



## 2012 Annual Report

# Delaware Solid Waste Authority

### Our Mission Statement

To Define, Develop, And Implement  
Cost-Effective Plans And Programs  
For Solid Waste Management  
Which Best Serve Delaware And  
Protect Our Public Health  
And Environment.



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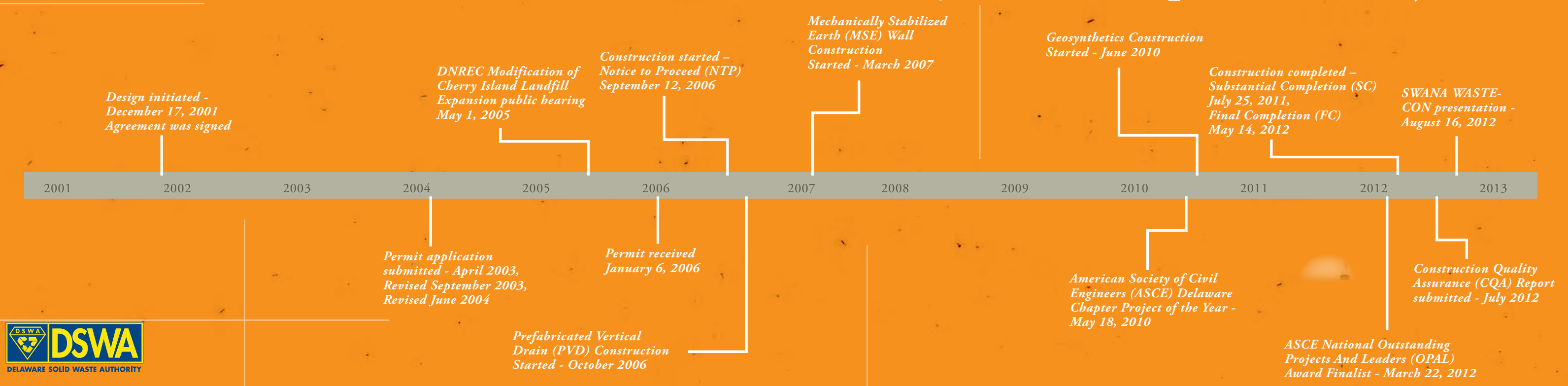
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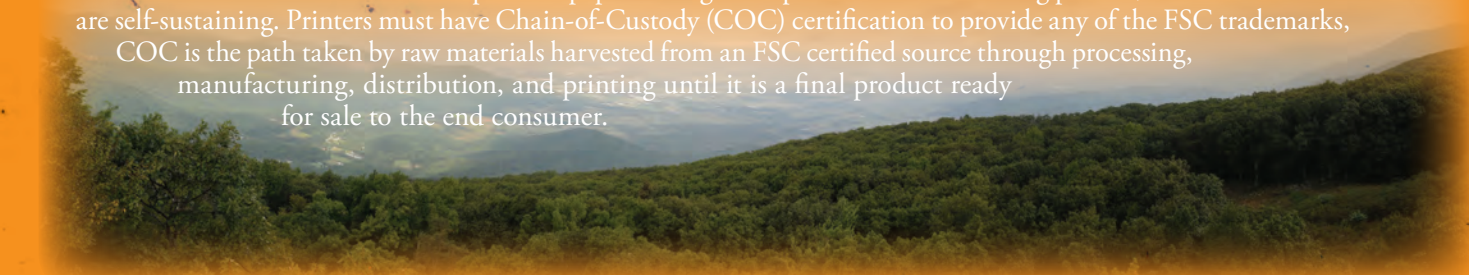
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# Timeline For The Construction Of Cherry Island Expansion Project



**Delaware Solid Waste Authority takes pride in that we have the honor to display the Forest Stewardship Council logo on our print materials**

The Delaware Solid Waste Authority (DSWA) is a leader in providing programs, facilities, and materials that enhance our environment. DSWA's Annual Report is printed on paper that is certified by the Forest Stewardship Council (FSC). The FSC is an international independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. FSC certified mills produce paper through a responsible manufacturing process, which includes forests that are self-sustaining. Printers must have Chain-of-Custody (COC) certification to provide any of the FSC trademarks, COC is the path taken by raw materials harvested from an FSC certified source through processing, manufacturing, distribution, and printing until it is a final product ready for sale to the end consumer.





2012



## Table of Contents

Chairman Of The Board Letter .....	2
Board Of Directors.....	3
Chief Executive Officer Letter .....	5
Diversion Table .....	6
Facility Recyclable Quantities Sent to Market by Material.....	7
DSWA Landfills .....	8
Recycling With DSWA .....	12
Drop-Off Centers .....	12
Single-Stream Curbside Recycling.....	13
Electronic Goods Recycling .....	15
Oil And Oil Filter Recycling.....	16
Polystyrene Foam Recycling.....	16
Household Battery Recycling.....	16
Textile Recycling.....	16
Household Hazardous Waste Collection.....	17
Construction and Demolition Material Recycling .....	18
Landfill Gas-To-Green Power .....	19
Financial Statements.....	i



**Richard V. Pryor**  
Chairman of the Board

# Chairman of the Board

## Chairman of the Board

The enactment in 1975 of Title 7, Chapter 64 of the Delaware Code made the Delaware Solid Waste Authority (DSWA) responsible for developing, adopting, and implementing the Statewide Solid Waste Management Plan (SSWMP) for Delaware. DSWA's current Statewide Solid Waste Management Plan was adopted on April 22, 2010. The SSWMP represents DSWA's ten-year plan incorporating zero waste principles to provide the framework for actions taken by DSWA and other stakeholders in Delaware to maximize recycling and diversion of materials from landfill disposal.

Zero waste principles have been generally accepted to mean the design and management of products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. The SSWMP outlines an action plan that DSWA and other stakeholders can take to implement zero waste principles. Several of these actions have begun and their results are making a significant impact. Most notably are the increase in the amount of materials being recycled and the decrease in the amount of materials being landfilled in Delaware. DSWA can be very proud of this achievement. But another extremely important achievement also occurred this year. That achievement was the completion of construction of landfill expansion projects at all three of its landfills.

The completion of construction of these projects in combination with the reduction of waste requiring landfilling has enabled DSWA to ensure the safe disposal of residual wastes statewide for at least the next twenty (20) years. The planning, design, permitting, and

construction of these projects required five (5) to ten (10) years and cost between \$18 million and \$102 million.

Unlike several areas around the country that have experienced capacity crises, DSWA's actions have provided safe, convenient, economical and responsible facilities and programs to handle wastes for the long term. The three (3) landfill expansion projects utilized highly sophisticated engineered systems for structures, liners, leachate collection, landfill gas control, and environmental and geotechnical monitoring. In fact, the Cherry Island Landfill Expansion Project designed by GeoSyntec Consultants and constructed by Severson Environmental Services was given outstanding Civil Engineering (OCEA) Award of Merit by the American Society of Civil Engineers (ASCE) at its Outstanding Projects and Leaders (OPAL) awards ceremony on March 22, 2012. ASCE annually recognizes exemplary civil engineering projects at its national OPAL awards ceremony held in Washington, D.C. The prestigious award was established in 1960 to honor superior civil engineering progress. Previously, the Cherry Island Landfill project won the 2011 Project of the year from the Delaware Chapter of ASCE.

DSWA takes its role seriously to do its best to protect the environment and to extend the life of all its facilities and assets for the citizens of Delaware. I applaud the efforts of my colleagues on the Board of Directors, DSWA management and staff and the engineering firms and contractors for successfully implementing key elements of our SSWMP.

Sincerely,

## Board Of Directors

**D**SWA is governed by a seven - member Board of citizens, appointed by the Governor, with the advice and consent of the Senate. Recognized as an international leader in solid waste management, DSWA continues to advance technological frontiers in solid waste management, including design, construction operation, and closure of landfills.

Appointed 7/79

**Ronald G. McCabe**  
Vice Chairman



Appointed 2/79

**Theodore W. Ryan**



Appointed 1/04

**Timothy P. Sheldon**



Appointed 5/04

**Tonda L. Parks**



Appointed 6/08

**Gerard L. Esposito**



Appointed 4/10

**Gregory V. Moore P.E.**







*Michelle M. Kiliszek (right)  
Senior Environmental Scientist*

*Matt J. Tyler (left)  
Environmental Technician*



*Angela D. Marconi, P.E. (left)  
Cherry Island Landfill Gas Manager*

*V. Nicole Burkhardt, P.E. (right)  
Engineer II*

As municipal solid waste degrades in the landfill it generates a substance called landfill gas (LFG). Generally, LFG is comprised of approximately 50% methane, 50% carbon dioxide and trace amounts of organic compounds. Collection and control of LFG is performed in compliance with the Clean Air Act. Collection is accomplished by exerting a vacuum on vertical wells or horizontal gas collection trenches in the landfill. The vacuum extracts the gas and through a series of pipes, pulls the LFG to a combustion device. Due to its methane content, LFG can be burned. This allows LFG to be utilized as a “green” fuel. DSWA has developed green energy projects at all three active landfills.



*“We are especially pleased to report that this year groundbreaking took place at CRODA, a chemical manufacturing complex in New Castle County, to use LFG from our Cherry Island Landfill to generate enough renewable energy at its site to power 55% of the plant’s operation.”*

*“Clearly, DSWA has been in the forefront of recycling and the beneficial use of materials including landfill gas. We are committed to this pursuit and recognize its future potential.”*

*Paquella Langford*





**Pasquale S. Canzano**  
P.E., BCEE  
Chief Executive Officer

# Chief Executive Officer

Recycling has become more popular nationally as a result of the overarching policy to be “green”. However, long before residential recycling was in vogue, DSWA implemented the Recycle Delaware drop off program in 1990 at no cost to households. In keeping with our philosophy that the “market drives the process”, the drop off program featured individual “igloos” for separated materials, i.e. one each for white glass, green glass, brown glass, old newspapers, cans and plastic bottles. The markets for the recyclables were such that minimizing contamination issues was paramount to maximize revenues for the materials. That initial effort then was followed up with the very first statewide curbside recycling program initiated on a pilot basis in 2003 and expanded full fledge statewide in 2006. Again, it featured the separation of the individual recyclables using multi-colored bags to distinguish the materials and required specialized compartmentalized collection trucks to maintain the separation of recyclables and minimize contamination. As the technology for processing the recyclables evolved and improved the markets responded and “single stream” collection of recyclables as we know it today became acceptable. DSWA in its efforts to minimize the costs of its household curbside collection program made the transition to “single stream” recycling in 2008. Significant savings were realized in the costs of the collection equipment by using standard trash compaction trucks and the elimination of the multi-colored bags.

All of DSWA’s recycling programs placed Delaware as a leader in recycling, but there was still room for improvement. DSWA set the scene for a bolder advance in recycling and paved the way for the private sector to easily enter the curbside recycling business. Governor Jack Markell, through his vision and foresight enacted what is now known as the Universal Recycling Law in June 2010, making it mandatory for all public and private solid waste haulers, in lieu of DSWA, to offer curbside recycling to their customers. The result is that Delaware enjoys a genuine recycling rate of 37.4%, which compares well with the national average of 34%.

Clearly, recycling will continue to be the way of the future and will face market and technologi-

cal challenges. DSWA has shifted its business paradigm to take advantage of this inevitability and negotiated two major recycling agreements with ReCommunity and Revolution Recovery. Both companies will be using existing, previously dormant, DSWA facilities located at Pigeon Point in New Castle, DE. ReCommunity will invest about \$19 million to construct a state of the art single stream recycling facility, which will bring construction and operating jobs to the state. Revolution Recovery will make an estimated \$5 million investment to construct an automated process line for recycling construction and demolition materials, also creating jobs. The revenues DSWA will receive from these projects will help offset some of the revenue losses resulting from reduced tonnage going into the landfills.

The landfills continue to play an important role in DSWA. As recycling has increased and the tonnage to the landfills decreased, Delaware has significant existing statewide landfill capacity for at least the next 50 years. Also, DSWA has effectively managed the landfills as resources by entering agreements with the private sector for using the landfill gas (LFG) to generate green power at all three landfill sites. We are especially pleased to report that this year ground-breaking took place at CRODA, a chemical manufacturing complex in New Castle County, to use LFG from our Cherry Island Landfill to generate enough renewable energy at its site to power 55% of the plant’s operation. In addition, the project will reduce annual greenhouse gas emissions equal to removing 33,000 passenger vehicles from the road. The combined heat and power project was developed by Cummins Power Generation who purchases the LFG under an agreement with DSWA.

