

# Solid Waste Options

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2014

Solid Waste Study Committee

TOWN OF ALLENSTOWN | 16 SCHOOL ST. ALLENSTOWN NH 03275

## **INTRODUCTION**

The Town of Allenstown is presently in a long term agreement for the disposal of solid waste with the Concord Regional Solid Waste Cooperative. This agreement ends at the end of December 2014. The Town's trash is presently disposed of at the Waste Management waste to energy facility in Concord NH (Penacook). We are bound by the present agreement to dispose of our solid waste at this facility until then.

The Town presently collects solid waste at curbside two days per week (Tuesday and Wednesday) along two separate routes within the town. The Town also collects recyclables at curbside on Thursdays for the entire town.

The Highway Department has been tasked with this responsibility. At present the highway department operates a 30 yard garbage truck that was purchased in 2003. The truck is in poor condition and at the end of its useful life. The truck is used to pick up solid waste and recyclables on the applicable day/route. One highway worker is assigned to drive the truck while two prisoners from the NH State Prison are used to collect the trash from the back of the truck. The department also uses the smaller dump trucks to pick up trash and recyclables on the smaller dead end street. This requires additional staff time beyond the one driver assigned.

The solid waste and recyclables are transported to the Casella Transfer Station off of Rt. 28 in Allenstown. Casella transports the solid waste to the Concord facility at no charge to the Town. The recyclables are disposed of by Casella. The Town receives a split of a percentage of the profit if there is any for the sale of the recyclable materials.

The Town presently operates a transfer facility at the old Town Dump Site (present highway department site). Residents can dispose of solid waste, recyclables, yard waste, used motor oil, batteries, scrap metal, etc at the transfer station. We no longer take demolition debris at the landfill. Residents are asked to dispose of this material at the Concord Transfer Station. Solid waste and recyclables collected in containers at the transfer station are picked up by the department's garbage truck and transported to the Casella Transfer facility.

## **ANALYSIS OF SOLID WASTE OPTIONS**

The Town must address two key issues;

1. The Town must find a solution to the disposal of solid waste starting January 1<sup>st</sup>, 2015.

2. The Town must decide if it will continue to pick solid waste and recycling at curbside by its own forces through the Highway Department or if it will contract for collection services.

A subcommittee of the Road Agent, the Town Administrator and a Selectmen began to explore the options in the Spring of 2013. The committee analyzed the present cost and projected cost of the Highway Department continuing to pick up solid waste and recyclables at curbside. The committee also invited three companies to submit proposals to collect solid waste recyclables at the curbside and at the Transfer Station. The proposals included pick up of solid waste and recyclables at the town's public facilities including schools. The three companies were asked to submit proposals for collection and disposal based upon a projected ten year agreement with the town. On the next page I have attached a spreadsheet containing a summary of the four options with their respective costs over a ten year period. Each proposal is discussed in follow on pages as they each have slightly different proposals with caveats that should be considered.

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**Summary chart showing the cost breakdown over the ten year period for collection and disposal of the four options.**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	10YR Total
AHD Collection	\$ 109,481	\$ 112,126	\$ 114,872	\$ 117,725	\$ 120,689	\$ 94,050	\$ 97,251	\$ 100,579	\$ 104,039	\$ 107,639	\$ 1,078,451
Disposal	\$68,000	\$70,040	\$72,141	\$74,305	\$76,535	\$78,831	\$81,196	\$83,631	\$86,140	\$88,725	\$779,544
											<b>\$ 1,857,995</b>
Casella Collection	\$100,000	\$102,510	\$105,083	\$107,720	\$110,423	\$113,194	\$116,035	\$118,947	\$121,932	\$124,992	\$1,120,836
Disposal	\$64,000	\$65,500	\$67,000	\$68,500	\$70,000	\$71,000	\$72,000	\$73,000	\$74,000	\$75,000	\$700,000
											<b>\$1,820,836</b>
Pinard Collection	\$100,000	\$102,510	\$105,083	\$107,720	\$110,423	\$113,194	\$116,035	\$118,947	\$121,932	\$124,992	\$1,120,836
Disposal	\$64,000	\$65,500	\$67,000	\$68,500	\$70,000	\$71,000	\$72,000	\$73,000	\$74,000	\$75,000	\$700,000
											<b>\$1,820,836</b>
WM Collection	\$93,972	\$96,321	\$98,729	\$101,197	\$103,727	\$106,320	\$108,978	\$111,703	\$114,495	\$117,358	\$1,052,800
Disposal	\$68,000	\$69,700	\$71,440	\$73,230	\$75,060	\$76,940	\$78,860	\$80,830	\$82,850	\$84,930	\$761,840
											<b>\$1,814,640</b>

