

## **Unit Based Pricing:**

### **The Private Sector's Perspective**



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## Foreword

The needs to conserve landfill capacity, and increase recycling and composting are well known. Unit based pricing, or what EPA dubs "Pay As You Throw," is promoted to those responsible for solid waste management as a fair and equitable way of reaching goals of waste reduction and recycling by encouraging the average citizen to treat trash differently. The direct economic incentive of paying for trash service based on the amount of trash set at the curb, combined with lower priced or free recycling, encourages residents to throw away less and recycle more. Case studies show well-designed programs successfully achieve waste reduction, and increase recycling and composting with little or no adverse effects, such as illegal dumping.

Experts have said that unit based pricing programs will work for any community, whether the municipality or private sector hauls the waste. However, waste haulers have objected to communities including unit based pricing strategies in a bid or request for proposal documents. Where residents have a choice between flat rates or unit rates, waste haulers are not switching to "Pay As You Throw."

- ❑ Does unit pricing work for or against private waste collection services, particularly the smaller and independent waste haulers?
- ❑ Can they stay competitive?
- ❑ Does it have an adverse effect, putting them at a disadvantage, possibly forcing them out of business?
- ❑ What happens if unit based pricing leads to more independent companies selling out or quitting the business?
- ❑ Could it have the opposite effect on cost and recycling?

The private sector trash collection industry is composed of a large number of small to mid-sized independent trash collection services, and a few large national solid waste organizations. Many of the national organizations own and operate both landfills and collection services. In some regions, where the large national companies own the landfill and are buying out the independent haulers, the concern is that a monopoly will control the waste stream. Many solid waste management professionals feel that a monopoly controlling both collection and disposal would be detrimental. Trash collection prices would increase with no competition. Waste would be directed to the landfill, where the monopoly makes money from the landfill tipping fees. With no incentive to avoid cost, materials for recycling would be limited to those that produced a greater return than the landfill. Without the independent hauler, many predict that costs would rise, the number of landfills increase, and recycling would decrease.

EPA encourages unit based pricing; while some states, cities and counties are promoting or even mandating unit based pricing. An understanding of the complications and risks unit based pricing poses, especially to the small and mid-sized independent business, is needed.

With this in mind, Midwest Assistance Program, Inc. applied to EPA for grant funding to find out not only what the for-profit waste collection services think the risks, obstacles and barriers are, but also what can be done about them.

Through meetings and telephone interviews, over 30 people were queried about unit based pricing and the private sector. Six focus groups were held. Five groups were made up exclusively from the private sector. One group included representatives from the public sector. In all, 29 owners and managers of private, for-profit companies, one city waste collection service administrator, and one county municipal solid waste landfill administrator participated in group discussions.

This report is the accumulation of the thoughts, opinions, ideas and suggestions of small to mid-sized waste haulers. It presents their view point about unit based pricing without judging or criticizing their perspective.

## Indicators

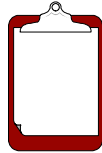
To help the reader discern what material is intended to help define or explain terms, what are the waste haulers' view points, and the reporter's observations the following icons are found throughout this report.



Defines or explains terms used in this report



Indicates comments and perspectives from the waste haulers as presented during discussions



Indicates comments and observations from the group facilitator

## Introduction

Unit based pricing, volume based pricing, variable can rate, weight based, and pay as you throw are all different terms for unit pricing. The concept is promoted for a variety of reasons, and can be implemented and operated differently. Thus, it is confusing. Cities are using it to replace taxes and flat fees for solid waste services. There are many successful programs operated by municipalities, and private waste haulers in closed or non-competitive markets.



**Unit based pricing** is where an individual customer's fee or bill for trash collection is calculated, either by weight or volume, on actual quantity of waste that is placed at the curb for disposal, each time it is collected.

**Flat or fixed fees** are where customer's fees are the same amount from customer to customer and from one billing period to the next.

Why aren't more for-profit waste collection companies pricing by units in competitive situations? Is it possible to use unit based pricing successfully in the competitive markets?

Answers to these questions, along with opinions, and insight on unit based pricing were gathered from owners and managers of small to mid-sized residential trash collection businesses operating in competitive markets.



**Closed Market:** (1) The local jurisdiction provides the service, and there is no competition from private concerns. (2) The local jurisdiction contracts and pays for the service provided to their citizens. The jurisdiction may bill its citizens, or rely on property taxes to cover the cost. (3) Jurisdictions are divided into areas, and franchised to waste collection services. Only the waste collection service holding the franchise may collect in the area.

**Competitive or open market:** Refers to areas where waste collection services are not restricted by ordinance, contract or franchise. Public and private waste collection services may compete for business based on service and price. Each service direct bills and is paid by their customers.

Discussions occurred in six focus groups during in 1998 at the following locations:

- ❑ St. Louis, Missouri
- ❑ Lincoln, Nebraska
- ❑ Sioux Falls, South Dakota
- ❑ Cedar Rapids, Iowa
- ❑ Tulsa, Oklahoma
- ❑ Hutchinson, Kansas

The groups considered which unit based pricing structures work. They illustrated how competition affects its use. Customers' reactions to unit pricing were predicted. Problems were pointed out.

This report presents waste haulers' observations on unit based pricing. It is written from their perspective so local, state and federal officials will gain a better understanding of what and why waste haulers are objecting.

Part 1 explains the philosophies and methods of pricing from the waste hauler's perspective. Different objectives between the public and private sector are explored. Two recurring themes made by waste haulers in the group discussions were:

1. fair and equitable pricing verses reasonable pricing, and
2. waste collection is a service not a utility.

Part 2 identifies areas and specific conditions that were brought up by the different groups. Prepaid and subscription systems are reviewed. The third consistently recurring theme in discussions, leveling playing field, is analyzed. Questions are posed for communities to explore. Ultimately, ways to aid the waste haulers and thereby realize the objectives of recycling, waste reduction and composting are proposed.

## Part 1 -

### Differing Views On Fixed Fees And Unit Based Pricing

It sounds simple enough on the face of it, residents or customers paying for collection, transportation and disposal of their trash based on the amount they throw out. It is fair and equitable. It strengthens recycling and composting. It encourages people to reduce the amount they generate. It eases the strain on dwindling landfill space, and alleviates some of the pressure to build new ones. Unit based pricing works. Nevertheless, many private sector waste haulers seem to resist unit based pricing and use fixed fees instead.

### Price Setting

Everyone has heard of hidden fixed costs such as overhead for municipal waste collection services being found in water or road and bridge budgets. Sometimes the variable cost of disposal was the only cost a municipality considered. A hidden or unknown cost to a municipality shows up as a loss in the private sector.



