

# The Sixth Annual Report of the Recycling Public Advisory Council

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## *Executive Summary*

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During 2006 the Recycling Public Advisory Council (RPAC), under Chairman Paul Wilkinson, focused its efforts on increasing recycling activities in Delaware. Specific actions other than the discussions and presentations held during monthly public meetings included:

- Supporting Senate Bill 225, the primary recycling legislation in 2006, which could have dramatically increased recycling in Delaware;
- Providing \$1,500 to help start recycling outreach in the City of Wilmington where single-stream curbside recycling service was provided to over 6,000 homes; and
- Having the Governor sign a new Executive Order (Executive Order 90) which expanded the RPAC's public representation by two members and changed Delaware's recycling goal from a 30% diversion rate for residential solid waste (RSW) to a 51% diversion rate of recyclables from Delaware's municipal solid waste (MSW) stream.

Paul Wilkinson retired after five years as Chairman of the RPAC in June of 2006. Governor Minner appointed B.J. Vinton to Chairman in September of 2006. As a result of revisions to the RPAC made by Governor Minner through the issuance of Executive Order 90, three new Council members were also appointed.

Work under Chairman BJ Vinton began in October of 2006, and is covered in this Report through March of 2007. During this period, the RPAC continued to have monthly public meetings and presentations discussing various issues related to recycling in Delaware. Specific actions taken by the RPAC since October 2006 have been:

- The formation of a Methodology and Measurement Subcommittee which is working with the Delaware Solid Waste Authority (DSWA) and the Department of Natural Resources and Environmental Control (DNREC) to develop an objective and auditable approach to recycling measurement and reporting consistent with EPA standards;
- The formation of an Outreach and Education Subcommittee;
- Supporting banning yard waste from landfills, specifically documented in a letter sent to the Governor and State Legislators dated January 19, 2007; and
- Providing input on draft recycling legislation.

### **Draft Legislation**

In 2006, the Governor's recommended legislation was introduced as Senate Bill (SB) 225 and while it passed in the Senate, it was tabled by the House of Representatives. A revised version of SB 225 has been prepared and is intended to implement the joint recommendations of the RPAC, DSWA, and DNREC. This draft legislation establishes a fund to assist municipalities, non-profits, and private businesses with the costs of implementing recycling programs. It is the RPAC's hope that the Legislature will recognize the need for recycling legislation and vote to pass this year's proposed legislation thereby providing the resources and

creating the opportunity for the establishment of recycling and diversion programs that will put the State on a clear path forward toward achieving substantial diversion.

## **Recycling Assistance Grant Program**

For FY06, as in previous years, the amount of grant funding requested by eligible groups exceeded the amount available. DNREC, in conjunction with RPAC, selected five grant recipients to receive the \$50,000 in available grant funds. To make the best use of the available funding, the RPAC found it necessary to ask one applicant to modify their proposal to reduce the project costs. The list of grant recipients, including a brief description of each project and the amount of funding awarded, are contained in Appendix D.

## **Recommendations**

The RPAC's recommendations for increasing the diversion rate are as follows:

1. Enact the proposed recycling legislation (see Appendix F)  
A major recommendation of the RPAC in the past has been creating a Delaware Recycling Fund to assist in the establishment of recycling programs throughout the state. This legislation enables the creation of a recycling fund that has the ability to substantially increase recycling and waste diversion in Delaware.
2. Maintain the yard waste ban at the Cherry Island Landfill and expand statewide as appropriate (see Appendices E and G)

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## 1.0 Purpose

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This is the Sixth Annual Report of the Recycling Public Advisory Council (RPAC). The purpose of the report is to fulfill requirements of Executive Order No. 90, which directs the RPAC to prepare an annual report addressing the following:

1. the status of attainment of the 51% municipal solid waste recycling goal;
2. an accounting of the Recycling Assistance Grant Program and recommendations for future funding of the program;
3. an assessment of the activities of both the DNREC and the DSWA in achieving the 51% recycling goal;
4. an objective, auditable accounting of recycling rates for total solid waste, municipal solid waste, and residential solid waste; and
5. such other recommendations as the RPAC shall deem appropriate.

Executive Order No. 90, issued by Governor Ruth Ann Minner in September 2006, is attached to this report as Appendix A. It supersedes Executive Order 82 which previously established the RPAC. A list of the current RPAC members can be found in Appendix C.

As mentioned above, this report also covers the period of 2006 when the RPAC existed under Executive Order 82. During that time Executive Order 82, directed the RPAC to prepare an annual report addressing the following:

1. the status of attainment of the goal of diverting 30% of Delaware's residential solid waste;
2. an accounting of the Recycling Assistance Grant Program and recommendations for future funding of the program;
3. an assessment of the activities of both the DNREC and the DSWA in achieving the 30% recycling goal; and
4. such other recommendations as the RPAC shall deem appropriate.

Executive Order No. 82, issued by Governor Thomas Carper in September 2000, is attached to this report as Appendix B.

## *2.0 Introduction*

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### ***2.1 Benefits of Recycling***

Below is a basic list of benefits that recycling provides to individuals, the community, and future generations. It is adapted from the Citizens' Work Group on Recycling's report, "A Course of Action to Increase Recycling in the State of Delaware". A list of endnotes is provided in Appendix I.

**Provides jobs** - Nationally there are many established jobs and small businesses supported 100% by the recycling business. Studies reveal that recycling, reuse and other materials-efficient practices generally create more, and more sustainable, employment. Per a recent analysis by the Institute for Local Self-Reliance, if all of Delaware waste was diverted to reuse and recycling, approximately 2,000 jobs would be created<sup>1</sup>. Recycling provides jobs in collecting, sorting, packaging, cleaning, processing and reselling products based in whole or part on recycled material. On average, pay is better than for jobs involved in collecting, transporting and landfilling waste<sup>2</sup>. For every 100 jobs created by recycling, only 13 jobs are lost in the solid waste collection and disposal and in virgin materials extraction<sup>3</sup>.

**Extends life of municipal landfills** - This postpones the need to fund purchase and development of new landfill sites – as well as social and political conflicts accompanying selection of a new site. It also reduces the pressure for incineration as a landfill alternative. For example, the DSWA landfills today receive about 3,400 tons per day. Executive Order 90 has a goal of 51% diversion of municipal solid waste. Our current recycling rate for municipal solid waste is about 20%. If the 51% goal was achieved, Delaware could save approximately one-third of its landfill capacity.

**Reduces emissions of greenhouse gases** – The U.S. generates enormous emissions of greenhouse gases, those gases that cause earth temperatures to rise. Many scientists believe that if not slowed, the present rate of global climate change can have near-irreversible and disastrous consequences for the earth's entire ecosystem. By reducing the amount of energy used by industry, recycling also reduces greenhouse gas emissions and helps stem the dangers of global climate change. This is because much of the energy used in industrial processes and in transportation involves burning fossil fuels like gasoline, diesel and coal -- the most important sources of carbon and other greenhouse gas emissions into the environment. Delaware recycling efforts in 2005 reduced greenhouse gas emissions by about 397,790 tons of carbon equivalent per year, equal to about 8% of all greenhouse gas emissions in the state<sup>4</sup>.

**Saves Energy** - Energy savings may be the most important environmental benefit of recycling, because using energy requires the consumption of scarce fossil fuels and involves emissions of numerous air and water pollutants. The steps in supplying recycled materials to industry (including collection, processing and transportation) typically use less energy than the steps in supplying virgin materials to industry (including extraction, refinement, transportation and processing). But most energy savings associated with recycling accrue in the manufacturing

process itself, since recycled materials have already been processed at least once. Energy savings related to recycling are significant. For example, manufacturing with recycled content plus recycling saves over 17 million BTUs of energy per ton of material processed than manufacturing with virgin content and landfilling<sup>5</sup>. The commodities Delaware recycled in 2005 saved a total of about 14.7 trillion BTUs of energy, equal to nearly 12% of all energy used by industry in the state, or enough to power over 141,770 homes for a year<sup>4</sup>.

**Reduces consumption of non-renewable sources of energy and raw materials** - This is an ethical and moral issue: *Does this generation in general, and this nation in particular, have the right to waste the world's non-renewable resources?* Natural processes do not regenerate "non-renewable" resources in times comparable to human lifetimes. Such materials include for example natural gas and oil used for energy, and ores from which steel, aluminum and other materials of commerce are produced. These materials will gradually but inexorably rise in cost and perceived value as the supply gradually diminishes. This is a huge issue and involves responsibilities of individuals and nations that, by today's world standards, possess great wealth. Supplying industry with recycled materials, rather than "virgin" resources extracted from forests and mines, is environmentally preferable because it saves energy, reduces emissions of greenhouse gases and other dangerous air & water pollutants, and because it conserves scarce natural resources. In 2005, Delaware recycling programs supplied industry with over 1,445,363 tons of scrap commodities like paper, glass, metals, plastics, wood, construction & demolition and other materials<sup>4</sup>. Recycling reduces the need for landfills and other disposal facilities, thereby allowing local lands to be used in more environmentally preferable ways. And, by substituting scrap materials for the use of trees, metal ores, minerals, oil and other virgin materials, recycling reduces the pressure to expand forestry and mining production. By recycling nearly 486,900 tons of scrap metal and glass in 2005, Delaware recycling efforts reduced the need for virgin materials by twice that amount, including 600,405 tons of iron ore, 336,227 tons of coal, 29,686 tons of limestone, 2,966 tons of sand, 935 tons of soda ash, and 365 tons of feldspar<sup>4</sup>.

**Reduces environmental damage from industrial waste** - Recycling of household trash actually can reduce industrial waste. Consider: potentially recyclable material – glass, metal or plastic – that ends up in a landfill is replaced by new material whose manufacture may generate undesirable – some even toxic to humans and other living species. On the other hand, re-manufacture beginning with recovered, recycled material can be inherently "cleaner". For example, it is environmentally preferred to collect, remelt and reuse aluminum from soda cans than to dig more bauxite from mines and process it through today's environmentally-polluting process for manufacture of additional aluminum metal.

**Reduces environmental damage from residential and commercial waste** – Residential and commercial waste causes environmental damage also. The list of hazardous materials that are discarded by homeowners is lengthy. It includes mercury in fluorescent light tubes and batteries, chlorinated cleaning solvents, heavy metals on old electroplated fixtures and as additives in PVC and other plastic materials, oil from automobiles, etc. In addition to greenhouse gases, recycling can reduce a range of pollutants from entering the air and water. This benefit accrues again because of reduced fossil fuel use and because recycled materials have already been processed once. But it also accrues because recycling keeps materials out of landfills, where they can

introduce leachate into groundwater systems, and out of incinerators, which can emit pollutants into the air and into ash residue. Recycling has been shown to produce less of 27 different types of air and water pollutants, compared with using virgin materials in manufacturing and disposing wastes.

**Teaches environmental stewardship to individuals** - Wasteful use of non-renewable resources, coupled with indiscriminate disposal of products made from those resources, teaches the wrong message – especially to our youth. As the world’s population increases, and natural resources are used at a faster rate, strong and informed leaders will be needed to create a balance.

## ***2.2 Background of Recycling Efforts in Delaware***

The State of Delaware first began promoting recycling in 1975 with the passage of the Delaware Solid Waste Authority’s enabling legislation. This led to the opening of the Delaware Reclamation Plant, which held the title of the largest recycling/reclamation project in the world for nearly 11 years. About 2.5 million tons of MSW and 0.5 million tons of sewage sludge were processed through this plant. This facility was shut down in 1993 and the plant was modified to operate as the Delaware Recycling Center which processes and markets all the recyclables from the ‘RECYCLE DELAWARE’ Drop-Off Program.

The next major milestone was the implementation of the Beverage Container Law in 1979 designed to prevent roadside littering.

In 1990, the statewide drop-off recycling program, known as ‘RECYCLE DELAWARE’, was established by the Delaware Solid Waste Authority. The DSWA currently operates over 140 ‘RECYCLE DELAWARE’ centers and collects over 20,000 tons/year of recyclables. Included are brown, green and clear glass bottles, plastic bottles, newspaper and magazines, aluminum and steel cans (including aerosols), plastic grocery bags, textiles, motor oil and oil filters, corrugated cardboard, and household batteries (the batteries are not recycled, but disposed of properly).

Despite these recycling milestones, Delaware's former Governor, Thomas Carper, received frequent letters and phone calls from Delaware residents requesting implementation of curbside collection of recyclables. These requests spurred Governor Carper to call a meeting in late 1998 with representatives of the DNREC, the Delaware Economic Development Office (DEDO) and the DSWA to discuss the feasibility of implementing curbside collection of recyclables in Delaware. The result of this meeting was the issuance of Executive Order No. 60 establishing the Citizens’ Work Group on Recycling to evaluate recycling in Delaware. The work group would also recommend ways to increase recycling in Delaware.

In the spirit of conservation and pursuant to the report “A Course of Action to Increase Recycling in the State of Delaware,” which was developed by and contained the recommendations of the Citizens’ Work Group on Recycling, Governor Thomas R. Carper signed Executive Order Eighty-Two (See Appendix B) which:

1. Established the goal of a thirty (30) percent diversion rate for recyclables from Delaware's residential solid waste stream.
2. Required the Department of Natural Resources and Environmental Control (DNREC), Division of Air and Waste Management (DAWM) to work in concert with the Delaware Solid Waste Authority (DSWA) and the Recycling Public Advisory Council (RPAC) to:
  - a) develop a method for measuring recycling,
  - b) establish a recycling grant program,
  - c) establish a public outreach and education program aimed at educating the general public and students on the value of recycling as well as to increase the recycling rate,
  - d) provide technical assistance to local entities to increase the recycling rate, and
  - e) provide administrative support to the RPAC.
3. Established the nine (9) member RPAC and tasked the RPAC with:
  - a) advising DNREC and DSWA on all aspects of recycling,
  - b) advising DNREC on developing grant criteria,
  - c) advising DNREC and DSWA on outreach activities to increase recycling, and
  - d) developing an annual report due on December 1<sup>st</sup> of each year detailing the status of recycling activities within Delaware.

Governor Minner appointed the members of the RPAC early in her Administration and the first RPAC meeting was held on February 27, 2001. DNREC also hired an Environmental Scientist and a Community Relations Officer to assist the Council. The Environmental Scientist aided the Council in developing the method for measuring recycling and provided recycling technical assistance to Delaware's communities and local governments.

The RPAC contracted a study on residential curbside recyclables collection in New Castle County. The final report, titled "Evaluation of Enhanced Residential Waste and Recyclables Collection and Processing for New Castle County", was published in 2003 by DSM Environmental Services, Incorporated. The report concluded that curbside collection of recyclables could be done at least as, if not more, cost effectively than trash if the system is properly designed.

In early 2006, Senate Bill 225 (SB 225) was introduced in the Delaware Senate. It established a framework for a statewide curbside recycling system, established a Recycling Fund to help pay for recycling programs, banned yard waste from disposal (providing for development of yard waste management facilities), established statewide recycling goals, and established the RPAC. The Governor's Office, DNREC, DSWA, and the RPAC all supported SB 225. The Bill did pass the Senate with amendments (see Appendix H) but it was tabled in the House of Representatives.

