



# Analytics

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**RE: Solid Waste and the Universal Recycling Bill SB234**

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## **Are Trash Police in Delaware’s Future?**

A friend in Durham, NC had an unexpected knock on her door. The trash police held up a clear bag of trash and pointed out a baby food jar that should have been in the recycling bag. The jar was in the back of the refrigerator and had turned moldy so she had thrown it away rather than clean it. She got off with a warning and a promise of a fine if it happened again.

Delaware Senate Bill 234 doesn’t authorize fines or enforcement on individuals, yet. Enforcement and fines are established for waste haulers (\$6059) and the same mechanism can be

applied to individuals at a later date. If passed, SB234 makes it mandatory for all waste haulers in Delaware to offer a recycling option to all residential and commercial customers.

The bill also sets ambitious targets to divert 60 % of residential trash to recycling by 2020 and this is an “interim” goal suggesting tougher targets to come. Cities such as Milford already offer voluntary curbside recycling and, while the program has a 61% participation rate (1981 out of 3224 customers), it only diverted 9% of its’ residential solid waste in 2009 (Table 1).

*Table 1. City of Milford, Delaware, Annual Tonnage*

<b>Residential Waste</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Landfill	4975	4852	4684
Curbside Recycling	392	439	442
Total	5367	5291	5126
<b>% Curbside</b>	<b>7.3%</b>	<b>8.3%</b>	<b>8.6%</b>

*Source: City of Milford Public Works*

It is important to understand SB234 has a minimal effect on recycling tonnage. The current combined tonnage for residential curbside and drop off is 21,000 tons/yr. covering 118,000 households. The bill (§6452) allows the Delaware

Solid Waste Authority (DSWA) to reduce the number of Drop Off Centers as curbside recycling increases. Universal Recycling might add 13,500 tons/yr., about 3% of residential solid waste (Table 2)

*Table 2: Net Tonnage Increase of Residential Universal Recycling*

	Households at 60% Participation	Tons Recycled
Single Family Homes Added with Universal Recycling	66,000	11,880
Multi-Family Homes Added with Universal Recycling	51,000	9,180
Less 2009 Residential Drop Off Center Participation	42,000	(7,560)
Net Recycling Tonnage Increase		13,500
<b>% of expected 477,000 tons of Residential Waste</b>		<b>3%</b>

*Source: Delaware Solid Waste Authority*

*Note: tonnage estimates based on 0.18 tons/yr. recycled curbside by 2009 participants*

This bill has a mother and it is the Recycling Public Advisory Council (RPAC) which is managed by the Delaware Department of Natural Resources. In reports to the US Environmental Protection Agency, RPAC acknowledges enforcement will eventually be needed to meet Zero Waste Diversion Goals.

Cities such as Durham, NC, Cambridge, MA, Madison, WI, and San Francisco, CA have had to institute fines and enforcement to obtain higher compliance. While the bill’s sponsors will deny this, SB234’s high targets will inevitably lead to fines and trash police knocking on your door.

**Recommendations:**

- 1) **Eliminate Zero Waste targets (§6056) which could be used in the future to create mandatory recycling for homeowners with fines and “trash police” knocking on doors**
- 2) **Add a sunset provision to the bill so success can be reviewed in five years before re-authorization**

**Why does the bill seek to hide the true cost of recycling from consumers?**

Now it might seem worthy to divert all recyclable waste from the landfill. But SB234 (§6053) itself states the requirement recycling be “cost effective”. Good stewardship requires a balance of conservation of physical resources and the conservation of money. Look closely at the DSWA and you will find a well run and cost competitive landfill operation. Established as a private, non-profit company by the state, it has

become a hidden piggy bank for environmental programs through legislated mandates. In fiscal year 2011, DSWA will spend almost \$8 million more on recycling than it obtains in revenues from fees and the sale of recycled materials. This adds \$9.22/ton to landfill tipping rates equal to half the proposed July \$18.50/ton increase in tipping fees, the cost/ton paid by haulers for material disposed at DSWA landfills and transfer stations (Table 3).

*Table 3: DSWA FY2011 Recycling Budget*

*\$/Total Waste Tonnage*

Operating Revenue	Curbside Recycling	\$1,500,000	\$1.80
	Other Recycling	\$ 100,000	\$0.12
Total Recycling Revenue		\$1,600,000	\$1.92
Operating Expenses	Drop Off Recycling	\$2,444,000	\$2.93
	Curbside Recycling	\$3,711,000	\$4.44
	Other Recycling	\$3,145,000	\$3.77
Total Recycling Expense		\$9,300,000	\$11.14
<b>Net Recycling Cost</b>		<b>\$7,700,000</b>	<b>\$9.22</b>

*Source: Delaware Solid Waste Authority*

*Note: FY2011 total waste estimate is 835,000 tons*

The value of single stream recyclables is notoriously unreliable. In one six week period during this recession prices dropped from DSWA receiving \$65/ton to paying \$60/ton to vendors to haul it away. DSWA could have saved money by landfilling the material as many other jurisdictions did, but spent up to \$40,000/month to maintain public confidence in the integrity of the recycling program. Currently vendors are paying \$10 to \$20/ton but in the history of the program sales of

materials have never covered more than about a quarter of the recycling cost.

