



Town of Trumbull Transfer Station Cost and Process Analysis

TOWN OF TRUMBULL, CT

April 22, 2016
Therese Keegan
Financial/Accounting Controls Analyst



tkeegan@trumbull-ct.gov
Phone: (203) 452-5072

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Mrs. Elaine Hammers, Chairperson
Town of Trumbull Board of Finance
5866 Main Street
Trumbull, CT. 06611

Dear Mrs. Hammers,

I respectfully submit the enclosed report entitled Trumbull Transfer Station - Cost and Process Analysis.

The audit examines the Station:

- operations and bookkeeping requirements
- cost sharing arrangements with Monroe and Easton
- cost reduction and time saving opportunities available

For benchmarking purposes the report examines the processes of proximate Connecticut towns.

I would like to thank Lisa Lobo of the Finance Department for her assistance in the completion of this project. Additionally, I thank John Marsilio, Director of Public Works and his staff for their assistance, most specifically Suzanne Sheridan, Traci Stone and Richard Boland.

Respectfully submitted,

Therese Keegan
Financial/Accounting Controls Analyst

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Background

The Connecticut Resource Recovery Authority was created in 1973 by an act of the Connecticut Legislature. The Bridgeport waste to energy facility began commercial operation in July 1988 with contracts to 12/31/08. Included in the system of waste collection were regional transfer stations. On 1/1/09 the Authority transferred seven Bridgeport Project transfer stations to their host towns. The Town of Trumbull subcontracted operations via a 5 year agreement with Enviro Express, the operator for the previous 20 years. Agreement included an option to extend for 3 additional 5 year periods. In 2014 the agreement was extended until June 30, 2019.

The Transfer Station operates under the Public Works Department. The site is located at 101 Spring Hill Road. Hours are Monday through Friday 7am to 2:45pm and Saturdays 7:00am to 11:45am. The site accommodates the solid waste and recycling needs of Trumbull, Easton and Monroe. Easton and Monroe are charged a monthly fee based on actual use plus certain allocations. Allocations (Trumbull ~60%, Easton ~10%, Monroe 30%) were determined in 1988 and have not been updated.

Enviro Express operates the Transfer Station on a day to day basis with their own employees. They provide routine custodial repairs (< \$1,000) and maintain Station and grounds. For these services a monthly fee is charged (updated annually); additionally, Enviro charges the Town for waste hauled from the Station on a per ton basis.

The Town provides one full-time employee. Employee operates the scale, identifies users, keeps record of incoming and outgoing vehicles by type, town, weight and content, collects payment or tickets, and provides information and direction to Station users.

Scope & Methodology

All aspects of operations were considered to be within scope of this review, including:

- Items accepted by the station, by Town
- Cost to various users of the Station
- Cost of hauling from Station to next destinations
- Appropriateness of billings to Monroe and Easton
- Station revenue and cost analysis
- Bookkeeping accuracy and efficiency at every step of the process

Transfer Station processes – operations & accounting

An overview of site operations is provided in Appendix, page 12

1. Items entering Transfer Station:

A. Disposal requirements:

- Trash may be brought in by haulers, who contract directly with Trumbull residents. These haulers pay the Town \$500/per truck per year.
- Commercial haulers pick up from Trumbull businesses and are billed monthly by the Town at a rate of \$98/ton.

- Town trucks enter the station with brush or waste. Loads are weighed but not charged.
- For individuals, driver's license is checked; fees by town as follows:

	Trash (1)	Demo (2)	Metal	Brush (3)	SS recycling	eWaste	Tires (4)
Trumbull	No charge	With ticket	No charge	Residents no charge	No charge	No charge	\$2 ea
Monroe	With ticket	With ticket	No charge	No	No charge	No charge	\$2 ea
Easton	With ticket	With ticket	No charge	No	No charge	No charge	\$2 ea

(1) Easton sells tickets to Easton residents for \$6.50/125 lbs; Monroe sells to Monroe residents for \$6.00/125 lbs. Easton and Monroe residents can purchase from Trumbull Highway Dept. for \$8/125 lbs.

(2) Monroe sells tickets to Monroe residents. Trumbull and Easton residents purchase from Trumbull Highway Dept. \$12/125 lbs.

(3) Trumbull landscaper tickets available at \$8/125 lbs.