In October of 2005, DNREC Secretary, John Hughes, established the Solid Waste Management Technical Working Group (SWMTWG) pursuant to a directive from Governor Minner. It was comprised of individuals with technical backgrounds, financial backgrounds, and/or experience with municipal solid waste management systems and technologies. The SWMTWG was tasked to perform a feasibility review of municipal solid waste management alternatives and to recommend a program or programs that would best serve Delaware's

municipal solid waste management needs. In April of 2006, the SWMTWG produced a report that recommends the state implement effective source reduction and recycling programs and building a processing facility.

The Citizens Solid Waste Solutions Commission (CSWSC), an organized group of environmentally conscious citizens, also produced a report in 2006. They called for more convenient and cost-effective recycling programs, better processing facilities for recyclables and discards, opposition to incineration, and a more focused recycling agency than the DSWA. They argued that recycling is an issue of resource management rather than one of waste disposal.

The City of Wilmington initiated a single-stream curbside recycling trial for over 6,000 households in the Summer of 2006. The City has partnered with RecycleBank, a recycling company based in Philadelphia, to provide the service. RecycleBank provides wheeled recycling containers, retrofits Wilmington's trucks to service the containers and weigh the material, provides various data reports, and provides outreach and education about the program. Through the RecycleBank program, participating households can earn up to \$30 per month in RecycleBank Dollars which can be redeemed at stores of the customer's choosing. The incentive encourages residents to recycle and helps Wilmington to divert waste from the landfill. The recycling rate in Wilmington went from almost zero to about 35% in about six months. Both Wilmington and RecycleBank are happy with the results of the trial and in early 2007, Wilmington announced that the program will be available citywide by summertime.

In September of 2006 Governor Minner signed Executive Order 90 (see Appendix A) which replaced Executive Order 82 (see Appendix B) and re-established the RPAC. The new Executive Order 90 increases the membership of the RPAC by two public members. It also increases the former recycling diversion rate goal from 30% of residential solid waste to 51% of municipal solid waste.

### ***2.3 Status of Previous Recommendations***

There are a number of recognized groups that have made recommendations to improve recycling and waste management in Delaware. Below is a listing of the RPAC recommendations as well as those from other groups. Most recommendations, such as providing incentives and resources for recycling and banning yard waste from landfills, are shared among groups. These recommendations are listed below:

**Table 1 - Previous Recommendations from the RPAC Annual Reports**

<b>Date</b>	<b>Recommendation</b>	<b>Status</b>
<b>January 2002</b>	Provide grant funding of \$100,000 for 2003 and increase \$25,000 per year through 2005.	Legislature decreased funding from \$75,000 to \$50,000 where it has stayed since FY2004
	Maintain DNREC's current recycling staff level of one Environmental Scientist and one Community Relations Officer and add a Planner position in fiscal year 2004.	Not only has there not been a planner position added, the Community Relations Officer position was cut.

Date	Recommendation	Status
January 2002	<p>Increasing awareness of the 'RECYCLE DELAWARE' program during grant and educational outreach activities, Revisiting the House Bill allowing DSWA easier access to shopping centers, where usage is typically highest, to site new 'RECYCLE DELAWARE' centers, Designing more aesthetic 'RECYCLE DELAWARE' centers to promote their acceptance.</p>	
	<p>Support and expand recycled materials markets through DEDO's Green Industries Initiative and DNREC's Recycling Assistance Grant Program.</p>	
	<p>Through legislation provide DNREC with the authority to require waste collectors (municipal and private) to provide DNREC, on a confidential basis, information on the tons of trash and recyclable material collected in Delaware. This could be a requirement imposed as part of the transporter permitting process. It is proposed this legislation be effective July 2002.</p>	
	<p>Encourage municipal and home composting and divert yard waste from landfill disposal as follows: Encourage municipal composting by state purchase (Parks and Recreation, Administrative Services, Del DOT) of composted material for use in landscaping and, Provide a rebate for the purchase of mulching mowers; double if the mower is battery or electric or, banning yard waste from the active landfill and provide space at the landfill to collect the material for processing.</p>	<p>Yard waste banned from Cherry Island Landfill effective January 1, 2007 as part of the landfill permit. This is consistent with the Yard Waste Management Committee recommendations.</p>
	<p>Fund a study to determine the per-household cost of recycling/composting in different parts of the state. It is estimated such a study would cost at least \$50,000 and take several months to complete. The following recommendations will require major action by the State of Delaware to realistically achieve the thirty-percent diversion rate.</p>	
	<p>Provide franchise district capability to New Castle and Sussex County.</p>	
	<p>Collect a recycling fee from all waste haulers on a per ton basis as a part of the permitting process to support the building and operation of a Materials Recovery Facility (MRF). A MRF is needed to process commingled recyclables and market materials.</p>	

Date	Recommendation	Status
Jan. 2002	Build a MRF in New Castle County and adopt co-mingled curbside collection in the denser population areas.	
January 2003	Development of a comprehensive strategy for increasing the RSW diversion rate	
	Completion and evaluation of the cost study for curbside collection of recyclables and construction and operation of a MRF for New Castle County	Report prepared by DSM (October 15, 2003) demonstrating curbside recycling can be implemented cost effectively.
April 2004	DNREC ban yard waste from the state's landfills to increase yard waste diversion	Yard waste banned from Cherry Island Landfill effective January 1, 2007 as part of the landfill permit
	DSWA develop a Materials Recovery Facility (MRF)	
	Develop a law that establishes a diversion rate and target date for its achievement.	Legislation has been drafted but not written into law. In 2006, Senate Bill 225 passed the Senate but remained in the House Natural Resources Committee until the end of the legislative session.
April 2006	Enact legislation to permanently establish the RPAC.	
	Maintain the conditions in the Cherry Island landfill permit that are consistent with the provisions contained in S.B. 225.	Draft legislation threatens to weaken or remove the ban on yard waste.
	Create a Delaware Recycling Fund to assist in the establishment and enhancement of recycling programs throughout the state. The source of funding should be an assessment on all solid waste collected and/or disposed of in Delaware except for those materials destined for recycling.	

**Recommendations from the Solid Waste Technical Working Group report, “Solid Waste Management Alternatives for Delaware” (May 15, 2006) related to source reduction and recycling**

Recommendation	Status
Divert as much material from landfills as possible	
Strive for higher recycling goals and citizen participation which will require providing incentives for households, businesses, and government	Executive Order 90 called for increasing the former 30% of RSW recycling goal to 51% of MSW
Prohibit yard waste from all of Delaware’s landfills	Effective only at Cherry Island Landfill
DSWA provide opportunities for citizens to dispose of yard waste at each landfill and transfer station and convert these materials into compost or mulch	DSWA currently accepts yard waste separately at all facilities to manage as compost or mulch
Explore feasibility of banning other wastes from the landfills	
Further evaluate additional residential, commercial, and government source reduction/waste minimization problems	

**Recommendations from the McCabe and Associates report, “An Assessment of Waste and Dredging Issues Relating to Landfill Capacity in the State of Delaware” (2005)**

Recommendation	Status
General Assembly fund recycling programs and grants significantly like other states do	
General Assembly enact legislation to allow unclaimed beverage container deposit funds to be used to support recycling	

## *3.0 RPAC Activities*

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During 2006, the RPAC focused its efforts primarily on last years draft legislation (Senate Bill 225), a new Executive Order establishing the RPAC (Executive Order 90), working to properly measure and define recycling, supporting the yard waste ban at Cherry Island Landfill, and providing input to this year's draft recycling legislation.

### ***3.1 Senate Bill 225& New Draft Recycling Legislation***

In 2006, the Governor's recommended legislation was introduced as Senate Bill (SB) 225 (see Appendix H) and while it passed in the Senate, it was tabled by the House of Representatives. A revised version of SB 225 has been prepared for 2007. This draft legislation (see Appendix F) establishes a fund to assist municipalities, non-profits, and private businesses with the costs of implementing recycling programs. It is the RPAC's hope that the Legislature will recognize the need for recycling legislation and vote to pass this year's proposed legislation thereby providing the resources for the establishment of recycling and diversion programs that will put the State on a clear path forward toward achieving substantial diversion.

### ***3.2 Executive Order 90***

Nearing the end of the legislative session in June of 2006, with SB 225's lack of progress in the House of Representatives, the RPAC felt that it was necessary to pursue a new Executive Order that would establish higher recycling goals. In September of 2006 Governor Minner signed Executive Order 90 (see Appendix A) which replaced Executive Order 82 and re-established the RPAC. The new Executive Order 90 also increased the membership of the RPAC by two public members and increased the former recycling diversion rate goal from 30% of residential solid waste to 51% of municipal solid waste.

### ***3.3 Methodology and Measurement***

In late 2006, the RPAC formed a sub-committee to take the lead on the RPAC's charge to develop a methodology for measuring recycling rates in conjunction with the DSWA and DNREC. The Methodology and Measurement Sub-Committee includes representation from the DSWA and DNREC and has been meeting regularly to develop an objective and auditable approach to recycling measurement and reporting consistent with EPA standards.

### ***3.4 Supporting Banning Yard Waste From Landfills***

It has long been the position of the RPAC that banning yard waste from landfills is an effective method to increase waste diversion and extend landfill life. The products of yard waste, mulch and compost, have a wide variety of very beneficial uses. Furthermore, due to local shortages, Delaware regularly imports mulch and compost to meet our needs. The RPAC

expressed support on banning yard waste from landfills in a letter sent to the Governor and Legislators in January of 2007 (see Attachment E).

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## 4.0 Recycling Grants

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### 4.1 Grant Program History and Status

The Recycling Assistance Grant Program was established in 2001. The DNREC developed the grant criteria and selection procedures, with advice from the RPAC. For the FY01 grants, recipients were required to provide matching funds equal to at least 25% of the funds provided by the state. The DNREC revised the match requirement for FY02 and future years, on the recommendation of the DNREC's accounting office; the match requirement is now 25% of the total project cost.

Grant selections are made by the DNREC in conjunction with the RPAC.

The chart below summarizes the grant statistics for Fiscal Year 2001 through 2007.

	State Funds Available	State Funds Requested	# Applications Received	# Projects Funded
FY 2001	\$46,000	\$122,000	9	6
FY 2002	\$75,000	\$130,175	12	10
FY 2003	\$68,334	\$99,852	11	10
FY 2004	\$50,000	\$140,146	11	7
FY 2005	\$50,000	\$85,374	9	6
FY 2006	\$50,000	\$90,117	6	5
FY 2007	\$50,000	\$103,609	9	T.B.D.

The period covered by this Annual Report encompasses the close-out of the FY05 grants, the awarding and implementation of the FY06 grants, and the announcement of the FY07 grants. The grant activities for all three fiscal years are described in the next three sections.

### 4.2 Close-Out of FY05 Grants

All FY05 grants ended on May 2, 2006. Each grant contract specified that a final report must be submitted to DNREC by that date and that no expenses incurred after that date would be reimbursed with grant funds.

Six projects were approved for funding in FY05. The amount of state funding approved was \$50,000. The amount of funding awarded to each grant recipient, and the amount actually spent, are listed in Table 3-1 below:

**Table 3-1. FY05 Grant Wrap-Up**

<i>Grant Recipient</i>	<i>State Funding Approved</i>	<i>Amount Reimbursed</i>	<i>Brief Description of Project</i>
City of Delaware City	\$2,225.24	\$2,225.24	Expand curbside recycling program
Village of Ardentown	\$6,320.00	\$6,320.00	Construct a community composting site
City of New Castle	\$10,000.00	\$10,000.00	Purchase equipment for composting
Delaware Center for Horticulture	\$5,124.00	\$5,124.00	Gather information on leaf collection and management and share with the city of Wilmington
People's Settlement Association/UHELP	\$13,588.00	\$13,166.00	Outreach encouraging waste reduction
University of Delaware	\$12,612.00	\$12,612.00	Composting education

Appendix D contains a more detailed description of each project, including objectives and accomplishments. Descriptions of projects funded in previous years can be found in RPAC's previous Annual Reports and on DNREC's recycling web page.

### **4.3 FY06 Grant Summary**

In FY06, as in all previous grant years, the amount of funding requested by eligible groups exceeded the amount available. Five projects were selected for funding; however, because of the limited amount of money available (\$50,000), the University of Delaware was asked to modify their proposal in order to reduce costs.

Appendix D of this report contains the project descriptions for the FY06 grants.

### **4.4 FY07 Grant Opening**

As provided for in Executive Order 90, the Recycling Assistance Grants eligible activities were expanded from focusing on just residential solid waste to encompassing all municipal solid waste (MSW) which includes commercial waste. DNREC announced the FY07 grants in November of 2006 and held seven informational workshops between December 11 and December 14, 2006. Completed applications were due to DNREC by January 31, 2006. The amount of funding available for the grants is \$50,000. Similar to all previous years, the amount of funding requested by eligible groups exceeded the amount available.

### **4.5 Recommendations for Future Funding**

The grant program has been severely limited by the small amount of funding that the state has provided. The Citizens' Work Group on Recycling recommended grant funding of \$500,000 per year to approach a diversion rate of 25%, stating that more grant money would be needed to achieve a higher rate. The amounts provided thus far are well below the recommended amount.

The previous goal of achieving 30% diversion of Residential Solid Waste (RSW) would require a substantial increase in recycling in the large municipalities and the unincorporated areas of the state. Now that the goal is 51% of MSW, the need for assistance is even greater. If our major tool for increasing the recycling rate continues to be the grant program, that program must provide sufficient funding to enable a wide variety of organizations to implement sustainable programs that will capture significant quantities of recyclables.

The amount of grant funding that the RPAC recommends is \$3 to \$4 million per year consistent with the draft recycling legislation.

## *5.0 DNREC Activities*

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DNREC's activities conducted in support of attaining the 30% RSW, and now 51% MSW, diversion goal fall into four major areas: providing support to the RPAC, administering the Recycling Assistance Grant Program, conducting education and outreach designed to increase diversion, and maintaining the Cherry Island Landfill Yard Waste Ban.

### ***5.1 Support to the RPAC***

In fulfillment of its responsibilities under Executive Order No. 82, DNREC has worked diligently to provide support to the RPAC and continues to do so under Executive Order No. 90. The tasks that DNREC carried out in this area included, but were not limited to:

- 1 Making meeting arrangements for all RPAC meetings;
- 2 Preparing and distributing agendas and minutes for all RPAC meetings;
- 3 Preparing summaries of, and editing the, draft recycling legislation;
- 4 Drafting (for RPAC review) and finalizing all Recycling Assistance Grant documents, such as application packages, contracts, and reporting forms;
- 5 Publicizing the grant program by means of press releases, announcements, direct mailings, and dissemination of information at environmentally themed events;
- 6 Conducting workshops for potential grant applicants; and
- 7 Preparing the RPAC's Annual Report.

