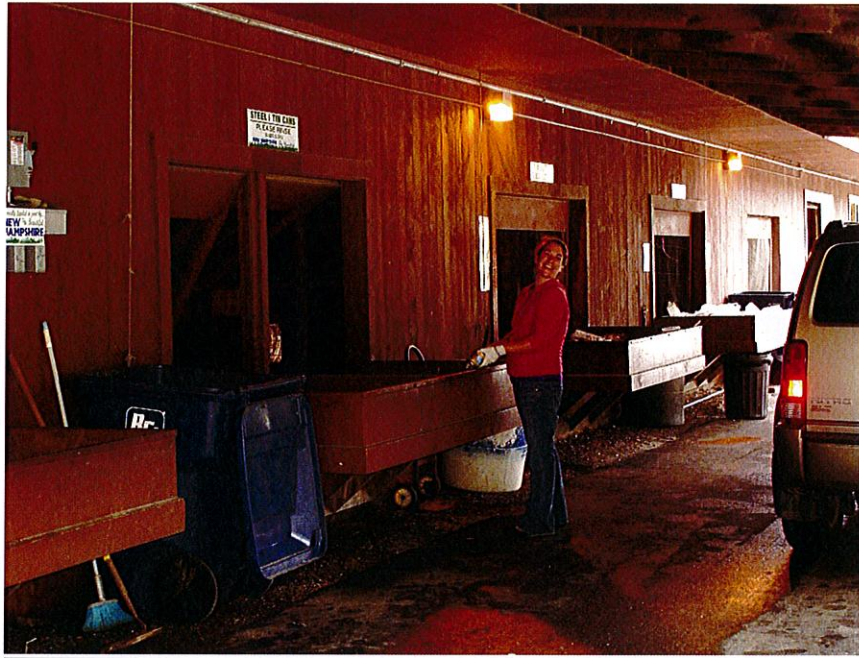


FULL-COST ACCOUNTING STUDY

For THE TOWN OF LISBON, NH



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Committed to the future

INTRODUCTION

Full cost accounting (FCA) is a financial analysis method that takes into account direct operating expenses as well as depreciated capital assets and amortized future costs. The analysis used here is based on a model designed by the US Environmental Protection Agency. Costs are divided up into major categories or “paths” including: Recycling, landfilling, Composting, and Waste to Energy. A normalized net cost per ton of waste is calculated for each of the applicable solid waste paths.

SUMMARY

In 2014 the transfer station processed a total of 1,165 tons of combined rubbish, recyclables and yard waste. This equates to roughly 1,020 pounds per household per year, or 2.51 pounds per person per day; based on population statistics of 2,543 residents and 1,143 households. This generation rate is below the national average of 4.5 pounds person per day. The average generation of 7 New Hampshire towns studied by NCC between 2012 and 2014 was 3.20 pounds per person per day.

The table below shows the overall results found for the Lisbon-Lyman-Landaff Transfer Station. The figures for the composting path are rough estimates due to the lack of accurate weight data for this activity.

	Total Solid Waste Costs (\$)	Costs by Waste Path			
		Landfilling	Waste-to-Energy	Recycling	Composting
		\$	\$	\$	\$
1 Total Costs	\$ 278,494	\$ 140,265	\$ -	\$ 138,229	-
2 Revenues	133,893	107,350	-	26,543	-
3 Net Costs (line 1- line 2)	144,601	32,915	-	111,686	0
4 Tons Processed	1165	984.2	-	177.4	3
5 Net Cost, \$/Ton	\$ 124.16	\$ 33.44	\$ -	\$ 629.57	0
6 Household Units Served	1,143	1,143	1,143	1,143	1,143
7 Net Cost Per Household, \$	\$ 126.51	\$ 28.80	\$ -	\$ 97.71	0

The fully-loaded cost for solid waste operations was found to be \$278,494, which is a significant amount higher than the normally reported expenditures for the department including warrant articles, which was \$222,203. The added costs are comprised primarily of depreciation of capital assets, \$19,298; amortized future capital expenditures, \$28,000; and indirect costs \$12,437. It should be noted that while the town/department does not have a capital plan for major equipment replacement or facility maintenance/upgrades, some capital items were amortized based on expected expiration of equipment on the capital asset list.

DISCRIPTION OF OPERATIONS

The town operates a full-service transfer station where MSW, C&D, recyclables, scrap-metal, and other items are collected.

The station serves the towns of Lisbon, Lyman, and Landaff with a combined population of 2,543. The three towns share operating costs and revenues according to a pro-rata population formula. Currently the breakdown is Lisbon 63%, Lyman 21%, and Landaff 16%. For this study the transfer station was treated as a whole, ignoring transactions between the towns.

There were two full-time employees at the transfer station in 2014 working a total of 80 man-hours per week. The station is open to the public on Wednesdays, Saturdays, and Sundays, for a total of 16 hours (32 man-hours). The employees work on Mondays, Tuesdays and a half day on Wednesdays when the station is closed. This totals 24 hours of operation when closed (48 man-hours). During the closed period, the primary activity is processing recyclable materials – baling, packaging, moving, etc.

Residents are required to bring trash and recyclables to the transfer station, rather than having curbside pickup. This creates significant savings in labor, equipment and operating costs as compared to towns that do employ curbside pickup.

The transfer station was built in 1996, and the adjacent landfill was closed & capped in 2003. Bonds and notes have since been paid in full and there is no debt service for the facilities or the equipment therein.

RECYCLING PATH: Recyclable materials are sorted and baled by staff for resale into the recycling market. The recycling stream includes plastic, glass and metal containers, scrap metal, cardboard/paperboard/paper, tires, appliances and propane tanks. The sales of recyclable materials generated \$24,971 in revenue for the year, which goes into the general fund.

