

**Colclasure, James**

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**From:** Krivit, Dan <Dan.Krivit@Foth.com>  
**Sent:** Thursday, May 08, 2014 11:03 AM  
**To:** Gates, Jim  
**Cc:** Young, Susan  
**Subject:** Data research questions  
**Attachments:** MPCA 2012 Score Report.pdf; Henn Co Operating Manual - App C fee sched.pdf

Jim,

This email is my first cut at your two data research questions posed to Foth last week.

## **1. Trends in overall solid waste generation: split by trash vs. recyclables?**

Your question is more complex when trying to get at actual tonnages of trash and recyclables. The approach to your question depends in part on if you want to focus on residential vs. commercial solid waste; also Bloomington vs. Hennepin County vs. Minnesota vs. US. Because few of the actual collection programs are truly closed operations (e.g., some waste is exported, a significant portion is never recorded/reported, commercial recyclables tonnages are very difficult to estimate, etc., etc.), we are forced to use readily available data and anecdotal case study data.

The most readily available data is from the Minnesota Pollution Control Agency (MPCA) annual SCORE reports. The latest, 2012 SCORE Report,

*"Report on 2012 SCORE Programs: A Summary of Recycling and Waste Management in Minnesota"*

(attached and via MPCA web site at <http://www.pca.state.mn.us/index.php/view-document.html?gid=20438>; on Page 2 states in part ....)

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### **"Statewide totals and trends**

Overall, since the state first collected SCORE data in 1989, Minnesota has shown a steady growth in MSW, reflected in both the total amount of MSW generated and in the per capita figures.

In 2012, approximately 5.7 million tons of mixed MSW were generated in Minnesota. Statewide, this represents less than a 1% increase over 2011.

### **Per capita MSW generation**

In 2012 waste generation showed a slight increase from 2011 after three consecutive years of decreased generation during the recession (2008 through 2010). This is likely due to the recent improvements in the economy as waste generation historically has increased when the economy is good, and decreased when it is in decline. In 2012, the Minnesota per capita rate increased insignificantly to 1.064 tons per person (2,129 pounds/person/year) from 1.062 tons per person in 2011.

In 2012, Minnesota's population increased by only 0.7% from 2011 to 5,368,972 people an increase of only 36,726."

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(Page 3 states in part ....)

## **“Recycling in Minnesota**

The heart of SCORE is Minnesota’s recycling efforts; and Minnesota’s recycling programs are among the nation’s most successful. In 2012, the state recycling rate remained virtually unchanged at 45.6 percent. Recycling programs in Minnesota collected over 2.6 million tons of recyclable materials (paper, metals, glass, plastic, food, problem materials, and more), an increase of less than 50,000 tons or 1.9 percent from 2011. Despite this success, a recent study on waste composition in Minnesota ([www.pca.state.mn.us/zihy86c](http://www.pca.state.mn.us/zihy86c)) showed that paper, plastics, and organics are still the top three components of our garbage. This presents an opportunity to reduce what is currently disposed of as trash by Minnesota residents and businesses through recycling, composting, and waste prevention.”

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## **“Landfills**

In 2012, over 1.7 million tons of the MSW disposed of were sent to landfills both in and out of state. Landfilled MSW included unprocessed MSW and rejects and residuals from MSW processing facilities. This is 56.4 percent of waste disposed of or processed (a decrease from 2011’s 57.2 percent), and represents 30.1 percent of the total MSW generated in Minnesota.

- Nearly 1.4 million tons went to 21 landfills in Minnesota. Counties in the seven-county Metropolitan Area generated 49 percent of this waste, while 51 percent came from counties in Greater Minnesota.
- Over 306,900 tons were sent to 12 out-of-state landfills in Iowa, Wisconsin, North Dakota, and South Dakota, 22 percent came from the Metropolitan Area counties while the other 78 percent came from Greater Minnesota counties.

To sum this up, 18 percent (306,900) of the waste landfilled is sent to out-of-state landfills (Subtitle D landfills) the remaining 82 percent (1.4) is sent to the 21 landfills in Minnesota.