Clearly, DSWA has been in the forefront of recycling and the beneficial use of materials including landfill gas. We are committed to this pursuit and recognize its future potential.

However, all of this would not be possible without dedicated and outstanding employees reinforced by the unequivocal support of a top drawer Board of Directors!

Sincerely,

## Municipal Solid Waste (MSW) Landfill Diversion Rates in Delaware

The table provides a summary of the Municipal Solid Waste (MSW) Landfill Diversion Rates for the calendar years 2006 - 2011. This information was gathered and reported by the Recycling Public Advisory Council in the eleventh edition of their Annual Report.

Year	2006	2007	2008	2009	2010	2011
Diverted Recyclables (tons)	248,410	377,066	318,032	323,637	359,147	401,883
Landfilled Municipal Solid Waste (MSW) (tons)	823,479	794,984	741,143	668,353	706,368	672,761
Total MSW = Diverted Recyclables + Landfilled MSW (tons)	1,071,889	1,172,050	1,059,175	991,990	1,065,515	1,074,644
<b>Percent Diverted Recyclables</b>	<b>23.2%</b>	<b>32.2%</b>	<b>30.0%</b>	<b>32.6%</b>	<b>33.7%</b>	<b>37.4%</b>

## Delaware Solid Waste Authority Executive Staff



Richard P. Watson,  
P.E., BCEE  
Chief Operating Officer



Anne M. Germain,  
P.E., BCEE  
Chief of Engineering  
and Technology



Logan V. Miller,  
P.E., BCEE  
Chief of Facilities  
Management




John J. Lechner  
Chief Financial Officer



## Facility Recyclable Quantities Sent to Market by Material Type FY 2012

(In Tons)

 Material	Cherry Island Landfill	Sandtown Landfill	Jones Crossroads Landfill	Pine Tree Corners Transfer Station	Milford Transfer Station	Route 5 Transfer Station	Total
Refrigerant White Goods	8.56	27.71	47.28	44.68	10.05	28.72	167.00
Non Refrigerant White Goods	52.01	29.25	271.15	51.48	13.02	117.73	534.64
Tires	369.91	320.68	374.05	46.12	24.02	17.75	1,152.53
Yard Waste	546.13	23.35	565.41	295.33	295.19	1,590.72	3,316.13
Dry Wall	62.05	21.62	608.66	-	-	48.40	740.73
Propane Bottles	2.73	0.78	2.61	0.81	0.18	0.29	7.40
Metal shreds	-	-	133.67	-	-	-	133.67
Agricultural Plastic	-	-	32.65	-	-	-	32.65
<b>total</b>	<b>1,041.39</b>	<b>423.39</b>	<b>2,035.48</b>	<b>438.42</b>	<b>342.46</b>	<b>1,803.61</b>	<b>6,084.75</b>

Alternative Materials Used for soil cover				TOTAL
Clean Earth	253,637.58	-	-	253,637.58
Barrier	49,717.93	-	-	49,717.93
Recycled C&D	-	-	16,916.00	16,916.00
<b>total</b>	<b>303,355.51</b>	<b>0.00</b>	<b>16,916.00</b>	<b>320,271.51</b>

Alternative Materials Used for road building				TOTAL
Steel Slag	42,000.00	5,570.00	-	47,570.00
Recycled Concrete	-	11,980.00	1,976.53	13,956.53
Clean Earth Aggregate	6,225.00	-	-	6,225.00
Chipped yardwaste	-	1,327.51	-	1,327.51
<b>total</b>	<b>48,225.00</b>	<b>18,877.51</b>	<b>1,976.53</b>	<b>69,079.04</b>

Alternative Materials Used for soil amendment				TOTAL
DSWA made Compost	628.96	-	1,162.00	1,790.96
DSWA Yard Waste Mulch	-	-	184.13	184.13
<b>total</b>	<b>628.96</b>	<b>0.00</b>	<b>1,346.13</b>	<b>1,975.09</b>

<b>TOTALS</b>	<b>352,209.47</b>	<b>18,877.51</b>	<b>20,238.66</b>	<b>391,325.64</b>
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This table represents the quantities of recyclable materials that are diverted from DSWA landfills. Materials like tires, white goods (appliances), yard waste, propane tanks and construction debris are diverted from landfills and recycled to help save valuable landfill space.





*Joel E. Haley  
Operations Technician*

*Robin M. Roddy, P.E. BCEE  
Senior Facility Manager*

*The Cherry Island Landfill (CIL) located at the confluence of the Delaware and Christina Rivers has been servicing New Castle County, Delaware citizens since 1985. In 2002, DSWA pursued an expansion that would provide a minimum of 20 years of additional capacity.*

*The project included the construction of a 60-ft high, 8,000-ft long mechanically stabilized earthen (MSE) berm over soft soils.*



## 2012 OPAL Award of Merit Cherry Island Landfill Vertical Expansion Project

In harmony with Recycling Programs, engineered modern landfills are critically important key components of solid waste management systems which are necessary to ensure that nonrecyclable items will be safely stored in a manner that will not be detrimental to the public health or the environment. The Delaware Solid Waste Authority strives for excellence in the design and operation of its three landfills and has again won national recognition for one of its landfills, i.e. the Cherry Island Landfill in Wilmington, Delaware.

This year, DSWA received recognition that one of its facilities was on par with the most sophisticated engineering projects in the United States. In 2012, the Cherry Island Landfill expansion project was selected as a finalist for the Out-

standing Civil Engineering Achievement (OCEA) award by the American Society of Civil Engineers (ASCE).

The Cherry Island Landfill (CIL) located at the confluence of the Delaware and Christina Rivers has been servicing New Castle County, Delaware citizens since 1985. In 2002, DSWA pursued an expansion that would provide a minimum of 20 years of additional capacity.

The project included the construction of a 60-ft high, 8,000-ft long mechanically stabilized earthen (MSE) berm (one of the most massive reinforced earth berms ever used in an environmental application) over soft soils. These subsoils were engineered to release excess pore pressures allowing settlements up to 14-feet during construction. DSWA's engineer, Geosyntec, developed a pioneering design technique to manage the anticipated settlement impacts. The new techniques were reviewed by world-renown experts in geotechnical design. As can be expected, the construction required extensive coordination between all parties.

Before the initial development of the landfill, the site was used for dredge disposal. As a result, the soils beneath the landfill is mostly dredged silts overlying river sediments for a depth of 60 to 100-ft. Both the dredge and river sediments are very soft and highly compressible. A comprehensive field and laboratory investigation was conducted to further characterize the foundation soils.

To build the berm, foundation improvements were needed. The foundation improvement technique utilized was pre-fabricated vertical drains (PVDs) which dissipate pore pressure from the subsoils. Geosyntec developed a theoretical model to predict rate of pore pressure dissipation, an important consideration during construction. The model showed that the foundation soils were drained near the PVDs and undrained further away. This





drained/undrained model was new to the industry, and was developed in close coordination with geotechnical engineering experts, including James Mitchell and James Duncan of Virginia Tech as well as Dov Leshchinsky of the University of Delaware.

The MSE berm was constructed with a very steep outside slope and a height of 60-ft over the 200 to 275 foot wide PVD area. Because of the soft foundation, a specialized high-strength geotextile at the base of the MSE berm was included in the design. Standard geogrid reinforcing was utilized as well.

The CIL project was notable in the solid waste management industry for its cost, duration, and complexity. Consider a few of the statistics of the CIL project: contract value in excess of \$90 million, a construction period of over 5 years, over 400 contractor submittals, and over 150 formal requests for information. For any construction project, good communication is important to support a successful project. For the CIL project, productive communication became essential because of construction challenges that the design imposed on the contractor. First, while anticipated settlements were identified in the design, actual settlements, and the associated construction impacts, would have to be continuously monitored during construction. Second, the drained/undrained design model required fill and rest periods in order to allow pore pressure dissipation. In addition, Geosyntec reviewed pore pressures and had to authorize the next lift. As a result, the contractor had to make revisions to its construction sequencing to keep labor and equipment working.

Typical earthwork construction does not anticipate significant settlement of structures during construction. Often, pre-loading is used to induce settlement or low-density fill materials are used to minimize settlement. For the CIL project, however, the design was based upon continuous settlement occurring as the final structure is being

built. As a result, it was necessary to review anticipated settlements and its effects on structures. Tall, thin structures, such as drop inlets, required guidance to maintain plumbness. Linear structures, such as piping, were installed after the settlement so that they were not subject to deformation.

The MSE berm was constructed in 10-foot lifts to allow pore pressures to dissipate prior to placement of the next lift. Following the completion of each lift, a rest period was required to allow pore pressure dissipation in the subsoils. The contractor split the MSE berm into sections to allow one section to “rest” while constructing another section. The pore pressure, settlement, and horizontal movement were carefully monitored throughout the construction. The monitoring results were reviewed and compared with design predictions to ensure that actual field conditions were within acceptable limits.

The settlement and pore pressure dissipation were two examples of the extensive communication required during construction, but they were by no means the only issues that required coordination. For these reasons and for the innovative design, this project appeared to be a candidate for the OCEA award.

The OCEA has been likened to the “Academy Awards” of civil engineering. This is the award that ASCE uses to recognize exemplary civil engineering projects. It was established in 1960 to honor the project that best illustrates superior civil engineering skills and represents a significant contribution to civil engineering progress and society. And, the CIL project became the first landfill project to be named a finalist in the 52-year history of the award.

The design and construction of the CIL expansion prompted innovative approaches to design and construction for the project. The proposed foundation enhancement required significant and continuous coordination and cooperation between the Owner, the Delaware Solid Waste Authority, the design

engineer, Geosyntec Consultants, and the contractor, Severson Environmental Services. The project began in September 2006, with substantial completion being reached in June 2011. Due to the complexity of the project, the novelty of the design, and the number of issues that had to be addressed once field conditions became better understood during construction, this five-year, \$90 million project simply could not have been successfully completed without the active coordination and cooperation between DSWA, Geosyntec, and Severson. The combination of these factors made the project worthy of recognition by one of the premier awards in civil engineering, ranking with other landmark projects in the United States.

*The MSE berm was constructed with a very steep outside slope and a height of 60-ft over the 200 to 275 foot wide PVD area.*



*Robin M. Roddy, P.E. BCEE  
Senior Facility Manager*



NSW/MC



## Sandtown Landfill

Area F was designed by CDM Smith of Falls Church, VA in 2007. It is a 59.7 acre disposal area that abuts the east side of Area D and the east and south side of Area E. Area F is split into two separate construction areas. Phase I is 40.6 acres and is estimated to have over 20 years of capacity. Phase II is 19.1 acres and is estimated to have 14 years of capacity. The total volume for the Area F disposal area is calculated to be 16.5 million cubic yards. Construction of Phase I began in June 2010 by American Infrastructure of Dover, DE.

The excavated material in Phase 1 was used to fill in the existing borrow pond located in the Phase II footprint. Additional material will be needed at a later date for the Phase II construction.

The Area F liner system consists of a primary composite liner system consisting of a 24" sand layer, a 60 mil textured high density polyethylene (HDPE) geomembrane and geosynthetic clay liner (GCL), and a secondary composite liner system consisting of a geocomposite drainage net (CDN), a 60 mil textured HDPE geomembrane and GCL. The liner system exceeds the Delaware Regulations and allows a variance to the 5 foot separation requirement between the liner system and the seasonal high water table (SHWT).

Area F is a post settlement inward gradient design, meaning that the liner system base grades are set close to the SHWT in the pre-settlement condition and then will subside below the SHWT as waste is placed in the cell and settlement occurs. This increases the overall capacity and lessens the amount of imported construction fill. An inward base gradient design also minimizes the risk of groundwater contamination. Groundwater tends to flow into the waste mass if there is a hole in the liner system.

Area F is a herringbone base grade design. Phase I was divided into 31 cells, each 100 feet wide and designed with a high point so that leachate drains to the low points at either end of each cell. It includes 8" dia. HDPE leachate collection piping, a 4" dia. HDPE leachate recirculation forcemain, a 3" dia. HDPE leachate forcemain, a 20" dia. HDPE landfill gas header and 2 leachate pump stations.

Area F Phase I took a year and a half to construct and the project was substantially complete in December 2011. Total project cost was approximately \$13M.