LANDFILL PATH: Municipal solid waste (MSW), aka rubbish, is packet into a trash compactor for transport to the landfill in Bethlehem. Construction & Demolition debris (C&D) is collected in an open top roll-off container for transport to the landfill. Customers are charged for disposal of C&D based on weight. Some 567.6 tons of C&D were reported in the year of record. Fees for C&D, furniture, appliances, etc. amounted to about \$39,302 in revenue. Some of this revenue represents items that do not go to the landfill, such as televisions and other electronics. By reviewing the receipt records for the previous year, we estimated that \$37,730 (96%) of this revenue can be credited to the landfill path, and \$1,572 (4%) to the recycling path. These revenues also go into the general fund.

WASTE-TO-ENERGY PATH: The town no longer operates an incinerator or other WTE facility.

COMPOSTING PATH: There is a designated area on the transfer station grounds for collecting organic matter such as lawn clippings, leaves, brush, etc. This material is not actively managed (turned) or measured. We estimated that about 3 tons of material are deposited here and therefore diverted from the waste stream.

ANALYSIS APPROACH

This study was performed using actual expense figures for the town's fiscal year 2014. Costs that were not directly attributable to either the recycling or MSW streams were allocated between the streams on a rough estimate of the labor effort dedicated to each path. Per conversations with lead

operator Fred Garofalo, the allocations were set at 77% recycling, 23% landfill, 0% waste-to-energy, and 0% composting. (See the appendix for a detailed labor breakdown.)

Labor: This category includes wages and benefits for the 3 direct-hires in the solid waste sanitation department. (See Form 1, pages 1 & 2.) Labor costs were allocated among the four solid waste paths using the aforementioned ratios.

Operating & Maintenance costs:

This component includes direct costs for fuel, electricity, vehicle/equipment maintenance, debt service, and fees associated with solid waste at the transfer station. Costs associated with shared resources such as public works equipment, were calculated based on the budget share ratio of the solid waste department to the public works department. (See Form 2 in the worksheets) General O&M costs such as fuel, electricity, and building maintenance were allocated among the four paths using the labor allocation ratios. Specific costs, such as MSW tipping fees, and hauling fees were assigned wholly to the associated path, e.g., landfilling.

Depreciation costs:

Information for dedicated and shared assets was obtained from transfer station manager, and the public works department manager. Annual depreciation costs were calculated by dividing the asset's value by the corresponding life span of each asset. (See Form 3, pages 1 & 2.) These costs were assigned to the waste paths as appropriate, either distributed or lump sum, e.g. depreciation of the building is distributed, whereas the depreciation of the MSW compactor is assigned entirely to the landfill path.

Amortized costs:

Future capital expenses were determined for assets expected to require replacement within 12 years. Five items of transfer station equipment were included as amortized costs, because of their age relative to useful life: MSW Compactor, loader, baler #1, glass crusher, and C&D containers. These were all roughly at half of their useful life or less. Any cash amounts placed in capital reserves for the transfer station equipment were subtracted from the estimated purchase costs before calculating the annual amortization cost for the item. (See Form 4 pages 1 & 2.)

Indirect costs allocations:

This cost group includes finance administration, town management, insurance, and shared building operating costs (i.e., town hall). The amount of indirect costs assigned to solid waste was calculated based on the ratio of the solid waste employees compared to the total number of full-time-equivalent employees in the town. This is referred to as the Employee Ratio (see Form 5, page 1). The indirect cost share portion was found to be 8%.

AREAS OF UNCERTAINTY

Labor Allocations:

Allocating the labor cost was done based on a rough estimate of the time spent in each activity or path. The only way to get a more accurate figure for these allocations would be to do a time & motion study, and this was outside of the scope of this report. This would also apply to the non-specific O&M costs (electricity, building maintenance, etc.)

Amortized costs:

At the time of the study, the town did not have a concrete plan for replacement of capital equipment at the transfer station. Therefore, reasonable estimates were made regarding certain items of significant cost expected to be replaced within 12 years.

Item	Year Bought	Purch. Cost	Life	Years until replaced	replacment cost (est.)
Compactor	2001	45,000	26 yrs.	12	45,000
Loader	2002	42,000	2	10	42,000
Baler #1	1999	12,073	20	4	15,000
Glass Crusher	2013	10,000	5	3	12,000
C&D Cont.	2001	14,000	6	5	15,000

DATA & RESULTS

The following pages contain the compiled cost data and summarized combined costs for the town's solid waste operations.

This table lists the totals for major cost categories and the costs assigned to the four waste paths for each category. Disposal costs are separated out to provide an additional level of detail. This cost item is normally combined into the O&M category as shown in subsequent worksheets.

Full Cost Accounting: Summary of Costs per Ton for MSW Paths					
Costs	Total	Landfill Path	Waste to Energy	Recycling Path	Composting Path
Labor	\$ 95,068	\$ 21,866	\$ -	\$ 73,203	\$ -
O&M	39,997	20,054	-	19,943	-
Disposal	83,694	83,694	-	-	-
Debt Service	-	-	-	-	-
Indirect Costs (Admin)	12,437	2,915	-	9,522	-
Depreciation	19,298	5,486	-	13,812	-
Amortized Costs	28,000	6,250	-	21,750	-
Total Costs	\$ 278,494	\$ 140,265	-	\$ 138,229	
Revenues (subtract)	133,893	107,350	-	26,543	-
Net Costs	\$ 144,601	\$ 32,915	-	\$ 111,686	
Tons Received (divide)	1,165	984	-	177	3
Net Cost Per Ton	\$ 124.16	\$ 33.44	\$ -	\$ 629.57	\$ -

COST SUMMARY

Year of Interest:

2014

SUMMARY FORM A

Fully Loaded Costs							
Category	Description	Total Annual Cost (\$)	Allocation of Costs by Waste Path				
			Landfilling	Waste-to-Energy	Recycling	Composting	
			\$	\$	\$	\$	
1	Wages and Benefits (Form 1)	95,068	21,866	-	73,203	-	
2	General O&M (Form 2)	123,691	103,748	-	19,943	-	
3	Depreciation of Capital Assets (Form 3)	19,298	5,486	-	13,812	-	
4	Amortization of Future Outlays (Form 4)	28,000	6,250	-	21,750	-	
5	Indirect Costs (Form 5)	12,437	2,915	-	9,522	-	
6	Other Costs						
7	TOTAL COSTS	\$ 278,494	\$ 140,265	\$ -	\$ 138,229	\$ -	