Fixed costs are those that remain relatively constant over time. They do not fluctuate based on the amount of trash collected. Examples are rent or interest on loans.

Variable costs change based on the amount of trash collected. Landfill disposal or tipping fee is the best example.

The first rule in any business is to recover all costs and realize a profit. A company that does not account for cost correctly is not in business for long. Very few waste haulers are unaware of their total costs, fixed or variable.

Pricing based on cost is called *cost plus profit pricing*. In cost plus profit pricing, the costs to perform a particular service are calculated. A profit margin is added to costs for the price of the service.

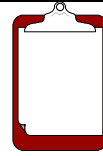
A simple example of a service using cost plus profit pricing based on units is a delivery company that divides packages into classes based on pounds, distance and delivery speed.

For instance, a delivery service determines that one class of delivery is for packages weighing less than 2 pounds, shipped up to a 1,000 miles, and delivered in 24 hours. They determine that it costs them \$10.00 to deliver one package in this class. The company sets 25% as the profit margin. Therefore the price to the customer each time they send a package in that class is  $\$10.00 + (10 \times .25)$  or \$12.50.

The delivery company has an obvious difference in variable cost by class based on weight, distance and speed of delivery. Air shipment is more expensive than by truck. Both size and weight limit the number of packages that can go on one vehicle. The farther the package must go, more fuel is consumed and more handling may be required. Distinct variable costs are involved with different classes. Even if the profit margin remains constant between classes, based on cost each has a different price.

Cost plus profit pricing by unit for trash collection works the same way. Collection and disposal is divided into types, such as recycling, yard waste, trash, or special. The costs to provide each type of service either by weight or by volume is calculated. A profit margin is added to the unit cost for the unit price for each type of service.

Customers pay based on the amount and type of service they use. The price of waste collection service from one customer to the next would not be the same. The customer's bill would not necessarily be consistent from one billing cycle to the next. Just as the cost of a delivery service varies each month according to the exact number and class of packages shipped, so would trash bills based on amount and type.



There is a pricing strategy generally recognized in business known as *Market Based Pricing*. A market based pricing strategy is where a good or service is priced at the level set by what others in the industry are charging.

This strategy can lead to pricing wars. In other cases, a market based pricing strategy where a competitor prices below what another can reasonably charge to cover their cost and realize a profit is referred to as low balling, or predatory pricing.

Market based pricing strategies have gotten some industries in trouble for price fixing. Due to the legal implications attached to this strategy, the groups did not discuss it as an option.

Predatory pricing, being used against the independent waste haulers, was discussed.



Landfill tipping fees in the Midwest are moderate, ranging from around \$16.00 to \$40.00 per ton. Consider if the tipping fee at the landfill is \$25.00 per ton, the cost per pound is \$0.0125. If a 4 person household sets out 32 pounds per week for a total of 128 pounds in one month, and a 2 person household only sets out 16 pounds per week for a total of 64 pounds per month, the difference in the landfill cost is \$0.80 per month.

When variable costs are not significant between type of service or amounts discarded, there is another way of determining price using a cost plus profit approach. Generally it is referred to as flat or fixed fee. In areas where landfill fees are still moderate, many waste haulers think the cost to switch and operate a unit based pricing system is not justified. If bills only vary

slightly from one customer to the next regardless of the amount discarded or where it goes, waste haulers feel that flat rates are more practical.

Flat rates are calculated by determining the total cost to collect and dispose of everyone's trash, yard waste and/or recyclables in a given area. Profit is added on. The total amount is divided by the number of customers. Everyone is then charged the same price, month to month, neighbor to neighbor.

## **Public Sector Objectives And Perceptions**

Landfill costs, and an awareness of the environment by the public has led to an emphasis on reduction, recycling, and composting.

Many landfills closed in anticipation of Superfund encounters intense opposition. Landfill space once was. Limited landfill space combined with rising operational costs have driven landfill tipping fees dramatically. Landfill costs are no longer a small fraction of total waste management costs. Professionals regulating or managing solid waste are conserving the remaining life of existing landfills. Landfill fees are interested in decreasing the amount of waste sent to landfills.

Many communities also have recycling managers. Local public authorities are responsible for meeting the need to deliver waste to certain facilities in operation. Solid Waste Coordinators and Solid Waste Managers are interested in decreasing the amount of waste sent to landfills.

Unit based pricing is a tool for achieving integrated solid waste management plans and objectives, such as recycling, composting and waste reduction, and is considered fair and equitable to customers.

In most literature promoting unit based pricing, solid waste services are compared to a utility company. These companies charge a fee based on the number of kilowatt hours or air time, for example, that is used by the consumer. An energy-conscious consumer does not want the same electric bill as his neighbor whose furnace or air conditioning is running in a poorly insulated house or with the windows open.

Pricing based on a flat or fixed fee has come under severe criticism. Flat fees are condemned for not providing an incentive to reduce, recycle or compost, and unfair to those who do. They are considered inequitable to those that produce less waste by virtue of having smaller households. Small households are seen as subsidizing those with large families. Flat fees, when paid by a city from the general budget supported by property tax, are also blamed as

promoting wastefulness in customers. It gives the impression that solid waste collection and disposal is free.

However, fairness, waste reduction, recycling and composting are not goals or business purposes of the for-profit waste collection services.

## **Private Sector Objectives**

Many focus group participants personally support waste reduction, recycling and composting. On the other hand, private residential trash services are in business to make a profit. Not one businessperson said that they were in business to encourage, promote or provide incentives for waste reduction, recycling and composting activities.

From the input gathered at the focus groups, their business purpose could be distilled to: ***Providing good and reliable service to customers, at a reasonable price, in exchange for a decent return.***

## **What Do The Customers Want?, What Do Customers Pay For?**

According to the vast majority in the focus groups, it is the same for all customers, regardless of their concerns for the environment and their level of waste generation. They choose their trash service, based on service and price. As one participant put it, the customer doesn't want to think about it, they just want their trash, yard waste or recyclables to go away cleanly, quickly and cheaply.

## **Waste Haulers Perceptions of the Public Sectors Rational**

With different purposes and objectives waste haulers view unit based pricing differently.

### **On Fair and Equitable Pricing**

The waste haulers did not feel that the majority of their customers care about fair and equitable pricing. Customers only want reasonable or affordable prices.

Most participants felt that unit based pricing would be negatively perceived by the majority of their customer base, the average to large waste generating customers. Without a significant reduction in the total bill, the customer would feel that they were being charged more for the same services.

Participants also raised the concern that customers would simply resent having one more thing to keep track of. They thought that their customers would view unit based pricing as an inconvenience.

From their point of view, a customer does not mind paying extra for good, reliable service. Books on marketing, and professionals in the field, struggle with the phenomenon of what people will pay for good service. Most people expect to pay extra for good service. Consider that it is customary for waiters or waitresses to receive up to 15% extra for good service.

