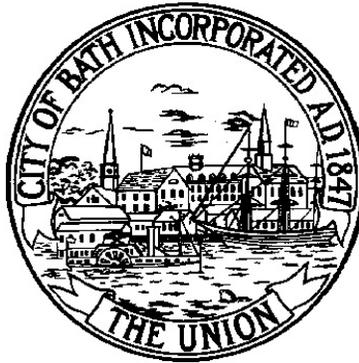


City of Bath

Proposed Pay As You Throw Plan



Department of Public Works

January 17, 2007

City of Bath PAYT Plan

Executive Summary

On April 26, 2006 the City Council of the City of Bath ordered that a citizens committee be formed to evaluate the possibility of implementing a Pay-As-You-Throw (PAYT) program for the management of residentially generated solid waste. The committee consisted of 12 individuals, including residents, city staff, and city councilors. The committee met 9 times over the summer and fall of 2006 to discuss many components, options, goals, and challenges of implementing PAYT in Bath.

PAYT is a program whereby the included residents would be required to purchase special bags, manufactured for the city, for disposal of their solid waste. If their weekly trash is not placed at the curb in that special bag, it will not be collected. To reduce their bag expenditures, residents are encouraged to recycle more. Curbside collection of recyclable materials would continue to be free, and the service may be enhanced by the implementation of single stream recycling.

A PAYT program has many options and components and the committee discussed all of them at length. As a result of its deliberations, the committee is making the following 11 recommendations to the Bath City Council regarding a PAYT program:

1. Stated goals of the PAYT program should be:
 - Increased recycling rate
 - Revenues dedicated to solid waste functions
 - Equity
 - Educate community about landfill costs and closure
2. Vehicle type should be a bag with the following characteristics
 - 15-gallon and 30-gallon sizes offered
 - Color and logo to be developed by students
 - Draw-tape style closure
 - Bag thickness of 1.5 mils
 - Recycled content maximized but with no quality reduction
 - Sold in plastic sleeves of 5 bags each with PAYT program information printed on sleeve
3. Committee suggests prices be reviewed annually and compared to revenue goals and costs; that prices be raised slowly but steadily instead of rarely and dramatically; and that the following ranges be used as the starting prices on bags:
 - \$0.75 to \$1.25 for a 15-gallon bag
 - \$1.50 to \$2.50 for a 30-gallon bag
4. Bags to be sold exclusively by interested area retailers and only in packages of 5 bags each. City Council should determine if retailers should get compensated for their overhead costs to stock and sell the bags.
5. City seeks a manufacturer to perform inventory control, billing, tracking of orders and revenues, and delivery of bags in addition to manufacturing the bags.

6. At the initial implementation of PAYT, the existing recycling program should not be expanded to include more people, however the program should be enhanced by the initiation of single stream recycling.
7. A comprehensive education and outreach campaign should be crafted and funded to start prior to implementation and to continue indefinitely; the schools, all available city resources, and “welcome to Bath” literature and events should be utilized to educate residents about PAYT; one free roll of five 15-gallon bags be distributed with education materials to all affected residents.
8. Solid waste ordinance be modified to require use of the PAYT program and define the program participants.
9. PAYT program revenues should be dedicated to a capital reserve account specifically for landfill closure.
10. Low-income families should be offered a discounted bag price; the city council should define the discount and the method of bag distribution.
11. The PAYT program should be evaluated on a variety of metrics against the program goals, to determine if the curbside program should be expanded, and to get feedback on the retailers’ experience.

A budget of approximately \$25,000 would be required to get the program started. This would include the initial purchase of bags and a public education campaign. A budget of approximately \$80,000 would be required annually, including \$25,000 to reimburse retailers for their overhead in selling the bags. Assuming 1 bag of each size was used by each included resident per week, 143,000 bags of each size would be required and the estimated annual revenue would be approximately \$500,000.

It is anticipated that the program could be implemented approximately 6-7 months after this report is presented to the City Council.

There are several perceived barriers to implementing PAYT. Among them are:

- Increased illegal dumping
- PAYT as another tax
- Impact on low-income families

The PAYT literature does not indicate that illegal dumping is a problem. In Bath, PAYT fees should be thought of as being in lieu of a tax increase rather than a way to lower existing property taxes. The PAYT committee recommends that the council establish an adjusted price scale for eligible low-income families.