*Area F Phase I took a year and a half to construct and the project was substantially complete in December 2011. Total project cost was approximately \$13M.*

CSW/MC



*Jason M. Munyan, P.E.  
Sandtown Landfill Facility Manager*

# Jones Crossroads Landfill

Cell 5 was designed by CDM Smith of Falls Church, VA in 2007. It is a 29.4 acre disposal area that abuts the east side of Cells 3 and 4. Cell 5 is estimated to have over 15 years of capacity. The total volume for the Cell 5 disposal area is calculated to be 7.6 million cubic yards. Construction of Cell 5 began in May of 2010 by Penn Environmental and Remediation of Hatfield, PA.

The Cell 5 liner system consists of a primary composite liner system consisting of a 24" sand layer, a primary geocomposite drainage net (CDN), a 60 mil textured high density polyethylene (HDPE) geomembrane, and a geosynthetic clay liner (GCL), and a secondary composite liner system consisting of a secondary CDN, a 60 mil textured HDPE geomembrane, and GCL. The liner system exceeds the Delaware Regulations and allows a variance to the 5 foot separation requirement between the liner system and the seasonal high water table (SHWT).

Cell 5 is a post settlement inward gradient design, meaning that the liner system base grades are set close to the SHWT in the pre-settlement condition and then will subside below the SHWT as waste is placed in the cell and settlement occurs. This increases the

overall capacity and lessens the amount of imported construction fill. An inward base gradient design also minimizes the risk of groundwater contamination. Groundwater tends to flow into the waste mass if there is a hole in the liner system.

Cell 5 is divided by a ridgeline at the midpoint of the cell to provide north and south subcells. The leachate collection system for Cell 5 is a pipeless design that uses a high capacity, high load drainage net to drain leachate across the bottom of the cell to sumps located in the northwest and southeast corners of the cell. French drains and stone trenches are used as contingency conveyance along the interior toe of the containment berm and in the center of the subcells.

Cell 5 included the installation of 2 pump stations, a 4" HDPE leachate recirculation forcemain, a 3" HDPE leachate forcemain, and an HDPE landfill gas header sized at 14" around Cell 5, increased to 20" after the connection to the existing system, and upgraded to 24" at the main flare station.

Cell 5 took a year and eight months to construct. The project was substantially complete in February 2012. Total project cost was approximately \$17M.



*Cell 5 took a year and eight months to construct. The project was substantially complete in February 2012. Total project cost was approximately \$17M.*



*Jim Vescovi, P.E.  
Jones Crossroads Landfill Facility Manager*

SSW/MC



# Drop-Off Center Recycling



## Drop-Off Center Recycling

**D**SWA continued to operate 170 drop-off centers during FY 2012. This

statewide recyclables drop-off system has been in operation since 1990. During FY 2012 separate containers were provided at most sites for the following materials:



Item/Source	Tons
Single Stream	12,743
Motor Oil	680
Oil Filters	36
Textiles	91
Batteries	46
<b>Totals</b>	<b>13,596</b>

As expected, the single stream recyclables tonnage from the drop-off centers for FY 2012 dropped by 33% from FY 2011 due to the implementation of Statewide curbside collection of single stream recyclables.

## Recycling Programs

**D**SWA ceased its curbside collection service of single stream recyclable materials and yard waste during the previous fiscal year (FY 2011) as a result of the implementation of the new Delaware Universal Recycling law. Our customers became new customers of private and public sector haulers.

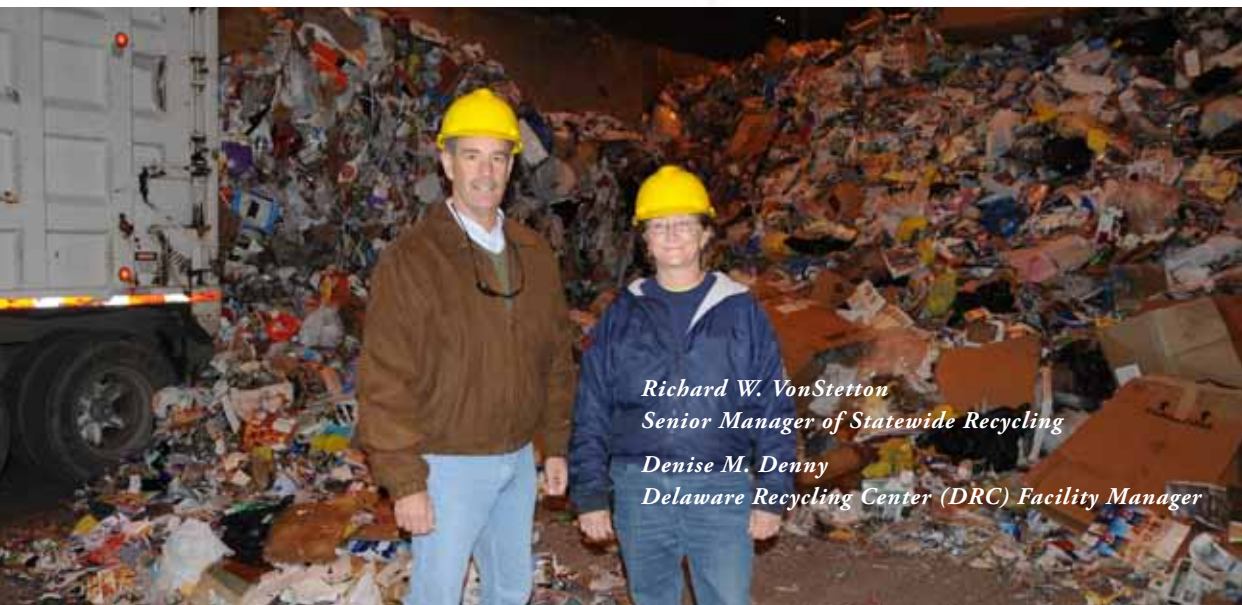
DSWA continued to offer all haulers two places to take the collected recyclables at no fee if they signed a recycling contract. The Delaware Recycling Center (DRC) in New Castle and the Milford Transfer Station (MTS) in Milford received the materials and loaded transfer trailers. The transfer trailers were sent to several different Material Recovery Facilities (MRFs) located out of state for processing and marketing of the recyclable

materials.

In February 2012, DSWA entered into a Service Agreement with ReCommunity Delaware LLC (ReCom) to construct and operate a Material Recovery Facility at DSWA's Delaware Recycling Center. This construction is expected to be completed by August 2013. In the meantime, ReCom has taken over the recyclables transfer operation at the DRC and provides the transportation of recyclable materials from MTS to their Philadelphia, PA or Camden, NJ MRFs. ReCom began offering variable rate contracts to haulers of single stream recyclable materials.

**Single Stream Recycling for FY 2012 Tons Received**

Source	Delaware Recycling Center	Milford Transfer Station	Total
Curbside collection	30,584	19,957	50,541
Drop-off Centers	6,737	6,006	12,743
<b>TOTAL</b>	<b>37,321</b>	<b>25,963</b>	<b>63,284</b>



*Richard W. VonStetten  
Senior Manager of Statewide Recycling*

*Denise M. Denny  
Delaware Recycling Center (DRC) Facility Manager*





## Recycle These



Junk mail



Newspapers



Paperback books



Boxboard (cereal boxes)



Aseptic containers  
and cartons



Corrugated cardboard



Telephone books



Office paper



Rigid plastic



Yogurt and butter containers



Plastic bottles/jugs



Glass bottles/jars



Aluminum and steel / tin cans



### **Not Accepted**

Keep these items out of your recycling cart or container:

Styrofoam  
Motor oil containers  
Chemical containers  
Ceramics or dishes  
Lightbulbs

Window glass and mirrors  
Yard waste  
Food waste  
Televisions and computers  
Monitors

## Electronic Goods Recycling

In April 2011, DSWA decided to close 12 of its 24 Electronic Goods Recycling drop-off sites. The 12 sites closed were all located at unmanned facilities and had developed security and littering problems. The 12 remaining sites were all located at secure DSWA landfill, transfer station and collection station locations.

To overcome the concern from the loss of the convenience of the 12 unmanned drop-off locations, DSWA initiated special one-day Electronic Goods Collection events which also provided participants the opportunity to have free paper shredding service. In addition, DSWA began to provide Electronic Goods Collection at all of its scheduled Household Hazardous Waste events.

We are pleased to report that as a result of these changes, we have increased the amount of Electronic Goods Recycling in FY 2012 by more than ten (10) percent over FY 2011.

### Electronic Goods Recycled - FY 2012

#### Devices

Monitors	15,561
CPU/Hard Drives	14,781
Copiers/All-in-ones	866
Televisions	23,064
Other	10,315

**Total 64,587**

**Weight 1,945 Tons**



### Electronic Goods Collection and Paper Shredding At Hazardous Waste Events - 2012

Month	Location	Electronic Goods lbs.	Paper Shredding lbs.	Participants
August 2011	Del-Tech Stanton	33,899	10,040	415
October 2011	Concord Mall	15,225	7,720	341
November 2011	Del-Tech Terry	5,577	4,860	213
December 2011	Rehoboth	8,127	3,540	220
February 2012	Dickinson HS	30,599	8,960	637
March 2012	Delaware State Fair	10,125	4,760	181
April 2012	DuPont Barley Mill	34,400	13,340	468
May 2012	Lantana Square	45,495	14,580	802
<b>Total Amount</b>		<b>183,447</b>	<b>67,800</b>	<b>3,277</b>
<b>Total Amount (tons)</b>		<b>91.7</b>	<b>33.9</b>	





## Oil & Oil Filter Recycling

**181,238 Gallons** of Oil Recycled! Which equals **680 tons!** and **36 tons** of Oil Filters Recycled!

In FY 2012 DSWA discontinued the oil filter collection service for businesses. Private companies were available to provide this service and were encouraged to do so.

DSWA continued to provide igloos at many of its drop-off center sites for receiving oil and oil filters. The oil and oil filter tons were down only slightly from FY 2011.



## Polystyrene Foam Recycling

Beginning in December 2011, DSWA established a Polystyrene Foam Recycling Program in a partnership effort with Dart Container Corporation; a leading manufacturer and recycler of polystyrene foam #6 food service products. Two polystyrene drop-off sites were established. One is located at the Delaware Recycling Center in New Castle and the other is located at the Milford Transfer Station in Milford.



*Richard W. VonStetten  
Senior Manager of Statewide Recycling  
Denise M. Denny  
DRC Facility Manager*

### Polystyrene Foam Recycled In Pounds

Month	Pounds
December 2011	2,158
January 2012	2,916
February 2012	558
March 2012	2,902
April 2012	2,978
May 2012	2,405
June 2012	2,517
<b>TOTAL</b>	<b>16,434</b>

The polystyrene foam #6 items accepted include: white packaging (except no peanuts), clean drinking cups, clean food containers, and clean egg cartons.

## Household Battery Recycling

DSWA continued its Household Battery Recycling Program in FY 2012. Bright yellow collection containers are provided at most of the 170 drop-off center locations. The types of batteries accepted are small household batteries (A's, C's, and D's) button type (watch, hearing aid and camera) and rechargeables (small power tools, electronic devices).

All batteries collected are sent out for recycling. Non-rechargeable batteries are sent to Inmetco's battery recycling facility in Ellwood City, PA.

Rechargeable batteries are sent to Call2Recycle who recycles these batteries through a program of the Rechargeable Battery Recycling Corporation (RBRC)

Type	Tons
Non-rechargeable	31.76
Rechargeable	2.60
<b>Total</b>	<b>34.36</b>



## Textile Recycling

DSWA continued its Textile Recycling Program in FY 2012. New dark blue metal collection containers were installed at many of the 170 drop-off center locations. Acceptable materials include old clothing, shoes (pairs only) curtains and linens.

Not accepted are rubber, vinyl, fabric scraps or dirty rags.

FY 2012 saw a slight increase in Textile tons collected for a total of **91 tons**. All collected textiles were delivered to Goodwill Industries of Delaware for recycling.



## Cheswold Pilot Program

Month	Weight lbs	Participants
July 2011	12,017	148
August 2011	10,051	133
September 2011	5,575	148
October 2011	5,689	152
November 2011	8,616	123
December 2011	5,213	103
January 2012	5,070	93
February 2012	3,669	98
March 2012	5,409	112
April 2012	4,895	110
May 2012	4,140	118
June 2012	6,224	139
<b>TOTAL</b>	<b>76,568</b>	<b>1,477</b>

The Household Hazardous Waste Program at the Cheswold Collection Station completed its first full year in FY 2012. The program offers residents the chance to dispose of Household Hazardous Waste every Friday between the hours of 9:00 a.m. – 3:00 p.m.