An analogy presented in one group compared what people do when hiring someone to perform a service such as mowing the lawn. They do not consider how much they would be charged to mow a square foot of lawn, or what the neighbors pay for the same service. They just consider whether having their lawn mowed is worth the price, and if the person performing the lawn mowing is reliable.

In a discussion paralleling solid waste to a utility, one group turned the utility company bill comparison around. They discussed why do power companies, whose billing systems have historically been based on actual use per billing cycle, now offer customers an average monthly bill of their actual use charges for the entire year. The conclusion drawn was that utility companies, at least in part, initiated this system as a convenience or service to their customers. Further, if utility customers prefer their bill to be constant during the course of the year, they would want their trash bill to be the same. Customers do not want higher trash bills after holidays, special occasions like birthday or graduation parties, or after cleaning their garage.

Trash Collection Services feel strongly about their relationships with their customers, and are convinced that their customers are not interested in a fairer or more equitable pricing system, but want reliable, convenient service at a reasonable price. They fear losing customers by changing to unit based pricing, if others are still offering flat fees. They do not see it as their

responsibility to reduce waste, save landfill space or meet mandates that do not apply to them, at the expense of losing customers to rival waste haulers.

Pricing is perceived as strictly a matter between customer and service provider. While the vast majority of the waste haulers participating in the focus groups agreed that customers are not worried about it, why should they? Until customers let the companies know that they want a fair and equitable pricing, haulers will continue to offer the traditional service unless something else is done.

That something else is simply not giving the customer a choice of flat or unit pricing. This would provide some insulation for the individual company from customers choosing a competitor who is offering the traditional service, hauling everything set at the curb, for a flat fee. Mandating is unfavorably



viewed by the collection services for the turmoil and ill will it creates. However, it is a way to insure all haulers in a given area operate in the same way, giving no one an advantage.

### **On waste reduction and recycling**

There was a strong consensus between participants and between groups on fair versus reasonable price. Using unit based pricing as an incentive to reduce, reuse, recycle or compost was not as simple. That unit based pricing could provide an incentive for these activities was not truly the issue. Most agreed for many people it would. Others are simply not going to go to the trouble of separating waste - no matter the cost.

The incentive for waste reduction, where the public uses less throw-away goods, finds ways to consume or reuse what is no longer wanted, to *control, or reduce their trash bills*, was viewed as an oxymoron to some of the waste haulers.

Waste haulers put forth the notion that significantly less trash would mean fewer waste haulers, as was the case for saddle makers, when the car replaced the horse as a means of transportation. Even with less trash, there would still need to be waste collection services for what remained. With less competition and loss of economics of scale, prices theoretically would go higher per unit, resulting in no net reduction in total cost to the customer.

Worse yet for recycling. If mostly independent haulers go out of business leaving trash service and landfill controlled by a single entity, recycling would actually decrease. Curbside recycling simply would not be offered. With governments unable to control the flow of materials to facilities, the haulers would take waste to their landfill, where money is made from disposal. With no incentive to avoid cost, recycling would be limited to only materials that produce a greater return than the landfill.

### **How Waste Reduction, Recycling, and Composting Effect Waste Haulers**

How programs are structured, administered, and how seriously concern the waste haulers. Recycling and composting have the potential of bankrupting small businesses.

There is no potential opportunity with these programs for some businesses to fold. While not everyone has accepted it. Businesses fail all the time in the reality of free enterprise.



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As far as the haulers were concerned, composting and recycling can either result in less or more work. With backyard composting, waste simply is reduced.

When recycling markets are good for material, they find very little of it at the curb. If there is value in the trash, those that separate the trash will transport the material and collect the cash. They do not put it out for someone else to make money. If the trash is set on the curb without being separated, generally the individual doesn't care. What does make it to the curb separated creates more work.

Although there is approximately the same total amount of material at the curb, different operational practices must be in place to keep these materials separate. Some see yard waste and curb side recycling as opportunities.

While new services may present opportunity, it also complicates and poses risk for the waste haulers. New costs must be calculated. Demand for each service must be estimated. Routes may need to be reconfigured or added. Different equipment may be needed. Time efficiencies must be considered. Location and tipping fees of different facilities must be calculated into each pricing formula. Customers and employees need education and training. Most importantly the customer's goodwill must be maintained. If a business analysis shows the opportunity outweighs the risk, demand or need for service is present. It can be offered at a price the customer will accept, and an acceptable profit can be made. Then waste haulers will gladly offer recycling and yard waste collection.

## Bottom Line

Waste haulers have different purposes than public entities. They see unit based pricing from a different perspective. Unit based pricing has not been supported in the framework of the waste haulers objectives and perceptions.

People hire waste haulers because they either cannot or do not want to handle waste themselves. Since customers have options, waste haulers see themselves as a service, not a utility.

The waste haulers mission is to provide good, reliable service to their customers at a reasonable price for a fair return. The customer is the judge of what is good service and reasonable price.

Waste haulers are not in the business to provide incentives for recycling or composting. They are interested in new business opportunities.

Critics charge that waste haulers are using composting and recycling, which are good for the environment and in the public interest, as an excuse to add charges on to their customers. Nevertheless, to collect, transport, and in most cases, drop or dispose of these materials no matter if they are going to a landfill, transfer station, recycling facility or composting site has a cost. Collection services must recoup cost to make a profit and remain in business.

## Part 2 - Solutions

Even though achieving integrated solid waste management plan objectives are not the reasons waste haulers are in business, the goals and objectives themselves are necessary and worthwhile. They should not be abandoned.

Part 1 dealt with concepts, differing views and purposes, in other words, the philosophies surrounding unit based pricing. Understanding and acknowledging other views and perceptions is the first step in approaching or solving any problem. That alone will not bring about changes or solve the differences. The second step is resolving or minimizing barriers.

Part 2 deals with real life, conditions and behaviors affecting the use of unit based pricing. Subscription and prepaid systems are reviewed. Problems with each are noted. The level playing field concept is introduced. How specific circumstances in different areas affect perceptions are explained. Questions are posed for communities to ask themselves when considering unit based pricing. Ultimately, ways to encourage and help the waste haulers to adopt unit based pricing and realize the objectives of recycling, waste reduction and composting are proposed.



The views and concerns presented represent those of small to mid-size independent waste haulers participating in the focus groups.

An invitation to participate was extended to large national based waste hauling companies operating in areas where meetings were held. Only one accepted the invitation, and offered no significant differences to the views and concerns being presented by this group. Others may feel differently.