Revenues							
Category		Total Annual Revenue (\$)	Allocation of Revenues by Waste Path				
			Landfilling	Waste-to-Energy	Recycling	Composting	
			\$	\$	\$	\$	
8	Tipping Charges at gate	39,302.00	37,730		1,572		
9	MSW bag sales	69,620.00	69,620				
10	Sale of recyclables	24,420.00			24,420		
11	Textiles (Planet Aid)	551.00			551		
12							
13							
14		-					
15	TOTAL REVENUES	133,893	107,350	-	26,543	-	

Net Cost							
16	NET COSTS (Subtract line 13 from line 7)	\$ 144,601	\$ 32,915	\$ -	\$ 111,686	\$ -	

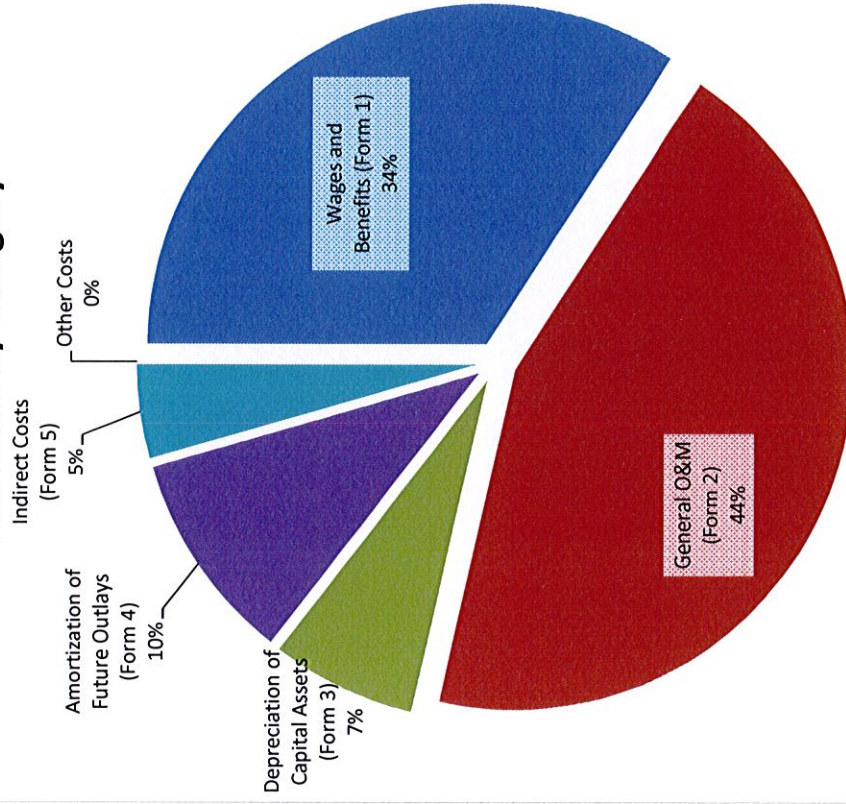
UNIT COSTS		Combined Totals	Landfilling	Waste-to-Energy	Recycling	Composting
17	Tons Processed	1,165	984.2	-	177.4	3.0
18	Net Cost, \$/Ton	\$ 124.16	\$ 33.44	\$ -	\$ 629.57	\$ -
19	Household Units Served	1,143	1,143	1,143	1,143	1,143
20	Net Cost Per Household	\$ 126.51	\$ 28.80	\$ -	\$ 97.71	\$ -

notes:

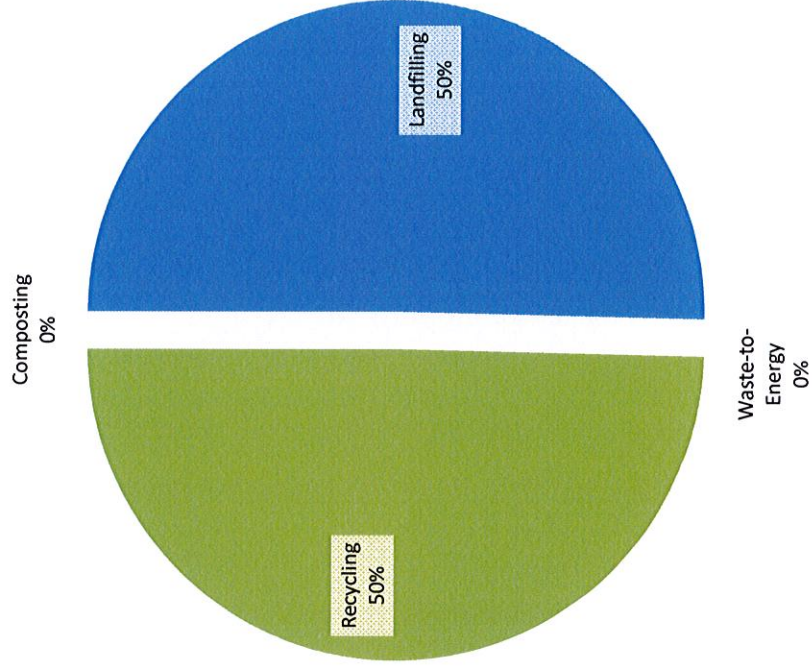
COST SUMMARY

Year of Interest: 2014

Full Costs by Category

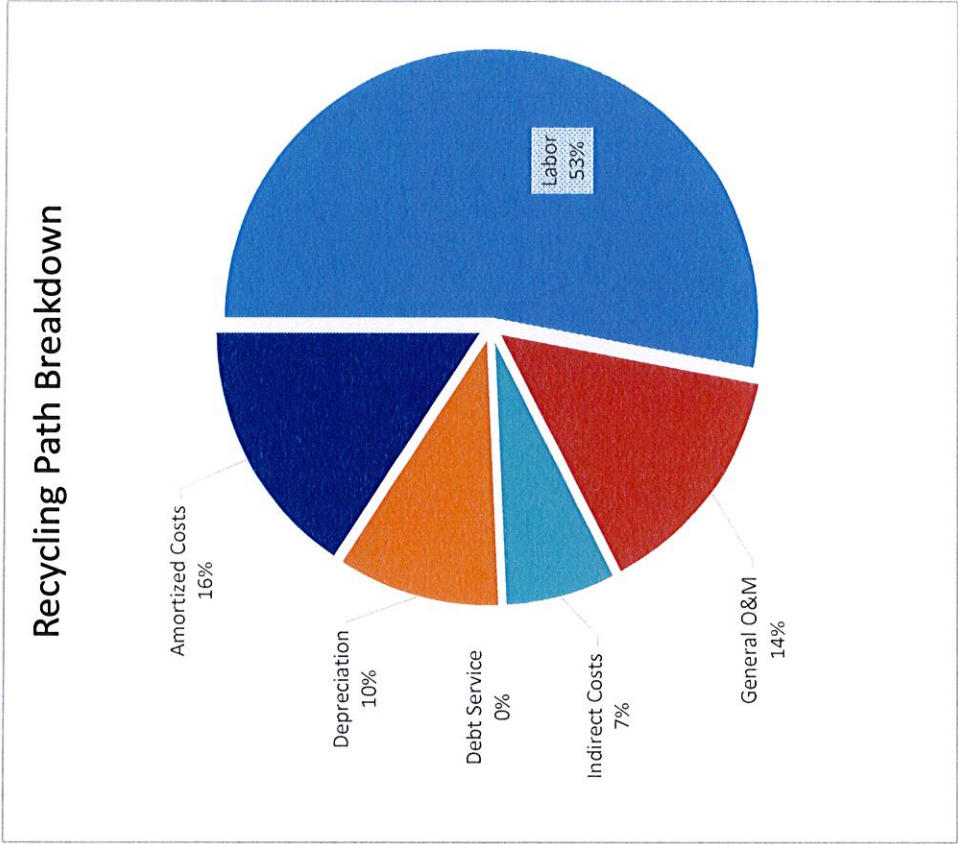
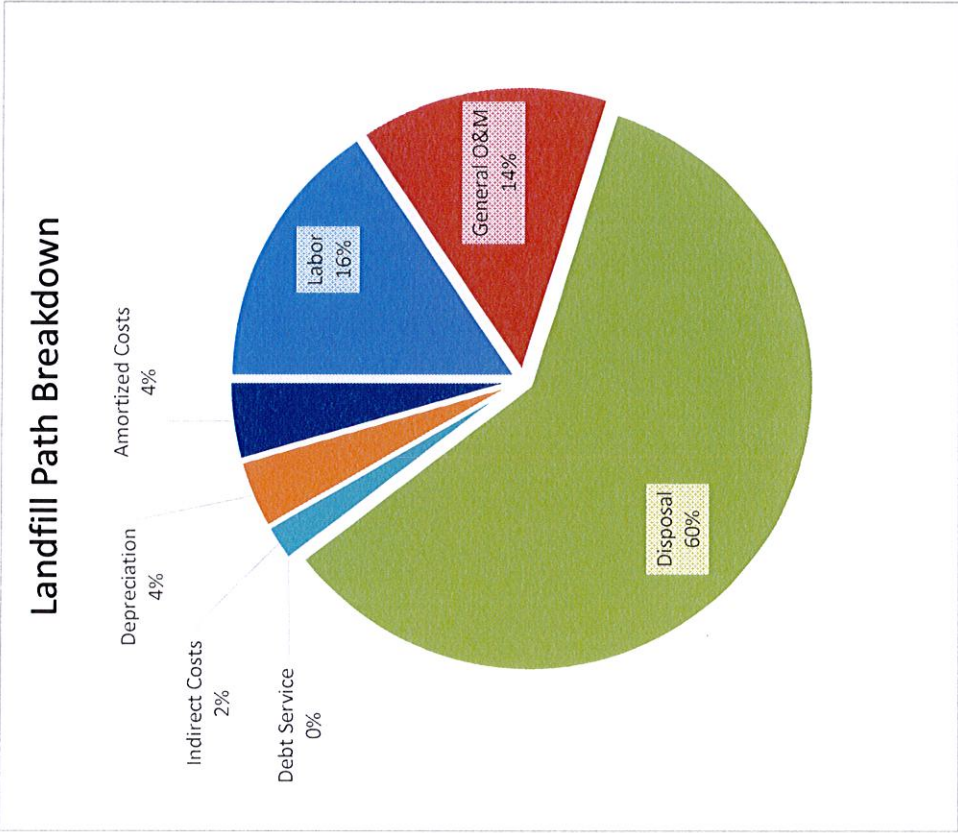


Full Costs by Waste Path



COST SUMMARY

Year of Interest: 2014



CONCLUSIONS

Out of seven towns studied to date, Lisbon had the 3rd lowest overall cost per ton for solid waste at \$124.16/ton. This was well below the average of \$164.35/ton. The net cost in the landfill path was the lowest of all towns studied at \$33.44/ton. Two factors contributed to the low cost in the landfill path; revenue from the pay-as-you-throw program, and revenue from tipping charges at the gate for C&D waste. Unfortunately, the net cost for recycling was the highest off all towns studied at \$629.57/ton. It is not unusual for the net cost of recycling to be higher than the landfill path, particularly when a pay-as-you-throw program is in place. However, the cost found here seems inordinately high. The biggest contributor to the cost of recycling was labor. Perhaps there could be inaccuracy in labor breakdown between waste paths. Other contributing factors include the low recycling rate, and poor markets for recycled materials.