PAYT would be good for Bath, as it would equitably provide revenue for the inevitable and very expensive landfill closure project. It would also serve to dramatically increase the tonnage of recyclables collected and decrease the tonnage of waste placed into the landfill, extending the life of that facility.

Introduction

Bath is one of the few remaining municipalities that owns and operates a landfill. The landfill benefits Bath taxpayers in that the City is better able to control the cost of waste disposal. For this reason, it is incumbent on the city to investigate and assess meaningful alternatives for waste disposal and cost management to extend and conserve landfill life and to fund landfill closure.

One of those alternatives is Pay-As-You-Throw or PAYT. PAYT is a unit-based pricing system for managing solid waste and an incentive program to encourage recycling. The program is used by thousands of municipalities around the country to manage trash in a way that is fair, economically sound, and environmentally sustainable. Simply put, it is a way for consumers to control their solid waste expenses rather than blindly pay a portion of their property tax for the municipality to collect, transport and dispose of their wastes. This puts consumers in the familiar position of paying for a service by the unit just like buying gasoline by the gallon or hiring a contractor by the hour. In this case the unit is typically a trash bag that is unique to the City and that consumers would purchase at local retailers. The bags would be placed at the curb and collected by the City's curbside collection contractor. The contractor would then deliver the waste to the Bath Landfill for disposal. The only difference between the establishment of a PAYT system and the current system is that a resident placing a non-PAYT bag or container at the curb will not have the waste removed.

Residents are in control of how many bags they purchase. They can reduce their bag consumption and thus their expenses by recycling more. Residents will be able to recycle as much or as little as they want utilizing the curbside collection program and/or the landfill drop-off area. Recycling of household materials has been and will continue to be free.

There are approximately 140 communities in Maine that are operating a PAYT program (See the appendix for a spreadsheet assembled by the Maine State Planning Office summarizing PAYT programs in the state as of 2000). These communities represent a wide variety of sizes and geographic locations.

On April 26, 2006 the Bath City Council directed that a committee be established to study the PAYT concept and return to the council with specific recommendations as to how to implement a PAYT program in Bath. The committee membership was representative of the wider community and consisted of the following individuals:

Mary Ellen Bell	Resident
Halcyon Blake	City Councilor
Jackie Dwinal	Resident
Bruce Goodwin	Resident
Erika Helgerson	City Employee
Lee Leiner	City Employee
James Omo	City Councilor
Peter Owen	City Employee
Aaron Park	Resident
Nancy Perkins	Resident
Gordon Reed	Resident
Ruth Welch	Resident

The committee met 9 times on the following dates:

- June 7, 2006
- June 14, 2006
- June 21, 2006
- July 12, 2006
- July 26, 2006
- August 9, 2006
- September 7, 2006
- September 20, 2006
- October 11, 2006

Meeting minutes are included in the appendix to this report.

The committee reviewed a wide variety of policy questions and program options. Following the committee's work, the public works staff met with the City Manager to further refine the PAYT proposal. This report documents the committee's activities, decision-making, and conclusions. It represents the members' best recommendations to the Council as to how a PAYT program could work in Bath.

It is important to understand the distinction between what PAYT is and what it is not. It is an incentive program to encourage the average resident to recycle more household recyclables. This material includes glass, plastic, tin cans, newspaper/magazines/catalogs, and corrugated cardboard. Other materials may be added to the list of items collected curbside, but these are the materials that are the targets for increased recycling. The PAYT concept is a relationship involving household trash and these recyclable materials. The PAYT program would not include other waste or recycling streams such as construction & demolition debris (C&D), asphalt roof shingles, drywall/sheetrock, lumber, brush, or household hazardous or universal wastes.