(4) Fee for tires is collected by Transfer Station attendant.

B. Tickets:

A log book is kept by Trumbull Highway personnel for tickets sold. \$8 tickets are sold to Easton or Monroe residents for trash and \$12 tickets are sold for demo drops. The following information is collected in the log:

- Date
- Resident name
- Description: purpose and ticket number
- Number of tickets sold (\$8 or \$12)
- Total due
- Payment type (cash or check)

Tickets sold are rung up on a cash register which issues receipts and houses cash. Checks are stamped upon receipt and kept in an unlocked box, out of sight and out of reach of the customer window. At night, cash is emptied into box and secured. Receipts are reconciled and deposited monthly.

On Saturdays, when the Highway Department is closed, the Trumbull library issues tickets. They log and reconcile receipts and send to Highway personnel on a monthly basis.

C. Transfer station operations:

Vehicle pulls onto scale. Attendant inputs town, weight, type of materials entering, and how entering (car, Town vehicle, etc.) into the Metro-Toledo Auto Scale 2000 software. A four-part receipt is generated by station attendant and signed by customer. Receipts are distributed as follows:

1. Customer - one copy
2. Monroe - 2 copies kept at station for Monroe personnel to pick up
3. Easton – 2 copies are sent to Trumbull Highway Department where they will be picked up by Easton personnel
4. Trumbull Highway Department receives a copy of all receipts and daily scale/count reports. Highway personnel enter tonnage by town by type by carrier into an excel worksheet. At end of month, worksheet is reconciled to Enviro invoicing. Excel worksheet is also used:
 - to invoice commercial haulers
 - to invoice Monroe and Easton, along with additional charges

2. Items exiting the Transfer Station:

Enviro hauls all trash and materials from the Transfer Station. Outgoing vehicles are weighed for billing purposes. Trash and demo are taken to the Wheelabrator site in Bridgeport; tires, metals, recyclables, eWaste and brush are hauled to respective handlers. Based on weight, the Town receives income for metals (market rate) from single stream recycled materials, and from eWaste.

3. Billing:

An overview of the current billing process is provided in Appendix page 13, and a summary of the billing process is provided below:

Who:	Bills:	For:	Rate:	Based on:
Wheelabrator	Trumbull Easton Monroe	Destination charges	60.46	Tonnage
Wheelabrator	Trumbull Easton Monroe	GBRSWIC Program fee	0.50	Tonnage
Enviro Express	Trumbull	Trash hauling	14.96	Tonnage
Enviro Express	Trumbull	Monthly (adj. annually)	30,110	Flat fee
Enviro Express	Trumbull	Metal	175.00	Load (every 2-3 days)
Enviro Express	Trumbull	Bulk pickup	80.00	Tonnage
Enviro Express	Trumbull	Single stream	175.00	Load (every 3-4 days)
Enviro Express	Trumbull	Tires	600.00	Load (ave 45 days)
Royal Environmental	Trumbull	Brush, logs, leaves	25.88	Tonnage
Trumbull	Easton Monroe	Attendant salary/ben	\$6/ton	Est. monthly - annual trueup
Trumbull	Easton Monroe	SRF -repairs, capex	2.50	Tonnage
Trumbull	Monroe	Demo	80.00	Tonnage
Trumbull	Easton Monroe	Trash hauling	14.96	Tonnage
Trumbull	Easton Monroe	Enviro flat fee	~ 10% ~ 30%	Population
Trumbull	Commercial haulers		98.00	Tonnage
Trumbull	Residential haulers		500.00	Per year/per truck

Per summary Appendix page 14, the amounts charged to Easton and Monroe are accurately calculated:

- Trumbull rebills hauling costs and based on tonnage
- Trumbull allocates the monthly flat fee and Station employee costs based upon population estimates
- The Special Revenue Fund contribution is based on tonnage and represents joint costs, including a provision for upcoming capital expenditures

Station revenue / cost analysis:

Residential haulers for Easton and Monroe are charged by tonnage through Enviro and Wheelabrator billing. Residential haulers for Trumbull are charged \$500 per year per truck. An analysis of Trumbull residential hauling activity is as follows:

