

Drop-off Communities with Multiple Haulers

Design and Rate Structure Guidelines

Program Characteristics

Two basic design variations:

1. Municipalities where the majority of households are bringing trash to the drop-off or landfill can easily shift to PAYT through an overflow bag or a sticker program

- Each participating household is provided with 52 free special colored trash bags or stickers/coded tags. This allows each household one bag of garbage per week for free [included in the current rate structure].
- If a municipality is not currently covering their solid waste costs the municipality could charge for all bags instead of providing free bags. The additional revenue would cover the cost of the current shortfall.
- Households that need additional space for trash may purchase a special bag or sticker at the town hall or a participating retail location.
- The bag makes it easier for the landfill attendant to monitor compliance. However, for very small communities a bright colored official sticker can work just as well.
- This process allows residents an opportunity to recycle more without incurring additional expense.
- Private haulers would be monitored and based on a benchmark per capita disposal. They would have the freedom to develop their own PAYT strategy, but if their annual benchmark were not met they would no longer be eligible for a permit [see hauler compliance suggestions].
- This system will provide a reduced tip expense to the municipality; most households are expected to decrease the quantity of waste they set out for collection by approximately 45% (*2009 New England Study*).
- Additional revenue from sales of extra bags or stickers can be used for recycling education and outreach.

2. Municipalities where the majority of households use private haulers for pick up can also easily shift to PAYT with a bag or a container program

- *Bag Program:*
 - a. Official municipal bags are easy to identify because of their color. This allows both drop-off customers and hauler customers to use the same bag.
 - b. If a tip cost is currently charged to the hauler upon entry to the landfill it would need to be eliminated. Instead, the bag revenue will cover the tip cost.
 - c. If the households are currently charged a tax or a fee for landfill drop-off, this would also need to be eliminated.
 - d. If municipality is not covering their solid waste costs the tax or fee could remain the same and the additional revenue would be used to cover the deficit.

Drop-off Communities with Multiple Haulers Design and Rate Structure Guidelines

- e. Bag revenue would go directly to municipality or landfill to cover the cost of tipping.
 - f. All homes within the municipal area sending trash to the landfill through hauler or drop-off would need to purchase special colored bags for disposal.
 - g. Haulers would be required to monitor bags as they drop in their trucks. In manual and semi-automated equipment, this can be monitored directly by employees. In fully automated equipment, a camera may need to be installed to monitor effectively. Should this be required, the municipality should cover the initial cost, not the hauler.
 - h. Hauler loads should be monitored by landfill floor attendants. Non-compliant bags would be the responsibility of the hauler. Municipality would need to assist in enforcing when residents are repeat offenders.
- *Container Program for haulers:*
 - i. Where the majority of trash is being handled by the hauler and not taken directly to the drop-off or landfill by the resident, and where the haulers are 100% automated, a container program could be implemented. Each hauler could have the option of creating their own rate structure. Generally haulers do not like sharing this information with the municipality. Haulers would be able to develop their own structure based on container size. Haulers would need to meet a specific per capita benchmark [see hauler compliance section below].
 - j. Residents not using hauler services and bringing trash to the drop-off or landfill could use a sticker system similar to the above option.

Determining the Rate Structure

Municipalities will need to create an enterprise fund or similar account for the collection of the bag or sticker fees. It is critical to determine municipal per capita disposal rate (waste only) before deciding on a rate strategy. Ideally, this should be determined by hauler as well as by landfill drop-off sites. The more detail municipalities are able to obtain on residential disposal rates, the better-informed their rate structure will be. If this detail is not available, use the landfill and drop-off tonnages combined.

To determine per capita disposal (waste only) isolate the following:

1. Total population participating.
 - a. Determine the number of households bringing trash to the landfill or drop-off directly. This could be determined by the number of sticker or permits sold or by a best guess or estimate.
 - b. Determine the population by hauler. Ask haulers to share the number of participating households. This could be done through the hauler permitting process. When a hauler registers for an annual permit, a

Drop-off Communities with Multiple Haulers Design and Rate Structure Guidelines

- requirement could be added that the hauler register the number of participating households.
- c. A population number can be determined from the household number using the average number of persons in the household based on Census information.
2. Total residential tonnage waste disposed.
 - a. Combine the total waste brought to the landfill and drop-off locations to obtain a total residential (only) waste tonnage. It is important to use only the residential waste tonnage.
 3. Total per capita disposal.
 - a. Divide the total waste tonnage by the participating population. The national average per capita is approximately 1100 lbs. Make sure you exclude the multifamily participants that are being recorded as commercial.

Residential Rate Structure - Suggestions for Bags and Stickers

The cost of the trash bag should be determined based on the cost of the bag itself plus the cost to dispose of the contents within, based on weight. Based on an average of \$40 per ton disposal rate in New Mexico and a 25-cent (bag and distribution) cost, and assuming the average bag weight is 23 lbs (EPA standard) the average cost of the trash bag will be around 71 cents (round up to 75 cents). This would ensure that the municipality covers the cost of disposal and the cost of the bag. There may also some drop-off and administrative costs currently included in residents fees that would also need to be included in the official bag cost. To factor these in, take current drop-off and administrative costs and divide by the number of tons disposed and add to the cost per ton. The bag or sticker cost will be higher than a Glad or Hefty brand trash bag. The price point should be just high enough to incentivize change without making people feel like they are being unfairly taxed.

Sample cost structure

Average cost per ton disposal	\$40.00
Average cost per pound [cost per ton divided by 2000 lbs]	\$0.02
Average cost per bag [manufactured and distributed to muni office or direct to retail location]	\$0.25
Average cost per sticker [manufactured and delivered]	\$0.03
Total suggested bag cost [based on 23 lb weight] 33 gallon bag	\$0.71
Total suggested sticker cost [based on 23 lb weight] 33 gallon bag	\$0.49

Rate structure Assumptions

Drop-off Communities with Multiple Haulers Design and Rate Structure Guidelines

- If the tax or fee is lowered by 100% then the per unit charge should also include the fixed municipal costs. The tax or fee could be lowered only in proportion to direct tip cost and therefore would not need to be added to the unit cost [in this case there would still be a small tax or fee to the resident].
- If the tax or fee is not lowered at all, the municipality will have a surplus at the end of the first fiscal year.
- In design option 1, where free bags are provided by the municipality, the start up cost of the bags should be covered by the reduction in overall tip expense at the landfill. However, every case is different so this should be verified when designing the structure.
- In design option 1 the bag cost for the overflow trash after free bags are used should be structured as in the above table.
- In areas where incorporated and unincorporated areas are disposing at one common landfill the above options could apply to the entire landfill disposal radius.

Hauler Compliance Suggestions

Haulers opting to create their own PAYT rate structures should be required to meet per capita benchmarks equal to the average municipal per capita. This will encourage them to create a rate structure that is fair to residents, but that also provides an incentive to reduce waste. In order to determine benchmarks, haulers must be required to report the number of households using their services. The municipality can determine an official per capita disposal annually for each hauler by dividing the participating population by the total tonnage the hauler delivers to the landfill. If haulers pick up residential and commercial in the same truck, all commercial waste must be averaged and taken out of the load.