



DATE: July 11, 2014
TO: Mayor, City Council, and City Manager
FROM: Solid Waste Project Management Team
RE: **Solid Waste Collection Program**

Attachments:

- A. Comparison Chart -- Monthly Solid Waste Handling Household Costs
- B. Table from Hennepin County of Recycling Data for Cities over 20,000 Population
- C. Line Graph of Hennepin County Recycling Data for Cities over 20,000 Population
- D. Flyer from NSWMA Minnesota Chapter regarding organized collection
- E. Solid Waste Program Template-revised

Introduction

A number of objectives have been proposed as part of the ongoing discussion related to the solid materials collection system in Bloomington. These can be summarized in the following categories:

- A. Cost of Solid Waste Services
- B. Recycling Rates
- C. Environmental Impacts (Air Pollution, Carbon Footprint, Landfill Use)
- D. Neighborhood Impacts (Traffic, Noise, Safety and Road Damage)

This memo includes a short presentation of each of these objective categories and additional information collected locally that may help gauge the potential for achievement of those objectives resulting from a switch to organized collection. Be aware that this data is, in some cases, limited and may not be as extensive as desired. However, it is the best available representation of local conditions and likely offers the most appropriate prediction of what Bloomington could expect if it pursues changes to our solid waste practices.

Note that the information presented applies exclusively to single family homes where solid waste needs and practices are fairly consistent. Solid waste needs and practices for multi-family residential and commercial/industrial properties vary widely as they are unique to individual properties in terms of type of collection containers (ranging from single family sized containers to large dumpsters), frequency of collection and especially the types of solid waste streams generated by each land use type – hotel, retail, office, manufacturing, warehouse, apartment, etc. No

Minnesota communities have organized multi-family residential or commercial/industrial properties, and staff is not aware of any communities nationally that have done so.

This week, the City received a data request from a representative of Garbage Haulers for Citizen Choice seeking copies of documents from two consulting firms that are involved in solid waste issues in another community. One, Foth Companies, is the engineering firm we hired to draft our Solid Waste Management Plan. The other, Richardson, Richter & Associates, is a local consulting and lobbying firm that has not performed work for Bloomington. This group represents a group of garbage haulers, some that do business in Bloomington, and has been active in other communities to oppose organizing efforts. Attachment D is a brochure outlining typical approaches advanced by the haulers in past discussions of organized collection.

Discussion

The following is a discussion of each main issue area raised in the community's solid waste dialog so far. Where appropriate, an interpretation/qualification has been made relative to the data in each of the objective areas.

A. Cost of Solid Waste Services

Numerous factors influence the cost a homeowner pays for solid waste services including:

- Frequency of collection
- Community location
- Density and proximity of collection locations
- Available haulers
- Cart size
- Recycling format (single sort, dual sort, etc.)
- Additional Services
 - Yard waste recycling
 - Organics recycling
 - Appliances
 - Bulk items
 - Drop-off sites
- Administrative/collection costs
- Education and enforcement effort
- Special requirements
 - Incinerator mandate
 - Vehicle restrictions (CNG fuel, top-loading, rear-loading, noise restrictions)

While the general solid materials collection services available in each community are similar for single family homes, the range and packaging of solid waste services varies from city to city. So, it is sometimes difficult to compare “apples to apples” when reviewing solid waste costs.

State-wide data previously reviewed as part of the April 14, 2014 Study Session suggests a potential average savings of as much as \$100 per year in organized cities versus cities with open systems (MPCA: *The Benefits of Organized Collection*).

As that survey is based on state-wide data in a variety of labor and disposal markets, a more local comparison was made in the attached comparison chart that shows the results of an informal Bloomington survey of fees and compares them to the fees charged in three metro cities that have organized collection – Minneapolis, St. Louis Park, and Maplewood. In this comparison, attempting to compare “apples to apples,” the “typical cost” paid by Bloomington residents in this unscientific survey shows a wide range of pricing. To the extent it is at all representative of the solid waste market in Bloomington, it would indicate that the average pricing in Bloomington is about \$4 per month higher than Minneapolis but lower than the fee collected by the two organized suburban collection communities which may be a more accurate reflection of the pricing Bloomington could expect if organized collection was implemented.

There is a wide range of fees paid by Bloomington residents for solid waste collection. To the extent the attached unscientific survey is representative of the local pricing market, in a move to an organized collection system, a resident could expect to pay approximately the average rate (or slightly higher based on the rates paid in the two suburban communities) currently paid. Some residents would likely pay more and some would likely pay less than they are currently, if Bloomington implemented organized collection.

B. Recycling Rates

There are many factors that influence recycling success. Some communities have a heightened environmental awareness and, for many social reasons, tend to recycle more. One significant factor is the ease of recycling as can be seen by the large increases in recycling rates seen when haulers switch to single sort collection. Social structures such as ordinances and code enforcement have only marginal impacts on overall recycling rates.