### ***5.2 Administering the Recycling Assistance Grants Program***

DNREC takes pride in assisting schools, municipalities, community groups, and non-profit organizations to implement or improve recycling programs and to reduce the amount of waste contributing to our landfills. In administering the Recycling Assistance Grants Program, DNREC develops the grant packet, publicizes the grant availability, holds workshops for potential applicants, works with potential applicants, processes the completed applications, coordinates with RPAC to score the applications, informs applicants not selected for funding and grant recipients, prepares grant contracts and related information, works with grant recipients on timely submission of contracts and reports, processes reimbursements, assists recipients as needed in implementing grant activities, and closes out all grants after the final deadline.

### ***5.3 Public Education and Outreach***

DNREC conducted or participated in many activities to increase public awareness of recycling opportunities and to promote the grant program. DNREC staff updated its outreach materials for distribution at public events such as Earth Day, State Fair, and Coast Day. The

outreach focuses on the environmental implications of individuals' purchasing decisions, and encourages them to sign a pledge promising to take specific actions to reduce their waste generation. As a result of these activities, thousands of Delaware residents received outreach and education on recycling.

DNREC continues to improve and augment the recycling information resources available on its website. All of RPAC's Annual Reports, recent meeting minutes and agendas, the complete New Castle County curbside recycling study, other documents, information on the Recycling Assistance Grant Program, and general information on recycling and composting can be found on the website, [www.awm.delaware.gov/recycling](http://www.awm.delaware.gov/recycling).

#### ***5.4 Addressing Yard Waste Concerns***

The legislation drafted by the Governor's Office and introduced as Senate Bill 225 on June 29, 2005, contained provisions that would essentially ban yard waste disposal in the state's landfills. Some legislators raised concerns about the impact that such a law would have on residents and businesses in the state. DNREC acted quickly to address these concerns by creating the Yard Waste Management Committee, with stakeholder representation from both the public and private sector in the field of yard waste composting and mulching. This group met four times between August and December of 2005, established subcommittees to address specific areas of concern, and produced a final report in the form of consensus points to which the committee as a whole agreed. These consensus points support the RPAC's assertion that a ban on the landfilling of yard waste would divert a large percentage of municipal solid waste from disposal, be economically and technically feasible, and would create business opportunities in the private sector. These assertions have proven true. Since the ban was implemented, several waste haulers have expanded their businesses by offering a yard waste collection service, and at least one new yard waste drop off and mulching facility has been established.

In addition to creating and chairing the Yard Waste Management Committee, DNREC created a web page on which it posted information about the committee's activities as well as a variety of resources on yard waste management. This information can be found online at [www.awm.delaware.gov/recycling](http://www.awm.delaware.gov/recycling).

With the new availability of wood waste on the market, a large scale food and yard waste composting facility is being considered. Removal of food waste from disposal would also contribute to increasing Delaware's waste diversion rate.

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## *6.0 DSWA Activities*

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### ***6.1 RECYCLE DELAWARE Drop-off Program***

The DSWA continues to operate the RECYCLE DELAWARE program, one of the most successful and cost-effective voluntary drop-off programs in the nation. In FY06, approximately 20,224 tons of recyclables were received at RECYCLE DELAWARE centers. The materials collected at the centers are taken to the Delaware Recycling Center (DRC), an intermediate processing facility in Wilmington, where they are prepared for market.

**List of all drop-off materials by Type and Quantity for FY 2006**

	ONP	Plastic	Clear Glass	Brown Glass	Green Glass	OCC	Cans	Junk Mail	Batteries	Grocery Bags	Oil	Textiles
Tons	10,658	1,055	1,193	379	787	2,139	684	1,892	55	114	1,229	39

### ***6.2 Other DSWA Recycling and Recovery Programs***

#### Curbside Recycling Program

In July 2006, DSWA expanded its curbside recycling program to serve all Delaware residents. As of March 2007, DSWA was serving 13,639 customers (7,706 in New Castle County, 1,804 in Kent County, and 4,129 in Sussex County). DSWA collected 3,998,000 pounds through the curbside program in FY06. This translates to an average of 30 pounds per household per week, for a recycling rate of over 40% per subscribing household.

Through a cooperative curbside recycling initiative called “Partners in Recycling,” many trash haulers are offering discounts to their trash collection customers who sign up for the curbside recycling service. In addition, DSWA is working with municipalities to provide service on a contractual basis. Currently, the City of Dover, Town of Odessa, the City of New Castle, Arden, City of Rehoboth, Bellefonte, City of Milford, Rehoboth Yacht and Country Club, Overbrook Shores H.O.A., and Harrison Knolls H.O.A. have signed contracts.

#### Electronic Goods Recycling Program

In FY06, over 1,400 tons of electronic goods were recycled through DSWA’s electronic goods collection program. An average of fifty high profile businesses and schools participate in this program each month.

#### Household Hazardous Waste (HHW) Program

In addition to the four regularly scheduled drop-off events for HHW, DSWA offered two special collection events in the City of Wilmington in 2006. The total amount of HHW collected at all events was 166,671 pounds.

### Junk Mail and UBBM Recycling Program

DSWA has expanded its collection of mixed paper to most RECYCLE DELAWARE locations throughout the State and 14 U.S. Post Offices throughout Delaware. DSWA collected 1,005 tons from all participating Post Offices in FY 2006. DSWA diverted a total of 3,632 tons of mixed paper through its curbside, RECYCLE DELAWARE, and UBBM collection programs combined. This material is sent to the Marcal Plant in Elmwood, New Jersey, where it is used as feedstock to make various recycled paper products.

### Glass Beverage Container Recycling Program

DSWA has a contract with NKS Distributors, Standard, and BGWG to take all glass beer containers collected through their statewide redemption programs. DSWA processes 4,500 cases of beer bottles a week (approximately 180 tons per month) at its DRC and is working diligently to establish similar partnerships with other distributors, with a goal of capturing all of the beer bottles returned to retailers under the bottle bill.

### Yard Waste

During 2006, DSWA diverted 6,900 tons of yard waste from the working face of its landfills. The material was used at the landfills as ground cover or wet weather pads, or in the production of topsoil. In addition, DSWA began research into composting methods through a pilot plant program developed by Gore. This is being conducted at the DSWA Sussex County landfill located at Jones Crossroads.

### Oil Filter and Waste Oil Recycling Programs

DSWA collected 552 tons of oil filters and 1,229 tons of motor oil from over 700 service stations and businesses throughout the state and from over 60 RECYCLE DELAWARE centers. On average, 1.4 million oil filters are sold annually in Delaware; DSWA collects over 1.2 million of those oil filters.

## ***6.3 Assistance to Communities***

DSWA continues to provide assistance to recipients of Recycling Assistance Grants in the form of containers, processing, and marketing services. As an example, the Town of Camden uses storage containers provided by DSWA for the recyclables collected in the Town's curbside recycling program. DSWA provides the transportation (through their contractor), processing, and marketing of the materials.

DSWA serves as the market outlet for the plastic containers collected in Rehoboth Beach's program and for the plastic bottles, shrink wrap, glass containers, and cans from Maryland's Midshore Recycling program.

## ***6.4 Public Education and Outreach***

DSWA continues to make Public Education and Outreach a priority. During FY06, DSWA continued to enroll more children into one of its most popular educational programs to date – Trash Can Dan and the Clean Up Kids – which is designed to teach youngsters how to recycle and to instill in them a sense of environmental responsibility. Since its startup, more than 8,800 children have enrolled in the Clean Up Kids Club.

Other outreach programs include classroom presentations, landfill tours, DSWA website, brochures, and educational materials for Delaware teachers such as the Trash Can Dan and the Clean Up Kids' Coloring and Activity Book and ABC's of Recycling Book. In FY06, DSWA's Public Information Group had presentations and mailings that reached 192,000 contacts throughout Delaware and other countries. DSWA is constantly developing new educational materials for public outreach and to assist with concerns from the public. DSWA also provided information to more than 16,000 citizens through its toll-free Citizens' Response Line.

DSWA has continued its commitment to outreach through participating in public events. DSWA held its 6<sup>th</sup> Annual Earth Day Festival at Killens Pond State Park, near Felton, DE. Due to bad weather, DSWA did not achieve its usual attendance of more than 8,000 people, however over 2,000 people did enjoy a day full of fun activities, games, and environmental education. Other public events where DSWA provided information were the Delaware State Fair, Delaware Home and Garden Show, Delaware ENVIROTHON, DuPont RiverFest, Coast Day, America Recycles Day, Safe Summer Day, and several school presentations or events. DSWA conducted its annual poster/calendar contest for children in grades Kindergarten through 5 using an environmentally related theme.

DSWA continues its partnership with the News Journal through the Newspapers in Education (NIE) program. This program benefits the teachers and students of Delaware by educating them on various environmental topics with hands-on activities. This educational resource reaches 550 teachers statewide. DSWA continues its partnership with the Wilmington Blue Rocks, under which DSWA provides plastic recycling bins throughout the stadium designed to collect plastic bottles sold during its home baseball games. It is estimated that over 40,000 plastic bottles are sold through a 70 game season. Quite often Trash Can Dan will attend games so that children will become familiar with his recycling message. Another partnership that DSWA has enjoyed, has been the partnership with the Delaware State Fair and DNREC. DSWA provided bins so that the vendors could recycle corrugated cardboard and for those who attended the Fair to recycle aluminum cans and plastic narrow-neck bottles. DSWA feels that the Delaware State Fair was a great opportunity to encourage recycling and to provide options for the over 284,000 residents in attendance at last year's fair.

### ***6.5 Assistance to Communities***

In FY06, DSWA spent nearly \$6.8 million on its recycling programs. DSWA marketed the materials collected and received \$1.9 million in total revenues. This netted a total deficit of \$4.9 million, which was covered by revenues generated from DSWA's user fees.

Information on all of DSWA's programs is available on its website ([www.dswa.com](http://www.dswa.com)).

## *7.0 Recycling Measurement*

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New stipulations in Executive Order 90 require a change to the way that recycling is measured and reported in Delaware. Under Executive Order 90, the RPAC must use the U.S. Environmental Protection Agency's definitions of "recycling" and "municipal solid waste" and also develop an "objective and auditable accounting of recycling rates for total solid waste, municipal solid waste, and residential solid waste". The RPAC has created the Methodology and Measurement Subcommittee comprising members of the RPAC, DSWA, and DNREC to address these requirements. These three groups are developing the new methodology for measuring recycling rates and are making good progress, but are unable to report at this time. The RPAC has developed the following timeline for these activities:

**Present through June 20, 2007** – Methodology and Measurement Subcommittee will receive and process FY2006 data. It will work directly with DSWA and their contractor(s) to understand the current data collection process and capabilities. It will develop specific methodology, based on the EPA model, to be used in the RPAC reporting. The Subcommittee will submit a reporting spreadsheet and conclusions to the RPAC for approval.

**June 21, 2007** – The RPAC will submit to Governor Minner a report detailing FY2006 recycling rates, as determined by developed methodology and based upon FY2006 data.

**July 2007** – The Methodology and Measurement Subcommittee will work with DSWA and their contractor(s) as required to modify data collection, reporting, and processing practices to prepare the data for the RPAC's Seventh Annual Report.

**March 2008** – Present the Seventh Annual Report, including recycling data and rates for FY2007 based upon the new methodology. This Report will include FY2006 data as a baseline.

### **7.1 Methodology**

Although the RPAC is still in the process of formulating a methodology, it has developed an approach to the data acquisition and measurement:

1. From the DSWA, get recyclables tonnage data gathered during the course of their reporting year. Enter it into RPAC's "Diversion of Recyclables" spreadsheet. This spreadsheet will be consistent with EPA definitions with possibly some minor modification if needed to adjust to data-gathering capability in Delaware.
2. From DSWA's contractor(s), get recyclables tonnage data and/or estimates which they gathered for DSWA's reporting year under their contract with the Authority. Enter it into the spreadsheet. Identify the source of the data and provide some indication of the confidence level of the entered value.

3. Identify empty spreadsheet cells for which no data or estimates are available – but where the tonnage could be large enough that data or estimates are desired.
4. Decide who is responsible for collecting the desired data or estimates for the next reporting year – either DSWA, DSWA’s contractor(s), or the RPAC – and decide how to get the data.

## ***7.2 Recycling Rates***

Under Executive Order 90, the new RPAC will develop an objective, scientific, and auditable methodology for calculating recycling rates in Delaware that is consistent with the U.S. Environmental Protection Agency’s guidelines. The goal is to create and document a methodology which can be repeated year after year and which will allow for accurate comparison between years. This methodology is still under development and the RPAC is unable to report Delaware’s recycling rates at this time. A draft report of Delaware’s recycling rates for FY2006, based upon the new methodology, should be available June 21, 2007

## ***7.3 Status of the 51% MSW Recycling Goal***

This information will not be reported until the RPAC completes its efforts in methodology and measuring recycling rates. A draft report on the status of this goal should be available June 21, 2007.

## *8.0 Recommendations*

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The RPAC's recommendations for increasing the diversion rate are as follows:

1. Enact the proposed recycling legislation (see Appendix F)

A major recommendation of the RPAC in the past has been creating a Delaware Recycling Fund to assist in the establishment of recycling programs throughout the state. This legislation enables the creation of a recycling fund that has the ability to substantially increase recycling and waste diversion in Delaware.

2. Maintain the yard waste ban at the Cherry Island Landfill and expand statewide as appropriate (see Appendices E and G)

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## *Appendix A. Executive Order Number 90*

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### EXECUTIVE ORDER NUMBER 90 - Establishing The Recycling Public Advisory Council

WHEREAS, the average Delawarean produces 1,200 pounds of solid waste annually and much of that waste can and should be recycled;

WHEREAS, increasing Delaware's recycling efforts will benefit the environment and increase the useful life of the state's landfills;

WHEREAS, the Department of Natural Resources and Environmental Control (the "Department") and the Delaware Solid Waste Authority (the "Authority") promote varying aspects of municipal solid waste recycling in the State of Delaware;

WHEREAS, increasing our recycling efforts over the long-term will require a strong commitment on the part of Delawareans;

WHEREAS, schools, colleges, universities, municipalities, not-for-profit organizations, civic associations, and other community organizations are the entities most able to increase recycling within their borders and need assistance to provide the tools necessary to start recycling programs; and

WHEREAS, Delawareans increasingly recognize the importance of recycling and many Delawareans have expressed an interest in participating in curbside and other recycling programs,

NOW, THEREFORE, I, RUTH ANN MINNER, by virtue of the authority vested in me as Governor of the State of Delaware, do hereby declare and Order as follows:

1. It shall be the goal of this State to achieve a fifty-one percent (51%) diversion rate for recyclables from Delaware's municipal solid waste stream comprised of residential and commercial solid waste.
2. The Recycling Public Advisory Council (Council) is re-established and continued. The Council shall be composed of eleven (11) members who shall be appointed by the Governor as follows:
  - a. One member from the Department;
  - b. One member from the Authority;
  - c. One member representing county governments with such member being recommended by the Delaware Association of Counties;
  - d. One member representing municipal governments with such member being recommended by the Delaware League of Local Governments;
  - e. One member representing the recycling industry to be appointed by the Governor;
  - f. One member representing the waste hauling industry to be appointed by the Governor; and
  - g. Five members representing community-based or public-interest groups to be appointed by the Governor.
3. Members of the Council, except for those appointed pursuant to subparagraphs a, b, and c of paragraph 2 above, shall serve of up to 3 years and may be reappointed. Members of the current Council shall continue in office for the balance of their terms and shall also be eligible for reappointment. Members shall be appointed for staggered terms so that no more than 3 appointments shall expire in any one calendar year. Members may be reimbursed for travel to

and from meetings. The Governor shall appoint a Chairman from among the eleven members. Actions of the Council shall be approved by a majority vote of the Council. At least six\_(6) members of the Council shall constitute a quorum.