## **It Used To Be So Simple**

It happened in every group. One waste hauler who has been in business for twenty or more years, at some point would sigh and say; "It used to be a simple business". Everyone in the group would nod in agreement. How true that was. One truck and a strong back were all that was needed. There was no EPA, no state or local agencies. No licensing or Department of Transportation regulations to contend with. There was no planning, managing or recycling. There was no yard waste, bulky waste or recyclables; it was all just trash or garbage. It all went to the same place, the dump. No one questioned how to charge for it.

Today there are municipal solid waste landfills, transfer stations, compost sites and recycling facilities. There are mandates and goals to meet. Outsiders are influencing how the solid waste business is run. No wonder they sigh. If they use unit based pricing, how do they measure and how are they paid?

Actually measuring trash by the truckload is not a problem. Most waste haulers have exact records of what is taken to the landfill. That's how they pay. Keeping track of the measurement by household and being reimbursed create complications. Waste haulers have similar ways to measure, and two methods of being paid: prepaid or subscription.

## **Unit Based Pricing 101**

### **Prepaid**

#### **Bag, Tag or Sticker System**

A bag or tag system is a prepaid, volume based form of unit based pricing. Customers buy special bags, tags or stickers to place their trash in, or attach to their trash. If the trash is not in the bag, or does not have the appropriate tag or sticker attached, it is not picked up. Waste haulers do not provide their customers with containers or carts, and no billing is required with the bag, tag or sticker system. Waste haulers are paid up front through the purchase of the bag, before service is delivered.

### **Subscription**

#### **Variable Can Rate System**

A variable can rate is also volume based. This system uses carts or containers of varying sizes, normally provided by the waste collection service. Customers request or subscribe for services. Payment is based on the size of container needed to contain the volume of trash

generated. If it is not in the container it is not picked up. A billing system is required, and waste haulers are paid after the service is performed.

### **Weight Based System**

A weight based system is also a subscription system where waste haulers are paid after the service is provided. Pounds, rather than volumes, are used to figure charges. Trash is weighed at the curb at each stop. The empty container weight is subtracted from the full weight, to determine the weight of the trash. Besides a truck with an on-board scale, equipment may include a hydraulic lift mechanism. Radio frequency (RF) identification readers can identify containers with RF tags containing customer data. Data is downloaded to a computer with software that produces the bill. Customers are billed for the actual weight of their trash.

Weight based systems are considered the operation of the future, when the technology improves. Tests and demonstrations for residential trash have been tried or are being tried in areas throughout the country. Many of the waste collection services felt when the equipment is proven, the automation associated with the weight based system provide necessary time efficiencies to stay competitive.

Waste haulers use the subscription system in the open market. It is considered the only feasible method of reimbursement. The waste haulers pointed out major problems with prepaid systems in competitive markets.

### **What's Wrong With Prepaid?**

Absolutely nothing is wrong with prepaid systems when they are used in appropriate environments, or in conjunction with a subscription system. Prepaid bags, tags or stickers work very well for small closed markets where there is one hauler in town, and the bags, tags or stickers can be sold in places such as city hall and the grocery application with subscription systems for extra charges. Some haulers use marked waste that is destined to a compost facility.

Prepaid systems do pose problems. On haulers with automated or semi-automated a manual system where the employee and worker's compensation is higher unless slower. Using stickers and tags also increase the time at each stop. Crews must mark through, rip or cut off the tags and stickers to prevent them from being reused. Time and efficiency is critical in most competitive situations.

The bigger consideration is that prepaid systems are impractical for competitive markets. Marketing strategies would have to be developed. Smaller waste collection services with limited office staff could not handle the extra work of marketing and selling bags tags or stickers. If sold in stores or at city hall, customer loyalty could be lost without the hauler knowing; new customers could purchase their services, again without their knowledge. Even if sold exclusively by each waste hauler, crews collecting the trash would need to know who had purchased bags, and who had ran out. It would be a case of look-see to determine if customers had filled their bags and placed them at the curb or if they were going to wait for the next collection day. Even if sold exclusively by waste haulers, crews would need to know who had purchased bags and who had ran out. Even yearly tags for a set volume would require proratings or refunds if the customer base changed.

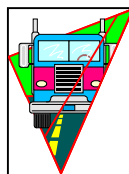
Waste haulers envision creeping down the streets searching everyone's trash for small tags or bags that indicate the trash pick up. Crews would have to scan each stop to see if the customer had filled their bags and placed them at the curb. On spotting their trash the crew runs to the bag or container, struggling to rip the tag off so it can't be reused. After throwing the bag or emptying the container into the truck, the search would start again. They see trash collection turning into the equivalent of an Easter egg hunt. Time and efficiency would be destroyed. Sly competitors could mimic the appearance of others service tags or bags, or sell the tags or bags in stores and not support the sales with service.

Very little focus group time was spent discussing solutions to using prepaid strategies as the primary system in competitive markets for weekly trash pickup. The waste haulers need a clear and defined list of customers to keep routes running efficiently.

## Subscription Systems

Subscription systems can be flat rate, variable can rate or weight based. The customer hires a waste hauler for services at a specific rate. The service doesn't change until the customer informs the waste hauler that they are changing it. Subscription systems work with manual, semi-automated or fully automated trucks.

Waste haulers admit that with flat rates they are sometimes hauling trash at their own expense. However, it averages out. Customers may put out more trash at certain times of the year. They also put out less when they go on vacations or are away from home. Flat rates are simply averaged over longer periods of time than a week or a month. Trash generation will always vary. No pricing mechanism will alter that fact. Waste haulers pointed out some undesirable side effects of variable can rates.



In open markets, if a customer regularly generates more than the average amount of trash, the hauler can, and does, raise

One concern was the Seattle Stomp. Seattle, Washington is probably the best known example of a variable can rate system. They offer 19, 30, 60, and 90-gallon containers at different prices. The residents do not want to pay for a larger container if they can get by with a smaller size. Nor do they want to pay extra, arrange for a different can size, or hold trash over when they occasionally have more trash. Residents have gotten very good at stomping trash into smaller containers. This behavior is christened the Seattle Stomp.

Problems are associated with the customers stomping more trash in smaller containers. When the trash is compact, it becomes harder, thus causing damage to the containers and leading to greater cost for container repair or replacement. In addition, a heavier than usual container surprises the waste hauler potentially resulting in back and shoulder injuries. Whereas, with flat rates, the customer generally will set bags beside the container.

Waste haulers usually pay by weight, not volume, at the landfill. If customers are simply stomping more trash into the container, the cost to the waste hauler for disposal still increases. Variable rates will still need to be an average rate for each size of can.