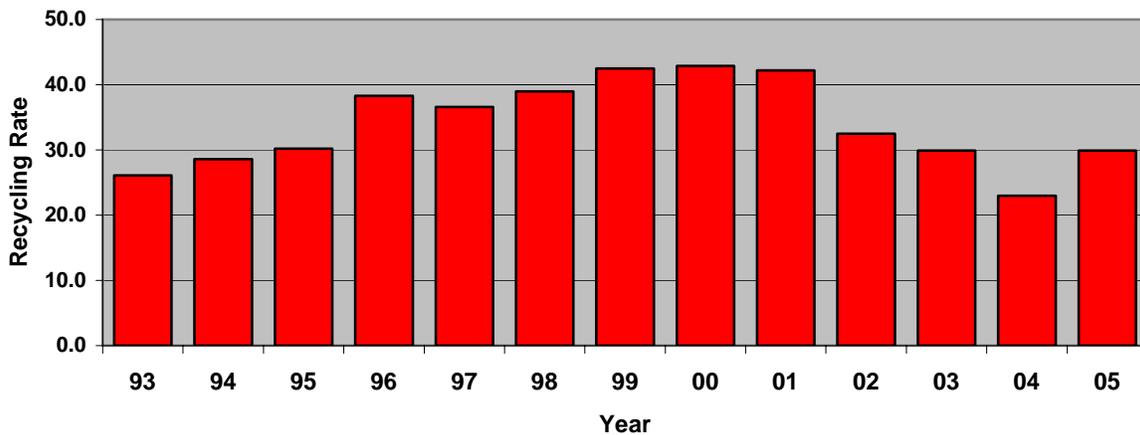
Targets and Goals

Goals are an important part of making public policy. The success of the PAYT program will be determined by comparing actual results with the goals. The committee identified the following goals of a PAYT program in Bath:

- Increased recycling rate
- Revenues dedicated to solid waste functions
- Equity
- Educate the community about landfill costs and closure

Goal #1 – Increased recycling rate

First and foremost PAYT is a recycling program. Instituting a cost to throw something away and leaving recycling as a free service is a strong economic incentive to the average resident to recycle as much as possible. Bath's existing recycling rate as compiled by the Maine State Planning Office can be seen on the following chart:



The State of Maine has established a recycling goal of 50%. While the recycling program in Bath has been expanded dramatically in the last few years, and now includes computers, televisions, propane tanks, asphalt roof shingles, drywall, leaves and brush, the curbside program has remained unchanged. And even with the program expansion, the chart shows the City’s recycling rate falling in the last few years. The decreasing rate is consistent with recent results statewide and can be attributed to two issues:

- Waste tonnage is growing faster than recycling tonnage
- Recycling programs have been stagnant and there is a need to reinvigorate the recycling message

Recycling is important in Bath for one primary reason: to preserve landfill space. The landfill is a relatively inexpensive way for Bath to manage its solid waste. Making it last as long as possible is a worthy goal for the City. Of course recycling is also a sound environmental policy and is cheaper than disposal in many cases. In the end, a high recycling rate is in Bath’s best interest. Unfortunately the existing program is proving to be inadequate to the task and it needs rejuvenation.

Many municipalities realize significant increases in their recycling rates after implementing a PAYT program. Typical increases are in the 15% - 30% range. The committee discussed recommending a specific target for the program, but instead settled on the general concept that recycling is good for Bath and that one of the primary goals of the PAYT program is an increase in the City’s recycling rate.

A secondary benefit is a corresponding decrease in municipal solid waste (msw) tonnage. The typical PAYT community has 30%-40% less bagged msw per person than a non-PAYT town (Source: Maine State Planning Office). It would not be unrealistic to see a 30% reduction in residential msw in Bath after implementing PAYT. Obviously less tonnage translates to slower landfill volume consumption.

Goal #2 – Revenues dedicated to landfill closure

The committee believes that it is very important to the solid waste & recycling program and to the credibility of any PAYT program, to firmly dedicate the revenues of the PAYT program to a capital fund for exclusive use on solid waste projects. The committee went further and concluded it would be best to dedicate the revenues to the landfill closure expense.

Currently all landfill and recycling revenues (projected \$540,000 in FY 07) are placed in the general fund where they can be used for any purpose the City Council approves. Unfortunately the capital fund that exists to pay for the future closure of the landfill has been under funded for several years. Funding that

project from PAYT revenues would put the cost squarely on the shoulders of the users of the landfill and would be based on the usage of the facility (i.e. by the bag).

The committee recommends that the dedication of the funds to landfill closure be codified in the ordinance to be passed to implement the PAYT program.

Goal #3 – Equity

There are some very significant projects to be undertaken at the landfill in the near future. They include

- Cell construction
- Gas management system
- Future cell construction
- Closure

Funding these projects through the property tax means that a residents contribution to the debt service is based on the value of their property and is independent of the amount of waste they generate. Funding through the PAYT program means that the contributions are based on how much waste the resident generates and thus, how much landfill space they are consuming. This is a much more equitable form of public funding as each user pays based on how much of a service they are utilizing.