This program has become a popular and convenient alternative when residents just can't wait for the next scheduled HHW event. The location in Cheswold (just north of Dover) provides a location in the middle of the state that is within an hour drive from any residence.

FY 2012 saw an expansion of the Household Hazardous Waste Program to include special one-day collection events and weekly events at the Cheswold Collection Station.



## Special One-Day HHW Collection Events

Events - July 2011 thru June 2012	Weight - lbs	Participants
1 July (Pine Tree Transfer Station)	9,609	89
2 August (Jones Crossroads Landfill)	13,324	50
3 September (Newark)	26,662	409
4 September (Elsmere)	6,503	90
5 October (Cheswold)	7,149	80
6 October (Frawley-Wilm)	25,441	621
7 October (Delaware City)	5,342	50
8 December (Newark)	24,521	398
9 March 2012 (Frawley-Wilm)	29,299	837
10 April (Pine Tree transfer Station)	7,574	100
11 April (NC Co. Govt Building)	25,436	343
12 May (Jones Crossroads Landfill)	15,385	174
13 May (North Star Elementary)	12,328	235
14 June (U of D Newark)	667	0
15 June (Kirk Middle School)	19,744	319
<b>TOTAL</b>	<b>228,984</b>	<b>3,795</b>



In FY 2012, the Delaware Solid Waste Authority held fifteen (15) special Household Hazardous Waste Collection Events. This was an increase of five (5) additional events from the previous year.





## Construction and Demolition Material Recycling

**F**Y 2012 marked the sixth year that DSWA staff at the Jones Crossroads Landfill in Sussex County, Delaware has operated their Construction and Demolition (C&D) material Recycling Program. C&D material brought to the landfill undergoes a sorting process, which removes wallboard and metal materials for recycling. Before the remaining materials are fed into a large grinder, bulky items that cannot be ground are also removed. The materials processed thru the grinder are used as an alternate daily cover for the landfill. This system increases recycling and also provides conservation of natural resources because less virgin soil is required for daily cover.



FY 2012 also marked the beginning of a new C&D material recycling program at DSWA's Delaware Recycling Center (DRC) in New Castle, Delaware. In a partnership with Revolution Recovery Delaware, LLC (RRD) a new C&D material recycling program began in mid-April 2012. RRD began receiving and

sorting C&D material in a vacant building at the DRC site.

The following materials are removed and sent to market for recycling and reuse:

- Clean wood
- Drywall
- Light iron
- Non-ferrous metals
- Shingles
- Cardboard
- Plastic
- Aggregate

In addition, it is expected that most of the remaining residue can be made into an alternate daily cover for use at DSWA landfills.

This operation provides convenient recycling service for C&D material for New Castle County which did not exist. RRD can provide LEED recycling documentation also.

LEED, or Leadership in Energy and Environmental Design, is an internationally recognized mark of excellence that provides building owners and operators with a certification process that verifies a building was designed and built using "green" strategies aimed at achieving high performance in key areas of human and environmental health, sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.



*Richard W. VonStetten  
Senior Manager of Statewide Recycling  
Denise M. Denny  
DRC Facility Manager*







*Melvin D. Durand*  
Environmental Technician



*T. Shawn Colburn*  
Senior Environmental Scientist

## Landfill Gas to Green Power

Delaware Solid Waste Authority (DSWA) captures the naturally occurring landfill gas (LFG) at all three landfills. Each landfill beneficially uses the bulk of the landfill gas collected. In FY2012 DSWA collected and beneficially used landfill gas to produce electricity in the amount of **176,198,799 Kilowatt hours**. It was enough to supply **15,354 homes** with green power.



*Francisco N. Reyes - Wellfield Technician*  
*Raymond B. Mitchell - Wellfield Technician*  
*Matt J. Tyer - Environmental Technician*  
*Peter C. Coke - Landfill Gas Foreman*

LFG

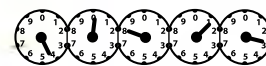
Site	LFG Beneficially Used	LFG Flared	LFG Collected	Energy Derived from Beneficially Used LFG			Greenhouse Gases Reduced
	(MMSCF)	(MMSCF)	(MMSCF)	(MMBTU)	(kWh)	(no. homes powered) <sup>b</sup>	(MTCO <sub>2</sub> E) <sup>c</sup>
CIL	1,695	458	2,153	850,310	112,135,328 <sup>a</sup>	9,771	433,674
CSWMC	550	436	986	270,955	24,567,426	2,141	198,571
SSWMC	924	74	998	439,929	39,496,045	3,442	201,009
<b>Total</b>	<b>3,169</b>	<b>967</b>	<b>4,136</b>	<b>1,561,194</b>	<b>176,198,799</b>	<b>15,354</b>	<b>833,254</b>

<sup>a</sup> - estimated value

<sup>b</sup> - determined by USEPA 2012 LMOP LFG Energy Benefits Calculator

<sup>c</sup> - metric tons of carbon dioxide equivalents per year reduced thru LFG collection

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KILOWATTHOURS





# DSWA

## Fiscal Year 2012



DELAWARE SOLID WASTE AUTHORITY  
FINANCIAL STATEMENTS  
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011

TABLE OF CONTENTS

	<u>Page</u>
INDEPENDENT AUDITORS' REPORT	1
MANAGEMENT'S DISCUSSION AND ANALYSIS	2 - 7
FINANCIAL STATEMENTS	
Statements of Net Assets	8 - 9
Statements of Revenues and Expenses and Changes in Net Assets	10
Statements of Cash Flows	11 - 12
Notes to Financial Statements	13 - 25
ADDITIONAL INFORMATION	
Schedules of Operating Revenues and Expenses	26





## INDEPENDENT AUDITORS' REPORT

To the Board of Directors  
Delaware Solid Waste Authority  
Dover, Delaware

We have audited the accompanying statements of net assets of the Delaware Solid Waste Authority (the "DSWA") as of June 30, 2012 and 2011, and the related statements of revenues and expenses and changes in net assets, and cash flows for the years then ended. These financial statements are the responsibility of the DSWA's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Delaware Solid Waste Authority as of June 30, 2012 and 2011, and the changes in financial position and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 2 through 7 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audits were conducted for the purpose of forming an opinion on the financial statements taken as a whole. The schedules of operating revenues and expenses are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

*Elko & Associates Ltd*

August 31, 2012

### Management's Discussion and Analysis

The Management of the Delaware Solid Waste Authority (DSWA) presents the readers of our financial statements the following overview and analysis of the financial activities of the DSWA for the fiscal years ended June 30, 2012 and 2011. We encourage readers to consider the information presented here in conjunction with the accompanying financial statements and notes to the financial statements.

#### The Reporting Entity

The DSWA is a body politic and corporate created in 1975 by an act of the Delaware Legislature and is a public instrumentality and political subdivision of the State of Delaware (the "State"). The DSWA is responsible for implementing solid waste disposal, recycling and resources recovery systems, facilities and services. Revenues generated by DSWA operations, primarily disposal fees, provide for the support of the DSWA and its operations on a self sustaining basis. The State provides no revenues to the DSWA. In carrying out its mission, the DSWA utilizes private industry in the construction and operation of solid waste disposal and transfer facilities and the operation of various segments of its recycling programs. The DSWA is authorized to issue bonds to finance its activities.

The DSWA is governed by a seven member Board of Directors appointed by the Governor with the advice and consent of the Senate. The Chairman of the Board of Directors is designated by and serves at the pleasure of the Governor.

#### Budgetary and Accounting Controls

The DSWA adopts an annual operating budget as a financial plan for the year. Actual operating results are monitored on a monthly basis and compared to the adopted budget so that variances can be identified and analyzed. Budgetary compliance is reported to the Board of Directors on a monthly basis. The DSWA's accounting records are maintained on the accrual basis of accounting. Under this method, revenues are recognized when earned and expenses are recorded as liabilities when incurred, without regard to receipt or payment of cash. Current controls provide reasonable assurance that the DSWA's assets are properly recorded and protected and that the financial data may be used with confidence in the preparation of historical reports and projections. Accounting controls, which are reviewed regularly by staff, are maintained by segregation of duties and physical and data security systems in all areas of recordkeeping, billing, cash receipts, disbursements and purchasing authority.

#### Cash Management

Wilmington Trust Company under an Investment Management Agreement that includes the State of Delaware, Delaware State Housing Authority and the Delaware Transportation Trust manages the DSWA's Operations Cash and Cash Reserves. The majority of funds are invested in United States Government Backed Fixed Income Securities, AA or better Corporate Securities and U.S. Government Sub Agency Securities. A Repurchase Agreement Account is maintained to provide daily liquidity for DSWA's Disbursement Account. Current safekeeping and delivery arrangements are felt by management to provide appropriate security for the DSWA's investments.



## Risk Management

The DSWA maintains a comprehensive package of property and liability insurance relevant to its operations. For Worker's Compensation Insurance, the DSWA participates in the State of Delaware's plan. Since, by law, the DSWA can sue and be sued, it purchases Employers Liability Coverage under an endorsement to its General Liability Policy on the open market. A safety program including safety regulations, first aid training, and driver safety classes is actively administered and enforced to minimize exposures and manage incidents.

## Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the DSWA's basic financial statements. Since the DSWA is engaged only in business type activities, its basic financial statements are comprised of only two components: 1) Enterprise Fund Financial Statements and 2) Notes to the financial statements. This report also contains other supplementary information in addition to the basic financial statements.

Enterprise Fund Financial Statements are designed to provide readers with a broad overview of the DSWA's finances in a manner similar to a private sector business.

The Statement of Net Assets presents information on the DSWA's assets and liabilities, with the difference between the two reported as net assets. Over time, increases or decreases in net assets may serve as a useful indicator of whether the financial position of the DSWA is improving or deteriorating.

The Statement of Revenues and Expenses and Changes in Net Assets presents information showing how the DSWA's net assets changed during the most recent fiscal year. All changes in net assets are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods (e.g., earned but unused vacation leave).

The Statement of Cash Flows presents the change in the DSWA's cash and cash equivalents during the period being reported. This information can assist the user of the report in determining how the DSWA financed its activities and how it met its cash requirements.

The basic Enterprise Fund Financial Statements can be found on pages 8 through 12 of this report.

The notes to financial statements provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes to the financial statements can be found on pages 13 through 25 of this report.

## Financial Highlights

- The DSWA's assets exceeded its liabilities (net assets) by approximately \$173.2 million and \$161.6 million at the close of fiscal years 2012 and 2011, respectively. This represents an increase of approximately \$11.6 million (7.2%) in net assets in 2012 over the previous year.
- Total operating revenue decreased by approximately \$6.5 million or 10.1% less than the previous year. Net user fees reported in this item are net of the Discount Disposal Fee Programs rebates of approximately \$3.7 million in 2012 and \$4.2 million in 2011 (see Note 8).

- Total operating expenses for 2012 increased by \$0.3 million or 0.5% from the previous year.
- Operating income for 2012 was \$9.6 million versus the prior year operating income of \$16.3 million.
- Total net nonoperating revenues for 2012 were \$2.0 million compared to \$2.7 million in 2011.
- In fiscal year 2011, the DSWA entered into new three-year DDF contracts. 95% of licensed collectors signed up. The new tonnage rates are: fiscal year 2011 at \$80 per ton, fiscal year 2012 at \$82 per ton, and fiscal year 2013 at \$84 per ton. Each year allows for rebates of \$8 per ton for landfill usage and \$4 per ton for transfer station usage.
- DSWA issued Revenue Bonds in December 2006 to finance the expansion of the Cherry Island Landfill and provide for the design of future cells at the Sandtown Landfill and the Jones Crossroads Landfill. These bonds were issued for \$95.7 million with final maturity in 2026. In June 2010, an additional bond series was issued to finance the construction of new landfill cells at Sandtown and Jones Crossroads. The issue was split into the 2010 Series "A" Tax Exempt Bonds with a principal of \$24,625,000 maturing in 2018 and the 2010 Series "B" Taxable Build America Bonds with principal of \$18,855,000, maturing in 2022 (see Note 6).