### AHD COLLECTION AND DISPOSAL OPTION

This option would continue the present collection of solid waste and recyclables by the Highway Department. The cost breakdown is as follows;

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	10YR Total
Lease Payment	\$29,718	\$29,718	\$29,718	\$29,718	\$29,718						\$148,590
Fuel Cost	\$9,867	\$10,163	\$10,468	\$10,782	\$11,105	\$11,439	\$11,782	\$12,135	\$12,499	\$12,874	\$113,114
% Inc.	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	
Vehicle Maint.	\$3,601	\$3,709.03	\$3,820	\$3,935	\$4,053	\$4,175	\$4,300	\$4,429	\$4,562	\$4,698	\$41,281
% Inc.	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	
Salary	\$47,665	\$49,094	\$50,566	\$52,083	\$53,645	\$55,254	\$56,911	\$58,618	\$60,376	\$62,187	\$546,399
% Inc.	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	
Benefits											
Med/D FP	\$21,575	\$23,085	\$24,701	\$26,430	\$28,280	\$30,260	\$32,378	\$34,645	\$37,070	\$39,665	\$298,090
Med/D SP	\$7,872	\$8,423.04	\$9,013	\$9,644	\$10,319	\$11,041	\$11,814	\$12,641	\$13,526	\$14,472	\$108,763
NHRS	\$5,134	\$5,287	\$5,446	\$5,609	\$5,778	\$5,951	\$6,129	\$6,313	\$6,502	\$6,698	\$58,847
SS	\$2,869	\$2,955	\$3,044	\$3,135	\$3,229	\$3,326	\$3,426	\$3,529	\$3,635	\$3,744	\$32,893
Medicare	\$691	\$712	\$733	\$755	\$778	\$801	\$825	\$850	\$875	\$902	\$7,923
Life	\$97	\$97	\$97	\$97	\$97	\$97	\$97	\$97	\$97	\$97	\$970
ST Disab	\$262	\$262	\$262	\$262	\$262	\$262	\$262	\$262	\$262	\$262	\$2,620
WC	\$1,374	\$1,374	\$1,374	\$1,374	\$1,374	\$1,374	\$1,374	\$1,374	\$1,374	\$1,374	\$13,740
Unemp	\$331	\$331	\$331	\$331	\$331	\$331	\$331	\$331	\$331	\$331	\$3,310
<b>TOTAL</b>	<b>\$109,481</b>	<b>\$112,126</b>	<b>\$114,872</b>	<b>\$117,725</b>	<b>\$120,689</b>	<b>\$94,050</b>	<b>\$97,251</b>	<b>\$100,579</b>	<b>\$104,039</b>	<b>\$107,639</b>	<b>\$1,078,451</b>
TOTAL with Medical/Dental Family Plan											<b>\$1,267,778</b>
TOTAL with Medical/Dental Single Plan											<b>\$1,078,451</b>

This option presents the most difficulty in calculating costs over the ten year period. This option has the greatest potential for instability in cost. The other options have costs set by contract and are therefore fixed for the ten year period with built in cost increases for the most part.

1. There is a five year **lease agreement** built into this option for a new truck. The truck proposed to be purchased would be a 20 yard truck which is one third smaller than the present vehicle. This vehicle would be viable assuming that we continue to deliver solid waste and recyclables to the Casella Transfer Station in Allentown. This vehicle would need to be purchased prior to the end of 2014.
2. **Fuel** costs are calculated using a 3% increase in fuel costs per year. Fuel prices are unstable and are impacted by a number of factors that are not easily controllable in our economy. However a historical examination of fuel costs was used to make the determination here. The risk is that fuel prices could very well exceed the 3% factor used here.
3. **Vehicle Maintenance** is based upon routine maintenance costs with consideration given to unplanned for repairs. Again a 3% cost inflator was used for this calculation. We anticipate that over the ten year period this will average out as maintenance costs generally increase at the end of the vehicle's life cycle with lower costs at the beginning.
4. **Salary** calculations are based upon the equivalent of one full time person and the equivalent of a portion of the hours of other staff to operate the small trucks that pick up solid waste/recyclables on the smaller roads. This also includes that portion of salary costs for the maintenance of the garbage truck. We presently have two prisoners who work on the back of the truck. No salary calculation was used for these personnel as they are unpaid. The cost of food was however included as we pay for lunch for those prisoner personnel assigned. The salary calculations have a 3% inflator for each year. The Board of Selectmen has been including a COLA for municipal employees based upon the CPI (Consumer Price Index) for the Northeast Region. The CPI historically has fluctuated between 1% and 4%. The BOS has also implemented a merit pay increase that includes up to an additional 2% per year although most employees receive less than that amount or no merit increase at all.
5. The cost of **benefits** is by far the most unpredictable variable. Because of that we used the most conservative calculations, in other words the "best case" scenario to use as a comparison. This is not realistic considering what we know is likely to occur in the future based upon past events and the issues of the future. However there is no reliable way to generate calculations that can be validated based upon historical data.