Billing and operation considerations are simply more involved. Waste haulers will need to estimate and stock varying container sizes, and billing is more complex. If customers get in the habit of stopping service for a week while on vacation, or changing container sizes for seasonal variations in generation, it is more work. Clerical staff to continually input the adjustments to the bill and employees to deliver or pick-up containers would be needed. Both administrative and operational costs would increase.

Weight based subscription systems hold more promise. The same size of container is used for everyone. No reason to stomp trash into it. The customer would pay the same amount if they put the trash into one, two, or three containers, since it is paid for by the pound. No need to average rates because of price based on volume and cost based on pounds.

Billing systems are complex but computer and software combined with the scale and RF scanners would automate the system. The technology is being developed. Unfortunately, it is not considered reliable yet.

Problems associated with billing based on weight have not been addressed. Weights and measure regulations with calibration and the tolerance limits for billing on 20 or 30 pounds of trash have not been resolved. Field calibration tests of scales must exist to keep the trucks rolling and productivity high.

Weight based systems are seen as a better potential replacement to the flat rate. With time, the problems associated with weight based systems will be resolved. Equipment and scale companies have a personal stake in

developing the technology. Until it is, the waste hauler will still consider volume based pricing, if the playing field is level.

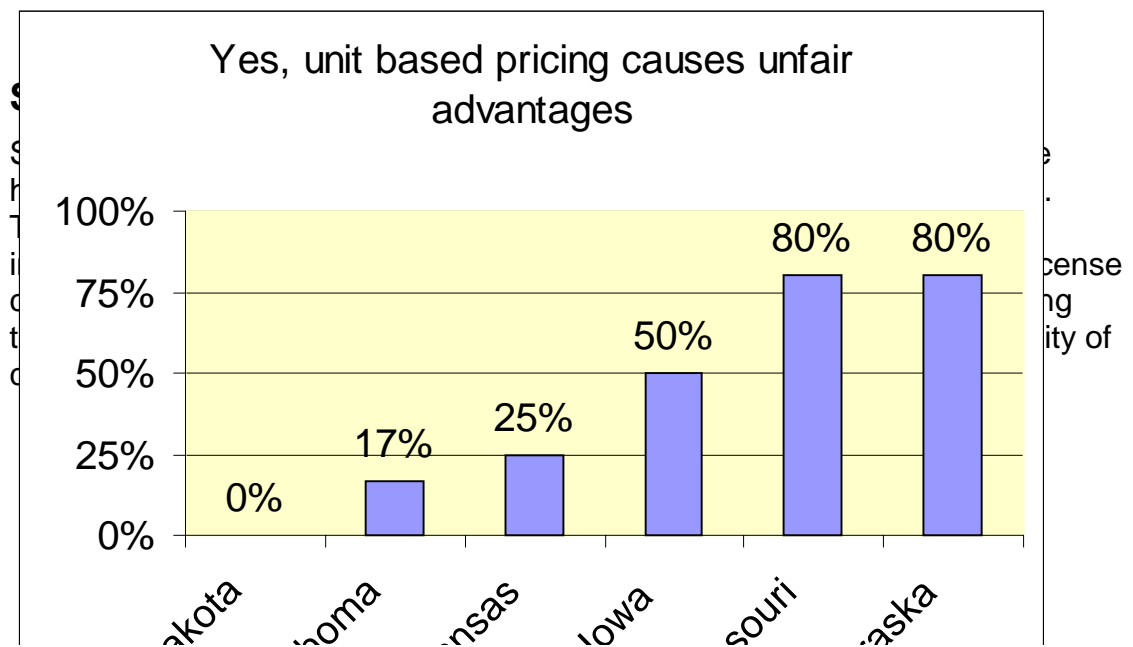
## The Level Playing Field

The level playing field, was one of three major themes brought up by group after group. This is a necessary ingredient for waste haulers to stay in business. The importance of this issue was brought home by the actual words *level playing field*, being used by every group. Each group pointed out specific market factors in their area that were influencing the playing field.

Equilibrium must be maintained on the field of play. It effects the waste haulers view of unit based pricing as a good pricing strategy in the contest for customers.

The private sector open market trash collection service industry is highly competitive. From the small mom & pop services to the mid-size companies, the feeling prevailed. A framework is needed so that unit based pricing does not work to their disadvantage.

The following graph shows the diversity of each groups' opinion to the question, "Does unit based pricing offer unfair advantages to your competition?". Market conditions in each area need to be examined to explain the range of waste haulers opinions.



The South Dakota waste haulers indicated that they would not have individually changed without the elimination of the unlimited disposal or fixed fee as a customer choice, and appreciate the protection afforded by the licensing limit. The waste haulers warned that an effective enforcement policy may be needed to make sure that everyone complies, keeping the playing field level.

The waste haulers have been using unit based pricing for several years. They feel it works well for both waste haulers and customers. Because a framework for level play is already in place, it is understandable that none of these haulers would answer “yes” to the question, “Does unit based pricing offer unfair advantages to competitors?”.

## Oklahoma

A unique closed market factor comes into play in Tulsa, Oklahoma, where another meeting was held. As indicated by the low concern (17%) about unit based pricing causing unfair advantages, conditions are such that the independent waste haulers are not as worried about being forced out of business as in other areas.

The City of Tulsa owns and operates a waste to energy incinerator. They must maintain a level of BTU's under an energy consumption supply contract. Facing competition from recycling facilities and four other landfills with lower tipping fees, Tulsa put a 16 square mile area of the city out for franchise bid in order to direct a sufficient supply of waste to the incinerator. They closed a significant portion of the market in the area.

To contend for the work, several independent companies formed a parent corporation. It successfully won the work from two major waste hauling companies for five years, with a five-year extension option. The independent haulers created their own framework for a level playing field.

While still competing for customers in open markets outside the 16 square miles, pricing wars forcing companies to sell or go out of business do not exist. The contract with Tulsa guarantees their survival. With recycling facilities available for diversion and four landfill options, no one is denied access to disposal. Local haulers are more comfortable with the idea of unit based pricing. Under this scenario, two-thirds of the waste haulers in the group indicated they were using or trying some forms of unit based pricing, even those who were not involved in the City of Tulsa contract.

## Kansas

Local public agency staff participated in the Hutchinson, Kansas group. All solid waste goes to the county landfill, which has no gate tipping fee. A solid waste user charge is placed on each resident's personal property tax. There are no reduced or avoided landfill cost if someone recycles. There is no initiative by the landfill to institute a gate fee.

Hutchinson has a for-profit recycling facility. Depending on demand in the recycling market, the facility either pays, or charges, for recycling material from citizens or waste haulers. The city pays the private recycling facility a flat fee regardless, of the recycling markets, to take material from their curbside recycling program.

The market in Hutchinson is open. The city competes with the private sector for business. It is the customer's choice to use the city, a private waste hauler, or do it themselves. There has been no outside interest in this market area.

