgrades & reuse centers**																							
d.	Provide technical assistance with yard waste management																							
e.	Work with municipalities developing zoning and building code language that requires construction & demolition debris recycling																							
40	Meet with the Ulster County Resource Recovery Agency regarding shared services																							
41	Work with the DC Chamber of Commerce on recycling needs assessment for their members**																							
42	Work with the private C&D recyclers in the county to promote reduction & reuse**																							
Education Sector																								
43	Elementary and secondary schools:																							
a.	Verify all public and private schools are in compliance with local law*																							
b.	Assist with drafting recycling contracts as needed to incentivize recycling***																							
c.	Develop elementary and secondary school recycling for fundraising**																							
d.	Develop protocols for end of year "cleanouts" to divert more materials for recycling**																							
44	Colleges:																							
a.	Model local success for other institutions through the HV college forum																							
b.	Promote college, county and community relationships regarding solid waste sustainability programs																							
Commercial/Institutional Sector																								
45	Conduct compliance inspections of malls, shopping centers, government and business centers*																							
46	Identify barriers to recycling compliance and strategies to overcome them																							
Agricultural Sector																								
47	Work with DC Cornell Cooperative Extension																							
48	Needs assessment for organic waste management and ag bag recycling***																							
a.	Potential for increasing composting capacity on Dutchess farms**																							
Industrial Sector																								
49	Identify major industrial generators in the county																							
50	Explore areas of expanding reuse/recycling and composting initiatives																							
Reporting																								
51	Submit biennial compliance reports to DEC																							
52	Update Materials Management Plan																							
Legend:																								
Completed task																								
Ongoing task																								
Future task																								
The Implementation Schedule timeline and tasks are dependent on staffing and funding.																								
The numbering of tasks is for reference use only, and do not indicate priority.																								
The asterisks indicate that the task could be, or should be, done by a compliance officer or recycling coordinator and/or an intern.																								
* = compliance office task																								
** = recycling coordinator task																								
*** = intern task																								

Appendix E

Appendix C

State Environmental Quality Review

SHORT ENVIRONMENTAL ASSESSMENT FORM

For UNLISTED ACTIONS Only

PART I - PROJECT INFORMATION (To be completed by Applicant or Project Sponsor)

1. APPLICANT/SPONSOR DUTCHESS COUNTY	2. PROJECT NAME LOCAL SOLID WASTE MANAGEMENT PLAN
3. PROJECT LOCATION: Municipality DUTCHESS COUNTY County DUTCHESS	
4. PRECISE LOCATION (Street address and road intersections, prominent landmarks, etc., or provide map) DUTCHESS COUNTY GOVERNMENT 22 MARKET STREET POUGHKEEPSIE, NY 12601	
5. PROPOSED ACTION IS: <input type="checkbox"/> New <input type="checkbox"/> Expansion <input checked="" type="checkbox"/> Modification/alteration	
6. DESCRIBE PROJECT BRIEFLY: LOCAL SOLID WASTE MANAGEMENT PLAN UPDATE	
7. AMOUNT OF LAND AFFECTED: Initially 801.6 acres Ultimately 801.6 acres	
8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER EXISTING LAND USE RESTRICTIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, describe briefly	
9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT? Describe: <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Agriculture <input checked="" type="checkbox"/> Park/Forest/Open Space <input type="checkbox"/> Other	
10. DOES ACTION INVOLVE A PERMIT APPROVAL, OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (FEDERAL, STATE OR LOCAL)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, list agency(s) name and permit/approvals: County and NYS DEC approval and funding for the Resource Recovery Facility (Waste-to-Energy), Household Hazardous Waste, Medications and Electronics Collection Events.	
11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, list agency(s) name and permit/approvals: NYS DEC approval permit for the Resource Recovery Facility (Waste-to-Energy), and Household Household Hazardous Waste, Medications and Electronics Collection Events.	
12. AS A RESULT OF PROPOSED ACTION WILL EXISTING PERMIT/APPROVAL REQUIRE MODIFICATION? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor name: Lindsay Carille, Director, Division of Solid Waste Management Date: 12/26/12 Signature: <i>Lindsay Carille</i>	

If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment

OVER

1

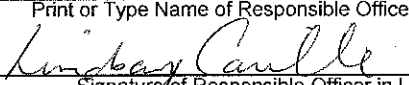
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PART II - IMPACT ASSESSMENT (To be completed by Lead Agency)

A. DOES ACTION EXCEED ANY TYPE I THRESHOLD IN 6 NYCRR, PART 617.4? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, coordinate the review process and use the FULL EAF.
B. WILL ACTION RECEIVE COORDINATED REVIEW AS PROVIDED FOR UNLISTED ACTIONS IN 6 NYCRR, PART 617.6? If No, a negative declaration may be superseded by another involved agency. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
C. COULD ACTION RESULT IN ANY ADVERSE EFFECTS ASSOCIATED WITH THE FOLLOWING: (Answers may be handwritten, if legible) C1. Existing air quality, surface or groundwater quality or quantity, noise levels, existing traffic pattern, solid waste production or disposal, potential for erosion, drainage or flooding problems? Explain briefly: No. The Resource Recovery Facility meets or exceeds all required EPA and NYS DEC regulations and reporting requirements. C2. Aesthetic, agricultural, archaeological, historic, or other natural or cultural resources; or community or neighborhood character? Explain briefly: No. C3. Vegetation or fauna, fish, shellfish or wildlife species, significant habitats, or threatened or endangered species? Explain briefly: No. C4. A community's existing plans or goals as officially adopted, or a change in use or intensity of use of land or other natural resources? Explain briefly: No. C5. Growth, subsequent development, or related activities likely to be induced by the proposed action? Explain briefly: No. C6. Long term, short term, cumulative, or other effects not identified in C1-C5? Explain briefly: No. C7. Other impacts (including changes in use of either quantity or type of energy)? Explain briefly: No.	
D. WILL THE PROJECT HAVE AN IMPACT ON THE ENVIRONMENTAL CHARACTERISTICS THAT CAUSED THE ESTABLISHMENT OF A CRITICAL ENVIRONMENTAL AREA (CEA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, explain briefly:	
E. IS THERE, OR IS THERE LIKELY TO BE, CONTROVERSY RELATED TO POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, explain briefly:	

PART III - DETERMINATION OF SIGNIFICANCE (To be completed by Agency)

INSTRUCTIONS: For each adverse effect identified above, determine whether it is substantial, large, important or otherwise significant. Each effect should be assessed in connection with its (a) setting (i.e. urban or rural); (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude. If necessary, add attachments or reference supporting materials. Ensure that explanations contain sufficient detail to show that all relevant adverse impacts have been identified and adequately addressed. If question D of Part II was checked yes, the determination of significance must evaluate the potential impact of the proposed action on the environmental characteristics of the CEA.

<input type="checkbox"/> Check this box if you have identified one or more potentially large or significant adverse impacts which MAY occur. Then proceed directly to the FULL EAF and/or prepare a positive declaration.	
<input checked="" type="checkbox"/> Check this box if you have determined, based on the information and analysis above and any supporting documentation, that the proposed action WILL NOT result in any significant adverse environmental impacts AND provide, on attachments as necessary, the reasons supporting this determination.	
Dutchess County _____ Name of Lead Agency Lindsay Carille _____ Print or Type Name of Responsible Officer in Lead Agency  _____ Signature of Responsible Officer in Lead Agency	12/26/12 _____ Date Director, Division of Solid Waste Management _____ Title of Responsible Officer _____ Signature of Preparer (If different from responsible officer)

Reset

Appendix F

Public Comments

The Dutchess County Local Solid Waste Management Plan, *Rethinking Waste*, (hereafter referred to as the Plan) was released for public review and comment on January 14, 2013. The Plan was available for review on the [Division of Solid Waste Management website](#) and at 10 locations throughout the County. In addition to several local articles concerning the Plan, a Press Release was issued by the County on January 15, 2013. There was a 60-day comment period, ending on March 14, 2013, and comments could be submitted via mail, fax, email, or at the Public Hearing held on February 26, 2013. There were 47 people who signed the attendance sheet at the Public Hearing, and 15 of the attendees gave verbal comments. There were 27 written comments received on the Local Solid Waste Management Plan during the 60-day comment period. Comments made at the Public Hearing were recorded and reproductions of substantive comments are included in this Appendix. A compact disc (CD) of the recorded comments in their entirety is available through the Department of Planning and Development for a nominal fee. Written comments were scanned and are included in this Appendix.

As the ability to reach or exceed our recycling and reuse goals depends a great deal on the public's interest in, and commitment to, recycling and reuse, we were very pleased to see so much interest in materials (solid waste) management. During the course of the public comment period, information was received concerning current recycling and reuse efforts, suggestions on how to increase recycling and reuse, and offers of help in recycling and reuse education initiatives. One commenter provided information on a resource for reuse and recycling of clothing, textiles and household items. Staff of the Division of Solid Waste Management has created a listing of local donation and reuse locations for the website and plan on contacting this commenter for more information. Over the coming year, there will be outreach by solid waste (materials) management staff to form partnerships with those who offered assistance in reaching our goals.

While the comments received were varied and informative, no resulting substantive changes have been made to the Plan. Minor editorial corrections and/or clarifications that do not affect meaning or intention have been made. The three main goals, as stated on Page 8, to decrease solid waste generation, to increase reuse and recycling, and to minimize the use of landfills for solid waste disposal, have not changed. Based on the comments received, the public agrees with these goals, although varied opinions exist as to how we achieve them.

Some of the recurring comments are addressed below.

Terms:

There were comments received that concerned terminology, such as using the term "materials management" instead of "solid waste management," and using the term "goals" instead of "projections." In *Beyond Waste* (page 3), NYS DEC stated the following, "TERMS: A materials management approach necessitates a change in terminology. Materials are not waste until they are destined for a landfill or municipal waste combustor. So, this Plan uses the terms 'materials' and 'materials management' in place of 'waste' or 'waste management' when referring to activities at the upper end of the hierarchy." The fact remains, Dutchess County is required by [NYS DEC](#) to do a

Local *Solid Waste* Management Plan and provide a biennial Local *Solid Waste* Management Plan Compliance Report. The Plan does use the term “materials” throughout the document, and if referring to solid waste as materials in the future helps to increase recycling and reuse, we encourage the change in terminology.

The Plan states our goals, using the term “goal” over 20 times within the Plan, including stating that one of the three main *goals* of the Plan is to increase recycling (page 8) and specifically stating that target *goals* for diversion rates are found in Appendix B, Table 4 (page 18). The written instructions given to Dutchess County for developing a Local Solid Waste Management Plan include the requirement to have a chapter on *Projections* for Materials Recovered and Waste Reduction (Chapter 7), including a table, titled by DEC, “Municipal Solid Waste (MSW) Combined Composition Analysis and *Projections*,” (Appendix B, Table 4). No matter the terminology used, the Plan has clearly-stated goals and a clearly-stated implementation plan to achieve these goals. The Plan includes the required table detailing the year the County *projects* we will achieve these goals.

Recycling Goals:

We could have set a goal of zero waste, or a 75% to 85% recycling rate within four to 10 years, as many have suggested. A plan must take a realistic look at what can be accomplished within a set time frame and determine what the realistic projected effects of each of these accomplishments will be, as required by NYS DEC. In developing the Plan in conjunction with NYS DEC materials management specialists, estimates of the results of the implementation of each task listed in Appendix D, a year-by-year estimate of how much solid waste (materials) would be diverted, was developed (Appendix B, Table 4).

If we reach our goal of 60% diversion before 2022 that will be well received. We will then reassess our goals. The Plan is a working document and we can exceed our current goal and set a new one at any time. The fact remains, in 2012 Dutchess County disposed of over 197,000 tons of municipal solid waste, and over 87,000 tons of construction and demolition debris. The Plan acknowledges this fact and has established a reasonable course to divert more of these materials out of the waste stream each year.

The waste-to-energy facility:

Several of the comments were about the Dutchess County Resource Recovery Facility (RRF), which we refer to as the waste-to-energy facility. Comments included the suggestion that it should be closed, it is costing too much money, and that it is polluting the environment. The RRF, like any other process, does produce emissions. All waste management and treatment processes including composting, water treatment, waste-to-energy, and landfills are sources of various emissions. The question is how much is emitted by each of these sources and whether the emissions are mitigated and to what extent.

Under the Clean Air Act, the United States Environmental Protection Agency (EPA) establishes air quality standards to protect public health and the environment. In order to meet (and exceed) these standards, the RRF employs MACT [Maximum Achievable

Control Technology] emission controls to treat flue gases and ensure that emissions are below the limits set by both state and federal agencies. The air pollution control systems include flue gas scrubbers, lime injection, fabric filter baghouses, and advanced mercury controls. Using a Continuous Emissions Monitoring System, levels of specific restricted gaseous compounds in the exhaust stack are monitored 24 hours a day, 7 days a week. The facility's emissions are also closely monitored by NYS DEC to ensure compliance with emission standards.

Some pollutants that come into the facility are within the waste, such as mercury from discarded mercury thermometers and fluorescent lights, cadmium from older nickel-cadmium batteries, and lead from lead-acid batteries, and are treated and mitigated. There are much less of these harmful elements coming out of the facility than going in. As these materials are properly disposed of and recycled at hazardous waste collection events and through product stewardship, less will be present in the waste-to-energy process. When these harmful elements are dumped in a collection vehicle, transferred to a trailer and transported 250 miles to be dumped on the ground, there are no scrubbers, filters or treatments removing the negative effects.

A study done by the EPA (www.epa.gov/wastes/nonhaz/municipal/wte/airem.htm) on air emissions from MSW combustion facilities noted that, "Emissions from MSW combustion facilities decreased by a factor of twenty after the MACT [Maximum Achievable Control Technology] controls were put in place." The study found that emissions from other source categories have declined as well, but went on to state, "Vehicle emissions are a major source for many of these pollutants. This is important to note because it puts into perspective the exposure and hazard potential from industrial sources."

This is important information to consider when suggesting closing the RRF, as the County is currently disposing over 197,000 tons of waste per year. Until the County is recycling or reusing 100% of the waste generated, it has to be disposed of somewhere. So the choice is landfill or the waste-to-energy facility. Using two EPA-sponsored models, the EPA study found that, "The models both show that MSW combustors actually reduce the amount of GHGs in the atmosphere compared to landfilling. The savings are estimated to be about 1.0 tons of GHGs saved per ton of MSW combusted."