	Minimum Mo. charge	# of HH	Est monthly income	Est Annual income	Estimated Tons (1)
Chestnut Hill	18.00	730	13,140	157,680	1,679
Colonial Sanitation	26.00	3,298	85,748	1,028,976	7,584
Residential Waste	26.00	2,690	69,940	839,280	6,186
		<u>6,718</u>	<u>168,828</u>	<u>2,025,936</u>	15,448

<u>90.42</u>	Hauling & destination / ton
1,396,812	Town payments to Enviro & Wheelabrator
<u>92,688</u>	Town salary/ben allocation

(1) Estimated tonnage calculation:

2014 Trumbull population	36,444	1,489,500
2014 Households	12,205	<u>(9,000)</u> Permits @ \$500/truck
Residents/household	3.0	<u>1,480,500</u> Net cost to Town
Est waste/person/day (lbs)	4.2	

Est. tons = HH x residents x waste x 365 / 2,000

For comparative purposes:

	Residential haulers		Residential haulers		Commercial haulers	
	Town trucks	Resident trash self-serve	Permitting fees	Tipping fees	Permitting fees	Tipping fees
Shelton	Town trucks	No charge	NA	NA	NA	NA
Fairfield	X	\$6/load	\$150	\$87/ton	\$150	\$94/ton
Westport	X	No charge	\$250 or \$500	\$80/ton	\$250 or \$500	\$85/ton
Trumbull	X	No charge	\$500	-	\$500	\$98/ton
Milford	X	\$5/load or \$60 annual permit	No	\$80/ton	No	\$80/ton
Norwalk	Town trucks & private haulers	Free up to 1 ton/yr. then \$85/ton; yardwaste \$55/ton	Based on weight/axels	\$85/ton	Based on weight/axels	\$85/ton

- Shelton uses town trucks for residential pick up. They subcontract labor. Trash can be taken to the Station by residents without charge. Residential and commercial haulers transport directly to Bridgeport.

- Fairfield charges commercial and residential haulers an annual permitting fee of \$150 per truck and tipping fees of \$87/ton for residential haulers and \$94/ton for commercial haulers. Additionally, Fairfield charges residents \$6/load up to 125 pounds.
- City of Westport charges commercial and residential haulers an annual permitting fee of \$250 or \$500 based upon capacity of truck. In addition, Westport charges tipping fees of \$85/ton for commercial haulers and \$80/ton for residential haulers. Residents can bring trash free of charge.
- City of Milford charges commercial and residential haulers \$80/ton. Residents pay \$5/day or \$60/year for an annual permit.
- Norwalk's scale software allows them to track weight for every vehicle entering Station. Residents allowed 1 ton/year free of charge, then prorate at \$85/ton for trash, \$55/ton for yardwaste. Norwalk does not differentiate between residential and commercial haulers; all pay \$85/ton.

Findings & Recommendations

Finding #1: Per schedule on page 13, annual cost of Transfer Station operations approximates \$2.5m. Unallocated share to Trumbull exceeds \$1.6m annually.

Recommendation: Trumbull may wish to consider offsetting some portion of the Town's \$1.6m Station cost by implementing tipping fees for residential haulers. Such implementation would also reduce the significant risk of residential haulers mixing loads with out of town pick-ups or with commercial waste. Some haulers carry commercial and residential loads or carry for Trumbull as well as other towns.

Management Response: Financially it makes sense. This is a policy issue for the Town. Options are available to incentivize haulers to mitigate the impact of fees being passed to homeowners:

- Charge residential haulers only a portion of the combined ~\$90/ton cost of hauling/delivery
- Consider utilizing town trucks and labor as a cost reduction strategy, or utilize town trucks and subcontract labor, as does Shelton
- Alternatively, or in conjunction with adding residential hauler tipping fees, Town could offset Station cost by charging residents a minimal fee per carload which might incentivize homeowners to utilize haulers, thereby increasing their customer base

Finding #2: Transfer Station collects cash for tires. No receipt is given. A "surprise" count was conducted and significant balance was on hand.

Cash is sent to Highway Department "occasionally" and without count documentation. The Highway Department does not verify they received the amount of cash the Station Attendant believes he sent.

Town pays \$600 per load for tires exiting the Station; there were 6 loads removed over a year's timeframe.

Recommendation: To comply with proper cash handling standards, Station Attendant must issue receipts for cash and the receipts must be prenumbered. A “drawer” balance can be kept at the Station for making change; all collections should be sent for deposit on a weekly basis. Attendant should note amount sent to Highway Department for deposit, and Highway Department should confirm upon receipt.