The city mails bills in combination with the water bill, saving administration costs. It is also a convenience for the customer to have only one bill. A charge for trash and a separate, smaller charge for recycling are reflected on the water bills. Even with the charge for recycling, the city is able to maintain a steady portion of the market share based on price and service.

The private waste haulers offer only trash service to their residential customers. They would like to offer recycling to compete with the city program. With no avoided landfill disposal cost, and the possibility of having to pay at the recycling facility, they do not feel that it is feasible to do so.

The concern of unit based pricing creating unfair advantages (25%) is offset by the possible benefits. Unlike other areas, the waste haulers are considering unit based pricing as a tool for achieving their objectives. The private waste haulers would like to offer recycling and compete with the city. The city feels that it is unfair to their customers who recycle to pay for disposal in their property tax. The inconvenience to citizens paying at the landfill gate could lead to new customers.

This led to a lively discussion of what would happen if the landfill instituted a tipping fee. There were feelings that unit based pricing could work as a marketing tool. There were also feelings that if the waste haulers of their own volition tried unit based pricing it would open the door for new competitors to enter the market offering flat fees.

## **Iowa**

The Iowa group was held in Cedar Rapids. The State of Iowa set a reduction goal of waste to landfills that communities must meet. A monetary incentive in reduced tipping fees is owed to the state by communities that meet the goal. An increased tipping fee penalty, along with the requirement to consider unit based pricing, is applied to communities that do not meet the goals. The requirement to consider unit based pricing has led to strong education and

promotional efforts encouraging unit based pricing throughout the state. The Iowa waste haulers are very familiar with unit based pricing. All participants at the focus group reported they were using some form of volume based pricing strategy.

There is a presence of a rapidly growing national company, and while the competition is considered fierce, no one indicated it was predatory. The biggest market in the area, the City of Cedar Rapids, is essentially a residentially closed market. The city water bill includes a charge for trash service regardless of whether the city or someone else hauls the trash.

The area is served by two publicly owned landfills with equal tipping fees to all haulers, regardless of volume. Recycling facilities are available. In January 1999, a new regulation at the landfills goes into effect. It doubles the tipping fee for, in effect penalizing, residential trash containing OCC (corrugated cardboard). Each waste hauler can receive \$10,000.00 to offset the cost of purchasing containers for customer recycling of OCC.

On the surface, it appears a framework for a level playing field is in place. Landfills and recycling facilities with non discriminatory pricing are available. The city residential market is limited, or closed, to the private sector. Competition in the available markets is fierce, but not predatory. Regulations apply equally to everyone. There is even a heightened awareness among customers of what unit based pricing is. Still 50% of the private sector haulers claim that unit based pricing created unfair advantages, much higher than three areas surveyed.

The appearance of the level playing field is an illusion. The grant money is flat, equal to each company regardless of the number of customers. The variable number of containers required by each company is not. Large companies, with more customers, need more containers than their smaller competitors. Some waste haulers will have to buy containers from their own resources increasing their cost, in this case, working in favor of the smaller business. Even worse, waste haulers fear both becoming trash cops, and the pricing nightmare that has been created.

Do the waste haulers assume their customers can not be reliably counted on to separate OCC from their trash? Haulers could refuse the money, and invest nothing in containers; not try to change customer behavior and price for the worst case scenario; raise prices to cover double the disposal expense, because one customer could contaminated the whole load. Thus, reaping the benefit when a load is not contaminated.

Is it better to predict behavior, increase the price based on cost of containers, educational efforts, and a statistical analysis of increased disposal cost?

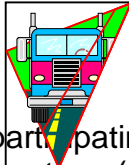
Do haulers dig through their customer's trash, taking pictures so there can be no dispute, and penalizing only offending customer?

What are the other companies going to do, and will the customers be satisfied with the service and price? The potential exists for a major upheaval in customer loyalty. Losing or gaining a customer also has associated costs.

Business decisions based on efficiency, cost, and customer good will must be balanced. The OCC regulation creates dilemmas for the waste haulers which in turn affects their perception about unit based pricing. The upset of the status quo, i.e. losing customers, is really the issue.

## Nebraska

In Lincoln, Nebraska, the reaction of the participating waste collection services to unit based pricing offering an unfair advantage (80%) is harder to discern. One Lincoln waste hauler commented, "We have a state of the art landfill that will last another 20 to 30 years. We have more important competition than any other unit based pricing." The landfill is owned and operated by the City of Lincoln. It charges a set tipping fee to haulers and citizens alike. The landfill bans yard waste from April to November.



There is a state recycling goal, but no penalties are involved. Recycling and yard waste facilities are available, to both haulers and citizens.

The customer may choose how to get rid of the trash, recyclable materials or yard waste they produce. They can do it themselves or hire a service. The haulers decided what services to offer and what pricing strategy to use.

There does not seem to be any major issue looming on the horizon that the public agencies and the haulers could not work through. The waste haulers and the public agencies enjoy a strong relationship and a history of working through problems and issues to the satisfaction of both sides.

The Nebraska group concerns focused on rate setting, controlling costs, and public education. They were very concerned with the public perception of unit based pricing. If customers do not see collection services as worth the money, unlimited disposal for a set price, they will change companies or simple handle the waste themselves.

## Missouri

St Louis, Missouri, group had a high perception (80%) of unit based pricing creating unfair advantages for the competition. And, in comparison to the other groups, the most uneven playing field for the independent waste


haulers. The area appears to have a large base of independent waste hauling companies to choose between, even though the number has been rapidly declining in the last ten years. The national companies buy out the local waste haulers, but retain the original customer loyalty.

These same companies also own area landfills and dispose of waste in a manner most beneficial to their own interests, effectively deny access to their disposal facilities to their competitors. Their tipping fee is based on volume, not weight, and they pay lower volumes at lower prices. As their share of the market grows, they gain more advantage. The independent haulers are forced to travel longer distances, or pay higher tipping fees. This creates a vertical monopoly. They also observe a reward volume with a lower price work concept.

The waste haulers feel strongly that customer loyalty enables them to survive. Changes in pricing could cause serious repercussions.

A pricing program that caused an increase or misunderstanding in pricing could cause a realignment in the customer base. This creates advantages for the companies better able to absorb additional costs. It could create the opportunity for low balling the competition, potentially forcing more independent waste haulers out of business.