#### Summary of Net Assets

As noted earlier, net assets may serve over time as a useful indicator of DSWA's financial position. The DSWA's net assets increased during fiscal year 2012 by \$11,565,986, increased by \$16,969,135 for 2011, and increased by \$1,751,684 for 2010. A condensed summary of DSWA's net assets for the three years being reported is presented below:

	Net Assets		
	2012	2011	2010
Current and Other Assets	\$ 123,627,886	\$ 135,303,621	\$ 159,297,372
Capital Assets	227,890,297	218,032,088	181,666,463
<b>Total Assets</b>	<b>351,518,183</b>	<b>353,335,709</b>	<b>340,963,835</b>
Current Liabilities	17,583,609	27,451,058	26,050,516
Long-Term Obligations	160,766,549	164,282,612	170,280,415
<b>Total Liabilities</b>	<b>178,350,158</b>	<b>191,733,670</b>	<b>196,330,931</b>
Net Assets:			
Invested in Capital Assets	135,409,179	137,547,836	127,253,577
Unrestricted	36,671,231	22,979,276	16,716,079
Restricted	1,087,615	1,074,927	663,248
<b>Total Net Assets</b>	<b>\$ 173,168,025</b>	<b>\$ 161,602,039</b>	<b>\$ 144,632,904</b>

Net assets invested in capital assets represents the DSWA's investment in capital assets (e.g., land, land improvements, buildings and equipment). The DSWA uses these capital assets to provide services to its customers and consequently, these assets are not available for future spending. The DSWA is bound by the provisions of the Indentures under the issuance of the 2006 Series and 2010 Series A & Series B Solid Waste System Revenue Bonds that established various funds administered by the Trustee and certain funds to be administered by DSWA. The unrestricted funds administered by DSWA can be used to fund Capital Improvement Projects and other operating costs. Restricted net assets are limited to outside third-party restrictions and represent the net assets that have been legally identified for specific purposes.



Summary of Revenues and Expenses and Changes in Net Assets

Summary of revenues and expenses and changes in net assets for the years ended June 30, 2012, 2011, and 2010 is presented below:

	Change in Net Assets		
	2012	2011	2010
Operating Revenues			
Net User Fees: Solid Waste	\$ 51,711,946	\$ 56,014,983	\$ 44,446,275
L/F Gas Marketing Income	2,932,671	4,623,544	3,545,163
Marketing Income Recyclables	2,437,878	2,954,997	2,622,399
Other Income	569,163	542,638	522,446
<b>Total Operating Revenues</b>	<b>57,651,658</b>	<b>64,136,162</b>	<b>51,136,283</b>
Operating Expenses			
Salaries and Related Costs	9,468,011	10,078,534	10,643,804
Contractual Services	22,544,089	23,040,833	25,223,513
Depreciation	6,795,029	7,378,058	8,520,155
Landfill Closure	4,757,428	2,076,127	15,525
Other Expenses	4,512,028	5,240,448	5,904,188
<b>Total Operating Expenses</b>	<b>48,076,585</b>	<b>47,814,000</b>	<b>50,307,185</b>
Operating Income	9,575,073	16,322,162	829,098
Net Nonoperating Revenues	1,990,913	2,678,802	2,646,735
Income Before Special Items	<b>11,565,986</b>	<b>19,000,964</b>	<b>3,475,833</b>
Special Items - Impairment Loss	-	(2,031,829)	(1,724,149)
Increase in Net Assets	<b>11,565,986</b>	<b>16,969,135</b>	<b>1,751,684</b>
Net Assets - Beginning of Year	161,602,039	144,632,904	142,881,220
Net Assets - End of Year	<b>\$ 173,168,025</b>	<b>\$ 161,602,039</b>	<b>\$ 144,632,904</b>

Capital Asset Activity

The following provides a summary of the significant changes in capital assets for the year ended June 30, 2012 and a description of the major items affecting the year-end balances (see Note 4 - Capital Assets).

- Construction in Progress  
Increases: Jones Crossroads Landfill: Cell 5 Expansion - \$2,691,814, Cell Capping - \$1,218,238  
Cherry Island Landfill: Landfill Expansion - \$1,519,152, Landfill Gas Header - \$221,466  
Sandtown Landfill: Area F Expansion - \$4,156,804, Cell Capping - \$958,251  
Pine Tree Transfer Station - Site Improvements - \$229,170.
- Depreciable Capital Assets  
Increases: Vehicles - \$160,030, Building Improvements - \$125,864, Heavy Construction Equipment and Processing Equipment - \$870,805, Land Improvements - \$154,635.  
Decreases: Vehicles sold or traded-in - \$195,510, Retirement depreciable assets - Equipment - \$566,723.

## Review of Operations

**Landfill Operations.** During the fiscal year 2012, the Delaware Solid Waste Authority's (DSWA's) three operating landfills managed the safe disposal or recycling of 675,669 tons of waste compared to 752,159 tons during the previous year. Of the total waste received, dry waste, which includes construction and demolition waste, of 66,002 tons was received in fiscal year 2012 as compared to 66,247 tons in the previous year. 16,916 tons of the dry waste received during fiscal year 2012 was recycled into an alternate material used for soil cover at the Jones Crossroads Landfill. In addition, 1,153 tons of tires were recycled as either tire derived fuel or consumer products. A total of 6,619 tons of yard waste were recycled as mulch or compost or used in road construction. Of this total, 3,316 tons were sent to the market and 3,303 tons were used as alternative material for soil amendment at the landfills. The user fee for solid waste and dry waste was \$82.00 per ton at the landfills and transfer stations versus \$80.00 per ton for the prior year.

**Transfer Stations.** During the fiscal year 2012, the DSWA's Pine Tree Corners, Milford and Route 5 Transfer Stations received and transferred 178,171 tons of solid waste. Pine Tree Corners Transfer Station and Milford Transfer Station sent their waste to the Sandtown Landfill for disposal. The Route 5 Transfer Station sent its waste to the Jones Crossroads Landfill for disposal.

**Collection Stations.** The DSWA's five collection stations located in Kent and Sussex Counties continued to provide disposal services to residents for bagged household waste and yard waste at the rate of \$1/bag. A total of 73,716 customers disposed 101,117 bags of household waste and 20,308 bags of yard waste during fiscal year 2012.

**Recycling.** During the fiscal year 2012, the DSWA's Drop Off Center Program collected 13,596 tons of various recyclables including cardboard, single-stream, batteries, textiles, oil filters and oil from its 167 sites. The Oil Filter Program marketed 36 tons of oil filters collected statewide. The oil filters were generated from the drop-off sites as well as non-profit locations. The Electronic Goods Program collected 1,945 tons of electronic goods for recycling. The Household Hazardous Waste Program conducted nine regularly scheduled events and six special collection events in various locations statewide. From the regularly scheduled events and the special collection events 228,984 pounds of material was collected, which were recycled or safely disposed. In addition to the regularly scheduled and special collection events, a Household Hazardous Waste pilot program was conducted during fiscal year 2012 at our Cheswold Collection Center. At this location 76,568 pounds of material were collected, which were then either recycled or safely disposed.

**Major Operational Changes.** The downward trend in tonnage deliveries continued through fiscal year 2012 from the 2011 fiscal year (i.e., fiscal year 2012 was 10.2% lower than fiscal year 2011, which was 12.9% lower than fiscal year 2010). In response to the related tonnage reduction, the following cost cutting and revenue enhancing changes were made during the 2012 fiscal year:

- The operating budget was reduced to support a waste stream of 675,000 tons.
- The policy continued to not accept Construction and Demolition (C&D) waste at any of the DSWA Transfer Stations. Customers must deliver C&D waste directly to DSWA's landfills.
- Several capital improvement projects were postponed to future periods.
- A reduction in the total number of employees was effected via a combination of attrition, reorganization of activities and some layoffs.
- In February, 2012, DSWA entered into a Service Agreement with Revolution Recovery Delaware, LLC (Revolution) to construct and operate a C&D materials recovery facility at DSWA's Delaware Recycling Center on behalf of DSWA. Revolution is in the business of receiving, processing and reselling recyclable C&D materials that has residual value.



- Also, in February, 2012, DSWA entered into a Service Agreement with ReCommunity Delaware, LLC (ReCom) to construct and operate a material recovery facility (the "MRF") at DSWA's Delaware Recycling Center on behalf of DSWA. ReCom is in the business of receiving, processing and reselling residential and commercial recyclable materials that have residual value.

Implementation of the above described operational changes has had a significant positive impact on operational efficiencies, cost savings, and revenue enhancements within the current year, and will continue into future years.

**Plans for the Future.** During the several years leading up to the recent national recession, the State of Delaware was experiencing consistent economic growth throughout the state. A growth in population, construction of new housing and commercial development had caused a significant increase in the solid waste stream managed by DSWA. But, from the mid point of 2007 through June 30, 2012, the impact of the slowdown of the national economy has been reflected in a dramatic reduction in Delaware's solid waste quantities, the primary source of revenue for the DSWA. In response, DSWA began, and continues, programs to reduce costs and increase revenues. It is anticipated that the solid waste tonnage will continue to regress due to a combination of the current national economic situation and the strong effort to increase recycling. DSWA has taken, and will continue to take, a conservative approach when developing future budgets.

The DSWA will continue to closely monitor the waste and recyclables it receives to make changes to its operations and fees as necessary to carry out its mission. Several Capital Improvement Projects have been deferred until we experience improved economic times.

Nonetheless, the absolutely necessary capital improvement projects will move forward. The expansion projects at the Cherry Island Landfill, the Sandtown Landfill and the Jones Crossroads Landfill have been recently completed. Mandated projects will continue to utilize the vast majority of DSWA's capital spending dollars for the foreseeable future.

This financial report is designed to provide its readers with an overview of the DSWA finances and to show DSWA's accountability for safeguarding the funds it receives and disburses in the course of conducting its business. If you have any questions concerning this report or need additional financial information, please contact:

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Chief Financial Officer  
Delaware Solid Waste Authority  
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Telephone: (302) 739-5361

Respectfully submitted,

*John J. Lechner*

John J. Lechner  
Chief Financial Officer

**STATEMENTS OF NET ASSETS**



**DELAWARE SOLID WASTE AUTHORITY**  
**STATEMENTS OF NET ASSETS**

	JUNE 30,	
	2012	2011
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Unrestricted Current Assets:		
Cash and cash equivalents - Note 2	\$ 554,359	\$ 581,692
Investments - Note 3	6,971,946	11,315,009
Accounts receivable (net of allowance for doubtful accounts of \$300,000 and \$100,000, respectively)	5,346,773	6,561,800
Interest receivable	497,309	489,694
Prepayments and miscellaneous receivables	168,810	535,266
Total Unrestricted Current Assets	13,539,197	19,483,461
Restricted Current Assets:		
Investments - Note 3	50,056,884	67,177,760
Total Current Assets	63,596,081	86,661,221
<b>NONCURRENT ASSETS</b>		
Unrestricted Noncurrent Assets:		
Investments - Note 3	15,051,963	10,944,522
Capital Assets - Note 4		
Land	24,731,917	24,743,347
Land improvements	147,551,679	147,030,532
Buildings	42,136,720	42,010,857
Equipment and furniture	17,359,907	16,900,397
Vehicles	2,742,497	2,777,977
Total	234,522,720	233,463,110
Less: Accumulated depreciation	157,258,059	151,129,745
	77,264,661	82,333,365
Construction in progress - Note 4	150,625,636	135,698,723
Total Capital Assets	227,890,297	218,032,088
Other Assets - Note 1		
Bond issuance costs, net of accumulated amortization of \$280,999 and \$222,302, respectively - Note 6	767,291	825,988
Total Other Assets	767,291	825,988
Restricted Noncurrent Assets:		
Investments - Note 3	44,212,551	36,871,890
Total Noncurrent Assets	287,922,102	266,674,488
<b>TOTAL ASSETS</b>	<b>\$ 351,518,183</b>	<b>\$ 353,335,709</b>

The accompanying Notes are an integral part of these statements.