a. The cost of **Health and Dental insurance** has increased significantly and not on an even basis. The Affordable Care Act will require the type of plan the Town has now to be radically changed. The costs and types of health insurance plans over the next ten years are simply unknown and cannot be predicted in the present environment. A 7% cost inflator was used based merely on the average cost increase over the last six years. The Town is presently studying health and dental insurance options to comply with the ACA. The Employee Benefits Study Committee in cooperation with the Suncook Valley Regional Town Association will not report back to the BOS until October of 2014. Additionally the Town is presently paying for a single person plan for the present employee assigned to operate the garbage truck. We have used this amount as this is the amount we are presently paying. However if that employee leaves or changes to a two person or family plan the cost would increase by 200%.

b. **Retirement** costs were calculated based upon the increase in salary projections. The Town presently pays 10.77% of the employee's salary to the NH Retirement System. The present viability of the retirement system will likely result in increased retirement rates for municipalities. The gap in the unfunded liability although less than most other public retirement systems is nonetheless a gap that will need to be closed. Additionally the State is not fairing as well in the litigation brought about by labor unions and public employees due to the recent changes in the retirement laws passed by the Legislature. It is very likely that there will be increases in the retirement rates communities pay as early as 2015. It is unknown what the increase in these rates will be. It would be impossible to project increases with any degree of accuracy at this point. Therefore no additional inflators were used to calculate the retirement cost. It is almost certain that there will be additional costs for this option we just cannot accurately calculate them at this time.

c. **Social Security and Medicare** costs have a cost increase calculated due to the increase in base salary. We have not included any increase in the rate over the ten year period. We have no way of determining whether the federal government will increase the rates for either of these programs in the future.

d. **Life Insurance, Short Term Disability Insurance, Workers Compensation Insurance and Unemployment Compensation** costs are based upon only one full time employee. We have not included any inflators for these costs. We have projected them to be flat over the ten year period. It is very unlikely that this will be the case over this time period. However historically the rates have fluctuated up and down for various reasons. Once again we have not included an inflator as we have no way to determine a figure that would be reliable and could be validated.

e. **Disposal** costs are based upon the assumption that we continue to bring our solid waste and recyclables to Casella. Starting in 2015 we would need to contract with Casella to dispose of our solid waste. We would be charged a rate of approximately

\$70 per ton with a 3% inflator or an actual CPI inflator per year. We estimate that we generate approximately 1,000 tons of solid waste per year.

**Advantages of this option**

1. As the staff assigned to perform solid waste functions are not assigned there on a full time basis these personnel can be utilized for other purposes. These include snow plowing and general highway department tasks.
2. Maintaining existing staffing levels at the highway department allows for a larger base of personnel who are available for emergency response functions during disasters.

**Disadvantages of this option**

1. The future cost of operations cannot be easily determined.
2. Even under the “best case” scenario as we have it depicted here it is still the most costly option. It is very likely if not certain that the costs will be higher than what we have depicted in this report.
3. We would have to purchase a garbage truck in 2014. There are no funds specifically designated in the proposed 2014 budget for this purpose. The longevity of the present vehicle according to the Road Agent is questionable at best.
4. Waste collection is canceled during snow storms as the highway department is focused on snow removal.
5. There is no guarantee that we will be able to continue to utilize prisoners to pick up trash on the back of the truck. The program has been suspended before for security reasons.



### CASELLA RESOURCE SOLUTIONS OPTION

This option would involve a ten year contract with Casella to collect solid waste and recyclables at curbside. Casella would also empty dumpsters at our public facilities and schools. Casella would pick up the solid waste and recyclables at the transfer station.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	10yr TOTAL
Casella Collection	\$100,000	\$102,510	\$105,083	\$107,720	\$110,423	\$113,194	\$116,035	\$118,947	\$121,932	\$124,992	\$1,120,836
Disposal	\$64,000	\$65,500	\$67,000	\$68,500	\$70,000	\$71,000	\$72,000	\$73,000	\$74,000	\$75,000	\$700,000
											<b>\$1,820,836</b>

Casella would provide a 96 gallon cart for each residence for solid waste and a 96 gallon cart for recycling for each residence. The collection of curbside solid waste will be fully automated while the collection of recyclables will not.

The proposal includes collection and disposal of recyclables. The Town would not have to pay to dispose of nor would the Town receive a rebate for recyclable materials.