The EPA's life-cycle emission analysis of MSW combustion considered factors like:

- Avoided methane emissions from landfills;
- Energy generation potential that offsets fossil fuel use;
- Metals recovery (recycling);
- Emission savings from the avoidance of long-distance transport to landfills.

When considering these same factors for the Dutchess County Resource Recovery Facility:

- No methane is emitted;
- The facility can generate 9.3 megawatts (MW) of renewable power every day;
- The facility recovered over 6900 tons of metals in 2012;
- The closest landfill to Dutchess County is approximately 250 miles away.

We would all prefer to have no waste to dispose. With no waste, the waste-to-energy facility could possibly be converted to, as one commenter suggested, a dual-fuel power plant burning natural gas and wood, or as another suggested, to an integrated bio-fuel composting greenhouse. The fact is though, we do have waste that is disposed of and we have the preferred method of disposal of both the EPA and NYS Department of Environmental Conservation (page 17 *Beyond Waste Plan*): a waste-to-energy facility with superior air pollution controls. The choice we have is, do we continue to dispose of waste by the preferred method of the state and federal experts, thereby reducing greenhouse gases, or do we choose landfills?

There is an expense to dispose of our waste in an environmentally sound manner. Due to several factors, including the payments for both the Construction (1999 bonds) and Clean Air Act upgrade bonds (2007 bonds), a Service Agreement with the Operator of the facility that contains contractual escalations in payments to the Operator over the life of the 25-year agreement, the loss of a steam sales customer, and the inability to operate the facility at maximum capabilities, the County has had to pay a Net Service Fee for many years. It should be noted, the inability to operate at maximum capacity is not due to the lack of waste disposed of, but the inability to direct the disposed waste to the RRF rather than landfills. It should also be noted: we have kept approximately 3.45 million tons of waste from being buried in out-of-county lands and eliminated the associated greenhouse gases for transport and from landfilling.

It is the goal of the County to continue to reduce and then eliminate the Net Service Fee payment, while continuing to minimize the disposal of our waste in landfills. We intend to accomplish this through the negotiation of a new Service Agreement in 2014 and the retirement of the 1999 bonds.

Finally, if we were to close the facility today, there would still be over \$20 million in bond payments due, as well as the associated costs of closing the facility while still needing to deal with over 197,000 tons of waste in a responsible manner.

Summary:

There were many good suggestions submitted through the comment period process, and all comments are included in this Appendix. We will refer to suggestions submitted within the comments as we implement the scheduled tasks. The comments also included suggestions for edits, deletions and additions to the Plan, but none would change the goals, tasks and methods of materials management outlined within the Plan. The document fulfills all the requirements of a Local Solid Waste Management Plan, as outlined in detail by New York State Department of Environmental Conservation; and the document explains in detail how we plan to reach our goals of waste reduction, recycling and reuse increases and the minimization of waste that is landfilled.

Public Hearing

The Public Hearing on February 26, 2013 had a signed-in attendance of 47 people, 15 of which offered public comments. In order to ensure that everyone had equal opportunity to speak, each speaker was given three minutes to give comments. Those who wished to comment a second time were given another three minutes after everyone had at least one chance to speak. Six individuals spoke twice and this is denoted by an asterisk (*) next to their name. Comments made at the Public Hearing were recorded, and reproductions of substantive comments are included below. A compact disc (CD) of the recorded comments in their entirety is available through the Department of Planning and Development for a nominal fee.

Comment 1 – Constantine Kazolias*. In the beginning, as a concerned citizen, I became involved trying to save the sixteen City of Poughkeepsie sanitation jobs to be terminated in Mayor Tkazyik's proposed 2013 budget. They are the last vestige of city community fiber. What those federal, state, and county programs and 27% tax abated properties haven't destroyed. According to Forbes, the City of Poughkeepsie ranks 18th as one of the worst U.S. cities. I became very outspoken and involved as a senior citizen and living on limited funds. I tried to make sense which led to the County's burn plant trash garbage to energy, an economical, technological, and financial fiasco. It is a failed County marriage, costing the Dutchess County taxpayers from \$40 to \$100 million since its inception 1995. The County should cut its losses and sell it. This DEC public hearing's main thrust is to salvage and save the burn plant. Recycling has a low priority. Even Dutchess County has a recycling local law on the books. The main reason for this DEC public hearing is to upgrade and save that burn plant. If the City of Poughkeepsie sent its trash elsewhere, where it's cheaper, this plant, being a hybrid, expensive gas would kick in to keep the burners operational. The only feasible solution is to have a continuous flow of trash feeding this monster. This will become a reality when Dutchess County follows suit, as Ulster County recently voted, by imposing flow control. The tipping fees in Ulster, according to a letter in the Poughkeepsie Journal, was \$100 a ton. Can Dutchess afford \$100 a ton tipping fees? For the record, back in the 1960s and 70s, my brother Satiro, who ran for County Executive, circulated a petition with 900 signatures opposing the construction of the proposed burn plant, but the burn plant was built anyway. Its pollutants are spewing over dozens of schools, churches, hospitals and others in the surrounding target area. The 33% residue ash with its toxins is being dumped in approved landfills, outside the County. All are health hazards. Several other methods to disposing trash and garbage are composting and recycling, including recyclable Styrofoam. This can be mandated in New York State, as in California. There are other voices who will speak and their proposals should be considered. In conclusion, the County should cut its losses regarding the burn plant by shelving it and putting it on the scrap heap.

Comment 2 – Bruce Dooris*. I'm the Vice President of CSEA for the City of Poughkeepsie Union. I'd like to just touch on the fact that you all know in the last few months, especially in the few months after Mayor Tkazyik's had gotten his budget out, sanitation was on the chopping block. So obviously, as President of the union, my job is to save these jobs. Along with a couple members of council, then Chairman Gwen Johnson, and minority leader Nina Boyd, we set out to do that. To make a long story short, we were successful in saving the jobs, which was great. Now the biggest problem is to sustain that and to keep those jobs. We're talking mainly about just sanitation. We learned through those two months and we went up and down the state. We've gone to Schenectady, we've gone to Newburgh, and talked to department heads throughout the state and did a lot of looking up on the internet. The way to save jobs now is recycling. Recycling is the way to go and there's always some recycling. You could reuse, repurpose, refurbish. Take old furniture, fix that leg instead of throwing it out or give it to somebody who can use it. Same thing with old clothes. Don't throw it out, give it to the Salvation Army, take it to one of those drop boxes, there's got to be a neighbor or some person who needs clothing. Or just reuse it for someplace else. I've seen on the internet where they take shirts and stuff and make scarves out of it. Now I can't do that, but that's the way to go. Same thing with food waste. Down where we are Vassar College and Marist College both do that and we should be doing that in individual homes. Same thing with getting stuff out of the waste stream. I don't always agree with Bloomberg, but you know what? He's right. Styrofoam should be illegal. Just get it out of the waste stream. You'll see fast food places like Red Lobster who don't even use it anymore. A lot of Chinese places, I call it Chinese Tupperware, you can reuse it. So those are the things to go. I don't know what percentage we recycle here in the County. I've heard from 4%-20%. Let's take the middle of the road, 10%, 11%, that's still horrible. There are towns across the nation, in California, up in Maine, up in Vermont, and New Hampshire, where they recycle fantastic. It's up to 80%. To make a long story short, we need to recycle and the reason we need to recycle is just because we're going to save money. The City of Poughkeepsie pays \$79 a ton to take their garbage to the burn plant. Every ton we recycle out of the waste stream, that's \$79. We take our recycling now to Newburgh, that's \$25. So it's \$104 per ton that we're saving every time we take it out of the waste stream. So that's what we need to do. The way to go is recycle, recycle, recycle.

Comment 3 – Ken Kraft*. The plan is long on ideas but short on detail. It states it is a working document. It is the hope of anyone interested in recycling, reduce, and reuse, that the ideas, projections and plans come true. The current administration appears to be genuinely interested in moving this plan forward. One can only hope that future administrations have the same desire. It must be noted that Dutchess County put together an ambitious plan in 1992. On page 53 of the Local Solid Waste Management Plan, it states, "The recycling rate goal for 2010, in the 1992 Plan, was 40.21%. This

very ambitious projected goal for recycling was not reached.” We all know that. The goal of 40% was achievable but due to the lack of interest in the effort from the previous administration, it was not reached as it was in many counties in New York State. Recycling must be the primary means of waste diversion. Unfortunately, Dutchess County is in a bad position because the private sector beat the County and built a recycling facility first. So now Dutchess has to watch all the private collection companies get paid to take the recyclables they collect to ReCommunity Recycling. It’s unfortunate that the MRF (Municipal Recycling Facility) had to be closed in the Town of Poughkeepsie but I understand why. I think it’s important that the County build a MRF sometime in the future. One item that the County must focus on initially, regardless of where the recyclables go is education. I pay very close attention to recycling, but until last year I was not aware that you can recycle all plastics. It wasn’t until I read the report that I found out that the County accepts paperboard or flat grade cardboard. This brings me to the position responsible for disseminating this information to the public. Currently the Recycling Coordinator position falls under the jurisdiction of the Resource Recovery Agency. The person handling this task has failed miserably or the administration of the RRA has purposely prevented this person from doing their job. In either case, the task of Recycling Coordinator must be at once taken over by County administration by the Division of Solid Waste Management. The suggestion of a pilot program for Pay As You Throw is a very good one. This ties in nicely with reduce and recycling. It provides residents with an incentive to reduce the amount of trash they throw out and to increase the amount they recycle. Private collection companies sort of do this, but their smallest trash container is still too big. The actual Pay As You Throw bag system is better. The best municipality for this pilot is the City of Poughkeepsie. The city currently has a strong municipal collection system in place and during the most recent budget discussions, Pay As You Throw was prominently discussed. The city is in a period of transition as it pertains to solid waste management and collection as you just heard. Hence, the City of Poughkeepsie is the best choice for the Pay As You Throw pilot program. Composting is the future. There needs to be more opportunities for residences and businesses to dispose of compostable waste. Backyard composting is a good place to start. For more backyard composting to take place, the County must take the lead; they must hold education programs and promote the sale of backyard compost bins. I’ll leave the comments on commercial composting to Shabazz Jackson and Ray McEnroe. The Resource Recovery Agency has failed us miserably and has cost the taxpayers of this County millions of dollars due to poor contract administration and poor proposal writing and they blame the County. Thankfully the contract with the current operator expires soon. Hopefully the word that is coming from the County Executive is genuine; that it is his desire to rewrite the entire proposal and to get the RRA operating so that the County can finally reap some of the benefits of operating a waste to energy plant. That should include, but not be limited to, increasing the

percentage fee the County receives from the energy generated and lowering the amount per ton the operator receives from the tipping fees and of course reducing the overall cost to the RRA for the operation of the plant. I agree the County must look at allowing out of County waste to be brought to the waste to energy plant.

Comment 4 – Darrett Roberts. What I wanted to talk about is the recycling program that we should have. Because as a former union member and still a proud union member I agree that we need to get into a recycling program first off because not only would it save jobs, but it would create jobs. We could also save money and keep it in the Dutchess County region so we can support all the residents and the people in this County. Also, burning waste is a health hazard of a great extent because it's just like burning cigarettes in your own body but it's just 10-20 times more higher than that. We could use disposables and recycle it much more efficiently in Dutchess County than have it burned and it be a health hazard and a waste to all concerned. The only reason I think it is open is because of the politics in this County and other counties. They want to keep using an incinerator and keep burning waste for no practical reason and no one is able to use it for anything other than to burn and, as I've said, it is a health hazard. The politics should be out of it and it should be more concerned for the people of the County to work together to get this to a more efficient community. I also agree that everybody here is probably supporting what I'm saying because it's all to benefit all of us in the long run. If the politics were not in it, the politics should stay out of it, and it should be left to be decided by the people themselves.

Comment 5 – Shabazz Jackson*. The 2013 plan is not fundamentally different from the 2010 plan. The Plan is a solid waste plan, but what has happened at the state level, which our plan has to comply with, is the State plan now is Beyond Waste: A Sustainable Materials Management Strategy. The state no longer uses the term solid waste but they changed the department to the Division of Materials Management. So right there, we are, as Dutchess County, we're behind the times when we start to evaluate this plan. My recommendation is that the County sell the incinerator and convert it to a state-of-the-art dual fuel power plant and that power plant would burn natural gas and would burn wood. It would also have the latest in carbon control technology. This would utilize the County's investment and it would protect our health. So this is one approach. The funding would be shifted to recycling. The current plan does not have a stated recycling goal; it has recycling projections, but not a goal. So I would recommend that our recycling goal be 75% by 2016. To get to this goal, we would focus on two areas: we would make all the municipal composting good neighbors by upgrading and equipping all municipal composting so they would be able to produce a high grade compost at the municipal level. Then we would build five zero waste education and composting transfer facilities. Three along the Hudson River corridor and two in the interior of the County. What the people of Dutchess County want

is they want to be able to effectively manage their own waste stream. They don't want material brought in from other places and they don't want to ship their material out for processing. These facilities would accomplish that. The service areas would be small and the facilities would be very manageable. The cost for them would be about \$1.5 million each. My next recommendation is that we put together a funding opportunity for municipalities and the private sector. There would be a group of grants that would allow us to secure private investment and those grants would allow us to build the five facilities.

Comment 6 – Josephine Papagni. Having read through the plan, my biggest comment, and I think it's grown because of doing work outside of our state recently, I've been able to see that I kind of looked down on other states and thought that we had all the answers. For instance, in the city of Reading, PA, they allocate \$1 of every cost for disposal of solid waste back into either recycling or composting and that money goes into the cities and the counties, I guess, to disburse to their other programs. I think that what I would recommend in this plan is that there was something that would accommodate developing ways to recycle instead of us just talking about it because I can tell you, from my side of the fence, there's no funding and it's very hard to make this happen. We all want to see composting, but where is the composting going to take place? There aren't enough locations within Dutchess County to accommodate the levels that we need to compost. So that's a very detailed response to it but that's just one piece of it.