4. The Recycling Public Advisory Council shall:
  - a. Advise the Department and the Authority on all aspects of recycling;
  - b. Advise the Department in developing grant criteria, including local match requirements, and selection of applications as well as provide an annual assessment of the revenue needed to satisfy the grant requirements;
  - c. Develop, in conjunction with the Department and the Authority, a methodology for measuring recycling rates;
  - d. Provide advice and recommendations regarding the recycling outreach and education programs conducted by the Authority and/or the Department;
  - e. Report to the Governor and the General Assembly annually by March 1 of each year on the status of recycling activities in Delaware. Said report shall include, but not be limited to the following:
    - (1) status of attainment of the 51% recycling goal;
    - (2) an accounting of the recycling grants program and any recommendations for future funding of the grants program;
    - (3) an assessment of the activities of both the Department and the Authority in achieving a 51% municipal solid waste recycling goal;
    - (4) an objective, auditable accounting of recycling rates for total solid waste, municipal solid waste, and residential solid waste; and
    - (5) such other recommendations as the Council shall deem appropriate.
  - f. Use the definitions of 'recycling' and 'municipal solid waste' as stated by the United States Environmental Protection Agency in its document EPA530-R-97-011 dated September 1997. The Council shall be able to adopt changes to these definitions.
5. The Department's Division of Air and Waste Management, in concert with the Authority and the Council, shall:
  - a. Monitor the State's recycling initiatives and measure Delaware's achievements toward attainment of the 51% recycling goal;
  - b. Implement a grant program for use by schools, colleges, universities, municipalities, not-for-profit organizations, civic associations, and other community organizations in reaching the statewide recycling goal specified herein;
  - c. Design and implement public educational efforts aimed at increasing public awareness of recycling opportunities;
  - d. Implement a public school recycling initiative whereby our school systems are able to participate in and benefit from increased recycling opportunities;
  - e. Provide technical assistance to local entities to assist them in increasing their recycling rates;
  - f. Provide administrative support to the Council;
  - g. Report to the Governor and the Office of Management and Budget on the need for staff to provide this support; and

- h. Promote any other measures identified by the Council to support the achievement of the 51% recycling goal.
- 6. The Department shall make matching grants available to schools, colleges, universities, municipalities, not-for-profit organizations, civic associations, and other community organizations to implement programs to reduce the amount of municipal solid waste disposed of in Delaware. Grants may be used for implementing or expanding recycling programs, encouraging composting of yard waste, implementing “pay-as-you-throw” programs, or any other activity that supports the achievement of the 51% recycling goal. The availability of grant money shall be subject to annual appropriations by the General Assembly.
- 7. Executive Order Number 82 adopted September 14, 2000, is rescinded.

Approved: September 6, 2006

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## *Appendix B. Executive Order Number 82*

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### EXECUTIVE ORDER NUMBER 82

TO: HEADS OF ALL STATE DEPARTMENTS, AGENCIES, AND AUTHORITIES, AND ALL POLITICAL SUBDIVISIONS AND GOVERNMENTAL UNITS OF THE STATE OF DELAWARE

RE: RECYCLING

WHEREAS, the average Delawarean produces 1,200 pounds of solid waste annually and much of that waste can and should be recycled;

WHEREAS, recycling saves energy and natural resources and conserves valuable landfill space;

WHEREAS, the Department of Natural Resources and Environmental Control (DNREC), the Delaware Solid Waste Authority (DSWA), and the Delaware Economic Development Office (DEDO) all promote varying aspects of municipal solid waste recycling in the State of Delaware;

WHEREAS, increasing Delaware's recycling efforts will benefit the environment and is in the public interest;

WHEREAS, increasing our recycling efforts over the long-term will require a strong commitment on the part of Delaware's youth;

WHEREAS, communities, schools, counties, municipalities and cities are the entities most able to increase recycling within their borders and need assistance to provide the tools necessary to start recycling programs; and

WHEREAS, while the majority of Delawareans think that recycling is important and are interested in doing more recycling, many Delawareans are unaware of current recycling opportunities.

NOW, THEREFORE, I, THOMAS R. CARPER, by virtue of the authority vested in me as Governor of the State of Delaware, do hereby declare and Order as follows:

1. It shall be the goal of this State to achieve a thirty (30) percent diversion rate for recyclables from Delaware's residential solid waste stream.
2. The DNREC, the Division of Air and Waste Management, in concert with the DSWA and the Recycling Public Advisory Council created herein, shall:
  - a. Monitor the state's recycling initiatives and measure Delaware's achievements toward attainment of the thirty percent recycling goal;
  - b. Implement a grant program for use by communities, municipalities, counties and cities in reaching the statewide thirty (30) percent recycling goal specified herein;

- c. Design and implement public educational efforts aimed at increasing public awareness of recycling opportunities.
  - d. Implement a public school recycling initiative whereby our school systems are able to participate in and benefit from increased recycling opportunities;
  - e. Provide technical assistance to local entities to assist them in increasing their recycling rates;
  - f. Provide administrative support to the Recycling Public Advisory Council; and
  - g. Promote any other measures identified by the Council to support the achievement of the thirty (30) percent recycling goal.
3. The DNREC shall make matching grants available to communities and local governments to implement programs to reduce the amount of residential solid waste disposed of in Delaware. Grants may be used for the implementation or expansion of recycling programs, encouraging composting of yard waste, implementing "pay-as-you-throw" programs or any other activity that supports the achievement of thirty (30) percent recycling goal. The DNREC, in conjunction with the Recycling Public Advisory Council, will develop criteria for the grants program by March 31, 2001. The criteria shall include, but shall not be limited to, the terms and conditions for obtaining a grant, grant selection criteria, match requirements, reporting requirements, and applicant eligibility. Match requirements for the grant program shall not be less than 25% local match. The availability of grant money shall be subject to annual appropriations by the General Assembly.
4. There is hereby established a Recycling Public Advisory Council. The Council shall be composed of nine members who shall be appointed by the Governor as follows:
  - a. One member each from DNREC, DEDO, and DSWA;
  - b. One member representing County governments with such member being recommended by the Delaware Association of Counties;
  - c. One member representing municipal governments with such member being recommended by the Delaware League of Local Governments;
  - d. One member representing the recycling industry;
  - e. One member representing the waste hauling industry; and
  - f. Two members representing environmental or citizens' groups.
5. Members of the Council shall serve 3-year terms and may be reappointed. Members shall be appointed for staggered terms so that no more than 3 appointments shall expire in any one calendar year. For the initial appointments, 3 members shall be appointed for 1 year, 3 members shall be appointed for 2 years and 3 members shall be appointed for 3 years. Thereafter, all terms are three years. Members may not serve more than 2 consecutive, 3-year terms. Members may be reimbursed for travel to and from meetings. The governor shall appoint a Chairman from among the nine members. Actions of the Council shall be approved by a majority vote of the Council.
6. The Recycling Public Advisory Council shall:
  - a Advise the DNREC and the DSWA on all aspects of recycling;
  - b Advise the DNREC in developing grant criteria, including local match requirements, and selection of applications;
  - c Develop, in conjunction with DNREC and the DSWA, a methodology for measuring recycling rates;
  - d Advise the DNREC and the DSWA on possible outreach activities designed to achieve greater recycling rates;

- e Report to the Governor and the General Assembly annually by December 1<sup>st</sup> of each year on the status of recycling activities in Delaware. Said report shall include, but not be limited to the following: (1) status of attainment of the thirty (30) percent recycling goal; (2) an accounting of the matching grants program authorized herein and any recommendations for future funding of the grants program; (3) an assessment of the activities of both the DNREC and the DSWA in achieving the thirty (30) percent recycling goal; and (4) such other recommendations as the Council shall deem appropriate.

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*Appendix C.*  
*Recycling Public Advisory Council Members*

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Brock J. Vinton, RPAC Chairman  
Citizens Solid Waste Solutions Commission

Patricia Todd  
League of Women Voters of Delaware

George Wright  
Executive Director, League of Local Governments

Richard C. Cecil  
Executive Director, Delaware Association of Counties

Pasquale S. Canzano  
Delaware Solid Waste Authority

Paul R. Bickhart  
Recycling Express of Delaware, Inc.

Steve Masterson  
Waste Management of Delaware

James D. Werner  
Department of Natural Resources and Environmental Control  
Division of Air and Waste Management

Wallace Kremer  
Del EASI

Dick Fleming  
Delaware Nature Society

Teresa Iris  
Indian River School District

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*Appendix D.*  
*Summaries of Recycling Assistance Grants*  
*for FY05 and FY06*

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**FY 2005 Recycling Assistance Grants**

**Grant Recipient:** City of Delaware City  
407 Clinton Street  
Delaware City DE 19706  
302-834-4573  
Contact: Paul H. Morrill, Jr.

**Grant Amount:** \$2,225.24  
**Amount Used:** \$2,225.24

**Project Description:** Purchase 174 tubs and 75 lids for use by new subscribers to the City's curbside recycling program; create and conduct an educational and promotional campaign designed to increase participation in the program; monitor the effectiveness of the outreach program by maintaining a list of new subscribers and measuring the diversion of residential waste by means of DSWA reports on quantities disposed of and quantities recycled.

**Project Accomplishments:** The city purchased the tubs and lids early in the grant year and distributed them throughout the year as residents signed up for the curbside recycling program. The program was publicized in the June and November printings of the CITY NEWS and later the quarterly water bill, which are mailed to all residents. Flyers posted around town supplemented these mailings. The city held no fewer than four promotional events to encourage residents to sign up for the program, with raffles and giveaways as enticements. During the course of the grant year, the number of subscribers grew from 324 households to 350. That is an increase in participation from 43% to 47%.

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**Grant Recipient:** Village of Ardentown  
2401 East Mall  
Ardentown, DE 19810  
302-475-3708  
Contact: Mary Ann Nelson

**Grant Amount:** \$6,320.00  
**Amount Used:** \$6,320.00

**Project Description:** Clean a site to be used for composting. Construct compost enclosures, fencing, signage, and a demonstration site with backyard composting units and educational material. Arrange for the turning of the compost material. Promote the use of the site and composting in general to residents and community groups.

**Project Accomplishments:** Piles of debris and trash were cleared from a site designated by the community for the composting site. The area was graded and covered with wood chips. Compost enclosures were built and fencing with a gate was installed. A motion sensitive light was installed on a nearby building to provide lighting for the area. Several types of backyard composting units were installed with signage, as was a mailbox with educational brochures. The compost demonstration site was publicized through a Grand Opening, announcements at town meetings and other meetings, the News Journal, and the Arden Page. A compost session was held with two Delaware State Representatives attending.

**Grant Recipient:** City of New Castle  
900 Wilmington Road  
New Castle, DE 19720  
302-323-6089  
Contact: James Weldin

**Grant Amount:** \$10,000.00  
**Amount Used:** \$10,000.00

**Project Description:** Purchase a vibratory portable screener for use in the city's yard waste composting operation, to improve the quality and marketability of the finished product.

**Project Accomplishments:** The city purchased the vibratory portable screener which helps sustain the yard waste recycling program. Hundreds of tons of yard waste are collected and diverted from the landfill each year.

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**Grant Recipient:** Delaware Center for Horticulture  
1801 N. Dupont St.  
Wilmington, DE 19806  
302-994-6403  
Contact: Pamela Sapko

**Grant Amount:** \$5,124.00  
**Amount Used:** \$5,124.00

**Project Description:** Consult with Wilmington officials to determine the city's needs and parameters to manage leaf collection from residents. Gather information on successful leaf collection and management strategies and discuss findings with city officials. Produce a report with recommendations for management of the city's leaves.

**Project Accomplishments:** Spoke with Alfonso Ballard and Kash Srivinasan, from the Department of Public Works, about the needs of the city and concerns about leaf collection. Gathered information from private industry involved with existing composting activities. Reviewed collection procedures and policies of other municipalities. Spoke with several private companies about partnering with the city on such a project. Produced a report with recommendations for Wilmington's management of yard waste, education of residents, collaboration with private industry.

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**Grant Recipient:** Peoples Settlement Association/UHELP  
408 East 8<sup>th</sup> Street  
Wilmington, DE 19801  
302-658-4133 x310  
Contact: Keith Lake

**Grant Amount:** \$13,588.00  
**Amount Used:** \$13,166.00

**Project Description:** Plan and implement an educational/outreach initiative in the schools and community to reduce illegal dumping and littering. Encourage waste reduction, reuse, and recycling in all sectors of the population.

**Project Accomplishments:** Hired a project coordinator to administer the project. Developed a timeline and identified stakeholders to accomplish the project. Collected data from target groups by developing and conducting surveys and evaluations. Held 5 forums, 4 meetings, and 40 educational sessions that presented information to community groups and residents on waste reduction, reuse, and recycling. Conducted an awareness campaign using printed materials, coloring books, television appearances highlighting recycling on Wilmington channels 22 and 28, DVD production, the UHELP website, and a resolution presented by the Wilmington City Council.

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**Grant Recipient:** University of Delaware

**Grant Amount:** \$12,612.00

Office of the Vice Provost  
210 Hullihen Hall  
Newark DE 19716  
302-831-2136  
Contact: Nancy Rash

**Amount Used:** \$12,612.00

**Project Description:** Continue the existing composting education program, which consists of hands-on workshops in elementary schools, camps, and after-school programs, and by offering in-service instruction on composting to teachers

**Project Accomplishments:** The composting education program reached a total of 4,327 students. In addition to presentations in venues such as schools and camps, activities included demonstrations at the Delaware State Fair and exhibits at environmental events such as the Earth Day celebration at Killens Pond State Park.

### **FY 2006 Recycling Assistance Grants**

**Grant Recipient:** Mount Pleasant Band Boosters  
5201 Washington Street Ext.  
Wilmington, DE 19809  
302-651-6885  
Contact: Robert Mason

**Grant Amount:** \$3,059.00

**Project Description:** Double the amount of aluminum recycled in Mount Pleasant High School's existing recycling program by expanding the drop-off recycling at the high school, engaging local businesses to recycle, and promoting recycling through community outreach.

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**Grant Recipient:** Iron Hill Museum  
1355 Old Baltimore Pike  
Newark, DE 19702  
302-368-5703  
Contact: Laura M. Lee

**Grant Amount:** \$5,400.00

**Project Description:** Implement an educational/outreach initiative on recycling, targeting 40 schools in the Christina, Red Clay, Colonial, and Appoquinimink School Districts, as well as additional schools in New Castle and Sussex Counties, and focusing on grades 3 through 6.