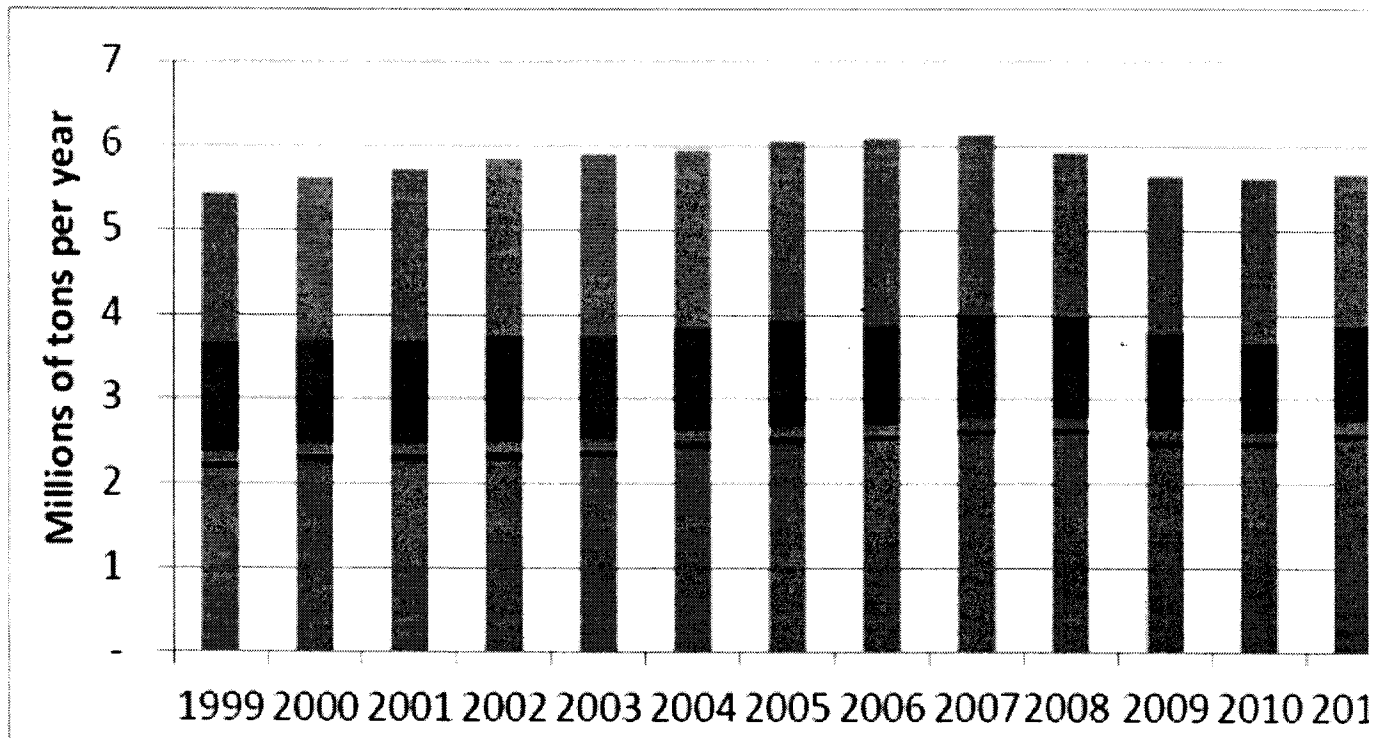
### **[Overall Trends of MSW Integrated Solid Waste Management]**

[Per the 2012 SCORE Report, Figure 5, page 6:

[The 14-year trends indicate a slight decrease in total discards during the recession (from 2007 through 2009).

By the way, PMNR = Problem materials not recycled such as major appliances, waste tires, oil, oil filters, and vehicle batteries.]

**Figure 5. Trends of MSW Integrated Solid Waste Managemen**



**2. Split in Solid Waste Collection Operations vs. Disposal Costs**

If we concentrate this question for the moment on **residential** solid waste collection charges and disposal tipping fees, we can use some simple math to address your question. Hennepin County charges \$60 per ton for non-contracted mixed municipal solid waste (mixed MSW) delivered and tipped at HERC. (See attached Hennepin County Solid Waste Fees and Charges – Appendix C, page 18 of 25, of their “Solid Waste System Operating Manual,” November, 2011: <http://www.hennepin.us/~media/hennepinus/Business/licenses-permits/documents/operating-manual-address-revisions-nov-2011.pdf>).

Assuming approximately one (1) ton of mixed MSW per household, this equates to about \$1.56 million per year for estimate disposal tipping fees (assuming all trash from 26,000 Bloomington residents were delivered and tipped at HERC under this non-contract fee of \$60 per ton.)

This \$1.56 million is about 19 percent of the total costs calculated as charged to Bloomington residents of \$8.3 million\*.

(\* Data as calculated from limited survey sample of residents rates averaging \$26.56 per month X 26,000 households = \$8.3 million per year. Per the information presented in the April 11, 2014 Bloomington City staff, Project Management Team memo to the Mayor, City Council, and City Manager, RE: “Draft Solid Waste Management Plan...”, under “Additional Background Information” on page 7.)

This question will be much different for commercial (non-residential) establishments. The collection operations will be relatively lower vs. disposal costs because of increased efficiency of dumpsters, compactor boxes, etc. A rule of thumb is that about 40 percent of the solid waste removal costs can be attributed to disposal tipping fees.

We can research additional data resources to address these two questions. It may be helpful to know the purpose or City staff intent with these questions.

Thanks.

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**From:** Gates, Jim [mailto:jgates@BloomingtonMN.gov]  
**Sent:** Thursday, May 01, 2014 5:11 PM  
**To:** Krivit, Dan  
**Subject:** FW: SW Exec. Team Mtg 2

Dan,  
The Executive Team met again today. The attached was the basis of our discussion. Two questions were asked as background:

- Is there a number of total tons of trash per household, that can be compared to total tons of recyclables to see if the true recycling amount is going up or down? One would think people are more environmentally conscious now, that garbage amount is going down with true recycling amount going up, but is there data that confirms that assumption.
- Do you have handle on solid waste fees that how much of that fee is for the collection only vs the amount of the fee is their "tipping fee"?

Hopefully this is information that is available in your head or easily found.

I'll call you Monday regarding this info, and discuss the potential ideas to drive the Council to focus on single family household.

Thanks.  
Jim

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**From:** Gates, Jim  
**Sent:** Thursday, May 01, 2014 7:53 AM  
**To:** Moore, Lynn  
**Subject:** SW Exec. Team Mtg 2

Lynn,  
Here is what might be a discussion package for today's meeting.

The first page is just for discussion if folks want to rank/sort by "Strategies" for the 3 possible SW program approaches. The next pages are the tactics. I grouped all the tactics into the 3 approaches, and color coded them as we

discussed: blue-“E3”; yellow-“Wedge”; and green-“Big Bang”. This could be a large discussion, since I doubt we’ll use all tactics for implementation of a Bloomington SW program, but I started with all those listed in the draft *Plan*.

The last sheets are your idea, and how we might address the remaining aspects discussed at the first meeting.

We can slice and dice these as folks see fit.

Obviously thoughts are welcome.

Thanks.

Jim

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