Comment 7 – James Doxsey. I've been a legislator since the fall of 2007 and I've been studying this for a number of years and I've attended quite a few public forums. Our last forum was last week at Vassar College and some of the statements there were very important. Elementary schools, currently bringing home, you know our kids are our future and I think it's very important that the kids bring that home into the household and to teach their parents how to recycle and how to reclaim. Vassar and Marist colleges are great examples of some fine recycling. I think that's very important that we utilize that in Dutchess County. This particular burn plant, we are locked into a contract until the year 2014. I've been proposing for a number of years to break contract with Covanta. We are obligated to pay for this facility until the year 2024, something we're locked into from previous legislation. But we need to get away from the burn plant. The proposal recently has incorporated another incinerator. They're asking for two turbines now, instead of one. I don't believe that's the direction we should go in. We need to reclaim, recycle, compost, like Mr. Jackson talked about. There are many funds available. There are startup grants that are available, startup performance grants, and investment starting capital for the facility Mr. Jackson talked about. \$1.5 million times five is rather trivial compared to what we are paying in our incinerator. There are some C & D wood that we can currently remove and construction and demolition, we can take

that and break that down and turn it into composting and turn that into things like green roofs, green products that we can put out there to help the economy. Another turbine was talked about from Neil Sullivan who has been at multiple seminars at Vassar College. His statement was that it's insane for us to continue to incinerate. There are incentives for businesses and households. I think that's something we should incorporate into this new plan, to allow the kids to talk to the parents and get those different devices into the home. The Mid-Atlantic Solid Waste Management Plan is going to close its incinerator and do composting and recycling. I think that's very important that we do. Since 1997 there have been no new incinerators on the Northeast part of the US. Not to say that there haven't been other additions like turbines, but there has been no other new facilities and I think that's rather important. Last year, we exported in Dutchess County 50,000 tons of toxic ash, over five pounds of mercury and cadmium. Those are toxins which we should not be putting into our air. It's a good thing that the solid waste management plant is south of my home and wind blows away from my house.

Comment 8 – Joel Tyner*. Ken Kraft of the Crafted Kup in Poughkeepsie spoke a little while ago. I know folks are here from the League of Women Voters. Over a year ago there was a forum with Lindsay Carille, the Solid Waste Commissioner, at the Crafted Kup. She made a commitment that several months from there, there would be a public forum to get public input. With all due respect, that never happened, that promise was broken, and, unfortunately, this plan is not a good one. I just want to talk a little bit about the three main reasons why I think this plan fails us in a big way: the environment, jobs, and money. A few years ago, Mary Beth Pfeiffer in the Poughkeepsie Journal reported that the particulate matter emissions, the nitrogen oxide emissions and volatile organic chemical emissions have increased over the last decade. Mr. Bray is here today. He'll talk about how there's 13 schools within a three mile radius of the Dutchess County incinerator. If you go to the website for GAIA (the Global Alliance for Incinerator Alternatives, no-burn.org) the incinerators burn 50% more carbon dioxide than coal burning power plants. I hope people in this room understand how bad coal plants are for the environment. NYPERG reported a couple of years ago that the incinerators in New York State put 14 times more mercury into the environment than coal plants in New York State. Jim Doxsey, my colleague in the County Legislature, talked about the mercury. Mary Beth Pfeiffer for the Poughkeepsie Journal reported that there's 29 pounds of toxic heavy metals like mercury, arsenic, and lead, and cadmium that come out of the incinerator every year. I've been working with kids for 26 years, public and private schools from New York City up the Hudson, both sides of the river. 29 pounds of mercury, arsenic, and lead, and cadmium come out of that smoke stack every year. Where does that 29 pounds of poisonous heavy metals go? I have a feeling that they might be going into our lungs. By the way, in case you didn't know, the American Lung Association of New York State says that Dutchess County air

quality is a D. There are about 35,000 people in Dutchess County with asthma, bronchitis, or emphysema. Shabazz Jackson reminded me on my radio show that's over 10% of the people in Dutchess County. The Institute for Local Self Reliance and GAIA have looked at incineration, landfilling, recycling and composting operations all over the country. It's not just 10 times as many jobs if we're moving towards zero waste, it's 20-30 times the number of jobs. You look at paper manufacturers, plastic manufacturers, permeable surface manufacturers, St. Vincent de Paul Eugene. We could have 300 more jobs in Dutchess County. Shut down that incinerator by moving towards zero waste. Eco-industrial Resource Recovery Park. In Biddeford, Maine, South Carolina, Detroit, and Atlanta, they have shut down incinerators and broken contracts. Next year, the contract is up.

Comment 9 – Jolanda Jansen*. My report is on behalf of the League of Women Voters Solid Waste Study Committee. The League of Women Voters of the Mid-Hudson Region has been actively involved in promoting recycling and studying the issue for more than 20 years and was one of the first organizations that arranged for recycling activities when there were no Recycling Coordinators or haulers or anything like that. We recognize that we are now at a place where things have changed and what we did 20 years ago we know why it hasn't worked and what is wrong with it and this is our opportunity to change direction and rethink everything and move in a new direction. We have prepared written comments, detailed ones, on the report, which we will be submitting electronically. But I would like to, for the purpose of the public hearing, share the most important points from our written response. The first one has to do with language. Instead of talking about waste, we need to start talking about materials. Materials contain economic value and they contain energy. If we think of them that way and treat them that way, then our way of planning and writing about it and our attitude would change. We can go towards a zero waste economy. A zero waste economy reuses everything from the manufacturer, making it differently so that the end product is designed to be reused and nothing gets burned and nothing goes in a landfill. Everything gets repurposed at some point forever, not just once or twice. The Solid Waste Committee is a strong supporter of regionalism. We keep trying to solve our problems as if Ulster, Putnam and Westchester Counties don't exist, but we are sharing problems right now. We would like to see Intermunicipal agreements that allow the counties to plan together. We will have to get rid of waste and ash until we reach a zero waste system. Right now, we're driving it to western New York, 200 miles round trip, puffing greenhouse gases into the air all the way there and all the way back. That doesn't make sense to keep doing that for the next decade. There's ash being generated in Westchester, there's ash being generated here. One third of the weight of what goes into the burn plant still has to be trucked out somewhere far away and generating a lot of greenhouse gases. We would like to see the power of a true Intermunicipal agreement that is allowed to raise money and figure out a solution so that

we're not doing that. One of the things the report mentions is that the positions to implement this are dependent on County financing. The next administration might pull the plug. We want to see a plan that commits to 10 years of staffing to implement a 10 year plan.

Comment 10 – Claudia Cooley – I'm really here on behalf of The Barn Thrift Shops. A lot of the incineration talk I'm not going to focus on. I'm really going to talk about item 25a which was identifying and promoting how we can recycle. I just want to make the legislators aware and everyone else that the Barn Thrift Shop has the three locations and we have been educating our customers since 1996. We tell them what can be recycled and we're putting up little signs in the shops that people can see. These things help. They educate people in kind of a bright, fun way that makes it real to them. Shopping Neutral is one of our other little campaigns. Every time you buy something new, give us something old. We say this whether you donate it to the Barn, one of the local hospital thrift shops or things like that. We process about 10,000 pounds in one location of textiles every two weeks. We do what we say. We keep our expenses to a minimum. We have a few paid staff, most of it is volunteers. I have a list of groups. We are a Christian-based 501c3 but that does not narrow the scope of who we give back to. I've got some brochures. We would love to be a part when it comes time to promoting recycling, how to make it real. We just have these little flyers, everything that people can donate. What we'd love to see happen is "shwapping" boxes. They could be put up at malls or grocery stores so that every time you buy something new, you drop off something in the boxes wherever they are at different malls. But just to kind of make it fun and interactive. The other thing that we'd also love to see is on the website you have a list of commercial properties that take refuse and reuse things. We'd love to see a list of not for profit thrift shops on the website that people can go into their own neighborhoods and donate shoes, clothing, whatever it is. Perhaps, maybe, at the point, we'd love to be a part of the discussion, at the transfer stations. I know they have the cardboard recycling, there's metals, why not have a place for textiles? And like, for instance, when we get a bag of things, if there's sheets and towels that we can't turn around and sell, we box those up and those go to the SPCA. And what we do with our profits, how we benefit the local groups, such as Grace Smith House. When we have women that come through that are out of recovery or out of the shelter system, we let them come through our thrift shop and take what they need. We don't charge one penny with them. So that's how the donation works. Give your old stuff a future.

Comment 11 – Antonia Shoumatoff – When I first moved here in 1987, I wanted to initiate a recycling program in Amenia and the only town that I found that had a recycling program that we could emulate was the Town of Union Vale which did an incredible job. I actually brought every member of my town board over and we were trying to figure out whether we should market directly and make money from our metals

and our glass or whether we should go and take it to the burn plant. So then I went to the burn plant. Scott Chase gave me a tour and he assured me and showed me how they actually separated everything and they took the glass and everything like that. It was actually quite impressive what they had in Dutchess back in 1987. I think it's gone downhill since then. Subsequently, when I found out that Royal Carting is allowed to pick off and sell at their own profit all of the metals I was very disappointed. I spoke to Steve Lynch about this, about everything that was going on with the Resource Recovery Agency. He was on the Board of Directors at one point. It seemed to me, when also I was working with Roger Akeley, former Commissioner of the Department of Planning and Development, and he suddenly inherited this monster, I could see that he groaned. I would like to second Mr. Jackson's comments and Joel Tyner's comments that I don't think that the County should be in the business of running a burn plant that is causing a lot of pollution. We already had 280,000 tons of a leak of irradiated steam last year from the Indian Point Power Plant. We also have a new power plant coming in, called Cricket Valley Energy, in Dover Plains which will be emitting some. It's actually quite efficient. But adding insult on injury, we do have the worst particulate matter in the region in Dutchess County. I think it's a really good idea if municipalities can become independent from the carting companies and be able to market their own recyclables directly and have the money go into inspire those groups to do more of that. I think when you empower people to make money recycling themselves, which we looked into, you can do that. It's not a whole lot of money, maybe it's \$40-\$50 a month but that adds up. So I think that should be encouraged. I do think that I want to honor that the Planning Board did a wonderful job putting together the report but I think it's too little, too late, too soft and we need to be more dramatic.

Comment 12 – Rita Trocino – My husband and I own and operate Recycle Depot, which is a construction and demolition debris processing facility located in the Town of Poughkeepsie. I bet most of you don't even know that I exist. We take in all your construction debris, your concrete, your asphalt, the old sofa, the mattress, and all the other things that you're going to clean out of your garage, basement, or attic and I break those items down and I make recyclable materials. Currently, I make concrete item 4, which is an RCA (Recycled Concrete Aggregate). The asphalt is made into millings. The wood, clean wood, nothing with paint, varnish or any treatment is made into mulch, which I color and sell. Stumps turn into topsoil and the remainder of that turns into mulch. I am currently doing all of this recycling of construction debris. I am also a licensed hauler. I pick up garbage, I pick up your recycling, and again, most people don't know that there's anyone out there besides Royal Carting. But one of the things that I really feel, we need educate the consumers, the people that are throwing the garbage away. Because the problem is, just because you have a recycling bin whether it's on wheels or whether it's a square bin, you shouldn't be throwing things in there just assuming that they're recyclable. They're horror stories for a hauler. If I get a recycling

bin and my drivers pick it up, it's got car batteries in it. They can't go to ReCommunity. They have to be picked out. Picking that stuff out takes labor and labor costs money. We need to educate the people in this County as to what's garbage. We're talking about everything from your kitchen, and I'm sure we're talking about that little kitchen garbage bag, that 13 gallon bag, what about the sofas? What about people that are in foreclosure? Companies are being hired to clean out the house on behalf of the bank. Where are those pieces of furniture going? They're not going to take it to the Barn, nobody wants the furniture, nobody wants the mattress. That has to go somewhere. I'm doing what I can to break that up. The fiber goes to the fiber, the metal goes to the metal bin, and ultimately what I can't recycle does have to go to a landfill. We're trying, but unfortunately, there's not enough education. You have to think outside of the box about what is garbage. It's not just your kitchen garbage can. It's also stuff in your basement, the stuff from Sandy, the stuff that got ruined from Irene, the things that are moldy. That has to go somewhere. I think we need some education and I'd just like everybody to know that there is a company, Recycle Depot, that is trying to do something to kind of remedy that.

Comment 13 – Joel Tyner*. I talked about the environmental degradation. I want to talk a little bit about some money issues. The Poughkeepsie Journal did an editorial about a month ago about New Paltz. Even Rob Weiss, who's a Republican County Legislator in the County, sent it around to the rest of us. Talking about the 10% cut in disposal costs in the town of New Paltz by recycling 20% more. I want to tell you that Shabazz Jackson in the City of Beacon went from \$1.3 million to \$570,000 in disposal costs in Beacon. This is 20 years ago when he was running things, he got the city up to a 70% recycling rate because 7,500 tons being sent to the incinerator turned into 2,800 tons being sent to the incinerator. Massive cost savings in Beacon. WNCS talked about how they ramped up recycling in the City of Springfield, MA, saving money. In Toronto, they collect the food waste every week. They only collect garbage once every 2 weeks. There are 150 cities, towns and villages all across the country where there's curbside collection of food waste. I don't know if you know this, but not just what Josephine Papagni was talking about in Reading, PA where there's \$1 for each ton disposal that that tax could go towards recycling and composting but apparently, Ithaca, Tompkins County, \$37 a ton is an incentive for food waste composting. In Connecticut, it's somewhere along the lines of \$60 a ton. Planning grants, performance grants, startup grants, matching grants; that's what we need to put in this plan to make recycling infrastructure happen. Otherwise it's just going to be like what Ken Kraft said, it's going to be a nice plan. By the way Hudson River Sloop Clearwater, Sierra Club, NYPERG, Citizens Environmental Coalition; all those groups are part of the New York State Zero Waste Coalition. Three years ago they said that Dutchess County and New York State need to be at an 85% recycling rate by 2020. The plan does not have a goal, just like Shabazz said; the plan has a projection based on faulty assumptions.

The projection is for only 59.5% recycling rate by 2021. Not what Clearwater, Sierra Club, NYPERG, and CEC calls for, which is an 85% recycling rate by 2020. Garbage is not garbage. Urban Ore in Berkeley, CA, there's a guy named Dan Knapp. He came up with the clean dozen. Nantucket is at an over 90% recycling rate. San Francisco is at an over 80% recycling rate. Plant debris, food waste, paper, wood, ceramics, soils, metals, glass, polymers, textiles, chemicals, items for reuse; that's the clean dozen. Garbage isn't garbage, but it's like what was mentioned before it's solid waste. We should be talking about materials management. I went to St. John's College in Annapolis 30 years ago. The garbage in Annapolis is not different from the garbage here. Rick Anthony, of RichardAnthonyandAssociates.com, looked at Carroll County, MD. There's \$12 million worth of stuff that could be money if you sell that stuff and recycle and compost it. That's in a County two thirds the population of ours. We're sitting on \$15-\$20 million worth of stuff and we're just burying it in landfills.