Management Response: Agree with recommendation. Will implement immediately.

Finding #3: Highway Dept. personnel prepare deposits when time permits, frequently only monthly. Cash is kept in the register and checks are kept in a box, out of reach of the office window, but otherwise not secured during the day. Register is emptied into the box at end of day and box is locked in a cabinet. Deposits average ~ \$35,000/month of which cash averages ~ \$2,400.

Recommendation: Highway personnel should prepare deposits each time they accumulate more than \$500 cash, but not held for longer than 7 calendar days. Once the \$500 threshold is achieved, funds should be deposited within one business day.

The cash reconciliation may be time consuming for the team, but preparation of deposits is not. The accumulated deposit information can be entered into a monthly reconciliation. For simplicity, Highway personnel can post intermediate deposits posted to Fee Revenue, which historically would have included ~ 87% of receipts. Required true up can be performed at month end.

Management Response: Agree with recommendation.

Finding #4: The town incurred annual cost of ~ \$108k for hauling leaves and ~ \$143k for hauling brush and logs.

Recommendation: Fairfield contracts with Harvest New England, a company that chips and composts this waste. Shelton chips and allows residents to take. Trumbull may wish to consider such alternatives to hauling fees.

Management Response: Previous attempts at composting were not cost effective. Management is concerned with safety of residents loading chips.

Transfer Station accepts leaves, brush, logs from residents. Town trucks bring brush and logs directly to Indian Ledge where chipping occurs and the Town utilizes chips as they are required. Balance is hauled periodically. Management suggest no change to current process.

Finding #5: Other towns provide stickers for residents to display on their vehicles.

Recommendation: As with other towns, Parks and Recreation stickers could be used as a proof of residency. This would simplify for the Station Attendant and speed up lines for residents.

Management Response: Agree with recommendation.

Finding #6: The bookkeeping process is manual and time consuming. Billing and invoicing is accurately performed due to the many checks within the process. Station bookkeeping requirements of two Highway Department employees total an estimated 128 hours per month. This calculates to \$37,956 per year in salary and benefits. Town could consider adding bookkeeping costs to allocations. If included in salary & benefits billed to Easton (10%) and Monroe (30%) Trumbull would reduce their portion of Station cost by \$15,182 annually.

Fairfield utilizes a program that accumulates weight coming into the station, by type, by carrier. Reports matched to subsequent Enviro invoicing have proven accurate, saving office time on data entry and reconciliation.