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**Grant Recipient:** City of Wilmington  
Department of Public Works  
800 French Street  
Wilmington, DE 19801  
302-576-3076  
Contact: Alfonso Ballard

**Grant Amount:** \$24,679.00

**Project Description:** Conduct a 6-month pilot curbside recycling program in the City in partnership with RecycleBank.

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**Grant Recipient:** Middletown High School  
120 Silver Lake Road  
Middletown, DE 19709  
302-376-4140  
Contact: Shane Rifenburg

**Grant Amount:** \$2,237.17

**Project Description:** Establish a program to recycle paper at Middletown High School, with a goal of recycling 13,440 pounds of paper during the 2005-2006 and 2006-2007 school years.

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**Grant Recipient:** University of Delaware  
Office of the Vice Provost  
210 Hullihen Hall  
Newark DE 19716  
302-831-2136  
Contact: Nancy Rash

**Grant Amount:** \$14,624.83

**Project Description:** Encourage more composting in Delaware by performing educational outreach to elementary school children, teachers, and the general public.

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## *Appendix E. Yard Waste Ban Support Letter*

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### **RECYCLING PUBLIC ADVISORY COUNCIL**

#### Council Members

Brock J. Vinton II, Chairman  
Patricia Todd  
Pasquale Canzano  
Paul Bickhart  
Richard Cecil  
James D. Werner  
Richard Fleming  
Wallace Kremer  
Teresa Iris  
George C. Wright, Jr.\*  
Steve Masterson\*\*

January 19, 2007

The Honorable Ruth Ann Minner  
Governor, State of Delaware  
Tatnall Building, William Penn Street  
2<sup>nd</sup> Floor  
Dover, DE 19901

Dear Governor Minner:

Since our establishment in 2000, the Recycling Public Advisory Council has supported banning yard waste from Delaware's landfills. Yard waste is the easiest, most cost effective, and most sensible form of recycling. Several Delaware specific studies and countless National studies and experiences demonstrate that yard waste bans increase waste diversion rates and extend landfill life. Yard waste bans also provide an opportunity for new businesses interested in collecting and processing yard waste thereby creating jobs and helping Delaware's economy. The Recycling Public Advisory Council has researched this subject in detail and has continuously advised the Governor and Legislators to ban yard waste from landfills in all five of our annual reports.

Furthermore, both the May 2006 Solid Waste Technical Working Group Report and Executive Order 90 have established a statewide goal of diverting 51% of our municipal solid waste and the Recycling Public Advisory Council is committed to achieving this goal. In order to reach 51%, the Recycling Public Advisory Council believes it is imperative that yard waste, comprising 19-25% of the waste stream, be banned from disposal in Delaware landfills.

The Recycling Public Advisory Council appreciates any support you can provide for a yard waste ban and is available as a resource with respect to yard waste and other recycling issues in Delaware.

Sincerely,

Brock J. Vinton II  
Chairman  
Recycling Public Advisory Council

cc: Legislators  
RPAC Members  
Lee Ann Walling, Senior Advisor  
John Hughes, Secretary

\* Council member abstained from vote

\*\* Council member not present for vote

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## *Appendix F. Draft Recycling Legislation*

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**3/22/07**  
**Draft**

DELAWARE STATE SENATE

144<sup>th</sup> GENERAL ASSEMBLY

SENATE BILL NO.

AN ACT TO PROVIDE ASSISTANCE FOR THE ESTABLISHMENT OF PUBLIC AND PRIVATE PROGRAMS TO INCREASE THE LEVEL OF VOLUNTARY RECYCLING AND BENEFICIAL USE OF SOLID WASTE MATERIALS IN DELAWARE.

### PREAMBLE

Although recycling opportunities exist throughout the State for electronic goods, waste oil and oil filters, used tires, white goods, textile materials, yard waste, construction and demolition materials, metals, cardboard and paper wastes and other materials, and although recycling opportunities are offered directly to the general public through a network of voluntary drop-off centers and public and private curbside collection programs, a significant quantity of residential and commercial solid waste which is land disposed could be recycled or otherwise beneficially used. It is in the public interest to provide assistance to public and private entities seeking to establish and expand voluntary recycling and beneficial use programs.

The means of providing assistance can best be achieved through an effectively administered educational and grant program funded from the collection of solid waste generated in Delaware, excluding recyclables, which are disposed both inside and outside the State of Delaware. It would be beneficial to allow for public oversight of the educational and grant program through the Recycling Public Advisory Council, and legislative oversight through an annual report detailing the goals, objectives and accomplishments of the educational and grant programs.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF DELAWARE  
(Three-fifths of all members elected to each house thereof concurring therein):

1 Section 1. Amend § 6002, Title 7 of the Delaware Code, by inserting therein the following  
2 new paragraphs:

3 “(74) ‘Collector’ means a person who collects recyclable materials and/or  
4 organic yard waste.

5 (75) ‘Municipal Solid Waste’ means durable goods (excluding vehicles and  
6 other moving equipment), nondurable goods, containers and packaging,  
7 food scraps, organic yard waste and miscellaneous inorganic waste from  
8 residential (single- and multi-family households) and non-residential  
9 (commercial, institutional and industrial) sources. Municipal solid waste  
10 does not include construction and demolition debris, vehicle bodies, pre-  
11 consumer waste, municipal sludges, combustion ash or industrial process  
12 wastes.

13 (76) ‘Organic yard waste’ means plant material resulting from lawn  
14 maintenance and other horticultural gardening and landscaping activities  
15 and includes grass, leaves, prunings, brush, shrubs, garden material,  
16 Christmas trees and tree limbs up to 4 inches in diameter.

17 (77) ‘Processor’ means a person who manages recyclables and/or organic yard  
18 waste for the purpose of returning them to the economic mainstream.

19 (78) ‘Recyclable Material’ or ‘Recyclables’ means any material or group of  
20 materials that can be collected and sold or used for beneficial purposes.

21 (79) ‘Single Stream’ means a system in which all fibers (at a minimum paper,  
22 cardboard, etc.) and containers (at a minimum plastic and metal) are

23 mixed together for collection into one container instead of being sorted  
24 into separate commodities and multiple containers.

25 (80) ‘Source Separated’ means the process by which recyclable materials are  
26 segregated and kept apart from the waste stream by the generator thereof  
27 for the purpose of collection, disposition, recycling or resources recovery.

28 (81) ‘Transporter’ means any person engaged in the transportation of solid  
29 waste.

30 (82) ‘Authority’ means the Delaware Solid Waste Authority.

31 (83) ‘Recycling’ means the process by which discarded municipal solid waste  
32 materials are separated and used as raw materials, products or replacement  
33 of products, including the reuse of organic yard waste, but does not  
34 include the burning of materials for energy.

35 (84) ‘Local Governments’ means counties, cities, towns, municipalities, civic or  
36 community associations within unincorporated areas of the state that are recognized as a not-for-  
37 profit organization under state and federal law. .”Section 2. Amend Chapter 60, Title 7 of the  
38 Delaware Code, by adding the following new sections to Subchapter II thereof:

39 “§6043. Local Government Recycling Grants Program and Private Sector Initiatives.

40 (a) Local Government Recycling Grants Program. There is hereby established a  
41 competitive Local Government Recycling Grants Program (Program) to assist  
42 local governments with (1) the implementation of source separated recyclables  
43 collection and processing programs with emphasis on start-up costs for single-  
44 stream curbside collection and (2) start-up costs for initiatives which result in the  
45 beneficial use of solid waste materials which would otherwise be land disposed.

46           The Program shall be administered by the Department, and monies from the  
47           Program shall be paid based on approved grant requests. The Department shall be  
48           entitled to charge to the Program an administrative fee of 7.5% of grants made to  
49           cover the cost of managing the Program. The Department shall be entitled to  
50           disburse grant monies for the documented costs of implementing the collection or  
51           processing of source separated recyclable materials. The Department shall be  
52           entitled to adopt guidelines and procedures for administering the Program and  
53           determining eligibility for receipt of funding pursuant to Section 6044(a) of this  
54           Title. The Department shall solicit the commentary of the grant eligible  
55           stakeholders during development of the grant guidelines and procedures. Local  
56           Governments electing to implement a curbside recycling program are in no way  
57           precluded from requiring mandatory participation by the residents within their  
58           jurisdiction. The Program shall be funded by monies made available under the  
59           provisions of Section 6044.

60           (b) Local Governments and private sector entities engaging in the collection,  
61           transportation, processing, and marketing of source-separated recyclable materials  
62           shall conduct such activities in a manner that the source-separated recyclable  
63           materials enter the marketplace or, in the event the recyclable materials are  
64           unmarketable, then put to other beneficial use.”

65           (c) Private Sector Initiatives. There is hereby established a competitive grant  
66           program to assist private sector entities with (1) start-up costs for the  
67           implementation of source separated recyclables collection and processing  
68           programs with emphasis on single-stream curbside collection and (2) start-up

69 costs for beneficial use initiatives which result in the beneficial use of solid waste  
70 materials which would otherwise be land disposed. The private sector initiatives  
71 program shall be administered and subject to the requirements set forth in  
72 subsection (a) above.

73 §6044. Delaware Recycling Fund.

74 (a) There is hereby established a Delaware Recycling Fund in the Department for the  
75 exclusive purpose of funding specific activities designed to enhance the state's  
76 recycling rate and the beneficial use of materials otherwise land disposed.  
77 Monies in the Delaware Recycling Fund shall be retained in an interest bearing  
78 account and may be expended only:

79 (1) To fund the Local Governments Recycling Grants Program and Private  
80 Sector Initiatives. Annual funding for the Local Governments Recycling  
81 Grants Program and Private Sector Initiatives shall be dependent on  
82 revenue generated by the Delaware Recycling Fund referenced in  
83 subsection (d) of this section;

84 (2) To pay the Department's limited and reasonable costs and grant recipient's  
85 costs of establishing and conducting public outreach and education  
86 programs to promote the Grant Program, curbside recycling and organic  
87 yard waste management and beneficial use initiatives;

88 (3) To pay the limited and reasonable cost of the Department and Recycling  
89 Public Advisory Council, collectively studying and evaluating the status  
90 and potential for recycling the commercial component of municipal solid  
91 waste, and other improvements to the residential curbside recycling

92 program, including the funding of initiatives undertaken by Local  
93 Governments and the private sector to enhance the recovery rates of  
94 recyclable materials and determination of the level of recycling achievable  
95 for all solid waste generated in the state as a result of implementation of  
96 the programs established under this Subchapter.

97 (b) The funding for the Delaware Recycling Fund shall be derived from an  
98 assessment of \$3.00 per ton made by the Department for every ton of solid waste  
99 generated and/or disposed in Delaware, excluding recyclable materials actually  
100 recycled and hazardous waste, collected by transporters and/or generators subject  
101 to: (i) the permit requirements of the Department pursuant to Section 6001(c)(6),  
102 Section 6003 (a)(4), and Section 6025 of Title 7; and (ii) the licensing  
103 requirements of the Authority adopted pursuant to Section 6404 (6) of Title 7.  
104 Quarterly (by the 15<sup>th</sup> of January, April, July and October) the Authority shall  
105 submit to the Department the names and addresses of the transporters subject to  
106 the provisions of 7 Del. C. 6404(6) and the total solid waste tonnage that each  
107 transporter delivered to each DSWA facility. The Department, via its transporter  
108 permit program, shall be responsible for identifying the generators and  
109 transporters of solid waste which do not use the Authority's facilities, and shall  
110 make an assessment for the tonnage of solid waste generated and/or disposed in  
111 Delaware.

112 (c) Any Local Governments subject to the assessment established under this Section  
113 6044 shall be entitled to seek and obtain an exemption from the assessment upon  
114 demonstration to the satisfaction of the Secretary that the Local Government has

115            adopted a program which has achieved a recovery rate of 30 percent of the total  
116            residential solid waste which would otherwise be land disposed by the Local  
117            Government. The exemption shall be valid so long as the 30 percent recovery  
118            rate is being achieved on an annual basis.

119            (d)    The assessment shall become effective three (3) months from the date of  
120            enactment and the Department shall collect the assessment from transporters  
121            and/or generators after the initial assessment on a quarterly basis utilizing forms  
122            and procedures developed by the Department. Payment of assessments shall be  
123            due within 30 days of the end of the quarter (The 30<sup>th</sup> of January, April, July and  
124            October), and any late payment shall bear interest at the rate of 1.5% per month.  
125            The Department shall provide an annual report to the Authority and the Recycling  
126            Public Advisory Council setting forth the amounts collected from each transporter  
127            and/or generator and any delinquencies. The Authority and the Department shall  
128            cooperate in maintaining an accurate list of active transporters and/or generators  
129            subject to the assessment. The Department shall be entitled to seek collection of  
130            any assessments due to the Department through civil action or may seek to  
131            impose on the transporter and/or generator the sanctions specified for violation of  
132            a permit condition as set forth in Section 6005 of Title 7.

133            (e)    The Department shall commence the Local Governments Recycling Grants and  
134            Private Sector Initiatives Programs in calendar year 2008 and offer the Programs  
135            at least annually thereafter until December 31, 2015. One year prior to the  
136            termination date, the Department in consultation with the Recycling Public  
137            Advisory Council and pursuant to the solicitation of commentary by grant eligible

138 stakeholders), shall report on the status of the Programs and make  
139 recommendations to the Governor and General Assembly on whether and how the  
140 Program should be reauthorized. The assessment shall terminate as of December  
141 31, 2015 unless reauthorized by enabling legislation.

142 (f) The Recycling Public Advisory Council, pursuant to solicitation of commentary  
143 by grant eligible stakeholders, shall make recommendations annually to the  
144 Department regarding the programmatic priorities for awarding grant funds under  
145 §6043 of this Title. The Recycling Public Advisory Council shall provide  
146 recommendations regarding the categories and priorities for grants that reflect an  
147 informed and representative view of the most urgent and important areas where  
148 grant funding will provide the most benefit to the State of Delaware balancing  
149 current needs with those of future generations.

150 (g) The Department shall review all applications and requests for funding from the  
151 Delaware Recycling Fund and award funding grants taking into consideration the  
152 Recycling Public Advisory Council recommendations. In those cases where the  
153 Department's funding decisions differ significantly from the Recycling Public  
154 Advisory Council recommendations, the Department shall report to the Recycling  
155 Public Advisory Council the justification for such differences.

156 (h) The Authority shall not be entitled to receive any grants from the Delaware  
157 Recycling Fund.

158 (i) The Recycling Public Advisory Council and the Department shall publish  
159 annually by November 1<sup>st</sup> of each year a report on all actions and activities  
160 involving the Delaware Recycling Fund and the status of recycling activities in

161 Delaware as they relate to attainment of the goals established under 7 Del C.

162 §6046(a).

163 (j) The monies provided from the Delaware Recycling Fund shall be subject to  
164 independent audit and the recipient of any such funding shall agree to the audit  
165 and cooperate with the auditor as a condition of receiving funding.