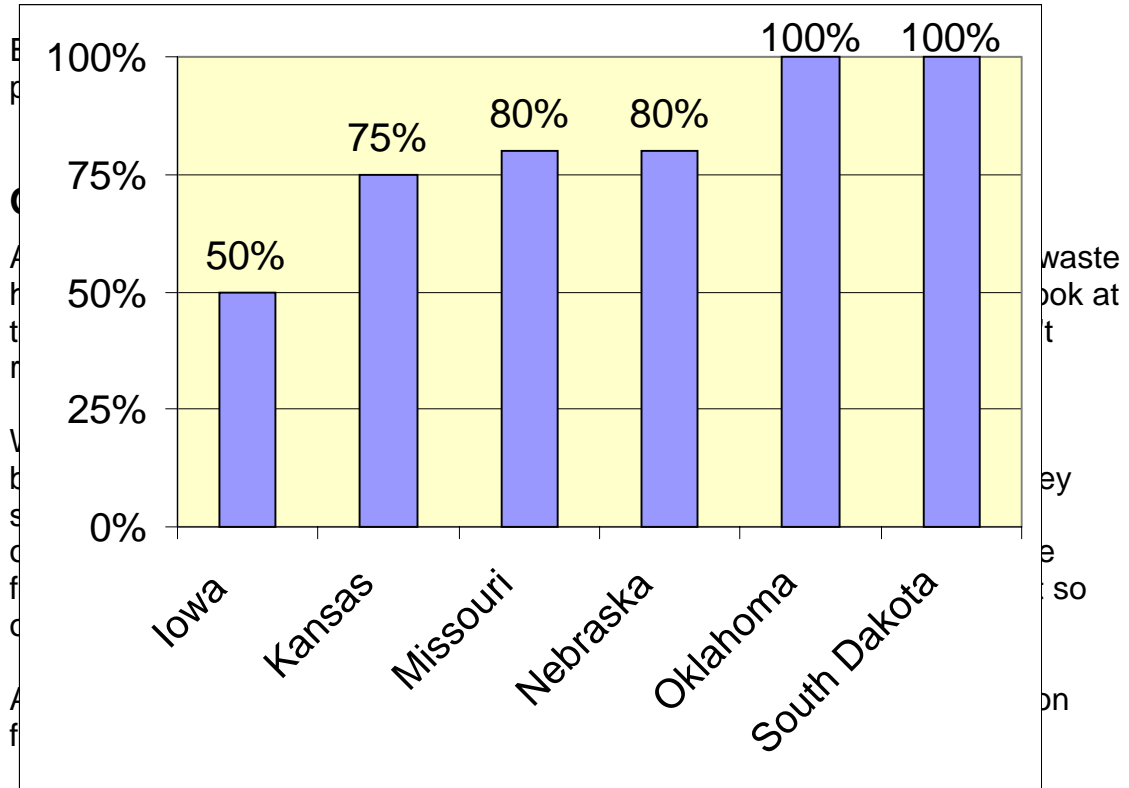
In the end, these same waste haulers foresee automation and weight based pricing as a means to operate more efficiently and give them a better chance to compete with companies that own landfills. One company in the group was involved in a demonstration project using weight based for residential trash. There were problems with the RF identification reader not recording data, and not interfacing with the computer properly. The waste hauler was nevertheless convinced it would someday be the standard.



As one waste hauler from St. Louis put it, "Why wouldn't we want to charge by weight, if we could? It is the way we are charged."

## Can Unit Based Pricing Work?

What happened to waste hauler perceptions when asked, "Under the right conditions, can unit based pricing work?" The graph shows the percent of waste haulers that feel unit based pricing can work.




- Is pressure being applied to provide recycling or yard waste collection "free"?

Collecting, transporting, and dropping off yard waste and recycling entails expenses on the haulers end. Adding recycling costs on what is intended to be reduced - trash, and offering recycling or composting for free, which is intended to grow, is not perceived as a good tactic when trying to make money. How unit based pricing is proposed makes a difference. It can even make the official suggesting it look hypocritical. After all, as the waste haulers pointed out, isn't a rationale for unit based pricing to pay for what is used?
- Is the waste hauler expected to assume all the risk? Are long term contracts too rigid? Do contracts allow corrections if there is a miscalculation about the public's behavior?

Landfill cost increases are sometimes unanticipated. A new owner or discovering ground water contamination at the landfill could cause costs to rise significantly and unexpectedly. Long term, rigid proposals leave a business vulnerable to the unknown. Cities have reported making mistakes in predicting volumes and anticipating cost increases. Rates have had to be adjusted in as little as six months.

- Is the length of a proposal long enough?  
A one-year contract does not justify five years of debt and depreciation on a new truck or containers.

-  the responsibility of gaining public acceptance and education being reached?  
It is forced on the waste hauler to explain: "You may have to pay more, but it's fair," or "I have been overcharging you for years, but I've changed," or "Don't worry, it's all averages out to the same amount." In addition, education costs time and money that some simply cannot afford or deliver.

- ❑ Are the facilities to accommodate a recycling or composting program in placed?  
Most waste haulers do not want to go into the recycling commodities market for the materials that are left at the curb. Nor do they want to start compost facilities.
- ❑ Is enforcement or policing policies going to be adopted if unit based pricing is mandated?  
Some waste haulers may be tempted to disregard the rules if not.

There is still another reason why waste haulers are not switching to unit based pricing.

### **Money, Money, Money**

The change to unit based pricing from a flat rate system entails some cost for the private waste haulers. Costs are associated with retraining employees. New billing system software and computers costs money. Customers need to be educated. Re-outfitting trucks, new trucks, and containers are very expensive. Costs to switch need to be acknowledged and addressed.

Private for profit waste haulers, especially the independents, may not have the funds to expand or change. The assets or worth of a company may be impressive on paper, however cash flow is important . Purchasing new containers may not be an option if the money required for the purchase comes from next Friday's payroll. Needs differ from company to company, area to area, and one size does not fit all. Well conceived grants or financial assistance may be necessary. Waste haulers should be considered for planning, implementation and education grants, just as the local public entity's recycling or composting programs are.

### **Beyond The Local Level**

There are people and agencies operating beyond the local level that are interested or responsible for promoting recycling, waste reduction and composting. A few of the problems such as monopolies and unfair trade practices can only be addressed at the federal level or by the courts. However federal, state and regional entities can direct their resources to addressing some of the others.

Informational or promotional materials from the public sector do not meet the needs of the private sector. The waste haulers do not need Full Cost Accounting, as presented to the public sector; they have no water departments, where costs maybe hiding. New literature, manuals, publications and training workshops specifically tailored to private sector

waste hauler, addressing the business side of waste collections are needed. Case studies and demonstration projects on marketing unit based pricing would help. Classes on taxes, the profit and loss statement, or performing a break-even analysis may be appropriate.