Another goal is to reduce material entering the landfill to preserve landfill capacity. Besides the fact this program will have limited total impact on additional diversion, the economic downturn was a much more effective tool for that purpose. Lost tonnage for a five year period from 2007 to 2011 is equal to 78 years worth of the bills’ expected increase in voluntary residential recycling (Table 4)!

*Table 4: Recession Driven DSWA Tonnage Loss*

	2007	2008	2009	2010	2011	Net
Tonnage/yr.	1,147,585	1,069,977	922,488	850,020	835,000	
Lost tonnage	28,522	106,403	253,892	326,360	341,380	1,056,557

*Source: Delaware Solid Waste FY2011 Budget*

*Note: 2006 base year equals 1,176,380 tons*

The majority of the costs of these environmental efforts are hidden from the public. The bill specifically bans separate invoices for regular trash hauling and recycling (\$6053). If actual costs were used, the price would be

\$9/household/month (up to \$15 for private haulers who would expect to make a profit) instead of a perception by the public recycling is free or pays for itself (Table 5).

*Table 5: Curbside Recycling Cost/Household/Month*

City of Milford Curbside Collection Cost	\$5.00
DSWA Curbside Recycling Process Cost	\$4.07
<b>Total Curbside Recycling Cost</b>	<b>\$9.07</b>

*Source: DSWA FY2011 Budget cost/76,000 participants, City of Milford Public Works*

**Recommendations:**

- 1) Reverse the wording of the bill to require haulers to split out the cost of curbside recycling on their invoices**
- 2) Reverse the wording (\$6454) and allow DSWA to charge a processing fee for curbside recyclables with a rebate for the sales value of recycled products**

**Why accept more highway litter to further hide curbside recycling costs?**

SB234 also converts the current five cent bottle deposit revenue to a four cent non-refundable fee to pay start up costs for the recycling program. The bill has a goal of “removing the blight of litter on the landscape” (\$6057) but sponsors seem to forget the bottle deposit law was passed to reduce road side litter. It did this well.

As an Adopt-A-Mile pioneer, My experience is that road side litter is reduced by about two thirds when bottle deposit laws are adopted. Road side litter will soar when the

refundable deposit ends. Supporters quote Delaware studies indicating low redemption rates in Delaware. One study showed 12% redemption and another showed 32%. However, nine other states with similar deposit laws who actually track redemption rates report an average 83% redemption rate (bottlebill.org). The local studies appear to be questionable. Other studies show beverage container recycling rates go up when both curbside recycling and bottle deposits are used (bottlebill.org).

## **Recommendations:**

- 1) Allow haulers to include start up costs in their curbside fees**
- 2) Leave the bottle deposit law as is or address in separate legislation not related to recycling**

## **Why expand the unpopular yard waste ban to Kent and Sussex County?**

Another provision of the bill (§6053) expands the unpopular yard waste ban to Kent and Sussex Counties. Critics of this ban would no doubt like to know they get to pay for the cost of yard waste twice. New Castle County residents now have to spend time and fuel to deliver yard waste to composting centers or buy Pay Per Throw bags at \$1 each (100,000 bought in 2009). But, since DSWA doesn't receive the tipping fees for these 64,600 diverted tons they have to raise the tipping fees on remaining trash. About one quarter of the coming tipping fee increase will cover this lower tonnage (64,600 tons X \$60/ton

incremental earnings ÷ 835,000 total waste tons = \$4.64/ton). Residential trash pickup is expected to increase \$3/month in July. This compares to \$5/ton cost to expand landfill capacity (\$16million expansion at the DSWA Southern Solid Waste Center will provide 3 million tons of capacity). In addition, capped landfills capture methane given off by decaying yard waste while small composting facilities do not. Methane sales provide a \$3.5 million/yr income stream to DSWA. Methane gas is 20 times more powerful as a greenhouse gas than carbon dioxide.

## **Recommendation**

- 1) Do not extend yard waste ban to Kent and Sussex Counties**
- 2) Reconsider yard waste ban in New Castle County**

## **Summary**

Voluntary universal curbside recycling does offer the possibility to provide a distinct fee for the service and remove most of the hidden cost for recycling from DSWA. The recommendations in this paper would allow DSWA to significantly lower the 35% price increase now planned for

July, 2010. True believers in recycling should not be deterred by the cost. Already a number of jurisdictions hide the fee and have the same 60% participation rates as jurisdictions charging a \$6 monthly fee. Demand appears to be inelastic, people will pay the higher true cost.

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**About this series:** Our report, "Delaware: A State of Opportunity?", identifies a number of areas where Delaware spends significantly more per capita than other small and neighboring states. Delaware spending and tax rates directly impact our ability to be competitive in starting and growing businesses, growing our economy and creating jobs. This series looks more closely at these spending areas to find concrete solutions to increase revenue and decrease spending while keeping government effective.