166 §6045. Residential Curbside Recycling Programs

167 Residential Curbside Recycling Programs eligible for receiving funding from the  
168 Delaware Recycling Fund shall provide that persons who participate in the  
169 curbside recycling program separate in single stream or multi-stream at least  
170 paper materials (including at a minimum corrugated cardboard), aluminum  
171 materials, steel materials, organic yard waste and plastics materials deemed  
172 capable of being recycled from other municipal solid waste generated at their  
173 homes, apartments and other residential establishments and to store such materials  
174 until collection. Nothing shall be deemed to impair the ownership of separated  
175 materials by the person who generated them unless and until such materials are  
176 placed at curbside or similar location for collection by the Local Government or  
177 other collector.

178 Section3. Amend § 6451, Title 7 of the Delaware Code, by inserting therein the following  
179 new paragraphs:

180 “(6) ‘Single stream’ means a system in which all fibers (at a minimum paper,  
181 corrugated cardboard etc.) and containers (at a minimum plastic and  
182 metal) are mixed together for collection into one container instead of  
183 being sorted into separate commodities and multiple containers.

184 (7)‘Organic yard waste’ means plant material resulting from lawn  
185 maintenance and other horticultural gardening and landscaping activities  
186 and includes grass, leaves, prunings, brush, shrubs, garden material,  
187 Christmas trees and tree limbs up to 4 inches in diameter.”

188 Section4. Amend § 6452(2), Title 7 of the Delaware Code, by inserting the words “and  
189 single stream materials” immediately after the word “materials” as it appears therein.

190 Section 6. Amend § 6452, Title 7 of the Delaware Code, by striking the word “and” at the  
191 end of paragraph (9) thereof; by striking the period as it appears at the end of paragraph (10)  
192 thereof and substituting in lieu thereof a semi-colon; and by inserting therein the following new  
193 subsections:

194 “(11)The implementation of a single-stream source separated recycling system  
195 that balances the need for drop-off recycling centers with public and  
196 private sector implementation and expansion of curbside recycling  
197 programs; provided, however, that where a municipal government  
198 implements mandatory curbside recycling within its jurisdiction, the  
199 Authority may remove the drop off sites located within the same  
200 jurisdiction; and

201 (12) The development of recycling centers for organic yard wastes on  
202 Authority controlled and publicly controlled lands if necessary in the event  
203 private organic yard waste recycling efforts are unable to provide this  
204 service at a level capable of managing all of the organic yard waste which  
205 is generated.”

206 Section5. Amend Chapter 64, Title 7 of the Delaware Code, by striking § 6454 thereof in its  
207 entirety and by substituting in lieu thereof the following:

208 “§6454. Recycling Centers.

209 (a) The Authority shall establish organic yard waste recycling centers on lands owned  
210 or controlled by the Authority or other public entity if needed to supplement  
211 organic yard waste recycling facilities operated by the private sector. The  
212 Authority shall be entitled to impose a tipping fee or other service charge to cover  
213 the capital and operating costs of Authority recycling centers which handle  
214 organic yard waste.

215 (b) Implementation of efficient and cost-effective recycling programs will require  
216 that Delaware have access to processing facilities capable of processing single  
217 and/or multiple-stream recyclables. Where the private sector has developed  
218 extensive recyclables processing capability and unique programs that provide  
219 incentives to the general public to recycle that are not available to Delaware  
220 residents, the Department and the Authority shall encourage and work with the  
221 private sector to establish private facilities for recyclables and recycling incentive  
222 programs in Delaware. If, the private sector does not provide sufficient private  
223 facilities for recyclables, as determined by the Department and the Authority, then  
224 the Authority shall accept at no cost and process or provide for the processing of  
225 single stream recyclable materials comprised of paper materials, aluminum  
226 materials, steel materials and plastic materials. Additional materials may be  
227 accepted at the single-stream recycling center subject to the approval of the  
228 Authority. The Authority shall receive recyclable materials for transfer to the

229 processing facility at locations designated by the Authority. It shall be the  
230 responsibility of the Authority to ensure that processing and/or transfer facilities  
231 for managing single-stream collected recyclables are in operation in each County.  
232 It shall also be the responsibility of the Authority to transport or arrange for the  
233 transport of recyclables from transfer stations or landfills at which they choose to  
234 accept recyclable materials to a processing facility. Municipal and private  
235 collectors shall not be required to use the Authority's recycling centers. The  
236 revenues derived from the sale of recyclable materials and the Authority's  
237 revenue stream resulting from the elimination of drop off recycling centers under  
238 the provisions of this Act shall be used to offset the Authority's costs of  
239 transporting, receiving, processing and marketing recyclable materials."

240 Section 6. Amend Chapter 64, Title 7 of the Delaware Code, by striking § 6455 thereof in its  
241 entirety and substituting in lieu thereof the following:

242 "§6455. Public Education and Promotion of Recycling, Composting and other Waste  
243 Reduction Programs.

244 The Authority, in cooperation and consultation with the Department, shall initiate and  
245 conduct public outreach and education programs on the operation of its residential  
246 curbside recycling, drop off and organic yard waste programs, as well as continuing  
247 education on the purposes and value of source separated recycling and resources  
248 recovery. The intent of these educational programs shall be to maximize the diversion  
249 and recovery of household recyclables and organic yard waste, whether it was generated  
250 by the commercial or residential sector. Such program may be conducted in conjunction

251 with similar efforts of private industry, municipalities, public interest groups and the  
252 Department. The program may include the use of public advertising.”

253 Section7. Amend Chapter 64, Title 7 of the Delaware Code, by inserting therein the  
254 following new sections:

255 “§ 6461. Residential Curbside Recycling Programs.

256 (a) *Establishment.* The Authority shall establish and implement a statewide  
257 residential multi-stream and/or single stream source separation and collection  
258 program for recyclable materials in accordance with this section. This shall  
259 include provisions encouraging and facilitating the development of flexible  
260 private and municipal systems for source separating recyclables, collecting source  
261 separated recyclables, processing source separated recyclables and marketing  
262 source-separated recyclables.

263 (b) *Notice.* The Authority shall establish a comprehensive and sustained public  
264 information and education program addressing recycling program features and  
265 requirements. As a part of this program, the Authority shall, at least 30 days prior  
266 to the initiation of the recycling program and thereafter, provide notification to all  
267 affected residents of the requirements of any residential curbside collection  
268 program. (c) *Implementation.*

269 (1) In the absence of private or municipal participation, in whole or in part, in  
270 the collection, transportation, processing, and marketing of multi-stream  
271 and/or single stream source separated recyclable materials, the Authority  
272 shall make such services available statewide through a multi-stream and/or  
273 single stream drop off sites and by offering a subscription multi-stream

274 and/or single stream curbside recycling service, directly or through  
275 contract with others. The Authority may utilize its own personnel and  
276 resources but preference should be given to contracting with the private  
277 sector if cost effective, to provide this service consistent with the  
278 provisions of 7 Del. C. 6401(b)(4).

279 (2) Nothing contained herein shall be construed to prevent any person from  
280 collecting, transporting, processing, and marketing source separated  
281 recyclable materials in competition with municipalities or the Authority,  
282 provided that the requirements of this Subchapter are satisfied.

283 Section 8. Amend Chapter 60, Title 7 of the Delaware Code, by inserting therein the  
284 following new section:

285 “§ 6046. Minimum Recovery Rates.

286 (a) It is the intent of the General Assembly that the program implemented pursuant to  
287 this Subchapter reduce the amounts of municipal solid waste, which is comprised  
288 of residential and commercial solid waste (including organic yard waste),  
289 currently deposited or capable of being deposited in landfills in this State by  
290 recovering from such municipal solid waste recyclable materials at the recovery  
291 levels specified below. The Department and the Recycling Public Advisory  
292 Council shall report annually on the recovery rates of solid waste by identifying  
293 all public and private recycling efforts which reduce the amounts of municipal  
294 solid waste generated. Any person engaged in recycling or resource recovery of  
295 source separated solid waste generated in the State shall file with the Department  
296 an annual statement which contains the information required by the Department to

297 determine and report on the recovery rate. It shall be a goal to achieve recovery  
298 rates of municipal solid waste according to the following schedule:

Time in which Recovery Rates are achieved	Total Residential Solid Waste Recovered	Total Commercial Solid Waste Recovered
January 1, 2008	20%	_____
January 1, 2009	25%	_____
January 1, 2010	30%	50%

299 The goal for recovery of municipal solid waste (residential solid waste and  
300 commercial solid waste) shall be 51% to be attained by January 1, 2015.

301 (b) Notwithstanding any provisions or definition to the contrary contained in this  
302 chapter, for purposes of satisfying the minimum recovery rates set forth in  
303 subsection (a) above recyclable materials shall be those paper, aluminum, metal,  
304 and plastic materials and other municipal solid waste which is source separated  
305 and collected for recycling, and recycling for purposes of the program established  
306 hereunder shall mean the process by which discarded municipal solid waste  
307 materials are separated and used as raw materials, products or replacement of  
308 products, or put to other beneficial use, including the reuse of organic yard waste,  
309 but does not include the burning of materials.”

310

## SYNOPSIS

This Act establishes a framework for a statewide residential curbside recycling system and provides the opportunity for local communities, municipalities, counties and private sector entities to establish residential curbside recycling programs. It addresses the elements of a recycling system, including separation, collection, and processing of recyclables, while leaving the existing trash collection system intact. It provides for the establishment of transfer and processing facilities to which single stream recyclables can be delivered. If not provided by the private sector, the processing of the recyclables will be provided at no cost by DSWA. They will be designed to accept recyclables collected in a multi-stream and/or single-stream collection systems. In assuming additional recycling responsibilities DSWA will incur additional costs which need to be absorbed in its budget. DSWA projects a \$10.4M deficit for FY 07 for its current recycling programs.

This Act establishes a Recycling Fund to help pay for various aspects of the recycling system. The source of funding will be a \$3 per ton assessment on all solid waste (excluding recyclables) collected and/or disposed of in Delaware. Thus, those who collect solid waste in Delaware and dispose of it out of state will also pay the assessment to support the Delaware recycling initiatives. The fund will be administered by DNREC and used to help municipalities with start-up costs, fund private sector initiatives, support an education and outreach program and fund an assessment of the potential for increased commercial waste recycling. DSWA is not eligible to receive any monies from the Recycling Fund.

The Act provides for the development of yard waste management facilities to handle such materials. Development of private facilities will be encouraged; however, if these do not materialize, DSWA will manage the yard waste on its property or other public property. DSWA is entitled to charge a tipping fee at these facilities sufficient to cover the costs of operation.

The Act establishes recycling goals for both residential and commercial solid waste and involves the Recycling Public Advisory Council, whose role will be to advise DNREC and DSWA on various aspects of recycling and to report annually on the state of recycling and progress made toward the established goals.

Author:

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## *Appendix G. Cherry Island Landfill Permit – Yard Waste Ban Section*

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Yard waste diversion: DSWA shall ban disposal of all yard waste from the NSWMC-2 effective no later than January 1, 2007. The NSWMC-2 yard waste ban shall be advertised in a manner to effectively educate the public and waste haulers, using technical support from academic extension and composting experts, regarding the ban's effective date and alternatives for yard waste management. To the extent no private sector alternatives for the sustainable management of the banned yard waste becomes available, DSWA will provide for a yard waste composting and mulching facility(ies) and operation(s) capable of managing diverted yard waste to that extent. If it is necessary for the DSWA to manage any yard waste generated as a result of the ban, the DSWA shall determine and implement a competitive tipping fee for the management of this material. The tipping fee shall be set at a rate to encourage recycling and discourage disposal, and not compete with private sector alternatives. "Yard waste" means plant material resulting from lawn maintenance and other horticultural gardening and landscaping activities and includes grass, leaves, prunings, brush, shrubs, garden materials, Christmas trees, and tree limbs up to 4 inches in diameter.

NSWMC-2: Northern Solid Waste Management Center -2 (essentially the Cherry Island Landfill)

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## *Appendix H. Senate Bill 225 with Amendments*

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SPONSOR: Sen. McBride & Rep. Lofink & Rep. McWilliams ;  
Sens. Connor, Copeland, Peterson, Sokola, Sorenson, McDowell;  
Reps. DiPinto, Ennis, Hall-Long, Hudson, Keeley, Longhurst, Maier,  
Mulrooney, Oberle, Plant, Schooley, Valihura

DELAWARE STATE SENATE

143rd GENERAL ASSEMBLY

SENATE BILL NO. 225

AN ACT TO AMEND TITLE 7 OF THE DELAWARE CODE RELATING TO THE DELAWARE SOLID WASTE AUTHORITY, THE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL, AND THE RECYCLING PUBLIC ADVISORY COUNCIL CONCERNING RESIDENTIAL CURBSIDE RECYCLING.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF DELAWARE (Three-fifths of all members elected to each house thereof concurring therein):

- 1 Section 1. Amend § 6002, Title 7 of the Delaware Code, by inserting therein the following new paragraphs:
- 2 “(74) ‘Collector’ means a person who collects recyclable materials and/or organic yard waste.
- 3 (75) ‘Municipal Solid Waste’ means durable goods (excluding vehicles and other moving
- 4 equipment), nondurable goods, containers and packaging, food scraps, yard trimmings
- 5 and miscellaneous inorganic waste from residential (single- and multi-family households)
- 6 and non-residential (commercial, institutional and industrial) sources. Municipal solid
- 7 waste does not include construction and demolition debris, vehicle bodies, municipal
- 8 sludges, combustion ash, industrial process wastes.
- 9 (76) ‘Organic yard waste’ means plant material resulting from lawn maintenance and other
- 10 horticultural gardening and landscaping activities and includes grass, leaves, prunings,
- 11 brush, shrubs, garden material, Christmas trees and tree limbs up to 4 inches in diameter.
- 12 (77) ‘Processor’ means a person who manages recyclables and/or organic yard waste for the
- 13 purpose of returning them to the economic mainstream.
- 14 (78) ‘Recyclable material’ means any material or group of materials that can be collected and
- 15 sold or used for beneficial purposes.

- 16 (79) 'Single Stream' means a system in which all fibers (paper, boxboard, cardboard etc.) and  
17 containers (plastic, metal, glass) are mixed together for collection into one container  
18 instead of being sorted into separate commodities and multiple containers by the resident.
- 19 (80) 'Source Separated' means the process by which recyclable materials are segregated and  
20 kept apart from the waste stream by the generator thereof for the purpose of collection,  
21 disposition, recycling or resources recovery.
- 22 (81) 'Transporter' means any person engaged in the transportation of solid waste.
- 23 (82) 'Authority' means the Delaware Solid Waste Authority.
- 24 (83) 'Recycling' means the process by which discarded municipal solid waste materials are  
25 separated and used as raw materials, products or replacement of products, including the  
26 reuse of organic yard waste, but does not include the burning of materials for energy.
- 27 (84) 'Local Governments' means cities, towns, municipalities, unincorporated areas and  
28 counties.”.