Comment 14 – Robert Bray. I live 8,500 feet east of the plant, the incinerator. I built my house in 1987, the plant was built in 1987. Up until 2005, it just spewed all the chemicals and toxins that it wanted. Then we put in, in 2005, the MACT, the scrubbers to take away the toxins so there's less in the air for us to breathe. I wasn't concerned about the plant for a long time, but then I woke up. This is not a healthy plant. If you go on the internet, and Google incinerators, from Scotland, Ireland, United Kingdom, San Francisco, Asia, all over they're telling you it's poison; it's killing us. The toxins that are coming out in close proximity to the stack are concentrated. They're not as bad further away. In a three mile radius from that plant there are 14 schools. Not long ago we remember what happened not far from here and we attacked the gun industry. Why aren't we attacking the incinerator? The incinerator is putting out toxins that are having a negative effect on our children, this is the future of Dutchess County. Yet, people here want to continue and increase the burn. Does that make sense? If there's a driving force here, it should be to close the incinerator completely and soon. The year 2014 wouldn't be soon enough. The statistics do not lie. I ask people to look and read on the internet. NYPERG, Green Peace, Doctor's Associations, Scotland, Ireland, and all the health organizations all talk about what's going on here. But we seem to in Dutchess County, through our elected officials, think that it's not happening, but we better wake up. It's happening and it is happening to our children. Those children now just became grade-level school system in Spackenkill where people from outside of the three mile radius are bringing the children within that area to go to school, whereas before they might not have been affected. Now they are coming into that zone, that three mile area. If you go to the plant and you look on a windy day, you can see the fumes falling in different directions. Most of the time it goes south/southeast, down towards Sheafe Road. The fourteenth school is Sheafe Road School. One of the others is Nassau School, which is in Spackenkill. Both are elementary schools. We

know there's 180 days of school. Do the math. And yet we're here talking about the plant and discussing if we should. Is there any question?

Comment 15 – Ken Kraft*. I agree that the plant should be closed but I also understand that the reality is that it's probably not going to be closed soon. So, we just heard from Jolanda talking about how many miles we truck all our ash. We need to build a landfill for that ash and we need to do it in Dutchess County. Even if we go with Shabazz's plan to convert that facility, it's still going to produce some ash and we need a place to bury it other than upstate New York. We have to start thinking Yes in my backyard, not NIMBY, but Yes in my backyard. To extinguish the bulk of the net service fee, the 1984 bonds will certainly help the financial situation at the plant. Perhaps not having to make these payments along with the new contracts to operate the plant could free up money needed to build a municipal recycling facility or these transfer stations we're going to need. Of course, before any money is spent on a MRF, flow control for recyclables will have to be addressed. This plan is a good starting point but it is a very long way to the finish line. This is not a sprint or even a long road race, this effort could be compared to an ultra marathon. In conclusion, the public must be educated and there isn't any. It's just not happening. There is no public education. People don't know what recycling is. I take exception to one of the things one of the speakers said earlier about the kids at Vassar. I run a coffee house right down the street from Vassar; the kids at Vassar do not know to recycle. They must be provided with incentives to recycle. They must be informed why it is best to recycle. Most importantly, all public officials must buy into this plan and they're not. There are still municipal offices that do not even have recycling containers for the public to dispose of their plastic bottle or soda can. I see two over there right now. I applaud this facility. Every public event, indoors and outdoors, must have recycling containers available. If this can be required by local legislation, then pass a required law. People will learn how to recycle, people will get it, but they have to be shown how and it has to be easy. One way to make it easy is to provide recycling collection containers. It's costly but necessary. There may even be DEC grants available; there used to be. In some places, you can go find public containers with three separate bins; one for paper, one for trash, and one for cans and bottles. If you go to Oregon, they have three separate bins, too. They're labeled Landfill, Recyclable, and Compost. We've got a long way to go before we get there.

Comment 16 – Sarah Womer. Growing up I never knew where my garbage went. As I went to college and came back and decided to stay put, I learned a lot about the incinerator and I learned a lot about the faraway landfills where everything goes and I started getting serious about reuse and recycling ever since I learned these things. Since then I've organized three really large electronics waste recycling drives in Beacon where over 80,000 pounds of e-waste was recycled responsibly. I feel like it's a great start. When I started doing this, I realized that so many people had a lot of questions

about garbage and recycling and where it goes in the County. It didn't take long before I put two and two together. I realized that schools weren't teaching it; I realized that schools weren't doing it. There is a real lack of information out there and I think that really needs to change. There's a couple of points I want to touch on. The incinerator could be better. It could be any number of things. It could be closed, it could be different. I wish that it was more efficient. I wish that we had a better way to deal with this ash. I wish that we reused and recycled so much more. I learned a little bit about alternative ways of capturing waste energy. I'm not equipped to talk about them all, but there's definitely technology there. We could be doing things smarter. We could be using methane gas. We could be taking in compost. Shabazz is more qualified to talk about this than I, but there are many, many different options that we have. All we have to do is look at Europe and see what they're doing. And I don't think we're doing it right at all with this incinerator. Recycling is the key, as so many people have said, and I think that there is a real lack of information. People don't understand in Beacon, where I live, that we're single stream. People don't understand what that means or what it looks like. People have so many questions and I spend a lot of my days answering those questions on the street. I love it, it's great, but I wish that there was more information. I wish that there was stronger infrastructure. I wish that there was enforcement, that hasn't been mentioned at all tonight. There's a lot more. We just need to be stronger and we need funding. Compost is the next wave of the future. There is so much opportunity there to be capturing that material and diverting it from the waste stream and there are so many great ways to do it. I would love to see that grow. Like the woman from the Red Barn said about the reuse programs that are out there. There's so many, there's hundreds, and we need to be more aware of that too, and it helps people. It's really important to spread our resources out instead of throwing them away and it saves things from the waste stream as well.

Comment 17 – Shabazz Jackson*. To pick up where I left off, what the plan really lacks is the fundamental information about our waste stream. What we, on the planning side, really utilize these plans for, is to understand what the different segments of our community produce. From that information, we are able to design a facility that will manage that and then look into the future about what we project we're going to have to manage in the future. What we would recommend is that the whole County go on a weight-based system. Right now the City of Beacon is on a service-based system so they pay a fee no matter how much they recycle so there's no way, if they increase their recycling, there's no way for them to cut their costs. All municipal contracts would be on a weight-based system, what that does is it gives you a very accurate accounting of how much material is being produced, how much is being recycled and it shows you the impact of your educational program and it shows you the impact of the different efforts that you make and you can see where you're successful and you can see where you need to do more work. You would also have an almost continuous audit of the waste

stream. So now with that, plus the other components that we recommend, we could have very quickly a system that recovers 75% of our waste. Our waste stream has become more and more recoverable. Recently, the recyclable plastics, the infrastructure with the MRF in Beacon that handles single stream, and the development of our composting systems really covers the bulk of our waste stream. If it's not centralized, but it's decentralized in different areas of the County, what we're able to do is build these small facilities very quickly and we're able to implement these programs in a very short period of time. The markets are there, the markets are strong. We can't fill the demand for compost. It's something that every single person in this room, every single person in this County uses right here.

Comment 18 – Jolanda Jansen*. The other four points that the League of Women Voters Solid Waste Committee wanted to make in response specifically to the Plan that the Dutchess County Planning Department has created. One of the disincentives of the last 20 years has been that the burn plant contract required a minimum delivery of a certain amount of waste in terms of their contract with the operator. Once you set it up like that, then the incentive of all the people involved to reduce the waste and divert it to recycling is gone. So the next contract should be structured so there is no incentive to maintain a minimum amount of materials because it is counter to everything else that we're trying to do. It may not be the most economically attractive contract to get a bidder, but that's how we as a County should put it out there. Otherwise, we are not going to achieve the goals that we are putting into our plan. Next point: The plan talks about flow control as something that doesn't have anything to offer the County. In the short term, there is a benefit to doing flow control. Right now the County is subsidizing the bond payments. For the waste that is going to the burn plant, the tipping fee is too low to cover the costs and Ulster County, and I think it's worth describing in the plan what Ulster County recently did, they did flow control over their waste stream and they don't have flow control over their recyclables. There may be logic to having flow control over recyclables in Ulster County, but in Dutchess County, so much of it is going to private plants that I don't quite know how to think through that box. But in terms of the waste that's going to the burn plant, if you have flow control, you can, for a while, set the tipping fee so that Dutchess County general budget isn't subsidizing the cost of running the operation. Only flow control would allow you to do that. My second to last point is that Dutchess County relies heavily on private haulers for our collection. In order to be allowed to operate in the County, there is a licensing system. I'm not sure exactly how detailed it is. As part of that system, the haulers should be required to have a robust incentive plan for recycling and for separating out compostable materials. Right now we don't have that at all. If there is a slight incentive, customers don't know about it. They can be required come up with something so that the homeowners are motivated financially. Our very last comment relates to composting. Again, Shabazz is the expert. But we support backyard composting and there is a program in that is being

promoted in Westchester County that would really work here also which is called "Love' em and Leave' em." You mulch your leaves, you mulch as much of your yard waste as possible, you keep it on your own property, you use it on your own property so that it doesn't have to be picked up by the haulers or municipal haulers and then they're left with the job of trying to figure out how to get rid of it.

Comment 19 – Bruce Dooris*. The one thing I didn't touch on when I was up here is when we went and saved the garbage, the one way we did it was we decided to do a sanitation fund. We decided on a \$25 per month fee for a single family home. Obviously a double would be double and a triple would be triple. That now sets up the fund to sustain the workers year after year. The one thing the City of Poughkeepsie needs that has been touched on here is money. Money for education and money for bins. We have no bins. We haven't bought bins in years and years. We have bins on the street that are broken, duct taped, they're just terrible. The administration won't buy anymore bins. We need money to buy bins. It may be a little harsh but I don't care where that money comes from, the state or federal. We're going to save money if we get bigger bins. We've gone to single stream which is great because now it goes down to Beacon, so people are recycling more. For the two months that we fought for the garbage, the whole thing was recycling and because it was on TV, and because it was in the paper, our recycling is up. It's nowhere near where it should be. I would love to get to 85%. I don't think the burn plant would like us to get to 85% but we would love to get to 85%. The one thing Shabazz touched on was in Beacon, they have a cost, just like us but if we recycle more, I will guarantee you that our price would go down from \$25 to \$20 to \$15 a month depending on how much we recycle. So is there incentive? Yes there is. There's the incentive and we can do that. We could just lower the fee because our expenses would be a lot less and we're taking in more money. We're not like a carter; we don't have to make money, we don't have to pay taxes. All we have to do is to meet our expenses for our workers and getting rid of it. The less we have to bring to the burn plant for that \$79. Our two biggest expenses are labor and the burn plant and it's almost equal. I know we're number two going down to the burn plant. Royal is number one. If we recycle 85%, the burn plant is going to have less money and they're going to have to subsidize more. It would be less for the City of Poughkeepsie residents. It would be down to \$20, \$15, and that's not the only reason we should recycle. We should recycle because it's the right thing to do. Reuse, repurpose, it's got to be drilled in our head. We need money to take our education program to the schools. Joel Tyner said that. We need money to go to the schools. Start with the young kids, start with the five year olds and they learn quick. Let's get to the grade school, let's get to the kids, and show them how to recycle and that's what we need. We need money for education, material, bins, and I will guarantee you, you will save money. The less garbage Royal picks up or any carter, obviously, they're getting a lot less expenses too so they're making more money.

Comment 20 – Constantine Kazolias*. I was against the burn plant in the beginning because I was against the East/West arterial highway. I was taking a course in ecology up at the community college with Mr. Barnett, and we took pollution counts along both East/West arterial highways and found that they were high. We went down to the cemetery; they were the best counts we ever got. Just to give you an idea, the burn plant is down there, too. The burn plant is probably rolling the gravestones down there, too. But I want to say a few things. First of all, we're talking about money tonight. The bonding goes to 2027 and the whole purpose is to save the burn plant down there by upgrading, as one of the previous speakers said, to go from one to two turbines which is going to cost \$1-\$2 million. Whatever it's going to cost, it will be at the expense of the County taxpayers. This whole thing is about keeping that burn plant alive. In the meantime, like my buddy said, without the garbage going in from the city, that burn plant is down. Meantime, you can't even support one burner but yet you want to go to two. Once you add the other burner, you're going to mandate flow control from the County which is happening in Ulster. But I'm going to leave you with one thought. I worked down in New York when the World Trade Center went down. I told one of the firemen, whatever you do, make sure you're wearing a good mask because you've got mercury, you've got asbestos, and you've got all the other crap going in there like that. And that was burning. What do you think they were burning? They're burning the same thing down at the burn plant. I'm an air pollution person way back in the 1960s, and I still am and that's one reason I'm against this burn plant. Even to this day I'm against it. All the stuff coming in from China has lead in it. What are they doing with that? The kids are chewing on lead. They're chewing whatever they're chewing on. The thing is let's do away with the burn plant, let's think about recycling. If we recycled 85% instead of the 4% which we're recycling now, you can close that burn plant down. I'll only say one thing, we're feeding hay to a dead horse; that's what the burn plant is to me.

Comment 21 – Mae Parker-Harris. I am in favor of recycling. I have been basically recycling for many years. Back in the 1960s, I had visited family members in Canada and way back then they were doing recycling. That really got me coming back home and getting interested in recycling right in the home. But I would like to share that over the summer I spent a lot of time with Shabazz over in his recycling facility and I found myself getting up early in the morning wanting to go over there and so eager to learn more and more about recycling. I really appreciate his knowledge and teaching me how to recycle and to do things to make me even more interested in it due to the fact that I know Dutchess County children have more problems with asthma in Dutchess County and New York State because of the different things that they are inhaling from the air here around in this city. Also, I would like to say that you can start recycling from Pre-K. When I worked in Pre-K, I used to do the recycling right in the classroom. We would always take all of our paper and put it in a bin. At the end of the year and for any holidays, we would always wet that paper down and make projects and gifts for the

families in the classroom and paint them. We would make vases and the children made their choices and were creative in making their projects. Those things were recycled and useful right in the classroom. So there's many ways that you can educate children and start from that age teaching them how to recycle things. Also, in the community, if we taught our children how to recycle, it would keep our roads and our streets a lot cleaner. We could make advantages like that throughout the whole Dutchess County. It would also reduce health care if we recycle. If you have a respiratory problem and the air is bad, then you have to spend money on health care. But if you clean the air and do recycling and use the process that I experienced with Shabazz, that would reduce the health care costs. Many people can't even afford health care so that our children are suffering. After visiting one of Mr. Jackson's facilities, I wished that I wasn't retired because that is the first place I would bring my class in September if I went back to school. It was a lesson to be learned and we can take our children to his site and teach them and educate them. We can do that right in Dutchess County for our children and they can learn from that and it would be a wonderful thing. So I can't imagine anybody thinking 'no' to something that's going to help our children in the future that will be the ones to carry the torch on after we are all gone because someday we are going to leave here but we want to leave them with something that their children can continue to make this a healthier and a better place to live.