FCA COMPARISON OF TOWNS STUDIED

Town	Year Studied	Pop-ulation Served	Annual Tonnage	Average daily lb/pp	Net Cost per Ton for MSW Paths				
					Recycling	Compost*	W-t-E	Landfill	Overall
Lisbon	2014	2,629	1,165	2.43	\$ 629.57			\$ 33.44	\$ 124.16
Berlin	2012	10,051	5,555	3.03	\$ 316.20	-	-	\$ 173.04	\$ 186.35
Carroll	2014	768	685	4.89	\$ 228.38	\$ 363.30	-	\$ 319.15	\$ 269.65
Gorham	2012	2,848	2,332	4.49	\$ 565.19	\$ 239.91	-	\$ 135.96	\$ 209.86
Littleton	2012	5,828	1,807	1.70	\$ 61.93	\$ 207.90	-	\$ 123.88	\$ 112.58
Plymouth	2012	6,990	1,628	1.28	\$ 147.29	\$ 148.13	-	\$ 222.49	\$ 199.21
Warren	2012	904	749	4.54	\$ 53.85	-	-	\$ 39.79	\$ 48.67
		AVERAGES		3.19	\$ 286.06	\$ 239.81	n/a	\$ 149.68	\$ 164.35

The Town of Lisbon had a recycling rate of only 15% in 2014. Other towns saw rates ranging from 30% to 50% for the years studied.

RECOMMENDATIONS

The low recycling rate and associated low revenues may be partially due to a timing issue. When scrap markets are low, there is a tendency to hold onto material to wait for better pricing. Since most facilities tonnage is measured only on the outgoing side rather than the incoming side, this practice can cause artificial spikes and valleys in the recycling path from year to year. Some town transfer stations make sure to ship all possible loads within the fiscal year to ensure that the tonnage and revenues reflect the actual activity for the period as much as possible.

Given the above, it is in the town's interest to increase the recycling rate. This could be encouraged through a public information campaign. 16-04

Labor expended in the recycling path should be examined closely. Based on the labor breakdown described by the staff, we calculated about \$73,000 in labor costs for the recycling path. This would equate to over \$400/ton before taking revenues into account. By comparison, the town of Littleton had roughly \$115,000 in labor for 850 tons of recyclables, or about \$135/ton.

It is advisable that the transfer station supervisor report more detail in the user fees collected during the year. At the least they should be separated by landfill path versus recycling path. More ideally, there should be the following categories: electronics, appliances, furniture, C&D, and tires.

Finally, another strategy that may reduce overall cost is to change to single-stream or dual-stream recycling. This system allows you to combine all recyclables into open-top containers, typically bottles & cans in one, paper & cardboard in another. This avoids the labor involved with baling. The downside is that you lose the revenue from recycling. Depending on geographic location with respect to the sorting facility, towns pay anywhere from zero to \$50 per ton to dispose of recyclables this way.

APPENDIX 1 - DATA SHEETS

Assignment of Cost Allocation Ratios to Solid Waste Paths

Year of Interest: 2014

FORM 0 - Page 1 of 1

Indirect costs can be allocated to the solid waste paths in one of two methods: A) by the ratio of personnel working in each program area to the total number of solid waste personnel, or B) by the ratio of tonnage of material processed in each program area to the total tonnage of solid waste processed. If the employees or tasks are organized fairly rigidly by solid waste path, then the first method is preferable. If there are only a few employees in the solid waste department, and they perform tasks in all of the paths, then it is usually easier to use the second method.

Solid Waste Path	A: Personnel/Time Ratio		B: Tonnage Ratio	
	Man Hours Spent in Program Area per week	Labor Ratio Portion	Annual Tonnage for Program path	Tonnage Ratio Portion
Landfilling	18.75	23%	984.2	84.5%
Waste-to-Energy	0	0%	0.0	0%
Recycling	61.25	77%	177.4	15.2%
Composting/organics		0%	3.0	0.3%
		0%		0%
TOTALS	80	100%	1,165	100%

Cost Allocations to Solid Waste Paths								
Enter allocation method below. (A or B)	Landfilling		Waste-to-Energy		Recycling		Composting	
	%	\$	%	\$	%	\$	%	\$
Total Indirect Costs *	12,437	23%	2,915	0%	0	77%	9,522	0%

* As shown on Form 5, pg 2

COMMENTS: The solid waste personnel spend a significant amount of time handling recyclable materials; therefore, it makes sense to use the **labor distribution ratio** rather than the tonnage ratio.
3 tons of material attributed to organics is comprised of brush in burn pit and yard waste in leaf pile. The town does not actively make compost.

WAGES AND BENEFITS

Year of Interest: 2014

FORM 1 - Page 1 of 2

Employee or Group	Description	Total Annual Wages(\$)	Total Annual Benefits(\$)	Total Annual Post-employment Benefits	Allocation	Total Annual Wages and Benefits (\$)
1 F/T employees	Fred & Mike	61,333.74			100%	\$ 61,333.74
2 P/T employees		2,491.88			100%	\$ 2,491.88
3 Shared labor (highway)	highway dept	584.38			100%	\$ 584.38
4 O/T wages		26.55			100%	\$ 26.55
5 combined health, fica & retire			27,128.17		100%	\$ 27,128.17
6 combined WC & unemployment			3,503.59		100%	\$ 3,503.59
7						\$ -
8						\$ -
9						\$ -
10						\$ -
11						\$ -
12						\$ -
13						\$ -
14						\$ -
15						\$ -
		64,437	30,632		TOTAL	\$ 95,068.31

- In large organizations, the employees can be grouped and the total for the group reported on one line.

- Benefits include: FICA/MEDI, NH Retirement, medical/Dental ins., Life ins.

- Can also include workers compensation and unemployment insurance.

- Post-employment benefits are amounts paid on behalf of retired workers

- Allocation percentage column is used for cases where an employee is shared with another department, but all his/her wages are reported on one line.