	JUNE 30,	
	2012	2011
<b>LIABILITIES AND NET ASSETS</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable	\$ 3,126,547	\$ 10,845,120
Contracts payable, including retainage	980,965	2,211,944
Refundable security deposits	65,091	70,091
Accrued compensation	1,399,849	1,231,060
Current portion of bonds payable - Note 6	7,741,952	7,494,512
Accrual for landfill closure and post closure care costs - Note 5	484,000	525,200
Contract rebate payable - Note 8	3,705,399	4,208,165
Total Current Liabilities	17,503,803	26,586,092
<b>CURRENT LIABILITIES (Payable From Restricted Assets)</b>		
Arbitrage payable - Note 10	79,806	864,966
<b>NONCURRENT LIABILITIES</b>		
Bonds payable - Note 6	110,938,321	118,771,031
Accrued landfill closure and post closure care costs - Note 5	49,828,228	45,511,581
Total Noncurrent Liabilities	160,766,549	164,282,612
Total Liabilities	178,350,158	191,733,670
<b>NET ASSETS</b>		
Invested in capital assets, net of related debt and accumulated depreciation	135,409,179	137,547,836
Unrestricted	36,671,231	22,979,276
Restricted	1,087,615	1,074,927
Total Net Assets	173,168,025	161,602,039
<b>TOTAL LIABILITIES AND NET ASSETS</b>	<b>\$ 351,518,183</b>	<b>\$ 353,335,709</b>

The accompanying Notes are an integral part of these statements.



**DELAWARE SOLID WASTE AUTHORITY**  
**STATEMENTS OF REVENUES AND EXPENSES AND CHANGES IN NET ASSETS**

	FOR THE YEARS ENDED JUNE 30,	
	2012	2011
<b>OPERATING REVENUES</b>		
Net user fees: solid waste	\$ 51,711,946	\$ 56,014,983
Landfill gas	2,932,671	4,623,544
Other income	3,007,041	3,497,635
Total Operating Revenues	57,651,658	64,136,162
<b>OPERATING EXPENSES</b>		
Salaries and related costs	9,468,011	10,078,534
Professional services	1,302,952	1,181,099
Travel	79,227	69,881
Supplies and materials	1,883,045	2,093,075
Utilities	1,246,804	1,896,393
Contractual services	22,544,089	23,040,833
Closure and post closure care of landfills	4,757,428	2,076,127
Depreciation expense	6,795,029	7,378,058
Total Operating Expenses	48,076,585	47,814,000
<b>OPERATING INCOME</b>	9,575,073	16,322,162
<b>NONOPERATING REVENUES (EXPENSES)</b>		
Net investment income	2,341,632	2,392,721
Bond interest and related expenses	(671,206)	(1,098,788)
Other nonoperating revenue - net	320,487	1,384,869
Net Nonoperating Revenues	1,990,913	2,678,802
<b>INCOME BEFORE SPECIAL ITEMS</b>	11,565,986	19,000,964
<b>SPECIAL ITEMS</b>		
Impairment loss	-	(2,031,829)
<b>INCREASE IN NET ASSETS</b>	11,565,986	16,969,135
<b>NET ASSETS - BEGINNING OF YEAR</b>	161,602,039	144,632,904
<b>NET ASSETS - END OF YEAR</b>	\$ 173,168,025	\$ 161,602,039

The accompanying Notes are an integral part of these statements.

**DELAWARE SOLID WASTE AUTHORITY**  
**STATEMENTS OF CASH FLOWS**

	FOR THE YEARS ENDED JUNE 30,	
	2012	2011
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Cash received from customers	\$ 52,785,663	\$ 50,310,942
Cash paid to suppliers	(36,487,650)	(23,358,214)
Cash paid to employees	(9,299,222)	(10,024,892)
Landfill gas marketing revenues	2,932,671	4,186,544
Other operating revenues	3,007,041	3,497,635
Net Cash Provided by Operating Activities	12,938,503	24,612,015
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Interest on investments	2,033,578	2,172,775
Purchases of investments	(755,598,476)	(717,895,066)
Proceeds from sale of investments	765,717,167	744,044,341
Other investing income (expense)	(460,140)	568,774
Net Cash Provided by Investing Activities	11,692,129	28,890,824
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Payments for debt service requirements	(7,025,000)	(6,615,000)
Interest paid on bonds	(5,634,150)	(5,751,756)
Cash payments for capital assets	(12,348,816)	(41,906,684)
Proceeds from sale of capital assets	350,001	1,160,197
Net Cash Used in Capital and Related Financing Activities	(24,657,965)	(53,113,243)
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	(27,333)	389,596
<b>CASH AND CASH EQUIVALENTS - BEGINNING OF YEAR</b>	581,692	192,096
<b>CASH AND CASH EQUIVALENTS - END OF YEAR</b>	\$ 554,359	\$ 581,692

The accompanying Notes are an integral part of these statements.



**DELAWARE SOLID WASTE AUTHORITY**  
**STATEMENTS OF CASH FLOWS (CONTINUED)**

FOR THE YEARS ENDED  
JUNE 30,

2012                      2011

**RECONCILIATION OF OPERATING INCOME TO NET CASH  
PROVIDED BY OPERATING ACTIVITIES**

OPERATING INCOME	\$ 9,575,073	\$ 16,322,162
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Adjustments to reconcile operating income to net cash provided by operating activities:

Depreciation	6,795,029	7,378,058
(Increase) decrease in accounts receivable	1,215,027	(1,740,062)
(Increase) decrease in prepayments and miscellaneous receivables	366,456	(395,406)
Increase (decrease) in accounts payable	(7,718,573)	6,579,666
Decrease in contracts payable	(1,230,979)	(1,186,739)
Decrease in refundable security deposits	(5,000)	(5,100)
Increase in accrual for compensation	168,789	53,642
Increase in accrued closure and post closure care of landfills	4,275,447	1,606,267
Decrease in contract rebate payable	(502,766)	(4,000,473)

Total Adjustments	3,363,430	8,289,853
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**Net Cash Provided by Operating Activities**

	\$ 12,938,503	\$ 24,612,015
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**SUPPLEMENTAL DISCLOSURE OF NONCASH CAPITAL AND  
RELATED FINANCING ACTIVITIES**

Amortization of bond issue costs	\$ 58,697	\$ 58,529
Net accretion of premium/discount on bonds	537,710	578,870
Gain on disposition of capital assets	(193,053)	(906,199)
Impairment loss	-	2,031,829
Unrealized gain (loss) on investments	74,075	(120,202)
Realized gain (loss) on sale of investments	28,779	(143,743)
Capitalized interest	4,461,369	4,122,826

The accompanying Notes are an integral part of these statements.

**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 1 - Summary of Significant Accounting Policies**

**(A) Reporting Entity**

The Delaware Solid Waste Authority (the "DSWA") is a body politic and corporate constituting a public instrumentality of the State of Delaware established and organized in 1975 under Delaware Code, Title 7, Chapter 64.

The DSWA has been designated by the State of Delaware, under this act, as the sole entity, governmental or private, with the responsibility for planning and implementing solid waste and resource recovery programs and facilities throughout Delaware in accordance with the Statewide Plan for Solid Waste Management.

The DSWA is governed by a Board of Directors consisting of seven directors, who are appointed by the Governor with the advice and consent of the Senate.

Currently, the DSWA operates solid waste management facilities in each of Delaware's three counties and it has consolidated the financing and operation of its solid waste disposal facilities into a unitary Statewide system.

**(B) Basis of Presentation**

The DSWA operates as an enterprise activity and its accounts are maintained on the accrual basis of accounting. Under this method, revenues are recognized when earned, and expenses are recognized when incurred. The DSWA follows all applicable pronouncements of the Governmental Accounting Standards Board (GASB) and those of the Financial Accounting Standards Board (FASB) issued before November 30, 1989 unless these pronouncements conflict with or contradict GASB pronouncements.

The DSWA distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing goods in connection with the DSWA's principal ongoing operations. The principal operating revenues of the DSWA are charges to residents and customers for waste disposal and collection of recyclables and the revenues from the sale of processed recyclable materials. Operating expenses include the cost of waste disposal, recyclable collection and processing services, administrative expenses and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

**(C) Cash and Cash Equivalents**

The DSWA's cash and cash equivalents consist of cash on hand and demand deposits.

For purposes of determining cash equivalents, the DSWA has defined its policy concerning the treatment of short-term investments to include investments with a maturity of three months or less when purchased, as cash equivalents if management does not plan to reinvest the proceeds. Short-term investments that management intends to rollover into similar investments are considered part of the investment portfolio and are classified as investments.

**(D) Restricted Assets**

Restricted assets of the DSWA represent bond proceeds restricted for construction, and other amounts legally required by the DSWA's bond covenants and trust indenture to be set aside for debt service, customer deposits, operations, renewal and replacement and capital improvements. Restricted resources are used first to fund expenses incurred for restricted purposes.



**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 1 - Summary of Significant Accounting Policies - continued**

**(E) Capital Assets**

Capital assets, which include property, plant and equipment are reported in the financial statements. Capital assets are defined by the DSWA as assets with an initial, individual cost of more than \$5,000 and an estimated useful life in excess of one year. Such assets are valued at their historical costs.

The costs of normal maintenance and repairs that do not add value to the assets or materially extend the assets' lives, are not capitalized.

Major outlays for capital assets and improvements are capitalized as projects are constructed. Interest incurred during the construction phase of capital assets of business-type activities is included as part of the capitalized value of the assets constructed.

Depreciation is computed over the estimated useful lives of the assets using the straight-line method and is charged to operating expenses. The following useful lives are used to compute depreciation:

Land improvements	3 - 20 years
Buildings	5 - 40 years
Equipment and furniture	3 - 20 years
Vehicles	3 - 5 years

Depreciation of landfill cell development and site costs is recorded based on remaining units of capacity. Total depreciation expense for the years ended June 30, 2012 and 2011 was \$6,795,029 and \$7,378,058, respectively.

**(F) Other Significant Accounting Policies**

Accounts receivable are shown net of an allowance for the estimated portion that is not expected to be collected. Balances that are still outstanding after management has used reasonable collection efforts are written off through a charge to the valuation allowance and a credit to accounts receivable.

**(G) Other Assets**

Bond issuance costs, net of accumulated amortization, is reported in other assets. Bond issuance costs are amortized on a straight-line basis over the term of the bonds.

**(H) Compensated Absences**

Vacation and sick leave pay are recorded as an expense when earned by the DSWA's employees. As of June 30, 2012 and 2011, accrued vacation and sick leave aggregated \$875,272 and \$828,525, respectively; this resulted in a net increase of \$46,747 which is reflected in salaries and related costs in the current year. Accrued vacation and sick leave are based on the following criteria.

Employees' unused vacation leave is accumulated to a maximum of two years earned. Upon retirement or termination, employees are paid for all unused accumulated vacation leave at their final rate of pay. The accrued liability is based upon the full amount of accumulated vacation leave.

**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 1 - Summary of Significant Accounting Policies - continued**

Employees' unused accumulated sick leave can be used up to the total amount accumulated for future sickness. In the event of termination due to lack of work, employees hired after January 1, 1992 will be paid at the rate of one day for every two days accumulated to the maximum of 90 days at their final rate of pay. In the event of death, employees hired after January 1, 1992 will be paid at the rate of one day for each day accumulated to the maximum of 90 days at their final rate of pay. In the event of termination or death, employees hired before January 1, 1992 will be paid for every day accumulated with no limitation, at their final rate of pay. Upon retirement, payment shall be made at the rate of one day per each day of unused sick leave accumulated to the maximum of 90 days for all employees despite their hire date. Upon voluntary termination, the employee will forfeit all accumulated sick leave. The DSWA has consistently accrued sick leave for only those employees for whom retirement is impending. The accrued liability is based upon the sick leave that would be paid upon impending retirement only.

**(I) Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from the estimates.

**(J) Net Assets**

Net assets are the difference between assets and liabilities. Net assets invested in capital assets represent capital assets, less accumulated depreciation and reduced by the net bonds payable (bonds payable less unspent bond proceeds).

Unrestricted net assets represent the net assets available to finance future operations or available to be returned through reduced tip fees or rebates. The Board of Directors of the DSWA may designate unrestricted net assets for special purposes.

Restricted net assets are limited to outside third-party restrictions and represent the net assets that have been legally identified for specific purposes.

**(K) Closure and Post Closure Obligations**

The DSWA records all estimated closure costs for existing cells as a liability. Upon final closure of the landfill site, the DSWA is then responsible, under current Federal regulations, for maintaining the closed site for the following thirty years.

**NOTE 2 - Cash and Cash Equivalents**

The DSWA follows the "Statement of Objectives and Guidelines for the Investments of the State of Delaware", of the State's Cash Management Policy Board (the Board). The Board, created by State law, establishes policies for, and the terms, conditions, and other matters relating to, the investment of all money belonging to the State with certain limited exceptions. The State's Cash Management Policy is available on the Internet at:

<http://treasury.delaware.gov/wp-content/uploads/CMPB-Investment-Guidelines-for-web-as-of-Mar-2012.pdf>.