Written Comments

Other than the removal of personal information, such as emails, addresses and phone numbers, no deletions, corrections or changes were made.

Comment 1:

Lawrence W. Cosenza
Founder & Chief Science Manager
C2 Biotechnologies, LLC

This public comment is in response to the Dutchess County Solid Waste Plan Discussion and Question & Answer Session presented by Mr. Ben Traudt and hosted at the Red Hook Town Board Meeting held on February 27, 2013, 7:30PM.

Public Comment 1

Initial response to “Rethinking Waste” Dutchess County Local Solid Waste Management Plan (12/2012: LSWMP) is that the new plan is very similar to the old plan and offers little in the way of real waste management technologies. The goals of increasing recycling rates 60% over the proposed term in consideration of the current level of 20% sounds aggressive. The continued use of the incinerator an out dated technology that carries more risk associated with air pollution and possible related health problems than reward for handling municipal waste. In consideration that the county has contractual relationships to finance incinerator operations in lieu of the facility working at agreed levels of capacity a terrible use of tax payer funds.

Public Comment 2

Given the information provided in the LSWMP C2 Biotechnologies, LLC (C2B) would like to offer a potential solution for consideration of incorporation into the LSWMP. C2B is a company developing waste to energy and waste water recovery technologies based on a philosophy of treating waste at its point of creation; in effect our operations de-centralize the production of energy and water treatment.

C2B would like to offer Dutchess County the opportunity to use our services and technologies to convert municipal waste streams into energy and other revenue generating products. C2B has developed an integrated bio-fuel, composting, green house (BCG) concept that is a zero waste, self sustainable and profitable operation. The operations are integrated because the waste from one becomes the input for the next operation. The products generated from each operation support other operations and thereby reduce utility and operating costs. By combining multiple processes we can generate multiple revenue streams which more than covers labor charges. Based on the information provided in the LSWMP, 58% of Dutchess County’s municipal waste can be converted into energy and other products using our technologies (32.7% paper + 25.3% food and organic waste). If Dutchess County is generating 250,000 tons of solid waste (255,678 tons in 2010) than 58% or 145,000 tons of paper and organic material is available for conversion into liquid ethanol fuel. Using our (low) conversion estimate of 30

gallons of ethanol per ton of waste could yield 4.35 million gallons of fuel ethanol. If this volume of fuel was sold for \$1.50 / gallon (current market price ~\$2.00 / gallon) the county could see revenue of \$6.5 million dollars annually. C2B uses an enzyme based conversion process to make fuel. Material that is not converted into fuel would be directed to our composting operation. We estimate that the remaining material (~116,000 tons or 80% of original starting material) could generate heat and gas energy which when converted to electricity would be in excess of 54 million KWh. This energy at \$0.10 / KWh is equivalent to

\$1.9 million dollars would offset C2B's energy requirements to operate the BCG concept. The excess could be sold back to the utilities or used to support other waste management operations such as converting plastics into diesel like fuels. Energy and soil generated from composting operations would then be used to support agricultural operations. Here in the North East C2B envisions a combination of Green House and outside farming operations. The Green House work would allow full year agricultural practices to occur. C2B's projected monthly revenue is ~\$288 million dollars. Our projected monthly operating costs are \$215 million which leaves ~\$73 million as profit. Our operating expense includes estimates for technology licensing (10%), equipment (20%), labor (30%), overhead (10%) and raw material (\$435,000 = 145,000 x \$3.00). In our scenario C2B pays \$3.00 / ton of waste that can be converted into energy.

It has been my dream that the USA become energy independent and that each state produces enough fuel to meet transportation requirements. As far as transportation fuels, the Nation consumes ~150 billion gallons of gasoline and ~40 billion gallons of diesel each year. Hence each state consumes ~ 3 billion gallons of gas and 800 million gallons of diesel. If New York State had 150 fuel ethanol producing plants generating 20 million gallons per year most if not all of our transportation fuel needs would be supported (Figure 1). There are 62 counties in New York State hence 2 – 3 fuel ethanol production facilities (average 46 million gallons per year) per county would be required to support liquid fuel needs for the county. Converting Dutchess County municipal waste into liquid fuel at 4.35 million gallons per year represents ~9% of total transportation fuel required for the whole county.

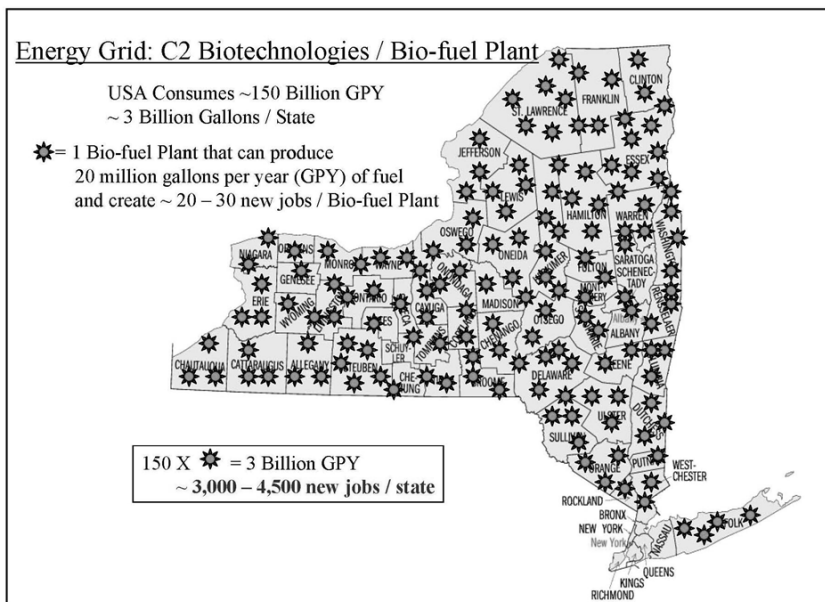


Figure 1 Graphical example of bio-fuel production grid in New York State.

I would like to suggest that Dutchess County consider being the first county to take steps to become transportation fuel independent and begin by converting local solid municipal waste into energy.

Best regards,

Lawrence W. Cosenza

Comment 2:

Cornelia Harris

Hello,

I would like to submit comments regarding the county's proposed SWMP.

Comments:

1) I would like to see the county aggressively enforce the proposed recycling plan and that likely means adding funding for enforcement at some level of government. For example, some cities are implementing the use of clear plastic garbage bags to ensure that residents are not throwing away recyclables.

2) I applaud the goal of reaching 60% by 2021; however it would be fantastic if this goal was even higher.

3) I am concerned with the continued use of the incineration facility and the lack of focus in the plan on how the incineration facility can be phased out.

4) I would like to see the plan include education as an important component for recycling. All schools and businesses should have recycling in place (there are still schools where this isn't the case) and kids should learn about the importance of reducing, reusing, and recycling. We should use organizations like GrowNYC as models for what can be

accomplished if some funding were provided for schools to implement recycling and composting programs.

Thank you,

Cornelia Harris

Comment 3:

Doreen A. Tignanelli

As a resident of the Town of Poughkeepsie, the host community for this facility, I offer for the record the following public comment on the Dutchess County Local Solid Waste Management Plan.

- 1) Increase in capacity of the waste-to-energy facility, including importing waste from outside Dutchess County, should be avoided as it would negatively impact town residents. Truck traffic in the Town of Poughkeepsie would increase, in particular along Spackenkill Road and Barnegat Road. Town residents would be exposed to increased air pollution.
- 2) The plan states "The County mandates source separation of materials for all residents, commercial institutions and businesses". In many instances, that mandate is not being followed. Enforcement by the County appears to be non-existent. Promotion of recycling is not enough, laws must be enforced with fines levied.
- 3) Current system of incineration is not cost-effective, requiring County subsidy, and should be phased out.
- 4) Recycling rate goal for 2010 was 40% while the actual rate achieved was 22%. Based on past performance, there is no clear plan as to how the projected recycling rate of 59% will be achieved. A higher goal should be set with a detailed plan laid out to achieve the goal.
- 5) A health study should be conducted to determine potential negative health impacts from toxic pollutants that this waste-to-energy plant releases into the air. The American Lung Association has given Dutchess County a grade of "D" for ozone pollution. The Association notes that ozone is a dangerous pollutant and that children are especially vulnerable to the effects of breathing ozone.
- 6) Zero Waste program should be implemented as a means to save taxpayer dollars and create green jobs. Wide-scale composting of food and yard waste is needed.
- 7) Reduce, reuse and recycle must be actively promoted.

Doreen A. Tignanelli

Comment 4:

Douglas C. Smyth

The incinerator system is inefficient and thereby, too costly.

It is also polluting. I live in northern Dutchess, and I see the effects of the incinerator on my computer screen every time I write outside; it gets lightly covered with fly ash. I know that it also contributes to the terrible air quality we have in the Hudson Valley.

Recycling may be somewhat more labor intensive, but through sale of materials recycled, it will be cheaper.

Dutchess County should move as rapidly as possible to as close to zero waste, 100% recycle, zero incineration as possible.

Sincerely

Douglas C. Smyth

Comment 5:

Edward J. Mills, III

RE: Comments on the proposed Solid Waste Management Plan (SWMP)

Dear Director Carille:

Overall, the current draft of the County's Solid Waste Management Plan (the "Plan") presents a balanced, comprehensive roadmap for guiding the County into the next decade with managing the solid waste needs of our local communities. The document is well-written, insightful and fairly presents the resources available for implementing the Plan, such as the: Resource Recovery Agency. The RRA, and the Waste-to-Energy facility which it operates, are significant public assets which should continue to be utilized well into the future, and it is good to see that the Plan recognizes that.

With that being said, and given that there is no need to further critique the Plan, I would like to suggest an idea which could further enhance the benefit by which the Waste-to-Energy facility (also known as the Resource Recovery Facility, or "RRF") provides to the people of Dutchess County.

As noted in Chapter 5 of the Plan, the RRA lost its only steam sales customer in 1998 when IBM opted to no longer buy steam. However, there may be a prospective steam customer next door to the RRA. That customer would be the Town of Poughkeepsie Wastewater Treatment Plant (WWTP) on Sand Dock Road.

Should the Town's aging WWTP undergo a major upgrade within the next ten years, the Town should be encouraged to use pasteurization rather than toxic chlorine and other chemicals, and/or costly UV lamps, to disinfect the effluent which the plant ultimately discharges to the Hudson River as part of the wastewater treatment process.

Pasteurization (the same technique used to sanitize milk) raises the temperature of wastewater to 180 degrees and disinfects it. Steam from the Resource Recovery Facility could be piped to the Town's WWTP and would furnish the heat source needed for pasteurization. The result would be a clean, pathogen-free effluent that is pure enough to irrigate crops and safe for water bodies which sustain fish and other aquatic animals.

Pasteurization is an effective wastewater treatment technology and has been included in the 2012 US EPA Guidelines for Water Reuse. The EPA has noted that pasteurization is a proven process which has undergone rigorous testing, and offers significant cost savings over other approaches by reducing energy consumption and eliminating the use of chemicals, such as chlorine, which could be harmful to the environment. By switching to pasteurization at its Sand Dock Rd WWTP, the Town and its residents would save money over time with reduced O&M costs for chemicals and electricity while providing a more environmentally responsible approach to disinfecting the WWTP's effluent before it heads to the Hudson River. At the same time, the RRA would have a new customer to sell its steam to.

Perhaps this innovative way of saving electricity while using a renewable energy, such as steam, could qualify the WWTP's upgrades and steam pipe connections for NYSERDA assistance or funding from other sources? None-the-less, pasteurization using steam from the RRF, would be a win-win for everyone and warrants further consideration.

Thank you for the opportunity to comment on the SWMP.

Sincerely,

Edward J. Mills III

Comment 6:

Dutchess County Environmental Management Council

Comments

The Dutchess County Environmental Management Council (EMC) applauds the County for developing a new 10-year Local Solid Waste Management Plan (LSWMP) that includes a plan to increase the County's recycling rate and develop an organics diversion program. The EMC has several comments on the plan, outlined below:

- The County should ensure that this LSWMP is in line with the New York State Plan, "Beyond Waste: A Sustainable Material Management Strategy" issued in December 2010, which acknowledges the need for greater progress in reducing the amount of waste New Yorkers dispose of every year, recognizes the value of waste as a resource, and uses the term "Materials Management" instead of waste disposal (<http://www.dec.ny.gov/chemical/41831.html>). In addition, the NYS guidance on development of an LSWMP indicates that the LSWMP should address the issue of climate change, since "mitigating the impacts of climate change represents one of the most pressing environmental challenges for the state, the nation, and the world. The management of discarded materials

represents an opportunity to reduce GHG emissions and combat climate change.” The current Dutchess County LSWMP does not address the issue of climate change.

- The EMC believes that the County’s projected recycling rate of 59% by 2021 is modest. It should be higher and clearly stated as a goal. Other municipalities and states have set higher goals for recycling rates, including Seattle’s goal of 70% by 2025; Florida of 75% by 2020; Portland, OR of 75% by 2015; California of 75% by 2020; and Montgomery County, MD of 70% by 2020.
- The EMC believes that the current County laws on recycling are not being adequately enforced and need to be updated to align with new priorities, including the requirement for schools and institutions to have a recycling program in place
- The EMC believes that improved and continued education and increasing the availability of recycling containers is important. In addition, we believe that the plans to pilot programs for Pay-As-You-Throw (PAYT) and municipal or large-scale composting (that is done at some of the local colleges) will make the most significant improvement in diversion of materials. Education really should start in our school communities! Once single stream takes off, it should be easier for schools to comply with the laws. The education at schools and with our children could trickle down and out to the homes.
- The plan points out that improved recycling and composting will reduce the tonnage of waste from Dutchess County to the Waste-to-Energy (WTE) plant. Efforts to operate the WTE facility in Poughkeepsie at capacity may create a disincentive to improved recycling rates in the County. The County should develop a plan to address this disincentive, to ensure that the WTE facility can operate efficiently and economically, or be phased out over the long term, in light of the County’s plan for increased diversion of materials from the municipal solid waste stream. The plan to import waste to the WTE plant from outside Dutchess County to keep the WTE facility in full operation may address this predicament in the short term, however, given the fact that other counties and municipalities are also planning to increase recycling rates it is likely that this projected source of imported waste will decline in the years to come. Therefore, the LSWMP should address the potential of the reduction of reduced material waste being brought to the WTE and develop a long term plan as stated above to ensure that the WTE facility can operate efficiently and economically, or be phased out over the long term.
- It is clear there is a need for funding to make sure that the County is able to achieve the goals outlined in the report, particularly for recycling and composting education and training for County residents, municipalities, and institutions.