WAGES AND BENEFITSYear of Interest: 2014

FORM 1 - Page 2 of 2

Employee or Group	Total Annual Wages and Benefits (\$)	Allocation of Annual Wages and Benefits by Program Area					
		Landfilling		Waste-to-Energy		Recycling	
		%	\$	%	\$	%	\$
1 F/T employees	61,334	23%	14,107	0%	-	77%	47,227
2 P/T employees	2,492	23%	573	-	-	77%	1,919
3 Shared labor (highway)	584	23%	134	-	-	77%	450
4 O/T wages	27	23%	6	-	-	77%	20
5 combined health, fica & retire	27,128	23%	6,239	-	-	77%	20,889
6 combined WC & unemployment	3,504	23%	806	-	-	77%	2,698
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
TOTALS	95,068		21,866				73,203

100% 0% 100% 100% 100% 100% 100% 0% 0% 0% 0% 0% 0% 0% 0%

Budget Ratio allocation between Solid Waste and Public Works

Expenditures	Employee count	Facility
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Solid Waste
Public Works
SW Ratio

GENERAL OPERATIONS AND MAINTENANCEYear of Interest: **2014**

FORM 2 - Page 1 of 2

Description of Expenditure		Cost Center (if applicable)	Total Annual Cost (\$)	Allocation of Annual O & M Costs by Program Area							
				Landfilling		Waste-to-Energy		Recycling		Composting	
				%	\$	%	\$	%	\$	%	\$
1	Electricity		1,721.83	23%	396		-	77%	1,326		-
2	Heating fuel		3,825.82	23%	880		-	77%	2,946		-
3	MS Bags		7,027.84	100%	7,028		-		-		-
4	Training/Travel		638.50	23%	147		-	77%	492		-
5	MSW waste disposal fees		34,332.02	100%	34,332		-		-		-
6	C&D disposal fees		49,362.11	100%	49,362		-		-		-
7	Small tools		289.01	23%	66		-	77%	223		-
8	Supplies	-610, -620	509.51	23%	117		-	77%	392		-
9	Vehicle fuel		1,372.72	23%	316		-	77%	1,057		-
10	Recycling Baling expenses		2,014.65		-		-	100%	2,015		-
11	Tire Disposal		153.00		-		-	100%	153		-
12	Electronics disposal		852.72		-		-	100%	853		-
13	Uniforms		1,174.97	23%	270		-	77%	905		-
14	Telephone		1,076.54	23%	248		-	77%	829		-
15	Rental fees, container				-		-		-		-
TOTALS			\$ 104,351.24		\$ 93,162		\$ -		\$ 11,189		\$ -

GENERAL OPERATIONS AND MAINTENANCE

Year of Interest: 2014

FORM 2 - Page 2 of 2

Description of Expenditure		Cost Center (if applicable)	Total Annual Cost (\$)	Allocation of Annual O & M Costs by Program Area							
				Landfilling		Waste-to-Energy		Recycling		Composting	
				%	\$	%	\$	%	\$	%	\$
16	Landfill Groundwater monitoring	-411	3,859.13	100%	3,859		-		-		-
17					-		-		-		-
18	Equip. maintenance	-490	5,037.81	23%	1,159		-	77%	3,879		-
19	Site work & building maint.	-435, -640	3,296.49	23%	758		-	77%	2,538		-
20	Mower maintenance (shared 1%)	4312.20-427	51.99	100%	52		-		-		-
21					-		-		-		-
22	Miscellaneous	-711	2,701.23	23%	621		-	77%	2,080		-
23	Dues & subscriptions	-560	332.52	23%	76		-	77%	256		-
24	Scale licensing	-600	2,057.72	100%	2,058		-		-		-
25	Pemi-Baker District dues	-905	2,002.85	100%	2,003		-		-		-
26	Debt Service				-		-		-		-
27					-		-		-		-
28					-		-		-		-
29					-		-		-		-
30					-		-		-		-
TOTALS			\$ 123,690.98		\$ 103,748.36		\$ -		\$ 19,942.62		\$ -

DEPRECIATION OF CAPITAL EQUIPMENT

Year of Interest: 2014

FORM 3 - Page 1 of 2

	Description of Capital Expense	Cost Center	Year Purchased	Purchase Amount (\$)*	% Utilization to SW	Anticipated Useful Life (Years)	Annual Depreciation to SW
1	Transfer station building		1996	428,000	100%	50	\$ 8,560
2	Compactor		2001	45,000	100%	26	\$ 1,731
3	Loader/Bobcat		2002	42,000	100%	15	\$ 2,800
4	Baler 1		1999	12,073	100%	20	\$ 604
5	Baler 2		2013	11,000	100%	15	\$ 733
6	Baler 3		2013	16,250	100%	15	\$ 1,083
7	Glass Crusher		2013	10,000	100%	5	\$ 2,000
8	C&D containers (2)		2001	14,000	100%	20	\$ 700
9	Scale		2009	20,000	100%	20	\$ 1,000
10	Backhoe		2006	25,000	5%	20	\$ 63
11	Mower/tractor		2005	24,000	1%	10	\$ 24
12							\$ -
13							\$ -
14							\$ -
15							\$ -
TOTAL DEPRECIATION							\$ 19,297.59

Notes

* Acquisition cost typically should exclude any anticipated salvage or residual value

** The Int'l Dump Truck exceeds its depreciation life

*** Town Garage useful life was adjusted to match depreciation amount shown in annual report pg 92

Allocation of town garage to solid waste (15%) is was estimated due to lack of data.