Even in the future when the landfill is closed, the revenues could be used for funding the curbside collection program, or solid waste disposal, and the equity of the funding source will remain.

Goal #4 – Educate community about landfill costs and closure

The committee believes that the PAYT program would be a good vehicle to assist in educating the residents of Bath about the costs and benefits of having a landfill and the future closure of that facility. An extensive education campaign would be a necessary component of the implementation of PAYT in Bath and this goal would be one component of that campaign.

Plan Components

Container Selection

An integral component of a PAYT program is the selection of a vehicle, or container, for residents to use for trash disposal. The committee debated the merits of the three most popular vehicles selected for use by other municipalities: prepaid tags/stickers, variable sized cans, and prepaid bags.

The prepaid tags/stickers concept would require the resident to purchase the tags/stickers and place them on the solid waste disposal container of their choosing. The curbside driver would then pick up the trash only if the sticker were present. The committee agreed to discard the tags/stickers approach because:

- Residents would be required to purchase both bags and tags/stickers
- Equity would be eroded because the resident would select the bag size
- Curbside collection driver would have to be the point of enforcement
- Tags/stickers could be fraudulently reproduced
- Tags/stickers could be placed on oversized items

The variable sized cans concept would require the city to purchase sturdy plastic containers for each resident and offer them for rent. Different sized cans would be offered each at a different rental rate. The committee agreed to discard the variable sized can concept because:

- Up-front capital cost to city to purchase cans is prohibitive
- Maintenance and replacement issues with cans
- Reduced incentive to recycle

The prepaid bag concept is the most popular vehicle chosen by Maine municipalities and appears to be the most practical. The City would arrange to have special bags manufactured and they would be sold at local retailers and/or City offices. The bags would be a unique color and be printed with a logo or other information unique to Bath so that bags would be clearly identified as “Bath bags”. For the curbside collection driver the task is simple: if the trash is not in an official Bath bag, don’t pick it up.

Other considerations in selecting a bag include:

- Color – The committee does not have a recommendation on a specific color. It does recommend an opaque bag of a color unique to Bath be used. The use of transparent bags was discussed but rejected due to privacy concerns.
- Logo or other printed information – The committee recommends that information on the PAYT and recycling programs be printed right on the bags.
- Sizes – The committee recommends that two sizes be offered for sale: a 15-gallon and a 30-gallon. The small size is equivalent to a kitchen trash bag and the large is equivalent to a lawn/leaf bag.
- Closure style – The committee recommends a draw-tape style of closure. Rejected styles were twist-tie and a die cut bag that allows tying of the bag itself.
- Quality – The committee recommends that the highest quality bags be used with a suggested thickness of 1.5 mils. This compares very well with a typical trash bag of 0.9 mils. It was further recommended that the post-consumer recycled content should be maximized in the PAYT bag without jeopardizing the bag quality, durability, and strength.
- Packaging – The committee recommends that the bags be sold in packages of 5 inside a plastic sleeve with information about the PAYT program printed right on the sleeve.

Rate Structure

One of the most important decisions to make when creating a PAYT program is how to price the bags. Pricing decisions should be made with the targets and goals of the program in mind: Pricing should be high enough to be an incentive to recycle, high enough to cover the costs of the program and provide the desired revenue (for landfill closure or other projects), and low enough to be affordable.

The committee discussed these issues at length and concluded that it would be most useful to make a recommendation for price ranges rather than specific prices. The members felt the City Council would be able to set the specific prices during its deliberations on the program and with community involvement. The committee recommends the following price ranges:

- \$0.75 to \$1.25 for a 15-gallon bag
- \$1.50 to \$2.50 for a 30-gallon bag

In addition to the PAYT committee deliberations on pricing, public works staff has calculated a price structure based on revenue needs. Starting with the expected cost of landfill closure and estimating how far into the future that project will be constructed, an estimate of annual revenue needs net of program costs was generated. Estimating the number of bags to be sold results in a price per bag.