29 Section 2. Amend § 6025, Title 7 of the Delaware Code, by inserting therein the following new subsections:

- 30 “(d) Effective January 1, 2007 all persons in the State of Delaware shall separate organic yard waste  
31 from other solid waste generated at their residence or place of business except to the extent those  
32 persons have otherwise provided for the recycling of organic yard waste. Source separated  
33 organic yard waste shall not be disposed by transporters by landfilling but shall be delivered to a  
34 processor. An owner, landlord, or agent of an owner or landlord of multifamily rental housing  
35 properties with four or more units may comply with its responsibilities under this section by  
36 establishing a collection system for organic yard waste at each property. The collection system  
37 shall include suitable containers for collecting and sorting materials, easily accessible locations for  
38 the containers, and written instructions to the occupants concerning the use and availability of the  
39 collection system. Owners, landlords, and agents of owners or landlords who comply with these  
40 provisions shall not be liable for the noncompliance of occupants of their buildings.
- 41 (e) No later than July 1, 2006 the Department and the Authority shall adopt guidelines defining the  
42 criteria necessary for the proper design and operation of organic yard waste management  
43 facilities.”.

44 Section 3. Amend Chapter 60, Title 7 of the Delaware Code, by adding the following new sections to  
45 Subchapter II thereof:

46 “§6042. Local Government Recycling Grants Program.

47 (a) Local Government Recycling Grants Program. There is hereby established a competitive Local  
48 Government Recycling Grants Program (Program) to assist local governments with start-up costs  
49 for the implementation of source separated recyclables collection programs with emphasis on  
50 single-stream curbside collection. The Program shall be administered by the Department, and  
51 monies from the Program shall be paid based on approved grant requests. The Department shall be  
52 entitled to charge to the Program an administrative fee of 7.5% of grants made to cover the cost of  
53 managing the Program. The Department shall be entitled to disburse grant monies for documented  
54 start-up costs which involve additional capital costs for equipment and facilities directly related to  
55 the curbside collection or processing of residential source separated recyclable materials. The  
56 Department shall be entitled to adopt guidelines and procedures for administering the Program.  
57 Local Governments electing to implement a curbside recycling program are in no way precluded  
58 from requiring mandatory participation by the residents within their jurisdiction. The Program  
59 shall be funded by monies made available under the provisions of Section 6042.

60 (b) Local Governments engaging in the collection, transportation, processing, and marketing of  
61 source-separated recyclable materials, and utilizing facilities other than those provided by the  
62 Authority, shall conduct such activities in a manner that the source-separated recyclable materials  
63 enter the marketplace as usable products or, in the event the recyclable materials are unmarketable,  
64 then put to other beneficial use.”.

65 §6043. Delaware Recycling Fund.

66 (d) There is hereby established a Delaware Recycling Fund in the Department for the exclusive  
67 purpose of funding specific activities designed to enhance the state’s recycling rate. Monies in the  
68 Delaware Recycling Fund shall be retained in an interest bearing account and may be expended  
69 only:

- 70 (1) To fund the Local Governments Recycling Grants Program. Annual funding for the  
71 Local Governments Recycling Grants Program shall be dependent on revenue generated  
72 by the Delaware Recycling Fund referenced in subsection (c) of this section;
- 73 (2) To pay the Department's and Authority's cost of establishing and conducting public  
74 outreach and education programs to promote the Local Governments Recycling  
75 Assistance Grant Program, curbside recycling and organic yard waste management;
- 76 (3) To pay the cost of the Department, the Authority and Recycling Public Advisory Council  
77 collectively studying and evaluating the status and potential for recycling the commercial  
78 component of municipal solid waste, and other improvements to the residential curbside  
79 recycling program, including the funding of initiatives undertaken by municipalities to  
80 enhance the recovery rates of recyclable materials and determination of the level of  
81 recycling achievable for all solid waste generated in the state as a result of  
82 implementation of the program established under this Subchapter and;
- 83 (4) To pay the Authority's capital and operating costs to receive, transfer, process and  
84 market source separated single stream recyclables at the Authority's recycling and  
85 transfer centers or at other locations without imposing a tipping fee or other service  
86 charge unless the funding provided under this Section is insufficient to cover the  
87 Authority's referenced costs, in which case the Authority shall be entitled to impose a  
88 tipping fee to cover such deficiency. The Authority shall be eligible to access the Fund  
89 for these purposes after a demonstration that any savings realized by the Authority from  
90 any reduction in the number of drop off recycling centers pursuant to implementation of  
91 municipal curbside recycling programs, conversion of the drop off centers to single  
92 stream or otherwise and the value of the recyclables sold from any Authority Materials  
93 Recovery Facility are insufficient to ensure a zero tipping fee for receiving, transporting,  
94 processing and marketing the recyclables. The Department shall within sixty (60) days of  
95 receipt of a detailed statement pay to the Authority from the Fund the amounts necessary  
96 to cover the Authority's referenced capital and operating costs as authorized hereunder.

97 For purposes of this Section, the Authority's capital cost shall mean the annual debt  
98 service or annual amortized cost for necessary equipment and facilities.

99 (e) The Department, upon certification by the Authority, shall to the extent that funds are  
100 authorized make payment to the Authority for requests for funding. The Authority and  
101 Department, in consultation with the Recycling Public Advisory Council, shall adopt guidelines  
102 and procedures for reviewing requests for funding authorized under this Section.

103 (f) The funding for the Delaware Recycling Fund shall be derived from an assessment of \$3.00 per  
104 ton made by the Department for every ton of solid waste generated and/or disposed in Delaware,  
105 excluding recyclable materials actually recycled and hazardous waste, collected by transporters  
106 subject to: (i) the permit requirements of the Department pursuant to Section 6001(c)(6) and  
107 Section 6025 of Title 7; and (ii) the licensing requirements of the Authority adopted pursuant to  
108 Section 6404 (6) of Title 7. Quarterly (by the 15<sup>th</sup> of January, April, July and October) the  
109 Authority shall submit to the Department the names and addresses of the transporters subject to  
110 the provisions of 7 Del. C. 6404(6) and the total solid waste tonnage that each transporter  
111 delivered to each DSWA facility. The Department, via its transporter permit program, shall be  
112 responsible for identifying the generators and transporters of solid waste which do not use the  
113 Authority's facilities, and shall make an assessment for the tonnage of solid waste generated  
114 and/or disposed in Delaware.

115 (g) The assessment shall become effective three (3) months from the date of enactment and the  
116 Department shall collect the assessment from transporters and/or generators after the initial  
117 assessment on a quarterly basis utilizing forms and procedures developed by the Department.  
118 Payment of assessments shall be due within 30 days of the end of the quarter (The 30<sup>th</sup> of January,  
119 April, July and October), and any late payment shall bear interest at the rate of 1.5% per month.  
120 The Department shall provide an annual report to the Authority setting forth the amounts collected  
121 from each transporter and any delinquencies. The Authority and the Department shall cooperate  
122 in maintaining an accurate list of active transporters subject to the assessment. The Department  
123 shall be entitled to seek collection of any assessments due to the Department through civil action

124 or may seek to impose on the transporter the sanctions specified for violation of a permitting  
125 condition as set forth in Section 6005 of Title 7.

126 (h) The Department shall commence the Local Governments Recycling Grants Program in calendar  
127 year 2006 and offer the Program at least annually thereafter until December 31, 2012. Upon a  
128 determination that continued funding is needed to maximize diversion of recoverable material, the  
129 Department, the Authority, and the Recycling Public Advisory Council shall re-evaluate the  
130 assessment and revise said assessment to reflect the resources needed in any subsequent years.

131 §6044. Recycling Public Advisory Council.

132 (a) There is hereby established a Recycling Public Advisory Council. The Council shall be composed  
133 of nine members who shall be appointed by the Governor as follows:

- 134 (1) One member from the Department and one member from the Authority;
- 135 (2) One member representing County governments with such member being recommended  
136 by the Delaware Association of Counties;
- 137 (3) One member representing municipal governments with such member being  
138 recommended by the Delaware League of Local Governments;
- 139 (4) One member representing the recycling industry to be appointed by the Governor;
- 140 (5) One member representing the waste hauling industry to be appointed by the Governor;
- 141 and
- 142 (6) Three members representing community-based or public-interest groups to be appointed  
143 by the Governor.

144 (b) Members of the Recycling Public Advisory Council except for those appointed pursuant to  
145 subparagraphs (1), (2) and (3) above shall serve 3-year terms and may be reappointed. Such  
146 members shall be appointed for staggered terms so that no more than 3 appointments shall expire  
147 in any one calendar year. For the initial appointments, 3 members shall be appointed for 1 year, 3  
148 members shall be appointed for 2 years and 3 members shall be appointed for 3 years. Thereafter,  
149 all terms are three years. Such Members may not serve more than 2 consecutive, 3-year terms.  
150 Such members may be reimbursed for travel to and from meetings. The governor shall appoint a  
151 Chairman from among the nine members. Actions of the Council shall be approved by a majority

152 vote of the Council. At least five (5) members of the Council shall constitute a quorum.

153 (c) The Recycling Public Advisory Council shall:

154 (1) Advise the Department and the Authority on all aspects of recycling;

155 (2) Advise the Department in developing grant criteria, including local match requirements,  
156 and selection of applications;

157 (3) Develop, in conjunction with the Department and the Authority, a methodology for  
158 measuring recycling rates;

159 (4) Provide advice and recommendations regarding the recycling outreach and education  
160 programs conducted by the Authority and/or the Department.

161 (5) Provide advice to the Department and the Authority regarding all Delaware Recycling  
162 Fund requests made by the Authority to achieve the goal of a zero tipping fee for  
163 receiving, transferring, processing and marketing recyclables.

164 (6) Report to the Governor and the General Assembly annually by March 1st of each year on  
165 the status of recycling activities in Delaware. Said report shall include, but not be limited  
166 to the following:

167 a. status of attainment of the thirty (30) percent recycling goal;

168 b. an accounting of the matching grants program authorized herein and any  
169 recommendations for future funding of the grants program;

170 c. an assessment of the activities of both the Department and the Authority in  
171 achieving the thirty (30) percent recycling goal; and

172 d. such other recommendations as the Council shall deem appropriate.

173 §6045. Residential Curbside Recycling Programs

174 (a) Minimum Program Contents. Recyclables collection programs shall include, along with such  
175 other elements deemed necessary by the Department and the Authority, the following minimum  
176 elements:

177 (1) Provide for persons who elect to participate in a curbside recycling program to separate at  
178 least paper materials (including boxboard and cardboard), aluminum materials, steel  
179 materials and plastics materials deemed capable of being recycled from other municipal

- 180 solid waste generated at their homes, apartments and other residential establishments and  
181 to store such materials until collection. Nothing shall be deemed to impair the ownership  
182 of separated materials by the person who generated them unless and until such materials  
183 are placed at curbside or similar location for collection by a municipality or other  
184 collector.
- 185 (2) A provision for persons who do not have municipal collection service or who do not self-  
186 haul their municipal solid waste to choose to contract for or make other arrangements for  
187 the collection of their source separated recyclables.
- 188 (3) A provision for persons who self haul to choose to deliver their source separated  
189 recyclables to the recycling facility of their choice or to make other arrangements for the  
190 recycling of their source separated recyclables.
- 191 (4) A provision for private collectors to choose to provide or arrange provisions for the  
192 collection of source separated recyclables from homes, apartments and other residential  
193 establishments. The public and private collectors shall be entitled to collect additional  
194 recyclable materials in single or multiple streams, provided however, that the use of  
195 Authority facilities for the processing of recyclables shall be limited by conditions  
196 imposed by the Authority.
- 197 (5) A provision for persons, including public and private collectors, not utilizing Authority  
198 facilities, to report to the Department and the Authority annually no later than January 31  
199 of each year the quantity of source separated recyclables collected, the type of separation,  
200 the method of recycling collection used (single or multiple streams) and the location of  
201 the recycling facilities used.
- 202 (6) A provision for the prohibition of persons participating in a recycling program, from co-  
203 mingling or mixing source separated recyclable materials with non-recyclable materials  
204 for collection or disposal.
- 205 (7) A provision for Reporting Requirements. Every municipality, collector, or processor of  
206 recyclable materials shall report annually, no later than January 31 of each year, to the  
207 Department and the Authority on the amount of such materials collected in the State in

208 categories designated by the Department and the Authority, irrespective of the location of  
209 the recycling facility utilized. The data collected by the Department and the Authority  
210 shall be reviewed by the Recycling Public Advisory Council and the results included in  
211 its annual report to the Governor.

212 (b) Nothing contained herein shall be construed to prevent any person from collecting, transporting,  
213 processing, and marketing source separated recyclable materials in competition with  
214 municipalities or the Authority, provided that the requirements of this Subchapter are satisfied.”.

215 Section 4. Amend § 6451, Title 7 of the Delaware Code, by inserting therein the following new paragraphs:

216 “(6) ‘Single stream’ means a system in which all fibers (paper, boxboard, cardboard etc.) and  
217 containers (at a minimum plastic and metal) are mixed together for collection into one  
218 container instead of being sorted into separate commodities and multiple containers by  
219 the resident.

220 (7) ‘Organic yard waste’ means plant material resulting from lawn maintenance and other  
221 horticultural gardening and landscaping activities and includes grass, leaves, prunings,  
222 brush, shrubs, garden material, Christmas trees and tree limbs up to 4 inches in diameter.  
223 Source separated organic yard waste shall not be delivered to Authority landfills for  
224 disposal by landfilling.”.

225 Section 5. Amend § 6452(2), Title 7 of the Delaware Code, by inserting the words “and single stream  
226 materials” immediately after the word “materials” as it appears therein.

227 Section 6. Amend § 6452, Title 7 of the Delaware Code, by striking the word “and” at the end of paragraph (9)  
228 thereof; by striking the period as it appears at the end on paragraph (10) thereof and substituting in lieu thereof a  
229 semi-colon; and by inserting therein the following new subsections:

230 “(11) The implementation of a single-stream source separated recycling system that balances  
231 the need for drop-off recycling centers with public and private sector implementation and  
232 expansion of curbside recycling programs; provided, however, that where a municipal  
233 government implements mandatory curbside recycling within its jurisdiction, the  
234 Authority shall remove the drop off sites located within the same jurisdiction; and

235                   (12) The development of recycling centers for organic yard wastes on Authority controlled  
236   and publicly controlled lands if necessary in the event private organic yard waste  
237   recycling efforts are unable to provide this service at a level capable of managing all of  
238   the organic yard waste which is generated.”.

239           Section 7. Amend Chapter 64, Title 7 of the Delaware Code, by striking § 6454 thereof in its entirety and by  
240 substituting in lieu thereof the following:

241           “§6454. Recycling Centers.

242                   (a) The Authority shall establish organic yard waste recycling centers on lands owned or controlled by  
243   the Authority or other public entity if needed to supplement organic yard waste recycling facilities  
244   operated by the private sector no later than January 1, 2007. The Authority shall be entitled to  
245   impose a tipping fee or other service charge to cover the capital and operating costs of Authority  
246   recycling centers which handle organic yard waste.