DEPRECIATION OF CAPITAL EQUIPMENT

Year of Interest: 2014

FORM 3 - Page 2 of 2

Description of Capital Expense		Cost Center (if applicable)	Total Annual Depreciation Cost (\$)	Allocation of Annual Capital Outlays by Solid Waste Path								
				Landfilling		Waste-to-Energy		Recycling		Composting		
				%	\$	%	\$	%	\$	%	\$	
1	Transfer station building	----	8,560	23%	1,969		-	77%	6,591		-	100%
2	Compactor	----	1,731	100%	1,731		-		-		-	100%
3	Loader/Bobcat	----	2,800		-		-	100%	2,800		-	100%
4	Baler 1	----	604		-		-	100%	604		-	100%
5	Baler 2	----	733		-		-	100%	733		-	100%
6	Baler 3	----	1,083		-		-	100%	1,083		-	100%
7	Glass Crusher	----	2,000		-		-	100%	2,000		-	100%
8	C&D containers (2)	----	700	100%	700		-		-		-	100%
9	Scale	----	1,000	100%	1,000		-		-		-	100%
10	Backhoe	----	63	100%	63		-		-		-	100%
11	Mower/tractor	----	24	100%	24		-		-		-	100%
12	----	----	-		-		-		-		-	0%
13	----	----	-		-		-		-		-	0%
14	----	----	-		-		-		-		-	0%
15	----	----	-		-		-		-		-	0%
TOTALS			19,298		5,486		-		13,812		-	

Allocations of 2003 packer truck per Buddy
Allocations of Public Works Facility are based on tonnage ratios.

AMORTIZATION OF FUTURE OUTLAYS

Year of Interest: 2014

FORM 4 - Page 1 of 2

1	2	3	4	5	Annual Amortization Expense (\$)**
Description of Future Outlay	Cost Center	Estimated Cost (\$)*	Amounts Previously Amortized (\$)	Years Until Funds are Required	
1 Transfer station building				34	\$ -
2 Compactor		\$ 45,000		12	\$ 3,750
3 Loader/Bobcat		\$ 42,000	14,000	2	\$ 14,000
4 Baler 1		\$ 15,000		4	\$ 3,750
5 Baler 2				13	\$ -
6 Baler 3				13	\$ -
7 Glass Crusher		\$ 12,000		3	\$ 4,000
8 C&D containers (2)		\$ 15,000		6	\$ 2,500
9 Scale				14	\$ -
10 Backhoe				11	\$ -
11 Mower/tractor				9	\$ -
12					\$ -
13					\$ -
14					\$ -
15					\$ -
TOTALS		\$ 129,000			\$ 28,000.00

* Expressed in current-year dollars.

** (Column 3 - Column 4) / Column 5

NOTES:

No CIP. The equipment listed here is based on the major items in the depreciation of assets list.

The town has an SRF for recycling and solid waste costs (C&D) which has roughly \$70,000 available for equipment purchases.

NOTE: That in the year 2013, the town committed \$20,000 of the SRF to C&D disposal, and \$22,000 to recycling equipment, but only earned \$20,000 to put into the SRF.

AMORTIZATION OF FUTURE OUTLAYS

Year of Interest: 2014

FORM 4 - Page 2 of 2

Description of Future Outlay			Cost Center (if applicable)	Total Amortization Expense (\$)	Allocation of Annual O & M Costs by Program Area							
					Landfilling		Waste-to-Energy		Recycling		Composting	
%	\$	%	\$	%	\$	%	\$	%	\$			
1	Transfer station building	-----	-		-		-		-		-	
2	Compactor	-----	3,750	100%	3,750	0%	-	0%	-	0%	-	
3	Loader/Bobcat	-----	14,000	0%	-	0%	-	100%	14,000	0%	-	
4	Baler 1	-----	3,750	0%	-	0%	-	100%	3,750	0%	-	
5	Baler 2	-----	-		-		-		-		-	
6	Baler 3	-----	-		-		-		-		-	
7	Glass Crusher	-----	4,000	0%	-	0%	-	100%	4,000	0%	-	
8	C&D containers (2)	-----	2,500	100%	2,500	0%	-	0%	-	0%	-	
9	Scale	-----	-		-		-		-		-	
10	Backhoe	-----	-		-		-		-		-	
11	Mower/tractor	-----	-		-		-		-		-	
12	----	-----	-		-		-		-		-	
13	----	-----	-		-		-		-		-	
14	----	-----	-		-		-		-		-	
15	----	-----	-		-		-		-		-	
TOTALS			28,000		6,250		-		21,750		-	

INDIRECT COSTS**Allocation to Solid Waste**Year of Interest: 2014

FORM 5 - Page 1 of 2

Determine the amount of indirect cost applied to solid waste based on one of the following methods.

1 PERSONNEL SHARE RATIO				
1.A	Total number of SW Employees	2		
1.B	Number of employees in shared services	1		
1.C	Total number of Municipal Employees	25		
1.D	Employee Ratio = 1.A / (1.C - 1.B)	8.3%		

2 BUDGET SHARE RATIO				
2.A	Solid Waste Department Budget	218,651		
2.B	Budget of Centralized Services	238,190		
2.C	Annual Town/City Budget	2,407,083		
2.D	Budget Ratio = 2.A / (2.C - 2.B)	10.1%		

Tally of Central Services and Administrative Costs

town officers (4130)	8,000	selectmen
Central services building maintenance costs*	47,130	Govt Bldgs minus RR Station
financial admin (4130 + 4150)	125,060	TA + Accounting + Treasury
Legal (4153)	20,000	
Personnel Benefits (4155)	-	handled in each department
Insurance (4196-520)	38,000	
TOTAL	238,190	

*Shared Building Maintenance Costs (account 01-4194)

Janitor		4194.10-100
Water consumption	all of govt bldgs budget,	
town Hall heating oil	less RR station budget :	
Heating plant maint.	52,295 - 5,165	
Electricity, town hall	= 47,130	
Repairs & maint. To town buildings		
Janitor supplies (?)		
Alarm System		
GB labor		

TOTAL for shared government buildings - use this figure for indirect cost of town hall

Total Budget Tally

General Fund (01)	1,955,061
Water (03)	186,438
Wastewater (02)	265,584
TOTAL	2,407,083

INDIRECT COST FACTOR TO USE -->**8%**

Reason: SW "budget" is artificially low due to so much of costs covered by SRF/CRF funds. So budget ratio is not an accurate figure.