**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 2 - Cash and Cash Equivalents - continued**

Custodial credit risk is the risk that in the event of a bank failure, the DSWA's deposits may not be returned to it. In accordance with the State's Cash Management Policy, the DSWA deposits its funds with financial institutions that comply with the requirements of Delaware Statutes and have been designated as a qualified public depository by the State Treasurer. Under the Statute, banks who hold public deposits and who do not meet the financial criteria outlined in Section V of the State of Delaware's Cash Management Policy, must pledge collateral with a fair value equal to a percentage of the average daily balance of all government deposits in excess of federal deposit insurance. As of June 30, 2012, the DSWA's bank balances were not exposed to custodial credit risk.

**NOTE 3 - Investments**

In accordance with the DSWA's investment policy, investment purchases are limited to U.S. Government Securities, U.S. Government Agency Securities, Mortgage-Backed Securities with a rating of AAA and Corporate Debt Instruments, such as commercial paper with a rating of A-1 or better, senior long-term debt with a rating of A or better and corporate bonds and debentures with a rating of AA or better. As of June 30, 2012, the DSWA was in compliance with the investment policy.

Custodial credit risk is the risk that, in the event of a bank failure, the DSWA's investment securities may not be recovered. Investments are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the DSWA, and are held by either the bank or the bank's trust department or agent but not in the DSWA's name. As of June 30, 2012, none of DSWA's investment securities were deemed subject to custodial credit risk.

The following summarizes the credit quality distribution of securities with credit exposure as a percentage of total investments as of June 30:

		2012	2011
Mutual Funds	AAA	20%	8%
Mutual Funds	A+	-%	7%
Corporate Obligations	AAA	4%	1%
Corporate Obligations	AA+	2%	1%
Corporate Obligations	AA	4%	5%
Corporate Obligations	AA-	11%	4%
Corporate Obligations	A+	-%	1%
Corporate Obligations	A	2%	1%
Corporate Obligations	A1+	8%	22%
Corporate Obligations	A1	11%	16%

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Wilmington U.S. Government Mutual Funds have a weighted average maturity of less than one year, resulting in minimal interest rate risk. The investment in U.S. Treasury Obligations, U.S. Government Agency Bonds and Notes, and Corporate Bonds and Notes is subject to interest rate risk as a function of the length of time to maturity. The scheduled maturities of investments at June 30, 2012 are summarized below.

**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

NOTE 3 - Investments - continued

Credit risk is the risk that an issuer will not fulfill its obligations while concentration of credit risk is defined as the risk of loss attributed to the magnitude of an investment in a single issuer. As indicated above in Note 2, the DSWA follows the "Statement of Objectives and Guidelines for the Investments of the State of Delaware", of the State's Cash Management Policy Board (the Board). The policy addresses credit risk as well as concentration of credit risk by not only limiting allowable investments but also by limiting the maximum amount that may be invested in any one issuer, except for investments in U.S. Government Securities which are not limited. The DSWA does not have more than 5 percent of its total investments, as of June 30, 2012 and 2011, invested in any one company's corporate bonds and notes.

DSWA's investments are reported at fair value based on quoted market prices. The net change in the fair value of the DSWA's investments for the years ended June 30, 2012 and 2011 resulted in unrealized gain/(loss) of \$74,075 and \$(120,202), respectively, and is included in net investment income. The calculation of the net change in the fair value of investments is independent of the calculation of realized gains and losses. The realized gains and losses are computed as the difference between the proceeds of the sale and the cost of the investments sold. Realized gains and losses of the current period include unrealized amounts from prior periods. Realized gains/(losses) for the years ended June 30, 2012 and 2011 were \$28,779 and \$(143,743), respectively.

It is the DSWA's policy generally to hold investments until maturity.

The DSWA's investments are summarized as follows:

	2012		2011	
	Fair Value/ Carrying Value	Cost	Fair Value/ Carrying Value	Cost
U.S. Treasury Obligations	\$ 4,471,114	\$ 4,336,517	\$ 6,716,155	\$ 5,076,588
U.S. Government Agency Bonds and Notes	40,409,064	39,998,066	37,250,028	36,982,951
Wilmington U.S. Government Mutual Funds	23,503,729	23,503,729	18,756,504	18,756,504
Corporate Bonds and Notes	47,909,437	47,564,829	63,586,494	64,677,011
Total Investments	<u>\$ 116,293,344</u>	<u>\$ 115,403,141</u>	<u>\$ 126,309,181</u>	<u>\$ 125,493,054</u>



**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 3 - Investments** - continued

The investments mature as follows:

	Total	Less than 1 year	1 - 5 years	6 - 10 years	More than 10 years
U.S. Treasury Obligations	\$ 4,471,114	\$ 739,964	\$ 1,588,976	\$ 2,142,174	\$ -
U.S. Government Agency Bonds and Notes	40,409,065	3,555,599	17,734,454	16,920,211	2,198,801
Wilmington U.S. Government Mutual Funds	23,503,729	23,503,729	-	-	-
Corporate Bonds and Notes	47,909,437	29,229,538	16,404,356	2,275,543	-
	<u>\$ 116,293,345</u>	<u>\$ 57,028,830</u>	<u>\$ 35,727,786</u>	<u>\$ 21,337,928</u>	<u>\$ 2,198,801</u>

**NOTE 4 - Capital Assets**

A summary of changes in capital assets for the year ended June 30, 2012 is as follows:

	June 30, 2011	Additions	Transfers	Sales/ Retirements	June 30, 2012
<b>Capital assets not being depreciated:</b>					
Construction in progress	\$ 135,698,723	\$ 15,498,853	\$ (571,940)	\$ -	\$ 150,625,636
Land	24,743,347	-	-	(11,430)	24,731,917
Total capital assets not being depreciated	<u>160,442,070</u>	<u>15,498,853</u>	<u>(571,940)</u>	<u>(11,430)</u>	<u>175,357,553</u>
<b>Depreciable capital assets:</b>					
Land improvements	147,030,532	154,635	416,512	(50,000)	147,551,679
Less: accumulated depreciation	(115,615,522)	(3,157,584)	-	20,667	(118,752,439)
Buildings	42,010,857	125,863	-	-	42,136,720
Less: accumulated depreciation	(21,775,258)	(1,600,363)	-	-	(23,375,621)
Equipment and furniture	16,900,397	870,805	155,428	(566,723)	17,359,907
Less: accumulated depreciation	(11,164,273)	(1,926,804)	-	450,538	(12,640,539)
Vehicles	2,777,977	160,030	-	(195,510)	2,742,497
Less: accumulated depreciation	(2,574,692)	(110,278)	-	195,510	(2,489,460)
Depreciable assets, net of accumulated depreciation	<u>57,590,018</u>	<u>(5,483,696)</u>	<u>571,940</u>	<u>(145,518)</u>	<u>52,532,744</u>
Capital assets, net	<u>\$ 218,032,088</u>	<u>\$ 10,015,157</u>	<u>\$ -</u>	<u>\$ (156,948)</u>	<u>\$ 227,890,297</u>

**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

NOTE 4 - Capital Assets - continued

The status of the DSWA's construction in progress at June 30, 2012 is as follows:

	<u>Expected Completion Date</u>	<u>Costs to Date</u>	
Landfills:			
<u>Cherry Island</u>			
Landfill Expansion Design	FY 2013	\$ 110,839,761	
Landfill Gas Improvements	FY 2013	95,572	
Gate 2 Pavement Improvements	Ongoing	16,487	
Phase I & II Landfill Gas Header	FY 2013	6,836	
Phase I & II Condensate Trap	FY 2013	1,357	
Total			\$ 110,960,013
<u>Sandtown</u>			
Area E	FY 2013	958,251	
Area F	FY 2013	<u>17,379,188</u>	
Total			18,337,439
<u>Jones Crossroads</u>			
Cell III/IV Capping	FY 2013	1,002,303	
Cell I/II Capping	FY 2013	451,105	
Mitigation	FY 2013	14,600	
Landfill Expansion Cell 5	FY 2013	<u>19,832,123</u>	
Total			21,300,131
<u>DRC</u>			
Entrance modification	FY 2013		<u>28,053</u>
Total Construction In Progress			<u><u>\$ 150,625,636</u></u>

NOTE 5 - Landfill Closure and Post Closure Care Costs

On October 9, 1991, the U.S. Environmental Protection Agency issued its rule, "Solid Waste Disposal Facility Criteria". This rule establishes closure requirements, location restrictions, operating criteria, design criteria, groundwater monitoring and corrective action requirements, post closure care requirements and financial assurance requirements for Municipal Solid Waste Landfills. State governments are primarily responsible for establishing state legislation and related permit programs to implement and enforce the EPA rule and have been given flexibility to tailor requirements to accommodate the wide variety of local conditions that exist.

**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 5 - Landfill Closure and Post Closure Care Costs - continued**

In addition to operating expenses related to current activities of the landfills, an expense provision and related liability are being recognized based on the estimated future closure costs that will be incurred near or at the date of closure and the estimated post closure care costs at each site for thirty years after closure. The DSWA reports a portion of these closure and post closure care costs as an operating expense each year based on landfill capacity used during the year. Accrued landfill closure and post closure care costs of \$50,312,228 as of June 30, 2012 and \$46,036,781 as of June 30, 2011, represent the cumulative amount reported based on the estimated percentage of landfill capacity used as of those dates. The DSWA will recognize the remaining estimated cost of closure and post closure care of \$116,645,134 as the remaining estimated capacity is filled. The estimated total current cost of the landfill closure and post closure care of \$166,957,362 is based on the amount that would be paid if all equipment, facilities, and services required to close, monitor, and maintain the landfills were acquired as of June 30, 2012. However, the actual cost of closure and post closure care may be higher due to inflation, changes in technology, or in landfill laws and regulations. The following is a summary of selected information related to the DSWA's landfills as of June 30, 2012:

Landfill	Estimated Capacity Used	Cumulative Remaining Life	Accrued Costs	Costs to be Recognized in the Future
Cherry Island	46.30%	42 years	\$ 29,023,299	\$ 27,954,318
Sandtown	20.95%	69 years	6,593,705	47,051,191
Jones Crossroads	16.23%	74 years	12,992,750	41,639,625
Pigeon Point	100.00%	Closed 1985	1,702,474	-
Total			<u>\$ 50,312,228</u>	<u>\$ 116,645,134</u>

During fiscal year 2006, the DSWA received a permit from Delaware Department of Natural Resources and Environmental Control (DNREC) for expanding the Cherry Island Landfill. The permit requires some waste to be disposed at an alternate DSWA facility and prohibits landfilling yard waste at this facility. In addition, the DSWA is allowed to fill bench areas and expand the landfill elevation.



**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 5 - Landfill Closure and Post Closure Care Costs - continued**

A summary of the current year expenditures and accruals is as follows:

	Total	Cherry Island	Sandtown	Jones Crossroads	Pigeon Point
Balance of accrual, July 1, 2011	\$ 46,036,781	\$ 21,776,273	\$ 7,428,946	\$ 14,469,062	\$ 2,362,500
Current year expenditures:					
Closure costs	-	-	-	-	-
Post closure costs	(481,981)	-	-	-	(481,981)
Net accrual	45,554,800	21,776,273	7,428,946	14,469,062	1,880,519
Balance of accrual, June 30, 2012	50,312,228	29,023,299	6,593,705	12,992,750	1,702,474
Net closure and post closure care costs recognized in current year	\$ 4,757,428	\$ 7,247,026	\$ (835,241)	\$ (1,476,312)	\$ (178,045)

Included in the computation of Landfill Closure and Post Closure Care Costs as of June 30, 2012, are closure costs for: (1) Pine Tree Corners Transfer Station of \$15,540 (2) Cheswold Collection Station of \$2,040 (3) Milford Transfer Station of \$15,540 (4) Ellendale, Long Neck, Omar, and Bridgeville, Collection Stations, each totaling \$2,040 (5) DRC Transfer Station of \$15,540 and (6) Route 5 Transfer Station of \$15,540.