Customer acceptance and demand for unit based pricing must be created. The weight of having to convince the public and customers should not be the burden of the waste haulers. If the public were asking for it, unit based pricing would be a moot point. Waste haulers would be leading the way. Free enterprise has always found a way to respond to its customers' requests quickly. Public demand for a menu selection, "large or small container? Will you have recycling to go with that?" would be of great influence on any waste hauler wavering on the merits of unit based pricing.

Technology must also be addressed. Development of the weight based system should be strongly supported. More test or demonstration projects are needed to prove the viability, strengths and weaknesses in different systems. Efficiency and routing is the key to the industry. Discussions on regulations concerning issues with weights and measures, and tolerance limits for billing on 20 or 30 pounds of trash should be addressed now. Field calibration test of scales should be developed to keep the trucks rolling, and productivity high.

Waste haulers should be brought into the dialog on all of these matters, questions should be asked of the waste haulers as to what would be most helpful. Many waste haulers wanted to know who was behind asking the questions for this report, and why were they asking; some were suspicious of the intent. Others merely said, "Thanks for asking."

## **Conclusion**

There are good reasons for recycling, composting and waste reduction. Unit based pricing can be an effective tool in this process. However, waste haulers may see it as expensive, counterproductive or impossible to implement. However, when educated about unit based pricing, waste haulers are not opposed to it.

Unit based pricing is a viable alternative when:

- It doesn't create disadvantages in business,
- Facilities are available to accept materials, thus diverting them from the landfill,
- No strings are attached that provide more than the hauler is capable of.
- Customers ask for it,
- When technologies improve, and
- Financial assistance for additional costs is available.

It is important to note that waste haulers look for pricing strategies to meet their needs. Some waste haulers are using volume based pricing. Others are experimenting with weight based. Others are gravitating towards combining flat rates and unit based pricing. In one case, the waste hauler viewed unit based pricing as a possible marketing tool.

Even though many still rely on flat rates, unit based pricing can and should be used to reach everyone's goals and objectives - both public and private sector. The waste haulers should be able to offer reliable service, at a reasonable price, and receive a decent return. Public solid waste professionals should be able to accomplish their objectives and meet mandates without penalties.

It is only a matter of understanding, ability, education and acceptance for the public and private sector to come together and benefit each other as well as the customer.

# The Focus Groups

The term focus groups maybe a misnomer. This was not a scientific process, with random sampling techniques being used to compose a subgroup representative of waste collection services operating in the Midwest. The locations were chosen on the grounds of having enough haulers in the area to form a group. Participation was based on the ability to persuade busy waste haulers it was important to attend. The process would be more comparable of a group interview, with the views of the group being represented in this report. For informational purposes the groups referred to in the report are:

## **St. Louis, Missouri**

This group met on January 27, 1998, in St. Louis. There were ten participants representing five independent waste collection companies. All participants were knowledgeable of unit based pricing, with one company having operating experience with a pilot weight based program. The majority of the group expressed the opinion that they must operate efficiently and with semi-automated to fully automated collection to remain competitive with national level haulers who owned and operated both collection routes and landfills in the region. As a whole, the group was definitely interested in weight based pricing, but not in volume based.

## **Lincoln, Nebraska**

This group was held on June 23, 1998, with five participants representing four independent waste hauling companies. This group was somewhat familiar with the concept of unit based pricing, but did not anticipate changing from a flat rate system to a unit based pricing program. They considered price, then service to be the most important factors to their customers.

## **Sioux Falls, South Dakota**

This focus group was held on June 24, 1998. Two participants representing one company attended. Four other representatives from two companies planned to attend, but an on-the-job injury the day of the meeting kept two participants from attending and two others forgot. The haulers that did not attend were interviewed by telephone. The City of Sioux Falls mandates unit based pricing. The haulers find it a workable program that is fair to both them and their customers. The waste haulers stated that they would not have switched to unit based pricing without the City having creating the conditions for them to do so. The state bans recyclable materials from landfills which the

waste haulers find burdensome to dispose of when recycling markets are poor.

### **Cedar Rapids, Iowa**

This meeting was held August 31, 1998. Of the five waste hauling companies agreeing to participate in the focus group discussions, representatives from four companies attended. Because of the promotion of unit based pricing, and waste reduction mandates from the State of Iowa, this group was very familiar with the concept. It is interesting to note that even without local laws governing the adoption of unit based pricing, the haulers had, for the most part, voluntarily incorporated aspects of volume based pricing into their pricing strategies. Group issues centered on pricing with much discussion of a local ordinance which penalizes the hauler for landfill disposal of corrugated cardboard from residential customers.

### **Tulsa, Oklahoma**

This group met on September 28, 1998. There was six companies represented at this meeting of the eight that originally agreed to participate. This group was unique in that the waste from within the City of Tulsa is franchised to guarantee its delivery to a waste to energy incinerator rather than to municipal solid waste landfills. Some of the waste haulers participating had formed a corporation and were a successful bidder for the Tulsa contract. Like most of the other groups, the majority of haulers felt that unit based pricing could work under certain conditions. Employee issues and customer relationship was the major concern of this group.

### **Hutchinson, Kansas**

This group met on December 4, 1998. This was the only group that was not made up exclusively from the private sector. There were two public sector representatives: one administrator for the city refuse collection department, the other a county solid waste manager responsible for administration and operation of the landfill. In this group, the waste haulers did not feel unit based pricing was an option due to landfill fees being paid by residents from their personal property tax statement. However, they were interested in the concept if the landfill policy changed and if tipping fees were introduced. The waste haulers were most concerned with outside competition moving into the market if they adopted unit based pricing.

## **About the Midwest Assistance Program, Inc.**

The Midwest Assistance Program, Inc. (MAP) provides technical assistance and training on water, wastewater, solid waste and community development issues to small, rural communities in nine states. MAP annually assists over 350 communities.

The service area includes Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, South Dakota and Wyoming. All of MAP's services are delivered on-site with assistance provided to community leaders upon request and at no cost.

MAP's field-based staff tailor on-site technical assistance and training to each community. Utilizing a capacity-building process, skills are transferred from MAP professionals to rural community leaders. Community leaders develop the skills to respond to community problems rather than having MAP solve the problem for them. As a result, the community is able to develop sound strategies for dealing with present problems and may be able to prevent future ones.

Some examples of technical assistance and training include:

- Financial packaging
- Water/wastewater system compliance
- Record keeping, financial management
- Developing water or sewer entities
- Policy development

MAP's quarterly newsletter, "WaterLog," is an informative tool for local leaders. MAP's video tape, narrated by Garrison Keillor, takes viewers on an entertaining journey into the services provided by MAP. For a free newsletter subscription or to loan the tape, call MAP's central office at 800-822-2981.

MAP was incorporated in 1979 as one of six regional technical assistance centers making up the national Rural Community Assistance Program, Inc. (RCAP).

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