Expected closure cost: \$5 million

Expected closure year: 2018

Annual revenue needs: \$5 million/11 years = \$455,000 per year

Approximately 2,750 households in PAYT program

Assume each household uses an average of one 15-gallon and one 30-gallon bag per week

Estimated number of bags consumed per year:

- 15-gallon – 2,750 x 52 weeks = 143,000 bags
- 30 gallon – 2,750 x 52 weeks = 143,000 bags

Estimated annual program costs for bag production & distribution, and community education/outreach, but not including any allowed retailer overhead: \$55,000

Required annual revenue (based on closure and PAYT program costs): \$510,000

Suggested bag prices

- 15-gallon - \$1.25 per bag
- 30-gallon - \$2.25 per bag

Calculated Revenue: \$500,500

The committee also discussed how often rates should be changed. The consensus was that the program should include an annual review of the price structure and how it relates to annual program costs and revenues. Also, those prices should be adjusted incrementally and more frequently (if necessary) rather than keeping prices steady for years and subjecting residents to dramatic but less frequent increases.

Sales locations

As the proposed PAYT program involves the public buying bags, the committee discussed where the bags should be sold. The most common way municipalities arrange for distribution of bags is through existing retailers. The committee identified at least 20 area retailers that could be approached. They included hardware stores, grocery and drug stores, convenience stores, and department stores. Obviously a retailer could not be compelled to sell the bags, but the committee thought most retailers would be interested in selling a product that their customers absolutely needed. Several of the retailers are located outside the Bath city limits. However, an informal survey conducted by the public works staff indicated that some of those retailers would be willing to sell the bags because they want to service their Bath customers.

There was further discussion on selling the bags individually from City offices. It was thought that those residents who did not want to pay for a package of 5 bags would appreciate the opportunity to purchase individual bags. However, the committee ultimately rejected this concept due to the difficulty of delivering and storing the bags, tracking individual bag sales and revenues, and the possibility of theft.

The committee identified a concern about the costs retailers would incur to stock the bags. Their staffs would be arranging for delivery of the bags and then unpacking and stocking the shelves with the bags. The bags would also displace another, profit-producing product from the shelves. These are all costs to the retailers. The committee discussed at great length the idea of allowing retailers to make a profit or at least cover their overhead costs. This would require a portion of the selling price be dedicated to the participating retailers. The bag prices could be raised to allow both the City and the retailers to meet revenue targets. Or the City could live with lower revenues to allow the retailers to cover their costs. The vast majority of PAYT communities in Maine do not allow the participating retailers to keep a portion of the revenues. The Town of Falmouth is a local exception that allows retailers to keep \$0.02 per bag sold.

It is important to note that every dollar that is not saved for closure will have to be made up from property tax revenue.

The committee could not in the end come to a consensus on the subject of profit/overhead compensation and defers the decision to the City Council.

Logistics

This involves the control of inventory, billing, tracking of orders and revenues, and delivery of bags. The public works department is ill equipped to perform these activities:

- There is no storage facility capable of securely storing thousands of packages of bags
- There is no accounting functionality within the department
- There is insufficient staff to take orders and make deliveries to area retailers

Several bag manufacturers offer these services in addition to producing the bags. The fee is no more than five cents per bag. The committee strongly suggests that the City utilize the professional services of the bag manufacturers to manage PAYT logistics.

Recycling program enhancements

Bath currently has a robust recycling program with several components:

- Curbside collection of household recyclables
- Landfill drop-off of household recyclables
- Landfill drop-off of construction & demolition debris for recycling
- Landfill drop-off of universal wastes
- Twice yearly collection of household hazardous wastes
- Seasonal collection of Christmas trees and leaves

A curbside collection program for recyclables is one of the best things a municipality can implement to increase recycling. It makes it very easy for the residents to recycle. No changes are proposed for the existing program as a part of the implementation of a PAYT program in Bath. The committee decided not to enlarge the pool of people that are eligible for the curbside service. However, evaluation of the PAYT program after implementation may indicate that adding more residents to the program would be beneficial.

However, the existing program could be enhanced with the goal of offering residents fewer rules to recycle more materials in order to help them minimize their PAYT bag purchases and maximize the community's recycling effort. This type of program is commonly called single-stream recycling.

Single-stream recycling is a dramatic change to curbside recycling collection. It is independent of PAYT. The concept is that residents would be able to place almost any recyclable container or fiber product in the bin for curbside collection. No sorting would be required. The materials would be collected in this commingled state and delivered to a sophisticated material recovery facility where machines and people would separate the materials for recycling. The city's curbside collection contractor, Pine Tree Waste, is able to offer this service to Bath at the present time. It may require the use of a new kind of recycling collection truck. This type of service would represent a significant enhancement to the curbside recycling program because it would be easier on the residents and it would offer collection of more kinds of materials. This would serve to help residents minimize their PAYT costs by allowing them to divert more of their waste to recycling and less to trash bags.