The Dutchess County EMC is ready to advise and support the County with implementation of the new LSWMP, particularly with education efforts to raise awareness of County residents about recycling benefits and options. Please let us know if you have any questions.

Comment 7:

Josh Horton

Your Waste Management public comment form is attached, thanks.

Don't burn or discard reusable or recyclable materials! Close the incinerator!

Comment 8:

Judy Malstrom

I have spent the better part of twenty years both privately and professionally working at being more sustainable. It hasn't been the easiest to repackage, control waste, etc. But it is the future and its best to get on board now than later.

Zero waste is the answer. Expanding a facility, e.g. the burn plant that is costly as well as inefficient is not a move toward a future of sustainable living in Dutchess County.

It is your responsibility to help all those people who have changed their living habits, at work and home, educate people and communities who still need to make those changes and move to a zero waste future.

The time to act is now.

Comment 9:

Kathy OConnor

Thank you for your efforts preparing the document pertaining to Dutchess County's goals for reducing and dealing with solid waste.

Please review my comments in the attached.

I would be available on a volunteer basis to help you with the educational phase of your plan. My specific area of expertise is video production and editing.

1. Not ambitious enough. Hannaford in Red Hook has a goal of Zero Waste by the year 2020. Can we not match this goal, or at least do better than 60% recycle?
2. Let's ban Styfoam completely. Mayor Bloomberg has suggested same in NYC, and we should do this in Dutchess Co.
3. Get rid of the incinerator. Everyone agrees that the toxins produced have an adverse effect on people's health, at least within three miles of the site. Dutchess Co has poor air quality as it is, let's work on improving it.
4. Let's change the term of this Plan from 10 yrs to 5 yrs. Many positive suggestions have arisen from posting this Plan. Let's look into those alternatives sooner rather than later.
5. Need specifics on implementation. Everyone says that education is the key to moving in the right direction. What are the specific plans to educate?

Comment 10:

Kerri DeGroat

I am writing in regards to the solid waste management plan “rethinking waste.” I think this plan is a positive step for the future but the recycling rate should take a lot less than ten years to double. Additionally, stronger composting efforts can also be made. A county wide composting program could be initiated and made available locally to all residents in each municipality. When the organic matter has broken down, compost and mulch could eventually be sold back to residents and businesses in order to pay for the program.

We do need to rethink our waste. Rethink our waste as a resource and commodity not just garbage that we bury or burn in a plant. We live in the beautiful Hudson Valley in a county just north of NYC. We should be leaders in sustainability and not just meet the national average. There are many local examples of programs that could be implanted, improved or mirrored. For example, Ulster County has been chosen by the EPA to be a zero waste community. We also have many local businesses that are profitable in recycling such as Taylor Recycling and Recycle Depot.

I have also noticed many of the County buildings have minimal recycling efforts and municipalities such as the Town of Poughkeepsie. How is the county going to implement a recycling and waste management plan when government itself doesn't follow example?

I am optimistic and hope that Dutchess County takes a leadership role in sustainability and recycling. I would be willing to volunteer my time in efforts to reduce waste and make Dutchess County a more sustainable community.

Kind Regards,
Kerri DeGroat

Comment 11:

Lauren Levin

I admire Dutchess County's efforts to start a Local Solid Waste Management Plan that mitigates the amount of municipal solid waste that is dumped into landfills. However, I feel that the plan should focus more on reusing and recycling, rather than incineration in a WTE facility. The LSWMP admits that there are environmental costs of a WTE plant, but claims it is a lesser evil than continuing landfilling practices. We need a solution that is not a "lesser evil", we need a solution that is completely safe with regard to public health and environmental protection. Dutchess needs a "zero waste" plan. Renewable energy (solar, wind, hydro), and a larger emphasis on recycling must be incorporated into the plan. . A WTE energy plant is only going to pollute the air, instead of landfilling only polluting the ground.

Comment 12:

Laurie Husted

Please change licensing process for haulers to make incentives for recycling. Require tracking + weight-based cost structure.

ID locations for (5) decentralized Zero Waste Education, Composting, and Transfer Facilities.

Add Love Em & Leave Em program education + support.

Fund Grants to implement programs.

Leverage America Recycles Day (11/15) national program + do local outreach.

Promise not to expand incineration; create timetable to eliminate it.

Create resource list for re-use locations (ask CACs for lists). Ask Zero To Go for map.

Fund Materials Management positions for min. ten years.

Check UCRRA Recycling Coordinator's Primary School educ. model (web based).

Create module for emergency response for wood debris after floods.

Comment 13:

League of Women Voters of the Mid-Hudson Region Solid Waste Study Committee

Comments on *Rethinking Waste*: Dutchess County Local Solid Waste Management Plan

The League of Women Voters of the Mid-Hudson Region has been actively involved in studying Solid Waste Management for over 20 years. We recognize that we are at another pivotal point in New York State's efforts to direct Materials Management for the next 20 years. The League's Solid Waste Committee is studying the Solid Waste Management Plans of Ulster County and Dutchess County, and welcomes the opportunity to comment.

Executive Summary

The executive summary asserts that the environmental impacts of land filling, with its export of waste and transportation components, outweigh the cost and environmental impacts of a waste-to-energy facility. Not only is this assertion in the summary worded poorly, it does not provide any supporting reasons for why this is the case.

This assertion needs additional supporting information. The League Study Committee would like to submit the following points that we have learned from Ulster County's 20 years of experience exporting waste to landfills located in Western New York State:

- The landfills currently have capacity, but they will eventually fill up, and then new landfills will need to be created, so this practice is ultimately not sustainable.

- In its “Beyond Waste” Plan, NYSDEC declared landfills to be the least desirable in the hierarchy of waste-disposal methodologies because of their potential impact on land and groundwater.
- The transportation of waste from Dutchess County to the available landfills would create large amounts of greenhouse gases, as the trucks would be burning fossil fuels to reach landfills that are located 200 miles or more from Dutchess County.
- Although tipping fees at the landfills are low enough that the combined cost of tipping and transportation is competitive with the tipping fee at the waste-to-energy facility, the County has no control over these fees, and transportation costs are wholly dependent on fluctuating fuel prices.
- The waste-to-energy facility is a major investment of taxpayer resources that would be wasted if it was not used.
- The electrical energy produced by the waste-to-energy facility reduces the need for Central Hudson to burn fossil fuels.

Negative impacts of the waste-to-energy process could be reduced by the redirection of organic and plastic materials.

The League Study Committee believes it is in the best interests of Dutchess County to accomplish the Schedule in Appendix D to lessen the burden of waste disposal into the future and onto future generations.

The report is not complete without a discussion of the concept of Zero Waste. Every attempt should be made in this report to use the term “material”, rather than “waste”. This will change thinking and attitudes to help identify materials as resources with energy and economic components.

Chapter 1

The first paragraph under “Connections to Neighboring Planning Units” describes communication with adjoining Counties via the Hudson Valley Regional Council Solid Waste Committee. This is purely an information-sharing Council. The Council is not structured and does not have a mandate to create regional efficiencies.

Similarly, participation in the Mid-Hudson Regional Sustainability Plan was a one-time activity that might not result in any regional cooperation in the future.

If a regional landfill, a regional ash landfill, or regional composting is to occur, a much-stronger effort needs to be created. This can be initiated at the local level by creating an inter-municipal agreement between some of the Counties of the Mid-Hudson Region specifically to determine the feasibility of creating a regional landfill supported by the full borrowing power of those counties.

The “Historic Management Practices” section describes what was planned in 1992 and has not been achieved, such as an ash-residue disposal site, a residual solid-waste land disposal facility, a composting facility, and a permanent household-hazardous-waste facility. It does not adequately address why these items were not created in the last 20

years, and therefore does not explain how and why they are more likely to be created now that the County is the Planning Unit instead of the DCRRA.

It also does not discuss the lack of enforcement of the County-wide source-separation law adopted in 1990, and how and why this will be any different going forward.

Chapter 2

Improving reporting requirements so that the County will be able to measure what is happening is an excellent and necessary goal.

Chapter 3

Language in the report refers to December 2012 as being in the future. By the time the report is published, it will be 2013 and the MRF will already be closed.

The report describes the privately-owned and privately-run single-stream recycling facility, but does not describe the nature of the relationship between this facility and the County. Are all educational activities by the facility voluntary? Is there a contractual agreement between the facility and the County for educational activities?

The report describes some haulers as offering a reduced rate for a smaller waste bin. Relying on this voluntary activity is insufficient. This reduced rate is not advertised. Most residents are unaware of it. The incentives to reduce waste should be much greater if it is going to have a noticeable effect. As part of the relationship between the County and the haulers, the haulers should be asked to present their incentive plan for reducing waste, increasing recycling, and removing compostable materials from the waste stream.

The example referring to Girl Scout Troup 10205 is not clear. Are the gift cards recycled? Do people get rewarded with gift cards for recycling?

In the list of larger institutions, there are two Price Chopper locations in Dutchess County. Does only one of the two locations recycle?

Historically, the County received a share of the revenue from marketing recyclable materials. The paragraph describing this should be in the past tense. Again, this section of the report should be written from the perspective of a 2013 publication date.

Responsible disposal of electronic waste should be discussed. Electronic-waste disposers have different levels of certification. It is important that Dutchess County does not contribute to electronic waste being shipped to third-world countries, where it is disassembled in conditions that are harmful to the employees and to the environment.

The Dutchess County haulers don't include a third bin for composting. This results in a large amount of "wet" waste going to the waste-to-energy facility where it costs more energy to burn than it generates. Requiring a third bin and diverting this waste to existing composting facilities would divert a large amount of residential organic material. Similarly, restaurants should be provided with a dumpster for compostable materials by the commercial haulers.

Creating a number of Composting Facilities throughout Dutchess County, as suggested by Shabazz Jackson of Greenway Environmental Services, would be one way to provide the necessary processing capacity for organic waste.

Chapter 4

The report refers to source separation as being mandatory. However, all containers are opaque and there is no way of observing whether the regulation is being complied with, and there appear to be no penalties for non-compliance or incentives for compliance.

The plan describes the position of Solid Waste Compliance Inspector, but does not indicate how this compliance will be increased.

The report mentions that staffing positions are dependent on County finances. As part of the implementation of a 10-year plan, the County should make a 10-year staffing commitment to ensure its realization.

In the section discussing flow control, the report should discuss the recent decision by Ulster County to pass updated flow-control legislation.

If the waste-to-energy facility cannot handle all of the County-generated waste, the County can temporarily contract with an adjacent County for the excess capacity. The County does not have to establish flow control over recyclables. Ulster County established flow control over waste, but not over recyclables. This would reduce the amount of waste being transported large distances to landfills and would allow the RRF to charge a tipping fee sufficient to fund solid-waste management staff, educational initiatives, and additional recycling containers at public facilities, and subsidize the creation of multiple local composting facilities.

Local Law No. 4 contained a Recyclables Oversight Committee. Some kind of civilian Oversight Committee, with responsibility for all issues of material recovery, would be beneficial to the County's long-term goal of maximum reuse of materials. One example of such a committee is the existing Dutchess County Environmental Management Council, which is not invested in existing facilities or past decisions, as the DCRRA or County staff might be.

The current agreement between the DCRRA and the Operator includes the requirement to provide a minimum of 140,000 tons of waste to the waste-to-energy facility. This is the opposite of an incentive to reduce waste and to increase reuse and recycling. The bid solicitations should clearly state that any contract will not include this minimum waste delivery component. Additionally, if the entire cost of ash disposal is borne by the Operator, there will be a huge incentive to find the most economical disposal method.

Chapter 5

With respect to the possibility for a landfill location for ash residue, Dutchess County could establish an inter-municipal agreement with Westchester County, which also has ash residue to dispose of. The combined resources of two Counties could result in greater success and an economic advantage for Dutchess County.

Under the section on Recycling Programs, the RRA was not incentivized to decrease waste and increase recycling because it has had a minimum delivery requirement to its waste-to-energy facility. Money is the strongest incentive, and all programs should be planned so that there is a financial advantage to recycling and a financial disadvantage to waste disposal.

With regard to education, the materials that can be recycled have changed significantly since 1990. Many staunch and dedicated recyclers need updated information. Additionally, shredding of confidential information should be subsidized to increase the recycling of office paper, as many offices do not recycle office paper for fear of losing control over confidential or work product information.

The language of Chapter 5 needs to be more assertive – for example: “The County Solid Waste staff will do the following ... to ensure that County Solid Waste goals are achieved.”

The section on the City of Poughkeepsie needs to be updated to reflect the most recent decision. The City has not instituted a Pay-As-You-Throw system. The County should provide an incentive for one of the Dutchess County communities to become a Pay-As-You-Throw community as a local example of how this can be done.

With regard to medical and pharmaceutical waste, pharmacies should be provided with information to post for the public on the responsible disposal of pharmaceuticals.

With regard to yard waste, Westchester County has instituted a “Love 'em and Leave 'em” initiative to encourage homeowners to mulch their autumn leaves onto their own lawn and not put them out for municipal pickup (<http://www.leleny.org/>). A similar educational campaign in Dutchess County could greatly reduce the amount of lawn waste that needs to be disposed of. Similarly, using municipal equipment to grind storm debris and leave it on the property for homeowners to use as mulch would be preferable to collection.

Chapter 7

The statement that the recycling rate of 40% was not reached should be followed by a list of reasons. The League Study Committee has a concern that the present incentive for the DCCRRA to maximize tonnage for the waste-to-energy facility results in materials divergence to recycling and composting to be secondary.

Although changing the percentage of C&D recycling is discussed, there is no mention of which incentives will be used to increase this rate.

Appendix B

Table 1 is not indicative of Dutchess County.