INDIRECT COSTS**Tabulation of Costs**Year of Interest: 2014

FORM 5 - Page 2 of 2

Support Service	Cost Account	Expense for Support Service (\$)	Ratio Method (1-Labor, or 2-Budget)	Indirect Cost Ratio (%)	Other Multiplier (see notes)	Total Indirect Cost to Solid Waste
1 Executive	4130.10	4,712.79	2	8%		\$ 377
2 Town Admin	4130.20	31,280.00	2	8%		\$ 2,502
3 Financial Admin	4150	65,293.11	2	8%		\$ 5,223
4 Govt Buildings	4194	51,051.24	2	8%	11%	\$ 449
5 Legal	4153	16,093.23	2	8%		\$ 1,287
6						\$ -
7 Insurance, Liability	4196	32,468.00	2	8%		\$ 2,597
8						\$ -
9						\$ -
10						\$ -
11						\$ -
12						\$ -
13						\$ -
14						\$ -
15						\$ -
16 Other						\$ -
		200,898.37				
		TOTAL INDIRECT COSTS				\$ 12,437.02

Indirect Costs Summary Assignment of Costs to Solid Waste Paths

Year of Interest: 2014

FORM 5 - Page 3 of 3

Enter allocation method below. (A or B)	Cost Allocations to Solid Waste Paths					
	Landfilling		Waste-to-Energy		Recycling	
	A					
	%	\$	%	\$	%	\$
Total Indirect Costs *	12,437	2,915	0%	0	77%	9,522
					0%	0

* As shown on Form 5, pg 2

REVENUES

Year of Interest: 2014

FORM 6 - Page 1 of 1

Description of Revenue		Revenue Center (if applicable)	Total Annual Income (\$)	Allocation of Annual Revenues Program Area							
				Landfilling		Waste-to-Energy		Recycling		Composting	
				%	\$	%	\$	%	\$	%	\$
1	Tipping Fees charged at gate		39,302.00	96.0%	37,730	0%	-	4.0%	1,572	0%	-
2	MSW Bag sales		69,620.00	100.0%	69,620	0%	-		-	0%	-
3	Sale of Recyclables		24,420.00		-	0%	-	100.0%	24,420	0%	-
4	Textiles		551.00		-	0%	-	100.0%	551	0%	-
5					-		-		-		-
6					-		-		-		-
7					-		-		-		-
8					-		-		-		-
9					-		-		-		-
10					-		-		-		-
11					-		-		-		-
12					-		-		-		-
13					-		-		-		-
14					-		-		-		-
15					-		-		-		-
TOTALS			\$ 133,893.00		107,350		-		26,543		-

USE THE ANNUAL FACILITY REPORT FOR THESE FIGURES

INDIRECT COST SUB-WORKSHEET - SOLID WASTE TONNAGE TALLIES

Landfill path	tons
C&D to Casella	567.60
MSW to Casella	416.60
SUB-TOTAL	984.20 -

Recycling Path	tons
Al/Tin/Steel cans	11.58
Plastic containers	14.53
Bulky furniture	59.80
Cardboard	51.62
mixed paper	33.58
Glass	6.00
Scrap metal	
Tires	
Textiles/clothing to Planet Aid	
Used oil	
SUB-TOTAL	177.11 -

Allocation of Benefits:

Benefit	Cost Center or Account	combined	Attendant 1	Attendant 2	Sub-Total by benefit
FICA/Medi	4326.10-225	4,624.37			\$ 4,624.37
Retirement					\$ -
Health		1,080.00			\$ 1,080.00
Life Ins		21,423.80			\$ 21,423.80
Dental Ins		-			\$ -
Workers Comp					\$ -
Unemployment					\$ -
	Sub-Total by Employee	27,128.17	-	-	\$ 27,128.17

Lump-sum Benefit Costs (4155)	Lump-sum amount	Allocation Method	Allocation Factor	\$ to Solid Waste
FICA		calculation		
MEDI		calculation		
Retire				
Health Ins				
Life Ins				
Dental Ins				
Workers Comp	29,084.92	Payroll ratio	7.7%	2,239.54
Unemployment	5,951.00	Payroll ratio	7.7%	458.23
	Sub-total by lump sum			\$ 2,697.77

Notes:

Health, dental, fica/medi and retirement are accounted in solid waste budget.
Workers Comp and unemployment insurance are accounted in category 4155

GET THIS INFORMATION FROM THE SUPERVISOR

DIRECT COST SUB-WORKSHEET - LABOR DISTRIBUTION TALLIES

2 Employees work 40 hrs per week (80 mhr/wk total)					
TS is open to public 16 hrs per week (32 man-hrs)					
Weighing C&D		7			7
- Packing down C&D container w/ backhoe		4			4
Customer service, selling bags, collecting fees	0.5	2.5			3
"Working the line"	18				18
TS is closed 24 Hours per week (48 man hours)					0
Site maintenance, mowing, snow removal	3.25	3.25			6.5
Burn pit		2			2
- Baling, staging, & loading recyclables	39.5				39.5
-					0
Man-hour Total per Path	61.25	18.75	0	0	80
%	77%	23%	0%	0%	100%

INDIRECT COST SUB-WORKSHEET - Actual Expenditures

Executive (4130.10)	amount
BOS	4,712.79

SUB-TOTAL	-	4,712.79
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Town Admin (4130.20)	31,280.00
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Financial Admin Breakdown (category 4150)	amount
department total	65,293.11
less Assessing	-
less tax maps	-

SUB-TOTAL	-	65,293.11
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Government Buildings	
department total	56,220.02
less: RR Station wages, utils, etc	(5,168.78)
less: election temp positions	
less election printing	
less election other	

SUB-TOTAL	-	51,051.24
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Town Hall Employees	f/t equiv
Police	3.5
Fire	5
Amb	3
Clerk	1
Finance	1.5
Total	14

TOWN HALL ALLOCATION ADJUSTMENT

# people who service solid waste	1.6
total employees at town hall	14
Ratio	11%