Community Education and Outreach

Perhaps the most critical part of implementing a PAYT program is the education of the residents about how the program will work and how the recycling program works. A coordinated campaign involving presentations to various civic and community groups, school programs, advertising, websites, and other

means of information distribution will be necessary. The city staff will require assistance to prepare educational materials and perhaps enlist a group of volunteers to help get the word out.

The city newsletter, The City of Ships, and Bath Community Television will be utilized to the greatest extent possible.

The campaign will begin immediately following the presentation of this report to the City Council. It will be helpful for the residents to be informed prior to making a decision on whether or not to support this proposed program. The campaign will be vigorous in the months prior to implementation. Following implementation, the campaign could settle down a bit but it will be needed for the life of the program in some form.

The committee was especially concerned about residents moving to Bath following the implementation and how they would get the information on the program. There are several outlets of “Welcome to Bath” information and many of those could be tapped for dissemination of PAYT program details. For example, the Bath Assessor’s office sends out an informational brochure to all new property owners. That brochure could be enhanced with PAYT information or a second brochure could be included in the package. In addition, the committee suggests that a single roll of five 15-gallon bags be given free to all affected residents of the city and to every new property owner who will be part of the program. The roll of bags can be accompanied by literature explaining the PAYT program. This free distribution would be a one-time event, not to be repeated.

The committee believes involving students in the Bath schools is a critical part of teaching the community about PAYT. Staff will make contact with various administrators and teachers to attempt to insert PAYT into the curriculum at different places. Also, more general assemblies with presentations to a large group could be conducted.

Solid Waste Ordinance

Minor modifications will be necessary to the existing solid waste ordinance. The ordinance can be found as Chapter 13 in the Code of the City of Bath. The proposed changes are as follows:

- Definitions added for various PAYT program components
- Collection requirements modified to include the use of PAYT bags
- Basic rules of the PAYT program
- Initial prices of the bags
- Change the fine for illegal dumping & littering from “up to \$100.00” to “\$100.00”

The committee agreed that there should be no limit on the number of bags a resident could place at the curb as long as all the bags were PAYT bags. There is a limit to the weight of each bag, however this limit should be high enough to allow people to stuff the bag very well. The weight limit is for the safety of the collection personnel and to reduce the incidence of broken bags with their attendant cleanup issues.

Disposition of revenues

With revenues approaching \$500,000 per year, the committee strongly agreed that the revenue should be dedicated to solid waste functions and not to the city’s general fund, as all landfill and recycling revenues are currently handled. With landfill closure looming as a significant future cost, most of the revenues should be dedicated to funding that project. However, to extend the life of the landfill, the City could reduce the incoming tonnage from non-Bath sources. Depending on the revenue level, the balance of the PAYT revenue could be used to make up for a landfill revenue shortfall resulting from decreased tonnage.

The committee members believed that dedicating the revenues in this way greatly increases the credibility of the program and is consistent with the goals of the program.

Discounted bags

The committee discussed at great length and with much sensitivity the potential for some families to have difficulty affording the bags. Philosophically all municipal waste has the same value and the same impact on the landfill: it takes up space. However, the ability to pay varies from family to family.

In the end, the committee agreed that some kind of discounted price be offered to low-income families. The committee deferred to the City Council the amount of the discount. The committee further discussed the process of identifying eligible low-income families and distributing the bags. The result of the discussion was again to defer to the council the details of identification and distribution. It is the committee's assumption that the council will utilize the general assistance office to identify eligible low-income families and will arrange a method of bag distribution involving that office.

Program evaluation

Much of the success of a PAYT program depends on meeting goals. Those goals were discussed earlier in this report. To determine if the program has been successful in meeting those goals, it must be evaluated. The evaluation would be based on a variety of metrics. Those metrics should be compared to what was predicted and the program performance will be judged. Following is a list of possible evaluation metrics:

- Tons recycled
- Tons disposed
- # Bags sold of each size
- Revenue
- Expenses

One of the results of program evaluation could be to expand the pool of residents in the PAYT program. The committee discussed the idea of including more people in the curbside collection program. Currently, the collection of municipal solid waste is offered to all residents of single-family or duplex homes while the recycling collection is offered to all residential units. The benefits of PAYT are not realized unless the resident receives both services. Adding more residents or even commercial entities to the curbside collection program would increase the cost of that program and decrease revenues at the landfill. However the tonnage of recyclables collected would increase and the revenue from bag purchases would increase. It is unknown prior to implementation whether the balance would be in the positive or negative direction. For this reason, the committee agreed that the decision to expand program participation should be deferred until the program has operated for perhaps a year or more and has been evaluated for success.