Using 5,000 people per square mile as a cutoff point for an urban density standard excludes the City of Beacon and the Villages of Fishkill and Wappingers Falls, which are all experienced as urban by their residents. A cutoff point of 2,500 would be more appropriate.

Appendix D

In Table 1, consider changing the Legend as follows:

Asterisks (*) indicate that the task could, or should, be done by a compliance officer, recycling coordinator, and/or an intern:

* = compliance officer task

** = recycling coordinator task

*** = intern task

Comment 14:

Lucy Johnson

I commend Dutchess County for producing this document and moving forward on waste management, but I would like to see us move farther and faster. I suggest you look at the Sierra Club's Zero Waste Policy for ideas on improving this document:

<http://www.sierraclub.org/committees/zerowaste/>

I regret that professional responsibilities will prevent me from attending the discussion tomorrow evening, but hope that you will listen carefully to suggestions from the audience to reduce waste substantially more than the current plan suggests.

Thank your very much for your consideration.

Lucy Johnson

Comment 15:

Lisa Jones

Good Morning Lindsay Carille,

I am writing an email in followup to a phone call I placed to you earlier this week regarding the Dutchess Delivery notification of the public comment period on "Rethinking Waste" SWM Plan. I hope you can make some considerations about implementing an organics diversion program in Dutchess County's SWM plan.

I have been working towards establishing a commercial composting service for the Hudson Valley for some time now. In 2005 I ran a very successful pilot program, Americomp Composting, collecting kitchen waste from the food service establishments in Tivoli. There was much enthusiasm from the town businesses, they were relieved to have an outlet for "greening" their relations. I saw much room for expansion and decided to do some research before I got in over my head.

In May I will be completing my B.S. in Environmental Science at Cornell University and I plan to earn an MBA following this, all with the intention of working toward improving waste management. I was a finalist in Cornell's undergraduate entrepreneurship contest with the business plan for Americomp. Currently on campus, there is a lot of research on

organics diversion from waste to feed anaerobic bio-fuel digesters. My perspective is that people should be amending crop fields with an equivalent biomass that has been removed in produce and grains, but that will take a great deal of marketing to accomplish. Word from DEC is that what often happens with commercial composting sites is that they take in more food waste than they can sell as compost. Anerobic digestion and the remaining bio-char could be a solution to prevent reaching over capacity. Also important to point out is that composting waste turn is into a marketable product that can be moved off site rather than reaching capacity in a landfill. After a LF reaches capacity waste often has to be shipped further and further away, thus increasing the total cost both environmentally and economically.

I know that some of the major established haulers are beginning to offer composting routes as well, especially now that there is a composting pad in Ulster County, I believe Hannaford in Red Hook is a participant. Whether Americomp finds a niche in the field or not, I know that organics diversion and improved single stream recycling are sure fire options for the future of waste management.

Thank you for allowing public comment on the SWM plan, I hope you hear some valid and useful input. Reading the document, it sounds like we are on the right track for improving the environmental outlook of Dutchess County.

Sincerely,
Lisa Jones
(of Tivoli)

Comment 16:

Marie Caruso

Comments

As an active member of the Sierra Club and an ardent recycler, I am very disappointed in the low level of participation and lack of public knowledge about recycling amongst Dutchess County residents. While perusing the solid waste management plan, I checked out the "Reduce, Reuse, Recycle" page on your website, and was surprised to see that it says all plastics (except bags) can be recycled, without regard to the # on the container. This information is not widely known. The information sheet provided to me years ago by my hauler (Royal Carting) requires me to check for certain #'s on plastics, and has never been updated. A great deal can and should be done right now to educate residents about recycling. The information on your recycling webpage should be published in the Poughkeepsie Journal and distributed, via hard copy, to every household in Dutchess County (and that page, itself, should be made easily printable, which it is not). Given the supposedly "mandatory" recycling law in this county, the level of public knowledge and participation is appalling, and could be greatly improved in short order if governments and private haulers would educate the public about how and what to recycle.

Comment 17:

Rich Schiafo

Comments on '*Dutchess County Local Solid Waste Management Plan*'

Overall to "Rethink Waste" we need to change the mindset that most of what we "throw away" is not "waste" but materials that can be better managed. 'Waste' reduction and recycling are great, but they are end of the process solution. 'Waste' must be addressed at its source with full life cycle analysis.

Product Stewardship and Extended Producer Responsible

The Plan references Product Stewardship and Extended Producer Responsible in the context of the Mid-Hudson Regional Sustainability Plan. This section should be expanded and should be incorporated into the County goals.

County and municipal government should be taking the lead to address reducing waste by examining and amending procurement policies to take into account where a product comes from and where it will go at the end of its life.

County and municipal government should lead by example and also incorporate materials management into its education and outreach programs to help prevent 'waste.' Procurement policies should look at all materials from paper, to computers to vehicles. Dutchess County and each municipality should adopt environmentally preferable purchasing policies.

'Waste' Composition Numbers

It is great that the County will be able to collect "more definitive waste composition numbers starting in 2013 with enforcement of annual reporting by all haulers in Dutchess County"

How will this be enforced? Does the County have the staff and the resources for collecting, monitoring, enforcing? Are there penalties for not submitting the data?

Recycling Coordinator

Now that the County has a Solid Waste Director it makes more sense for the Recycling Coordinator to be a position within the County Government than for the Resource Recovery Agency.

Also consistent with 'rethinking waste' the county should change the name of the Solid Waste division and director to 'Materials Management'

Recycling

Recycling in public spaces, public buildings and in county business is virtually non-existent. Each of these areas needs significant improvement to enhance recycling rates.

Lawn materials and Backyard Composting.

The County needs to make a greater effort with both financial incentives and outreach and education to promote backyard composting of lawn materials and food scraps.

The County should take the bold step to pass legislation to prohibit leaf pick up. It is absolutely insane that as a society we still but organic materials such as leaves in plastic bags drive huge diesel polluting trucks all over the county to pick up and dispose of things such as leave and grass clipping. Absolutely insane!

If I read Appendix B: Table 4 correctly the projected recycling or 'diversion' rate for the year 2021 is 59.54%. If this is the recycling goal for the county this should be clearly spelled out in the text of the plan and the path for achieving this goal should be more clearly set forth in the Plan.

Trash and Recycling Collection

I live in the small Village of Tivoli. Trash and recycling collection in Tivoli is in and of itself very wasteful.

The Village Public Works Dept. collects trash and recycling through a Pay as You Throw program - \$4.00 a bag of trash every week on Tuesdays. However there are a number of residents and business who use a variety of private haulers, resulting in trash and recycling trucks traversing this little village 5-6 days a week.

It is a big waste of fuel, not to mention the noise, air pollution and wear and tear on the roads.

The County Plan must address trash/garbage/recycling collection.

Comment 18:

Submitted by Sarah Imboden on behalf of
Town of Red Hook Conservation Advisory Council (CAC)

Comments on Dutchess County Local Solid Waste Management Plan

Town of Red Hook Conservation Advisory Council has reviewed the plan and submits the following comments:

1. We agree with Shabazz Jackson and others that using the term "solid waste" throughout the plan sends the wrong message about the county's priorities in regard to waste management and our willingness to be forward-thinking about these issues. We recommend strongly that the term "materials management" be used in place of solid waste throughout the plan.

2. We agree with the many people at the February 26 public meeting who expressed concern about the health and financial risks of continued use of and subsidizing of the "waste to energy" facility. We strongly urge the county to consider a feasibility study of the possibility of breaking existing contract and selling the facility to a private entity or closing

it entirely. If such a study already exists, please refer to it in the report and make it widely accessible.

3. We would like to see ambitious recycling and composting goals in the plan, rather than projections. We recommend that these be put in a format that is easily read and pulled out as a standalone document, early in the report, perhaps within or after the executive summary. This would allow constituents to get behind the plan and track their progress.

4. Please consider investigating the impact of styrofoam in our communities and the outcomes and feasibility of passing a countywide ban on the use of these materials and others which cannot be recycled and would be especially harmful to public health if burned in the incinerator.

5. We strongly recommend that, as mentioned at the public meeting of 2/26, the plan include provision for staffing throughout the life of the plan, or ten years, to ensure continuity regardless of political changes.

6. We endorse Shabazz Jackson's suggestion of the creation of five zero-waste facilities to be located throughout the county. We suggest that perhaps these could be existing transfer stations that would be retrofitted for zero waste activities, such as composting, rather than creating five new sites.

Thank you for your work on this plan. We appreciate the effort that was put into it and look forward to working with the county to increase awareness of materials management best practices in our town.

Comment 19:

Susan Holland

Ms. Carille

Here are my comments on the Dutchess County Solid Waste Management Plan:

General Comments

- Dutchess County incinerates (or sends to landfills) \$20 million worth of materials and resources that could be recycled, including plant debris, food waste, paper, wood, ceramics, soils, metals, glass, polymers, textiles, chemicals, and various items for reuse, according to Richard Anthony Associates.

- The county incinerator spews 3,700 tons of carbon emissions yearly. Emissions from the county incinerator of particulate matter, volatile organic compounds, and nitrogen oxide have all increased over the last decade. Annually, the county incinerator also creates 50,000 tons of toxic ash and spews 29 pounds of heavy metals (arsenic, cadmium, lead, and mercury), 37 tons of sulfur dioxide, 22 tons of hydrogen chloride and hydrogen fluoride, and 3,700 tons of carbon dioxide.

(<http://www.poughkeepsiejournal.com/article/20100307/NEWS01/3070350/Burn-plants-seem-cleanerbut-facts-debated>)

- Air pollution is a problem in the Dutchess County area. The county's air is still rated a D by the American Lung Association.

(<http://www.stateoftheair.org/2012/states/new-york/dutchess-36027.html>)

- Although some of the text in this document alludes to the concept of "zero waste", I searched through the entire document and did not find this phrase anywhere. This should be the plan's primary goal. You refer to NYS DEC's Beyond Waste strategy, which is a good start, but it does not refer to "zero waste" either. See <http://www.zerowaste.org> for more information.

- Ten times more jobs could be created by moving toward a zero-waste approach to resource recovery as opposed to incineration and landfilling, according to the Institute for Local Self-Reliance. Five hundred new jobs could be created in Dutchess County if those materials were recycled instead of burned or buried, according to Rick Anthony of the Institute for Local Self-Reliance.

Appendix D

In Table 1, consider changing the Legend as follows:

Asterisks (*) indicate that the task could, or should, be done by a compliance officer, recycling coordinator, and/or an intern:

* = compliance officer task

** = recycling coordinator task

*** = intern task

Thank you for listening.

Sincerely,

Susan Holland

Comment 20:

Thomas Wanning

Why can't Dutchess be a leader in recycling our waste? This is the great moral issue of our time, like stopping fascism in the 40's. Thomas Wanning

Comment 21:

Michelle Gluck

To whom it may concern,

Below is my contribution to the Dutchess County Solid Waste Management Plan opportunity for public comment.

"I would just like to reiterate the importance of REDUCING waste/materials, increasing education about how harmful plastics are to the natural environment, and how many of us are living in a disposable culture, sometimes without realizing it. We can do better! It would be great to see Dutchess County take the lead in this and adopt cradle to cradle principles, increase material re-use, recycling, and composting outreach, in schools and communities and through job creation. There are so many innovative, environmentally friendly, and aesthetically pleasing ways to manage "waste". I hope to see this waste management plan utilize the technology, natural principles and bio-filtration/biomimicry design options available to manage material use in the County through consulting experts in the field and taking action. I support Dutchess County in these efforts - the incentives to do so are monumental."

I filled out an online form, but was not sure it went through.

Thank you

Michelle Gluck

Comment 22:

Shabazz and Josephine Jackson

Comments on 2013 DC SWMP

The 2013 Plan is not fundamentally different from the 2010 Plan that was not accepted by the Region 3 DEC. The 2013 Dutchess County CDC) Plan will not be approved for the following reasons.

The State Plan "*Beyond Waste. A Sustainable Materials Management Strategy*" declares that solid waste no longer exists, hence the name change to: The Division of Materials Management. The DC Plan remains a solid waste plan that allocates all the counties financial resources to the existing mass burn technology.

Recommendation: The County sell the incinerator to a company that will convert it into a duelfuel power plant with carbon capture capabilities. The new facility will use wood from construction & demolition, storm damage & natural gas). The facility will be equipped with the latest carbon control technology. The ash could be processed locally into a soil amendment and light weight aggregate for green roof medium, mixed with compost to make biofiltration soil, and for horticultural use to restore local quarries.

The DC Plan does not set a waste diversion and elimination goal. The DC Plan makes projections based on inadequate information about the Dutchess County Waste Stream. For Example, Food Waste: DC commercial compost facilities receive food waste from regional sources. The DC plan uses their gross volume numbers to determine the recycling rate for food waste in DC.

Recommendation: Create a materials management volume goal of 75 % by 2016 and a plan to reach that goal.

A. Make composting a good neighbor.

1. Eliminate all municipal organic waste dumps
2. Upgrade all municipal composting facilities with bio-filtration systems and composting equipment.

B. Create 5 Zero Waste Education, Composting & Transfer Facilities in the county, each with:

1. Waste elimination through backyard-composting
2. Zero Waste training and composting support through start-up kits, trouble shooting and clean-out options
3. Storm damage wood waste and C&D wood to fuel production capabilities for duelfuel powerplant
4. Soil blending and compost based product production capabilities.
5. Commercial compo sting capabilities provide an outlet for excess compost from the municipalities
6. Waste soil, rock and gravel management capabilities

There is no plan for financial support to off-set the cost of creating recycling infrastructure.

Recommendation: Create a group of grants to support the development of new facilities. Grants are available to municipalities and private sector companies:

1. Planning Grants: \$10,000 design and permit facilities
2. Performance Grants for construction and equipment. Grants will be based on projected through-put and finished products.
3. Start-up Grants for a number of years to provide a dollar per ton processed to stimulate private investment for operating capital.
4. Matching Grants: County will match any state and Federal money received by any local program
5. Provide a Blanket insurance policy for health, workers compensation and liability to materials management companies to attract private investment.
6. Provide loan guarantees for land acquisition

The Plan does not make provision for tracking performance.

Recommendations: A weight based cost structure required on all municipal and commercial contracts. (Carting Companies can install scales on their commercial trucks.) Pay as you through on residential accounts.

1. This will enable an aggressive recycling program to reduce the cost of the contract by the disposal cost immediately.
2. This will enable the County to have an accurate record of the waste collected by the public and private haulers on the economy.
3. The county will have economic "Flow Control" because carting companies will bring all materials to the Zero Waste Facilities.