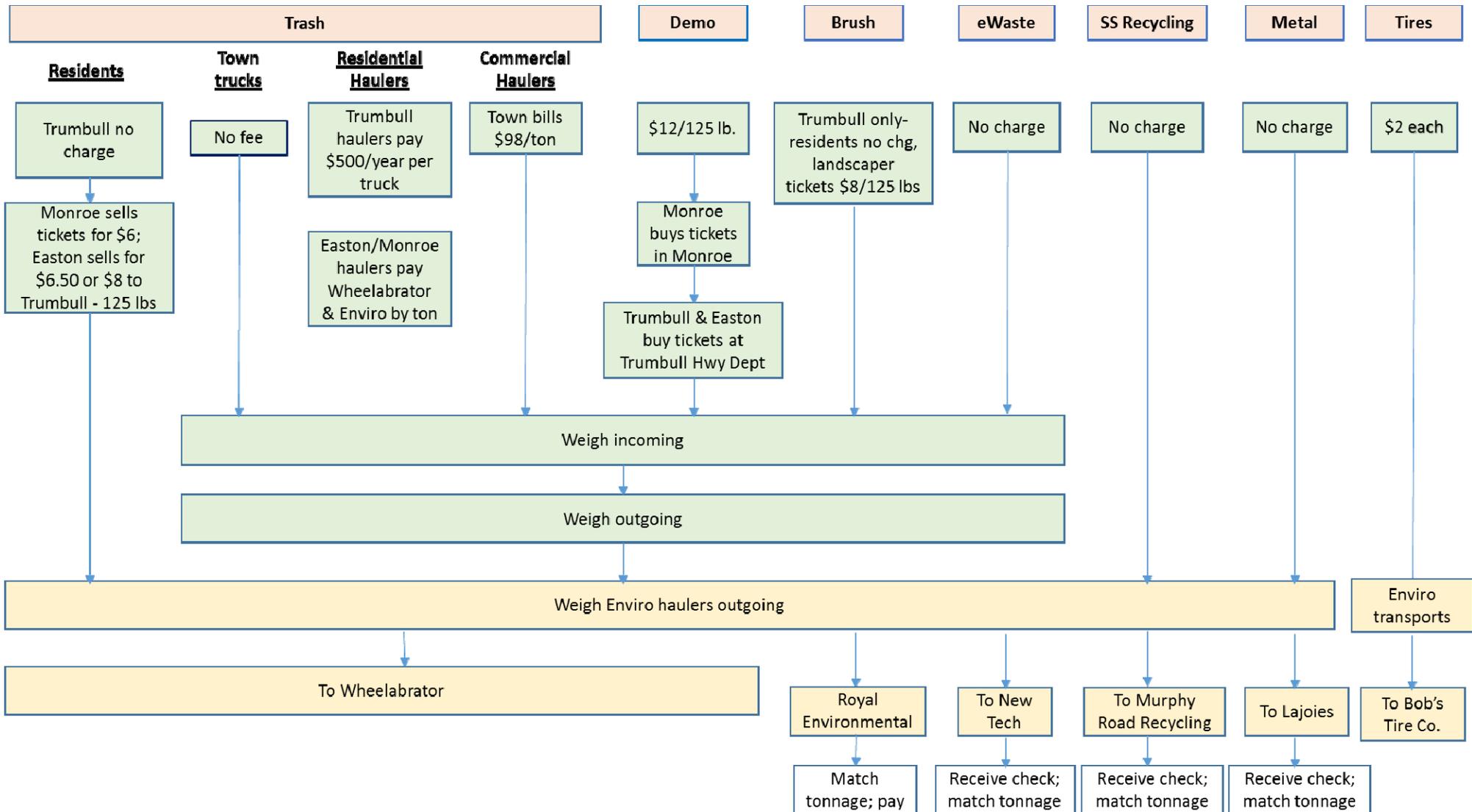
Recommendation: Town may wish to investigate the implementation of software capable of capturing incoming and outgoing tonnage, by town, by type, by carrier. Estimated cost from one vendor:

	<u>Year 1</u>	<u>Subsequent</u>
Licensing	1,995	-
Program	2,000	-
Setup and training (max)	6,000	-
Support & maintenance		895
	<u>9,995</u>	<u>895</u>