Hennepin County reports the tonnage of recyclables collected within the county annually. A table summarizing this information for communities with population over 20,000 is attached. Bloomington has one of the highest recycling rates in Hennepin County. Also enclosed is a graph of this information that highlights, by color, the community’s collection status. Note that, generally, the communities in Hennepin County with the highest recycling tonnage tend to have open systems. The following comments are offered relative to this data:

- Economic and social factors in a community may influence the total amount of waste generated – i.e. with “Reduce” and “Re-use” the tonnage of recyclables may be lower.
- There may be a question of accuracy of the data which is reported by haulers. The data from organized collection communities may be better than that from open system communities.
- One could expect higher recycling rates in communities that offer single sort recyclables collection.
 - Most open systems communities moved to recyclables single sort collection some 15 years ago.

- Minneapolis, the largest organized collection system in the state, has just recently moved to single sort collection of recyclables.
- Generally, the private market has led to the implementation of new solid waste technologies. As such, new technologies/practices are often implemented first in communities with open collection systems due to market competition.
- Measuring recycling trends by total tonnage may not be the most appropriate measurement of recycling success. Some communities may have lower total tonnage of recyclables because they produce lower total waste. As was shown earlier in the inverted solid waste triangle, “Reduce” and “Re-Use” are the most preferred solid waste management methods.

Organics: Studies have shown that organics are the largest recyclable left in our waste stream after traditional recyclables have been removed. The residential collection of organics, as an industry practice, is in its infancy. St Louis Park offers organics collection at a quarterly price of \$10.00 (\$3.33 per month). Other communities have reported the cost of organics collection to be between \$3.00 and \$5.00 per month. Hennepin County has conducted a pilot program to collect organics. So far, participation has been fairly low and some service delivery issues are yet to be resolved.

The recycling data collected by Hennepin County does not suggest that organized collection results in increased recycling rates. Organized organics recycling is still a fledgling program and may not be ready for mandated community-wide implementation.

C. Environmental Impacts (Air Pollution, Carbon Footprint, Landfill Use)

The way a society manages solid waste may have a significant impact on the long term health of our global environment. The types and quantities of materials produced, used, re-used, recycled and ultimate disposed have and will continue to evolve – mostly influenced by market forces and more universal (state, federal, and international) regulations and agreements. Individual city opportunities to change these practices may not be significant and those that are within municipal purview can be implemented with almost any collection system.

Air Pollution/Carbon Footprint: Organized collection would reduce the total number of truck trips that travel on City streets. In neighborhoods currently served by multiple haulers, the reduction could be significant. Typically, three truck trips are needed to serve each residential property – one for trash, one for recyclables, and one for yard waste. Assuming three to five different haulers on a street, a move to organized collection could reduce truck trips from 9-15 trips down to 3 trips.

This reduction in trucks would result in a commensurate reduction in air pollution. Note that while all reductions are beneficial, the reduced emissions gained by reducing trash trucks is extremely small, and not measurable, when compared to the emissions generated by the many hundreds of thousand trips and millions of miles traveled by the vast array of vehicles into, through, and across the community.

Landfilling: To the extent that conversion of “trash” to energy in facilities like the Hennepin County Energy Center (HERC) is desirable as a way to reach “zero waste,” refuse could be required to be directed to the incinerator and not to landfills. Such a directive could be made in either an organized or open collection system

Most environmental objectives regarding solid waste can generally be implemented with any collection system. The reduction of air pollution realized by the reduction of vehicles under an organized system is relatively small in comparison to overall community emissions.

D. Neighborhood Impacts (Traffic, Noise, Safety and Road Damage)

Trash collection day is a busy time. As noted above, a minimum of three trucks are needed to provide trash, recyclables, and yard waste collection. If three separate haulers serve a given street, this number climbs to nine. Five haulers generate 15 truck trips. Garbage trucks are noisy and cumbersome and degrade the quality of life in residential neighborhoods. Reducing the number of trucks on a street will directly reduce the overall noise from trucks as they travel from one pickup to another. However, the noise generated to collect trash, like that from the hydraulic arms used to lift containers, would remain the same. Reducing the number of trucks serving a given neighborhood certainly improves neighborhood livability.

Safety: A common concern with large trucks is the safety of children and others. Large trucks have the potential to cause significant property damage and personal injury, and a neighborhood with fewer trucks is safer. Historically, garbage trucks have not contributed to the accident history in Bloomington. In fact, staff is not aware of a single incident involving a garbage truck in recent history.

Pavement Life: The service life of a road is influenced by both traffic and environmental (moisture and freeze/thaw) factors. On heavily traveled roadways, like freeways, traffic volumes and vehicle weight are the largest contributors to road decay; although, community wide, the number of garbage trucks is relatively small when compared to all the heavy vehicles that use the roadway system. On less traveled roadways, like typical residential streets, environmental factors play a proportionately larger role. Numerous studies have been completed by the engineering community to quantify the impact of heavy trucks on roadway life. Even with these studies, it is very difficult to estimate any improvement in roadway life, especially on residential streets, that would occur with a reduction of garbage trucks.

The reduction of garbage trucks realized by organizing collection would likely improve neighborhood livability and perceived safety. Such a reduction would not likely have a noticeable impact on actual safety or result in the need for less roadway maintenance.

What you may have noted is that the magnitude of potential differences between current open and organized systems may not be as great as conventional wisdom or intuitive expectation might have predicted. Having said that, it does not mean that a system switch may not be entirely appropriate – it is just that the potential for change based on local data may not be as large as desired.

Please contact the City Manager if you have any question or comments regarding this data or if you would like additional data.