The committee also discussed evaluating the experience of participating retailers. After perhaps a year of operation, the retailers would be surveyed to try to determine if selling the bags has been a burden, if the costs are worth selling the bags, if customers ask for the bags, and their experience ordering and receiving the bags from the manufacturer.

Committee Recommendations

After discussing and debating each of the plan components, the committee makes the following recommendations:

1. Stated goals of the PAYT program should be:
 - Increased recycling rate
 - Revenues dedicated to solid waste functions
 - Equity
 - Educate community about landfill costs and closure
2. Vehicle type should be a bag with the following characteristics
 - 15-gallon and 30-gallon sizes offered
 - Draw-tape style closure
 - Bag thickness of 1.5 mils
 - Recycled content maximized but with no quality reduction
 - Sold in plastic sleeves of 5 bags each with PAYT program information printed on sleeve
3. Committee suggests prices be reviewed annually and compared to revenue goals and costs; that prices be raised slowly but steadily instead of rarely and dramatically; and that the following ranges be used as the starting prices on bags:
 - \$0.75 to \$1.25 for a 15-gallon bag
 - \$1.50 to \$2.50 for a 30-gallon bag
4. Bags be sold exclusively by interested area retailers and only in packages of 5 bags each. City Council should determine if retailers should get compensated for their overhead costs to stock and sell the bags.
5. City seeks a manufacturer to perform inventory control, billing, tracking of orders and revenues, and delivery of bags in addition to manufacturing the bags.
6. At the initial implementation of PAYT, the existing recycling program should not be expanded to include more people, however the program should be enhanced by the initiation of single stream recycling.
7. A comprehensive education and outreach campaign should be crafted and funded to start prior to implementation and to continue indefinitely; the schools, all available city resources, and “welcome to Bath” literature and events should be utilized to educate residents about PAYT; one free roll of five 15-gallon bags be distributed with education materials to all affected residents.
8. Solid waste ordinance be modified to require use of the PAYT program and define the program participants.
9. PAYT program revenues should be dedicated to a capital reserve account specifically for landfill closure and other significant solid waste expenses.
10. Low-income families should be offered a discounted bag price; the city council should define the discount, the criteria for eligibility, and the method of bag distribution.

11. The PAYT program should be evaluated on a variety of metrics against the program goals, to determine if the curbside program should be expanded, and to get feedback on the retailers' experience.

PAYT Program Implementation

Implementing a PAYT program in Bath will require a step-by-step approach. A possible timeline would look something like this:

Presentation to Council in workshop	January 2007
Presentation to Council – public hearing	February 2007
Public meetings & comment period	February – March 2007
Council workshop to determine final program configuration	March – April 2007
Council votes on ordinance implementing PAYT and authorizes start-up funding	April – May 2007
Public education campaign begins	May 2007
Students design bags and logo	April 2007
Ongoing PAYT program budget approved for FY 2008	May 2007
City issues bid package for bag manufacturers	May 2007
Bags ordered & retailers identified	June 2007
Delivery/distribution of bags begins	August 2007
PAYT program begins	September 2007

Budget

The program would require two budgets: a startup budget leading up to implementation and an on-going operating budget to keep the program going.

The startup budget would fund activities such as:

Education campaign & advertising	\$5,000 - \$8,000
Initial bag purchasing (50,000 bags of each size)	\$15,000
Consultant/Facilitator	\$4,000

The operating budget would fund activities such as:

On-going bag purchasing	\$50,000 annually
On-going education campaign	\$5,000 annually
Possible replacement of recycling truck due to dramatic increase in recycling tonnage	\$225,000
Retailer overhead reimbursement (assume 5% of bag revenues), if approved by council	\$25,000 annually
Bag sales revenue (prices of \$1.25 and \$2.25 per bag and sales of 143,000 of each bag size per year)	\$500,000 annually

The cost to the average resident can also be estimated, with the following assumptions:

- 1 bag of each size used per week
- Bag prices are \$1.25 and \$2.25

The annual resident expense would be \$182.00. Obviously if residents made an effort to reduce the number of bags purchased by aggressively recycling, the annual cost would go down and their contribution to the landfill, both in space consumed and funding for closure, would be reduced. This sum

can be compared to the amount of property taxes the average property owner would have to pay to fund a bond to pay for landfill closure. Assuming a \$5 million bond, with a 20-year term, 5% interest rate, and level payment schedule, the debt service would average \$375,000 per year. Based on current valuations, that would require a \$0.75 increase on the property tax mill rate (therefore the owner of a \$200,000 home would see an increase of \$150.00). Of course the amount is lower than the annual PAYT expense because the sum is spread out over all property taxpayers, including many (businesses, multiple family residences, etc.) that do not receive curbside collection service. However it is important to note that under the existing system, residents' solid waste services are subsidized by those very property owners that do not receive the service. Asking the residents to pay, either through a PAYT program or through property taxes, balances the burden of providing those services. Commercial customers of any type already pay their fair share through disposal fees.

Barriers

There are several issues typically raised during a community's evaluation of PAYT:

- Increased illegal dumping
- PAYT as another tax
- Impact on low-income families

Upon first examination, it would seem that implementing a PAYT program would result in a great deal of illegal dumping as residents sought to escape the bag purchase fees. However, looking at the State Planning Office spreadsheet in the appendix, illegal dumping has not been an issue for most towns that have implemented PAYT. The only type of waste that is impacted is municipal solid waste (msw). Most likely a bag of msw will contain an item with the name and address of the dumper inside. If a bag of msw is dumped on the side of the road or in a wooded area, law enforcement officials can open the bag and the dumper can be identified. In addition, the committee recommends that the existing fine for littering be strengthened from "up to \$100.00" to \$100.00." Items commonly dumped roadside, including tires and appliances, would not be impacted by a PAYT program and would continue to be dumped as residents attempt to avoid landfill tipping fees.

There is another type of illegal dumping that may also occur: residents placing bags of waste into privately serviced dumpsters at both commercial and residential locations. The easiest solution is to place a locking cable over the cover of the container to keep out unauthorized wastes. However the same rules apply as roadside illegal dumping, namely that the bag will contain an item with the name and address of the dumper. A phone call to the offending party or the police dept. will likely put an end to the dumping issue.

A frequently heard complaint about PAYT is that it is "just another tax". In the case of Bath, the situation can more accurately be described as tax avoidance. The closure of the landfill is inevitable. The price tag is high and will have to be funded. There are two identified sources of funding: property taxes to pay debt service on bonds or PAYT fees. PAYT is preferred over a general property tax increase because it allows the resident to control how much they pay for solid waste and is an equitable system in that those who dispose of waste into the landfill pay for that service rather than taxing future residents who may not have contributed any waste. PAYT revenues would not be displacing current property tax revenues but taking the place of property tax revenues yet to be raised.

The price of PAYT bags is high compared to the average trash bag. This can be a burden on low-income families. The committee has recognized this and recommends that the council establish an adjusted price scale for eligible families.

Conclusions

The Pay-As-You-Throw committee concluded that a PAYT program would be good for Bath and would help the city meet several goals, not the least of which is funding of the inevitable landfill closure project. In addition, it should dramatically increase the tonnage of recyclable materials collected from residents, particularly if a single stream recycling program is paired with the PAYT program.

The committee has made 11 recommendations to the council as to how a PAYT program could be structured. There are many details to be decided upon and the committee took great care in discussing the possibilities and evaluating them against the program goals.

The city is lucky to have its own landfill. It is a complex and expensive operation, but it allows the city to control its own destiny with regard to solid waste disposal. Unfortunately that destiny inevitably leads to final closure – a substantial project that will have no revenue to fund bonded debt service. Taxpayers who had not one pound of waste placed in the landfill will be saddled with funding this closure and the ongoing maintenance of the site. It is far more prudent to save for the future and to ask those who are using the resource to pay for the upkeep of that resource.

Pay-As-You-Throw does cost the resident money. However it is up to the resident to decide how much it is going to cost them. By making smart purchasing decisions and aggressively recycling, they can bring those costs down to something acceptable. Ultimately the resident has the ability to control their costs under a PAYT program.

The barriers to implementing a PAYT system in Bath are not insurmountable and when the residents are educated about the program, they will see that the benefits outweigh the costs.