**NOTE 6 - Bonds Payable**

The proceeds from periodic debt issuances may only be used for the specific purpose for which the money was raised, which is generally to finance expenditures for landfill construction and development. Proceeds from the bond issues are held in trust until such time as the DSWA incurs qualified expenditures. Premium and discounts on bonds payable are amortized over the life of the related debt issues and reported as a component of interest expense.

On December 20, 2006, the DSWA issued \$95,715,000 of tax exempt special revenue bonds secured by the pledged revenues of the DSWA for the purpose of financing the expansion of the DSWA's Cherry Island Landfill and various other projects as described in the DSWA's capital improvement program. The bonds carry interest rates of 3.5% to 5% and mature between June 1, 2008 and June 1, 2026.

On June 23, 2010, the DSWA issued \$43,480,000 of special revenue bonds secured by the pledged revenues of the DSWA for the purpose of financing the expansion of the DSWA's Sandtown and Jones Crossroads Landfills and various other projects as described in the DSWA's capital improvement program. The bonds were delivered in two series:

Tax Exempt Series "A" bonds carry interest rates of 2.0% to 3.5% and mature between June 1, 2011 and June 1, 2018.

Taxable Build America Bonds (BAB's) Series "B" carry interest rates of 4.42% to 5.37% and mature between June 1, 2016 and June 1, 2022. The DSWA will receive an annual subsidy from the IRS of 35% of the interest cost for each year outstanding.

**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

NOTE 6 - Bonds Payable - continued

Revenue bonds payable by the DSWA at June 30 are summarized as follows:

	<u>2012</u>	<u>2011</u>
Series 2006	\$ 78,020,000	\$ 81,855,000
Series 2010 "A"	18,495,000	21,685,000
Series 2010 "B"	<u>18,855,000</u>	<u>18,855,000</u>
Total Principal	115,370,000	122,395,000
Unamortized premium	2,863,321	3,401,032
Accrued interest	<u>446,952</u>	<u>469,512</u>
 Total Bonds Payable	 <u><u>\$ 118,680,273</u></u>	 <u><u>\$ 126,265,544</u></u>

The debt service requirements on the Series 2006 and Series 2010 bonds are as follows:

<u>Year Ending June 30</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2013	\$ 7,295,000	\$ 5,363,425	\$ 12,658,425
2014	7,600,000	5,056,061	12,656,061
2015	7,910,000	4,749,562	12,659,562
2016	7,275,000	4,460,513	11,735,513
2017	8,480,000	4,134,557	12,614,557
2018-2022	48,900,000	14,465,526	63,365,526
2023-2026	<u>27,910,000</u>	<u>3,573,750</u>	<u>31,483,750</u>
	<u><u>\$ 115,370,000</u></u>	<u><u>\$ 41,803,394</u></u>	<u><u>\$ 157,173,394</u></u>

The total interest expense incurred on the DSWA bond debt for the years ended June 30, 2012 and 2011 was \$5,611,590 and \$5,741,955, respectively. The total interest capitalized and included in Construction in progress on the Statements of Net Assets for the years ended June 30, 2012 and 2011 was \$4,461,369 and \$4,122,826, respectively.

**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 7 - Pension Plan**

Plan Description: All full-time or regular part-time employees of the DSWA are required to participate in the Delaware Public Employees' Retirement System (the "System") administered by the Delaware Board of Pension Trustees. The System is a cost-sharing, multiple-employer, defined benefit public employee retirement system that provides retirement, death and disability benefits to plan members and beneficiaries. Pension benefits of the System are established by Delaware Statutes, Chapter 55, Title 29, and may be amended by the Delaware Legislature.

The System issues a publicly available financial report that includes financial statements and required supplementary information for the System. That report may be obtained by writing to the Office of Pensions, McArdle Building, 860 Silver Lake Blvd., Suite 1, Dover, Delaware 19904-2402, by visiting the web site at [www.delawarepensions.com](http://www.delawarepensions.com) or by calling 1-800-722-7300.

Funding Policy: Plan members hired prior to January 1, 2012 are required to contribute 3% of their annual salary which exceeds \$6,000 per calendar year. Plan members hired on or after January 1, 2012 are required to contribute 5% of their annual salary which exceeds \$6,000 per calendar year.

The DSWA is required to contribute at an actuarially determined rate, which was 18.76%, 17.20% and 15.27% of annual covered payroll for the years ended June 30, 2012, 2011 and 2010, respectively. The contribution requirements for plan members and participating governments are established by State statute. The DSWA's contributions to the System for the years ended June 30, 2012, 2011 and 2010 were \$1,137,842, \$1,091,219 and \$1,082,961, respectively, and were equal to the required contributions for each year.

**NOTE 8 - Contract Rebate Payable**

The DSWA offers a Differential Disposal Fee Program to all customers who enter into a contract with the DSWA to bring all of their solid waste or dry waste which has been collected in the State of Delaware to the DSWA facilities in accordance with the contract. The program will run through June 30, 2013. The program offers rebates of \$8.00/ton and \$4.00/ton for deliveries to the landfills or transfer stations, respectively.

For the program years ended June 30, 2012 and 2011, three hundred and ninety nine (399) and four hundred and thirteen (413) participants received rebates totaling \$3,705,399 and \$4,208,165, respectively.

**NOTE 9 - Risk Management**

The DSWA is exposed to various risks of loss related to torts; theft, damage and destruction of assets; errors and omissions; injuries to employees; life and health of employees; and natural disasters. The DSWA purchases commercial insurance in the open market from insurance companies with an A.M. Best rating of A-size VII or higher for all insurable risks of loss. Settled claims have not exceeded this commercial coverage in any of the past three fiscal years.



**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 10 - Commitments and Contingencies**

Arbitrage: The Tax Reform Act of 1986 requires the DSWA to rebate the earnings on the investment of revenue bond proceeds, in excess of their yield, to the Federal Government. Of the rebate, 90 percent is due and payable five years from the date bonds were issued and at five-year intervals thereafter. The remaining 10 percent is payable 60 days after they are retired. At December 20, 2011, the Rebate Installment Date, the liability for the 2006 bond issuance totaled \$768,349. The DSWA remitted the 90 percent payment to the IRS in the amount of \$691,514. As of June 30, 2012, the DSWA is contingently liable for arbitrage rebate currently computed to total \$79,806.

Contract Commitments: The DSWA has several uncompleted construction contracts for landfill development and improvements to the solid waste system. The construction is being funded primarily from existing renewal and replacement funds. At June 30, 2012, the uncompleted contracts are summarized as follows:

	Contract Amount	Approved Payments	Retainage Payable	Remaining Contract Commitment
Cherry Island Landfill	\$ 97,737,636	\$ 97,577,698	\$ 132,686	\$ 159,938
Sandtown Landfill	15,436,097	15,257,090	23,421	179,007
Jones Crossroads Landfill	18,490,116	17,141,319	824,858	1,348,797
	<u>\$ 131,663,849</u>	<u>\$ 129,976,107</u>	<u>\$ 980,965</u>	<u>\$ 1,687,742</u>

In addition to the construction contract commitments, the DSWA also has contracts for various facilities and programs. The facilities include the Cherry Island and Sandtown Landfills and the Pine Tree, Milford and Route 5 Transfer Stations. The future estimated cost of these commitments as of June 30, 2012 is \$29,389,775, which relates to contracts expiring through July 2014. The DSWA's contracts include termination for convenience clauses which allows the DSWA to cancel the contracts at any time.

The DSWA and the city of Wilmington negotiated a Restated Sludge Agreement that provides for a ten-year period beyond 2003, during which time the City will not be charged service fees for stabilized sludge that is utilized by the DSWA for landfill operations.

**DELAWARE SOLID WASTE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2012 AND 2011**

**NOTE 11 - Service and Lease Agreements**

During February, 2012, DSWA entered into two service agreements, and related property leases, for the purpose of having constructed two separate Material Recovery Facility (MRF) operations at DSWA's Delaware Recycling Center for the purpose of processing recyclables on behalf of DSWA.

DSWA entered into a service agreement with Revolution Recovery Delaware, LLC (Revolution) to construct and operate a construction and demolition (C&D) MRF on behalf of DSWA. Revolution is in the business of receiving, processing and reselling C&D recyclables that have residual value. Operation of the C&D MRF is the full responsibility of Revolution. The Service Agreement provides for Revolution to pay DSWA a tipping fee per ton on all incoming C&D tonnage. Additionally, Revolution will lease one or more of the buildings, and related land area, at the DRC to utilize as its operational facility. The lease carries an initial one-year term, with nineteen automatic annual renewals. Annual rental is initially set at \$129,600 for the primary building and Ground Rent of \$250 per thousand square feet of outside storage area, with future annual rents subject to the annual change in CPI.

DSWA entered into a Service Agreement with ReCommunity Delaware, LLC (ReCom) to construct and operate a single stream and commercial recyclable materials MRF on behalf of DSWA. ReCom is in the business of receiving, processing and reselling residential and commercial recyclable materials that have residual value. Operation of this MRF is the full responsibility of ReCom. During the construction phase of the MRF, ReCom will pay DSWA a portion of the revenue of the materials handled by ReCom based on a combination of the material type and the current market pricing for recyclable materials. After the MRF is constructed and operational, the Service Agreement provides for a tip fee payment to DSWA of \$2.50 per ton of incoming Residential Recyclable material. Also, ReCom will provide DSWA with a sharing of revenues dependent upon material type and current market conditions, offset by operational processing costs. As part of the agreement, the tip fee and some operational costs used in the revenue sharing calculations will be subject to an annual adjustment using 90% of the CPI. Additionally, a twenty-year lease agreement covering 2 buildings, and the adjacent surrounding areas, will take effect once the MRF is operational. The initial annual rent is set at \$205,254 and will be subject to an annual adjustment of 90% of the annual change in CPI.

**NOTE 12 - Impaired Long-Lived Assets**

During fiscal year 2011, the DSWA incurred an impairment loss of \$2,031,829 for assets abandoned that were primarily associated with curbside recycling operations which ceased in April 2011. The net carrying value of the assets are reflected as an impairment loss on the Statements of Revenues and Expenses and Changes in Net Assets, for the year ended June 30, 2011.

# Schedules Of Operating Revenues & Expenses For The Years Ended June 30, 2012 and 2011



	Landfill Operations	Transfer Station Operations	Collection Station Operations	Recycling Operations	Household Hazardous Waste Program	General & Administrative	2012 Total	2011 Total
Operating Revenues								
Net user fees: solid waste	\$37,521,004	\$14,062,576	\$128,366	\$-	\$-	\$-	\$51,711,946	\$56,014,983
Landfill gas	2,932,671	-	-	-	-	-	2,932,671	4,623,544
Other income	525,000	43,837	-	2,437,880	-	324	3,007,041	3,497,635
<b>Total Operating Revenues</b>	<b>40,978,675</b>	<b>14,106,413</b>	<b>128,366</b>	<b>2,437,880</b>	<b>-</b>	<b>324</b>	<b>57,651,658</b>	<b>64,136,162</b>
Operating Expenses								
Salaries And Related Costs	3,780,712	357,356	154,239	1,367,426	11,764	3,796,514	9,468,011	10,078,534
Professional Services	663,572	12,300	1,500	2,526	-	623,054	1,302,952	1,181,099
Travel	11,930	62	-	4,053	-	63,182	79,227	69,881
Supplies And Materials	1,318,157	9,659	2,658	315,069	337	237,165	1,883,045	2,093,075
Utilities	964,757	72,111	7,256	122,462	-	80,218	1,246,804	1,896,393
Contractual Services	11,023,476	8,077,974	103,459	1,674,523	429,235	1,235,422	22,544,089	23,040,833
Closure And Post Closure , Care Of Landfills	4,757,428	-	-	-	-	-	4,757,428	2,076,127
Depreciation Expense	4,574,008	1,193,085	43,082	818,954	8,952	156,948	6,795,029	7,378,058
<b>Total Operating Expenses</b>	<b>27,094,040</b>	<b>9,722,547</b>	<b>312,194</b>	<b>4,305,013</b>	<b>450,288</b>	<b>6,192,503</b>	<b>48,076,585</b>	<b>47,814,000</b>
Management Operations Expense Distribution	4,792,747	941,211	-	458,221	-	(6,192,179)	-	-
Total Operational Operating & Management Expenses	31,886,787	10,663,758	312,194	4,763,234	450,288	324	48,076,585	47,814,000
Operating Income	\$9,091,888	\$3,442,655	\$(183,828)	\$(2,325,354)	\$(450,288)	\$-	\$9,575,073	\$16,322,162