247                   (b) Implementation of efficient and cost-effective recycling programs will require that Delaware  
248   either build or otherwise have access to a Materials Recovery Facility or other processing facility  
249   capable of processing single and/or multiple-stream recyclables. Where the private sector has  
250   developed extensive recyclables processing capability and unique programs that provide  
251   incentives to the general public to recycle that currently are not available to Delaware residents,  
252   the Department and the Authority shall encourage and work with the private sector to establish  
253   private facilities for recyclables and recycling incentive programs in Delaware. The Authority and  
254   the Department, after consulting with RPAC, shall make a determination by no later than January 1,  
255   2007 as to whether the private sector is able to provide adequate transfer facilities and material  
256   recovery facilities. Factors to be considered in conducting this evaluation include, but are not limited  
257   to, the number of Residential Curbside Recycling Programs in operation, the amount of recyclables  
258   being collected through such programs, the costs of operating such programs, and the efficiency of  
259   storing and transporting recyclables. If, in the determination of the Authority and the Department,  
260   the private sector is not providing these services, and it is not cost effective to direct the recyclables  
261   to private recovery facilities, then the Authority shall construct a processing facility to process single  
262   stream recyclable materials comprised of paper materials, aluminum materials, steel materials and

263 plastic materials and begin operation as soon as practicable thereafter. Additional materials may be  
264 accepted at the single-stream recycling center subject to the approval of the Authority. The  
265 Authority shall receive recyclable materials for transfer to the processing facility at locations  
266 designated by the Authority. It shall be the responsibility of the Authority to ensure that  
267 processing and/or transfer facilities for managing single-stream collected recyclables are in  
268 operation in each County. It shall also be the responsibility of the Authority to transport  
269 recyclables from transfer stations or landfills at which they choose to accept recyclable materials  
270 to a processing facility. If sufficient funding is provided from the Delaware Recycling Fund, the  
271 Authority shall not impose on collectors any tipping fee or other service charge for accepting,  
272 transporting, or processing the source-separated single stream recyclable materials. Municipal and  
273 private collectors shall not be required to use the Authority's recycling center. The revenues  
274 derived from the sale of recyclable materials and the Authority's revenue stream resulting from the  
275 elimination of drop off recycling centers under the provisions of this Act shall be used to offset the  
276 Authority's costs of transporting, receiving, processing and marketing recyclable materials.”.

277 Section 8. Amend Chapter 64, Title 7 of the Delaware Code, by striking § 6455 thereof in its entirety and  
278 substituting in lieu thereof the following:

279 “§6455. Public Education and Promotion of Recycling, Composting and other Waste Reduction Programs.

280 The Authority, in cooperation and consultation with the Department, shall initiate and conduct public  
281 outreach and education programs on the operation of its residential curbside recycling, drop off and organic  
282 yard waste programs, as well as continuing education on the purposes and value of source separated  
283 recycling and resources recovery. The intent of these educational programs shall be to maximize the  
284 diversion and recovery of household recyclables and organic yard waste, whether it was generated by the  
285 commercial or residential sector. Such program may be conducted in conjunction with similar efforts of  
286 private industry, municipalities, public interest groups and the Department. The program may include the  
287 use of public advertising.”.

288 Section 11. Amend Chapter 64, Title 7 of the Delaware Code, by inserting therein the following new sections:

289 “§ 6461. Residential Curbside Recycling Programs.

290 (a) *Establishment.* The Authority shall establish and implement a statewide residential multi-stream

291 and/or single stream source separation and collection program for recyclable materials in  
292 accordance with this section. This shall include provisions encouraging and facilitating the  
293 development of flexible private and municipal systems for source separating recyclables,  
294 collecting source separated recyclables, processing source separated recyclables and marketing  
295 source-separated recyclables.

296 (b) *Notice.* The Authority shall establish a comprehensive and sustained public information and  
297 education program addressing recycling program features and requirements. As a part of this  
298 program, the Authority shall, at least 30 days prior to the initiation of the recycling program and  
299 thereafter, provide notification to all affected residents of the requirements of any residential  
300 curbside collection program. The Authority may, in its discretion as it deems necessary and  
301 appropriate, place an advertisement in a newspaper circulating in the municipality, post a notice in  
302 public places where public notices are customarily posted, include a notice with other official  
303 notifications periodically mailed to residential taxpayers or utilize any combination of the  
304 foregoing.

305 (c) *Implementation.*

306 (1) In the absence of private or municipal participation, in whole or in part, in the collection,  
307 transportation, processing, and marketing of multi-stream and/or single stream source  
308 separated recyclable materials, the Authority shall make such services available statewide  
309 through a multi-stream and/or single stream drop off sites and by offering a subscription  
310 multi-stream and/or single stream curbside recycling service, directly or through contract  
311 with others. The Authority may utilize its own personnel and resources but preference  
312 should be given to contracting with the private sector if cost effective, to provide this  
313 service consistent with the provisions of 7 Del C. 6401(b)(4).

314 (2) Nothing contained herein shall be construed to prevent any person from collecting,  
315 transporting, processing, and marketing source separated recyclable materials in  
316 competition with municipalities or the Authority, provided that the requirements of this  
317 Subchapter are satisfied.

318 § 6462. Minimum Recovery Rates.

319 (a) It is the intent of the Legislature that the program implemented pursuant to this Subchapter reduce  
 320 the amounts of municipal solid waste, which is compromised of residential and commercial solid  
 321 waste (including organic yard waste), currently deposited or capable of being deposited in landfills  
 322 in this State by recovering from such municipal solid waste recyclable materials at the recovery  
 323 levels specified below. The Authority shall report annually on the recovery rates of municipal  
 324 solid waste by identifying all recycling efforts which reduce the amounts of municipal solid waste  
 325 generated. It shall be a goal to achieve recovery rates of municipal solid waste according to the  
 326 following schedule:

Time in which Recovery Rates are achieved	Total Residential Solid Waste Recovered	Total Commercial Solid Waste Recovered
January 1, 2008	20%	_____
January 1, 2009	25%	_____
January 1, 2010	30%	50%

327 (b) Notwithstanding any provision or definition to the contrary contained in this chapter, the term  
 328 “municipal solid waste” shall mean durable goods (excluding vehicles and other moving  
 329 equipment), nondurable goods, containers and packaging, food scraps, yard trimmings and  
 330 miscellaneous inorganic waste from residential (single- and multi-family households) and non-  
 331 residential (commercial, institutional and industrial) sources. Municipal solid waste does not  
 332 include construction and demolition debris, vehicle bodies, municipal sludges, combustion ash  
 333 and industrial process wastes.

334 (c) Notwithstanding any provisions or definition to the contrary contained in this chapter, for  
 335 purposes of satisfying the minimum recovery rates set forth in subsection (a) above recyclable  
 336 materials shall be those paper, aluminum, metal, and plastic materials and other municipal solid  
 337 waste which is source separated and collected for recycling, and recycling for purposes of the  
 338 program established hereunder shall mean the process by which discarded municipal solid waste  
 339 materials are separated and used as raw materials, products or replacement of products, or put to  
 340 other beneficial use, including the reuse of organic yard waste, but does not include the burning of  
 341 materials for energy.

342 §6463. Enforcement.

343 The provisions of this Subchapter shall be enforced by the Authority and the Department as follows:

344 (1) The Authority's enforcement responsibility shall include, but are not limited to:

345 a. Inspections to assure compliance;

346 b. Review of complaints made regarding non-compliance;

347 c. Issuance of written or oral notice of violation and request for voluntary  
348 compliance;

349 d. For repeat violations written notice and demand for compliance served  
350 personally or sent by registered mail, return receipt requested; and

351 e. For a repeated violation after written notice and demand for compliance, referral  
352 to the Department for formal enforcement action.

353 (2) The Department's enforcement responsibility shall include follow up investigation based  
354 on referrals from the Authority and complaints made regarding non-compliance, and  
355 formal enforcement action as warranted pursuant to the enforcement provisions of  
356 Subchapter II of Chapter 60 of this Title and the regulations promulgated there under.”.

## SYNOPSIS

This Act establishes a framework for a statewide residential curbside recycling system and provides the opportunity for local communities, municipalities, and counties to establish residential curbside recycling programs. It addresses the elements of a recycling system, including separation, collection, and processing of recyclables, while leaving the existing trash collection system intact. It provides for the establishment of transfer and processing facilities to which single stream recyclables can be delivered. If not provided by the private sector, these facilities will be established by DSWA. They will be designed to accept recyclables collected in a multi-stream and/or single-stream collection systems.

This Act establishes a Recycling Fund to help pay for various aspects of the recycling system. The source of funding will be a \$3 per ton assessment on all solid waste (excluding recyclables) collected and/or disposed of in Delaware. The fund will be administered by DNREC and used to help municipalities with start-up costs, fund DSWA single stream recycling operations, support an education and outreach program and fund an assessment of the potential for increased commercial waste recycling.

The Act bans organic yard waste from disposal in Delaware's landfills and provides for the development of yard waste management facilities to handle this material. Development of private facilities will be encouraged; however, if these do not materialize, DSWA will manage the yard waste on its property or other public property. DSWA is entitled to charge a tipping fee at these facilities sufficient to cover the costs of operation.

The Act establishes recycling goals for both residential and commercial solid waste and establishes a Recycling Public Advisory Council, whose roll will be to advise DNREC and DSWA on various aspects of recycling and to report annually on the state of recycling and progress made toward the established goals.

Author: Senator McBride

SPONSOR: Sen. McBride

DELAWARE STATE SENATE

143rd GENERAL ASSEMBLY

SENATE AMENDMENT NO. 1

TO

SENATE BILL NO. 225

1 AMEND Senate Bill No. 225 by deleting the words "July 1, 2006" on line 41 and replace it with  
2 "September 30, 2006."

3 FURTHER AMEND Senate Bill No. 225 by deleting the sentence on line 51 "The Department shall be  
4 entitled to charge to the program an administrative fee of 7.5% of grants made to cover the cost of managing the  
5 Program."

6 FURTHER AMEND Senate Bill No. 225 by deleting the phrase "designed to enhance the state's recycling  
7 rate" on line 67 and replace it with "to increase waste reduction, reuse and recycling and minimize the amount of  
8 solid waste generated and landfilled."

9 FURTHER AMEND Senate Bill 225 by adding new paragraphs (5) and (6) after the word "facilities" on  
10 line 98 to read:

11 "(5) To contribute towards the capital cost of private entity facilities located in Delaware that  
12 receive, transfer, process or market source separated single stream recyclables.

13 (6) To cover the cost of administering the Fund pursuant to this section, the Department shall be  
14 entitled to charge to the Fund an administrative fee equal to 7.5% of all funds distributed by the  
15 Department."

16 FURTHER AMEND Senate Bill 225 by deleting the phrase ",upon certification by the Authority," on line  
17 99 and inserting the phrase "or private entities" on line 100 after the word "Authority."

18 FURTHER AMEND Senate Bill 225 by deleting the words “The Authority and” on line 100 and replacing  
19 with the word “The”

20 FURTHER AMEND Senate Bill 225 by adding the following after the word “Section” on line 102:

21 “The guidelines, as they relate to private entities, should focus on funding for the exclusive purpose of Section 6043  
22 and should be used for start-up costs only (e.g., capital costs, land acquisition, staff training, including safety  
23 training) and not for ongoing subsidies of operating costs. Private entities receiving funds should demonstrate as part  
24 of the proposal process, how and when they intend to become self-sufficient. The Department, in consultation with  
25 RPAC, shall review the specific funding criteria to adjust priorities, as needed, to address the needs of the state.”

26 FURTHER AMEND Senate Bill 225 by inserting new paragraphs (f) and (g) after the word “years” on line  
27 130 to read:

28 (f) any monies provided from the Fund shall be subject to an independent audit and the recipient  
29 of any such funding shall agree and cooperate with any audit as a condition to receiving funding.

30 (g) Any incorporated municipality subject to the assessment pursuant to this section may seek an  
31 annual exemption from the assessment upon a satisfactory demonstration to the Secretary that the  
32 municipality has achieved a recovery rate of 30 percent for total residential solid waste. The  
33 method for demonstrating the recovery rate shall be in accordance with 6043 (c). This exemption  
34 shall be valid for a period of one year.

35 FURTHER AMEND Senate Bill No. 225 by omitting the date “2007” on line 255 and replacing it with  
36 “2008.”

37

38 SYNOPSIS

This amendment changes the date by which DNREC and the Delaware Solid Waste Authority must have criteria developed for the design and operation of yard waste management facilities; allows DNREC to recover 7.5% of all funds distributed by the Department for administration of the Recycling Fund, allows the private sector to access the Recycling Fund for start up costs associated with operating a recycling facility, requires any grant recipient to be subject to audit and changes the date by which DSWA, DNREC and the Recycling Public Advisory Council shall make a determination as to whether the private sector is able to provide adequate recycling transfer and recovery facilities. The amendment also allows the opportunity for local governments to be exempted from the assessment fee if they achieve a 30 percent recovery rate.

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Author: Senator McBride

SPONSOR: Sen. Blevins

DELAWARE STATE SENATE  
143rd GENERAL ASSEMBLY  
SENATE AMENDMENT NO. 2

TO

SENATE BILL NO. 225

AMEND Senate Bill No. 225 by deleting lines 103 – 125 in their entirety.

FURTHER AMEND Senate Bill No. 225 by redesignating subsection (e) of §6043, Title 7, Delaware Code, as subsection (d), and by inserting a new §6043(c), Title 7, Delaware Code, on line 103 to read as follows:

“(c) The funding for the Delaware Recycling Fund shall be derived from surplus and/or reserve funding held by the Authority.”

FURTHER AMEND Senate Bill No. 225 by deleting line 130 in its entirety and substituting in lieu thereof the following:

“use of surplus and/or reserve funding held by the Authority and determine if an assessment is necessary.”

#### SYNOPSIS

This Amendment replaces the establishment of a \$3/ton assessment to fund the Delaware Recycling Fund with the use of the Delaware Solid Waste Authority’s surplus and reserve revenues, while providing that DNREC, DSWA, and the Recycling Public Advisory Council may re-evaluate in the future whether an assessment is necessary to continue funding for the Fund.

Author: Senator Blevins

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## *Appendix I. Endnotes from 2.1 Benefits of Recycling*

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- 1 – Institute for Local Self-Reliance. A draft report to the Secretary of DNREC “Resource Management in the State of Delaware”. March 2007.
  - 2 – R.W. Beck, Inc. “U.S. Recycling Economic Information Study”. Prepared for the National Recycling Coalition. July 2001. p. ES-8.
  - 3 – US Environmental Protection Agency. “Puzzled About Recycling’s Value? Look Beyond the Bin”. January 1998. p. 3.
  - 4 – The Northeast Recycling Council. “Environmental Benefits Fact Sheet on Recycling Benefits in Delaware: *An Overview for 2005*”. September 2006.  
<http://www.nerc.org/fsheets/de-factsht.html>
  - 5 – Richard A. Denison - Environmental Defense Fund. “Environmental Life-Cycle Comparisons of Recycling, Landfilling, and Incineration: A Review of Recent Studies”. 1996. p. 193.
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