Comment 23:

League of Women Voters of the Mid-Hudson Region Solid Waste Study Committee
26 February 2013 Public Hearing

My name is Jolanda Jansen and I am a member of the League of Women Voters Solid Waste Study Committee.

The League of Women Voters of the Mid-Hudson Region has been actively involved in studying Solid Waste Management for over 20 years.

We recognize that we are at another pivotal point in New York State's efforts to direct Materials Management for the next 20 years.

We have prepared written comments, which we will be submitting electronically.

I would like to take this opportunity to highlight the most important points in our submission.

1. The report continues to refer to Solid Waste instead of describing everything as a material resource containing energy and economic value. Changing our language will change our thinking so that we can imagine and then create a Zero Waste Economy.
2. The Solid Waste Committee is a strong supporter of regionalism. We would like to see an intermunicipal agreement between Dutchess County and adjacent counties to site a regional landfill, or a regional ash landfill. Driving ash to a landfill in western New York State contributes significantly to greenhouse gas emissions.
3. The report mentions that staffing positions are dependent on County finances. In order to implement this 10-year plan, the County should make a 10-year staffing commitment.
4. The Solid Waste Committee believes that the need to deliver a minimum amount of waste to the Burn Plant has prevented the RRA and the County from focusing on recycling and composting. The future operator contract for the Burn Plant should not include a minimum quantity of waste.
5. Flow Control does not need to be over all Waste including Recyclables. Ulster County has recently adopted legislation to administer Flow Control over Solid Waste, but not over Recyclables. This gives Ulster County control over their Tipping Fees and enables them to come up with a budget that does not require a Service Fee to come out of the County Budget.

6. Dutchess County relies heavily on private haulers for collection. The haulers don't offer enough financial incentives to reduce waste and increase recycling. As part of hauler licensing, the County should require a robust incentive plan to reduce waste, increase recycling, and remove compostable materials from the waste stream.

7. The Solid Waste Committee strongly supports composting, including backyard composting and programs like the "Love' em and Leave' em" initiative in Westchester County, which encourages homeowners to mulch grass clippings and leaves onto their own lawns instead of putting them out for municipal pickup.

Comment 24:

Constantine P. Kazolias

In the beginning, as a concerned citizen, I became involved trying to save sixteen city Poughkeepsie sanitation jobs to be terminated in Mayor Tkazyik proposed 2013 budget. The sword of Democles hanging over their collective heads, as a group; they are the last vestige of city community fiber. What those fed/state/county programs and 27% tax abated properties haven't destroyed. The saying during the Vietnam War which is applicable to Poughkeepsie, 'we have to destroy the village to save it'. Proof: according to Forbes, the city of Poughkeepsie ranks 18th as the worst U.S. cities. I became very outspoken and involved. As a senior citizen and, living on very limited funds, I tried to make sense, which led me to the county's burn plant/trash/garbage to energy. An economic technological/financial fiasco. It is a failed county marriage, costing the D.C. taxpayers from \$40 to a 100 million since its inception 1995. This albatross around the county taxpayer pocket with no visible light at the end of the tunnel, the county should cut its losses and sell it!!!! This DEC public hearing, main thrust is to salvage/save this pie in the sky white elephant, the burn plant. Recycling has a low priority, even Dutchess County has a recycling LL on the books. The main reason for this DEC public hearing is to upgrade/save that burn plant!! If the city of Poughkeepsie sent its trash elsewhere, where it's cheaper, this plant, being a hybrid, expensive gas would kick in to keep the burners operational. The only feasible solution is to have a continuous flow of trash feeding this monster. This will become a reality, when Dutchess County follows suit as Ulster County recently voted by imposing flow control, the tipping fees in Ulster, a letter in the POJO was a \$100/ton!!!! Can Dutchess afford \$100/ton tipping fees? For the record, back in the 1960s/70s, my brother Satiro who ran for County Executive, circulated a petition with 900 signatures opposing the construction of the proposed burn plant, only to have the political snakes in the grass sandbank the public- and whala--- a burn plant!!!!!! It's pollutants spewing over dozens of schools, churches, hospital and others in the surrounding target area. The 33% residue ash with its toxins are being dumped in approved landfills, outside the county. All are health hazards!!!!!!!!!! Several other methods to disposing trash/garbage are composting, recycling. Including recyclable styrofoam. This can be mandated in NYS, as in California!!! There are other voices who will speak and their proposals should be considered. In conclusion, the county should cut its losses regarding the burn plant by shelving it and put it on the scrap heap.

Constantine P. Kazolias

Comment 25:

Richard Draves

I would like to call your attention to a small community in northern NH that recycles (at least on the receiving end) a lot more than we do in Dutchess.

Whitefield, NH is a very small community that has taken recycling seriously for several years. They do not have curbside pick-up so it may be easier for them to institute their plan.

But, they separate out, not just newspaper and magazines, but newsprint, color advertisements, magazines, office paper (envelopes & letters). They separate (as we do) glass, various plastic bottles, cans and aluminum cans.

If waste stream reduction is the goal, they may have some pointers.

On the other hand, if we cut too much from the burn plant, does that cause other problems in its efficiency?

Have a Good Day!

Dick

Comment 26:

Sarah Womer

Things I'd like to see:

1) Access to more Household Hazardous Waste Cleanup Days throughout the year. Eight times per year is decent, 12 times would be good and 30 times would be excellent. I understand that there's a high cost to these events, but I believe that we need access to outlets for this material more regularly so it doesn't end up in our waterways.

2) Electronics recycling with E-Stewards recyclers, who can certify that the material is not being exported. Unlike the recyclers the County has been using (Advanced Recovery and RCR&R), e-stewards provide:

- Data Security- protects information from the point devices are collected, transported, and processed. E-stewards adhere to the most up-to-date security standards and practices. See my [blog post](#) for more.
- No Export from Developed to Developing Nations - e-waste is hazardous, and systems aren't necessarily in place to protect people who are trying to recycle the waste.
- No sending to incinerators/landfills - again, because it's hazardous
- People are protected - both in the US and overseas, people who work with the waste are in safe & certified conditions
- Full accountability for the entire downstream recycling chain for the toxic materials to final disposition

3) Recycling in schools and no more styrofoam in schools/government agencies

4) Infrastructure for compost facilities

5) Much more information (in English and other languages) about single stream recycling, and recycling in general. People are confused and need pictures of what can go in the recycle bin and what cannot. We need brochures, stickers, flyers, and radio ads until people understand better. These mediums should be fun and great to look at. Also, having them at festivals and parades would greatly help.

6) It's far too common to see liquor stores, with all their boxes, not recycling them in a cardboard dumpster but rather throwing them into the garbage dumpster. We need to help our local businesses make the switch to recycling gently. Then, we need to start enforcement of recycling laws.

7) The incinerator facility processes 450 tons of garbage per day, and 140,000 tons/year. I'd like to see this facility burn less, and generate more energy. There are many different types of technology out there that are far more progressive and efficient than what we're currently using. Biogas digesters produce natural gas from garbage, and hence produce energy.

8) Make transfer station facilities in our towns generate more revenue: have them sell clean compost. Have them sell the metals they recover independent of the carting company so they can make more.

9) Have a recycling coordinator in each town to handle the transfer stations. Have the transfer stations open more, and at least 3 days/week.

Thank you,
Sarah Womer
Zero to Go

Comment 27:

Betty Tabor

Re: Recycling Comment

One aspect of the subject of recycling in Dutchess County is never mentioned: the disposal of Styrofoam. It seems as if this product must make up a very large percentage of the waste stream volume, though probably not by weight. I realize that this material is most difficult, but wish it would be addressed.

By the way, the website, like most, was of no help, not giving a clue for where to "click".

Betty Tabor

NOTICE

PUBLIC COMMENT PERIOD

DUTCHESS COUNTY LOCAL SOLID WASTE MANAGEMENT PLAN

Dutchess County has prepared a Local Solid Waste Management Plan pursuant to N.Y. Environmental Conservation Law §27-0107.

The Local Solid Waste Management Plan, Rethinking Waste, is available for review on the Dutchess County Solid Waste Management website, www.co.dutchess.ny.us/CountyGov/Departments/SolidWasteMgmt/SWindex.htm

Copies of Rethinking Waste are also available for review at the following locations:

- Dutchess County Department of Planning and Development, M-F between 9:00 a.m. and 5:00 p.m. at 27 High St, Poughkeepsie, NY;
- Dutchess County Resource Recovery Agency, M-F between 8:00 a.m. and 3:30 p.m. at 96 Sand Dock Road, Poughkeepsie, NY; and
- Cornell Cooperative Extension offices at the Farm and Home Center, M-F between 8:30 a.m. and 4:30 p.m. at 2715 Route 44, Millbrook, NY; and during library hours at the:
 - Red Hook Public Library, 7444 South Broadway, Red Hook, NY
 - Poughkeepsie / Adriance Memorial Library, 93 Market St, Poughkeepsie, NY;
 - Howland Public Library, 313 Main St., Beacon, NY;
 - East Fishkill Community Library, 348 Route 376, Hopewell Junction, NY;
 - Dover Plains Library, 1797 Route 22, Dover Plains, NY;
 - North East-Millerton Library, Main St, Millerton, NY; and
 - Stanford Free Library, 14 Creamery Rd, Stanfordville, NY.

Public comments on Rethinking Waste will be received from January 14, 2013 through March 14, 2013 and may be mailed or delivered to the Dutchess County Department of Planning and Development, Division of Solid Waste Management, emailed to solidwastemgmt@dutchessny.us, faxed to Lindsay Carille at 845-486-3610, or submitted online at www.co.dutchess.ny.us/CountyGov/Departments/SolidWasteMgmt/SWindex.htm

A public hearing on the LSWMP will be held on February 26, 2013 at the Farm and Home Center, 2715 Route 44, Millbrook, NY at 7:00 pm (inclement weather date is February 28, 2013).

January 14, 2013

Dutchess County
By: Lindsay Carille
Director, Division of Solid Waste Management
27 High Street
Poughkeepsie, New York 12601
Phone: 845-486-3600

January 15, 2013

Dutchess County's Local Solid Waste Management Plan "Rethinking Waste" Available for Public Comment

Plan seeks to double County's recycling rate over next ten years

Poughkeepsie... Dutchess County's Local Solid Waste Management Plan, *Rethinking Waste*, has been issued for public review. The ten-year plan for the management of solid waste outlines how much solid waste is currently generated in Dutchess County and how much is currently recycled and reused. *Rethinking Waste* focuses on how to decrease the generation of solid waste and increase what is taken out of the waste stream through recycling and reuse.

Rethinking Waste is considered to be a working document, with a realistic plan for solid waste management. The three main goals of the LSWMP are to decrease solid waste generation, increase reuse and recycling, and minimize the use of landfills for solid waste disposal.

Dutchess County Executive Marcus Molinaro said, "The plan sets ambitious goals for reduction, reuse and recycling of solid waste in Dutchess County. We want to establish Dutchess as a statewide leader in recycling as we seek to more than double our recycling rate over the next ten years. It is critical that everyone – county government, businesses and residents – commits to the necessary steps to achieve this ambitious, yet achievable goal."

According to the plan, 23% or 58,530 tons of materials were diverted from the waste stream through recycling in 2010, a percentage similar to the NYS recycling average. *Rethinking Waste* sets a goal of nearly 60% or 152,225 tons to be recycled by 2021 in Dutchess County. The *Rethinking Waste* document contains a detailed implementation plan outlining the steps needed to reach this recycling and reuse goal. The plan focuses on educational efforts, recycling and composting promotion, and enforcement of solid waste laws in an effort to achieve the 60% recycling goal and create a more sustainable waste system.

One way to decrease the amount of waste that needs to be incinerated or landfilled is to increase the amount that is reused and recycled. Promotion of composting of yard and food waste, which accounts for approximately 30% of our waste stream, as well as promotion of recycling of residential, commercial, institutional, construction and demolition materials has to be a priority in order to minimize waste that is disposed.

In addition to establishing goals and implementation objectives for the next ten years, *Rethinking Waste* provides an overview on the quantity and types of solid waste in Dutchess County, a description of the current programs as well as administrative, legislative and financial solid waste structure. It includes an assessment and evaluation of the current solid waste program and provides ten-year projections for solid waste generation and recycling rates.

According to Dutchess County Solid Waste Management Director Lindsay Carille, the adoption of a solid waste management plan is only the first step in having an environmentally sound management plan. Ongoing collaboration with New York State Department of Environmental Conservation (NYS DEC), local governments, surrounding counties, licensed haulers, residents as well as businesses will be essential in tracking waste and recycling volumes, as well as finding innovative ways to decrease waste generation and increase the recycling and reuse rate.

The County, as the Solid Waste Planning Unit, is required by the NYS DEC to have an up-to-date

solid waste management plan as it is a necessary and essential element in maintaining an environmentally-sound integrated solid waste management program. The last solid waste management plan was adopted in 1990 and covered a twenty-year period.

As part of the LSWMP's approval process, the public is encouraged to review and share comments on the plan. The *Rethinking Waste* document is available for public review and comment for the next sixty days. The document is available online at:

www.co.dutchess.ny.us/CountyGov/Departments/SolidWasteMgmt/SWindex.htm. Copies of *Rethinking Waste* are also available for review at several locations throughout Dutchess County including the Department of Planning and Development in the City of Poughkeepsie, the Dutchess Resource Recovery Agency in the Town of Poughkeepsie, and the Farm & Home Center in Millbrook as well as several local libraries. A complete list of locations is available at www.dutchessny.gov.

Comments can be submitted online at www.dutchessny.gov or can be mailed to Lindsay Carille, Division of Solid Waste Management, 27 High St, Poughkeepsie, NY 12601.

Comments can also be submitted at a **public meeting to be held on February 26, 2013 at the Farm and Home Center, 2715 Route 44 in Millbrook at 7:00 pm** (inclement weather date is February 28, 2013).

Following the public review period, the Dutchess County Legislature will vote to adopt the plan and it will be then submitted to the NYS DEC for final approval.

Dutchess County Legislator Ben Traudt, who serves as the Chairman of the Legislature's Environmental Committee said, "It is time to rethink how we view 'waste' - we need to view solid waste not as garbage to be thrown out, but as a resource that can be recycled into new products, reused or repurposed. The *Rethinking Waste* document lays out a course to get us there. Many thanks to Solid Waste Management Director Lindsay Carille for her work on this plan, which incorporates the reports and findings conducted over the last few years by the Legislature."