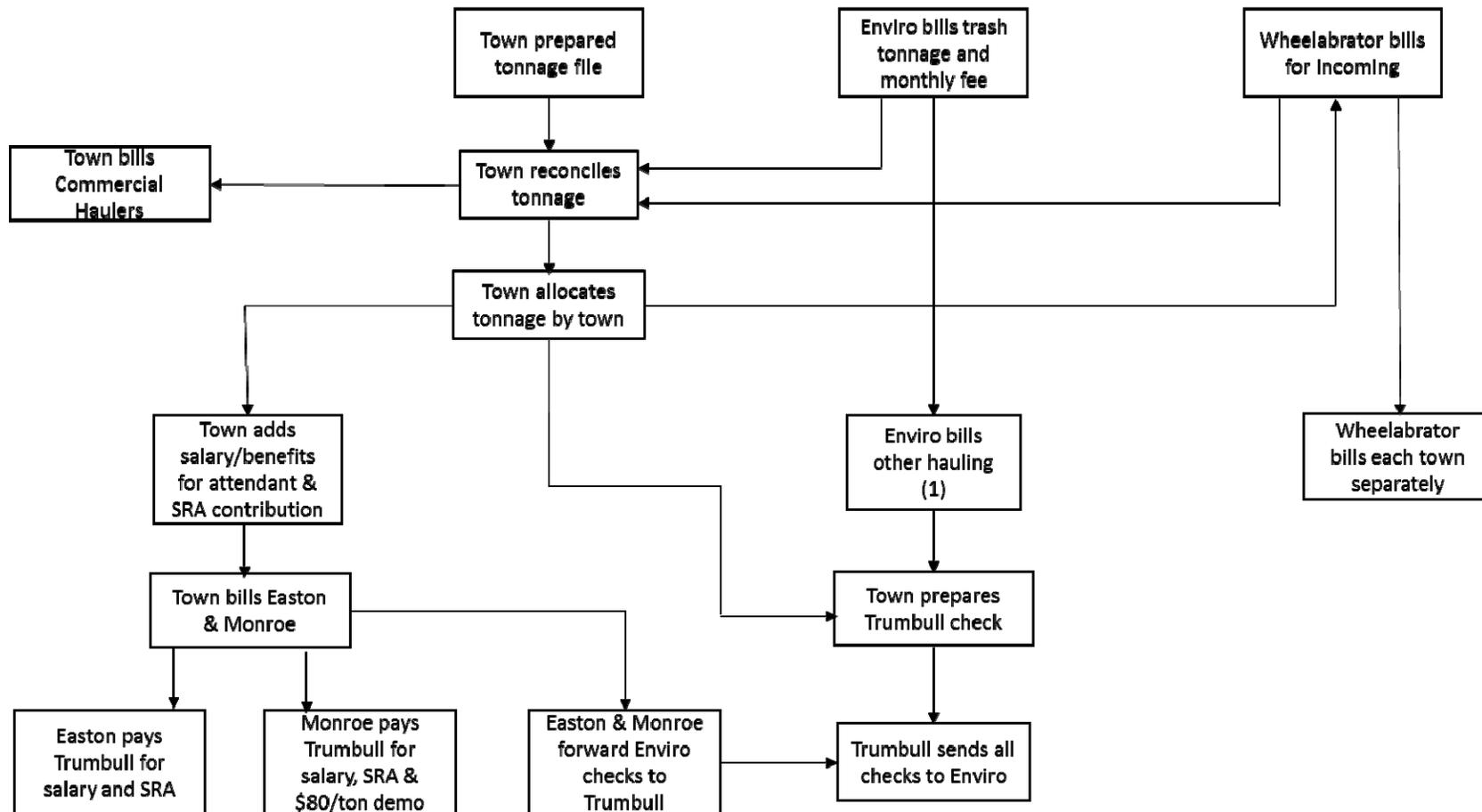
As compared to bookkeeping time, payback ~ one year.

Management Response: If substantial time can be saved, agree that we should pursue additional vendor offerings and pricing.

Appendix



Billing process



(1) Other hauling: tires, metal, single stream, CFC

12 month averages:

	<u>Total</u>	<u>Trumbull</u>	<u>Easton</u>	<u>Monroe</u>	
Wheelabrator	126,050	84,945 67.4%	13,835 11.0%	27,269 21.6%	Tonnage
Enviro tonnage	30,934	20,846 67.4%	3,395 11.0%	6,692 21.6%	Tonnage
Enviro flat fee	30,111	17,675 58.7%	3,342 11.1%	9,093 30.2%	Population
Salary/ben exp	11,923	6,998 58.7%	1,323 11.1%	3,600 30.2%	Tonnage
SRA contrib.	5,169	3,484 5.6%	567 0.9%	1,118 1.8%	Tonnage
Demo, CFC	-	(151) -0.1%	- 0.0%	151 0.1%	Tonnage
	<u>204,187</u>	<u>133,796 65.9%</u>	<u>22,464 8.6%</u>	<u>47,924 18.4%</u>	
Other expense:					
Interstate-CFC	170	170			
Royal Env-brush	20,926	20,926			
Enviro-recycling	1,604	1,604			
Enviro-metal	1,021	1,021			
Enviro-demo	1,415	1,415			
Enviro-tires	300	300			
	<u>25,435</u>	<u>25,435</u>	<u>-</u>	<u>-</u>	
Other income:					
Commercial haulers	(5,068)	(5,068)			
Residential haulers	(750)	(750)			
Goodwill trailer	(500)	(500)			
Lajoies-metal	(8,259)	(8,259)			
Murhpy-recycling	(8,142)	(8,142)			
New Tech-eWaste	(725)	(725)			
	<u>(23,444)</u>	<u>(23,444)</u>	<u>-</u>	<u>-</u>	
Average/month	<u>206,178</u>	<u>135,788</u>	<u>22,464</u>	<u>47,924</u>	
	100%	65.86%	10.90%	23.24%	
Annual cost	2,474,141	1,629,457	269,563	575,084	