#### **Advantages of this option**

1. Provides the Town with set costs over the ten year period. The cost of collection and disposal is based upon the CPI but cannot exceed 3% in any given year. The cost of disposal is set at specific dollar amounts per ton per year.
2. Residents receive containers as part of the cost of the contract. Residents presently pay for their own containers or have no container at all.
3. This option would provide a contract to a business located within the town.
4. The Town would not have to be concerned with personnel issues, the maintenance/repair issues for a vehicle or insuring a vehicle.
5. Weather events would not cause a cancellation of curbside pickup.
6. Dispose of the Town garbage truck resulting in an unknown sales value.

**Disadvantages of this option**

1. Contracting out for solid waste collection would require that one full time highway department position would need to be eliminated to provide sufficient funding for the contract. This would require the layoff of one highway department employee.

**PINARD WASTE SYSTEMS OPTION**

This option would involve a ten year contract with Pinard to collect solid waste and recyclables at curbside. Pinard would also empty dumpsters at our public facilities and schools. Pinard would pick up the solid waste and recyclables at the transfer station.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	10yr. TOTAL
Pinard Collection	\$100,000	\$102,510	\$105,083	\$107,720	\$110,423	\$113,194	\$116,035	\$118,947	\$121,932	\$124,992	\$1,120,836
Disposal	\$64,000	\$65,500	\$67,000	\$68,500	\$70,000	\$71,000	\$72,000	\$73,000	\$74,000	\$75,000	\$700,000
											<b>\$1,820,836</b>

Pinard would provide wheeled carts of appropriate size for solid waste and recycling to each residence. The collection process would be completely automated.

Pinard would offer a similar agreement that Casella offers in regards to the cost/rebates for recyclable materials. Pinard has set prices for each year for the cost of disposal based upon the estimated 1,000 tons per year. The increase in the cost of collection is based on the Producer’s Price Index (PPI) for Solid Waste Services. This is more specific to the solid waste industry than the CPI which measures increases in costs over the entire economy.

**Advantages of this option**

1. Provides the Town with set costs over the ten year period. The cost of collection is based upon the PPI which has averaged 2.51% over the last ten years. The range has been between 1.1% and 4.5%. The cost of disposal is set at specific dollar amounts for each year.

2. Residents receive containers as part of the cost of the contract. Residents presently pay for their own containers or have no container at all.
3. The Town would not have to be concerned with personnel issues, the maintenance/repair issues for a vehicle or insuring a vehicle.
4. Weather events would not cause a cancellation of curbside pickup.
5. Dispose of the Town garbage truck resulting in an unknown sales value.

**Disadvantages of this option**

1. Contracting out for solid waste collection would require that one full time highway department position would need to be eliminated to provide sufficient funding for the contract. This would require the layoff of one highway department employee.

**WASTE MANAGEMENT OPTION**

This option would involve a ten year contract with Waste Management to collect solid waste and recyclables at curbside. Waste Management would also empty dumpsters at our public facilities and schools. Waste Management would pick up the solid waste and recyclables at the transfer station.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	10yr. TOTAL
WM Collection	\$93,972	\$96,321	\$98,729	\$101,197	\$103,727	\$106,320	\$108,978	\$111,703	\$114,495	\$117,358	\$1,052,800
Disposal	\$68,000	\$69,700	\$71,440	\$73,230	\$75,060	\$76,940	\$78,860	\$80,830	\$82,850	\$84,930	\$761,840
											<b>\$1,814,640</b>

Waste Management proposes to collect curbside as we do now without any carts provided. WM would use a rear load garbage truck as we do now. Collection and disposal fees are set and will not fluctuate based upon the PPI or CPI. The cost of recyclables would be set as indicated. See below;

**Single Stream Curbside** – *The formula to determine the monthly charge or rebate will be tied to the value of #8 ONP as published in the PPI Pulp & Paper Week index. Each month we will subtract \$80 per ton from the published rate to determine the “tip fee” for*

*processing and marketing recyclables. The tip fee will be multiplied by the actual tons collected for the month to determine monthly charge. For example, the current index value is \$65 per ton. The tip fee to the Town under this scenario would be \$15 per ton (\$65 index value less \$80). In the event the index ever exceeds \$80 per ton, then Waste Management will rebate to the Town 70% of the excess value multiplied by the actual tons collected for the month. For example, if we use the 5-year average index value of \$90 per ton, then the Town would receive a rebate of \$7.00 per ton (\$90 index value less \$80 multiplied by 70% Town share).*

WM has a fuel surcharge in their proposal that is not included in proposals by Casella or Pinard. See below;

*Given the volatility of the fuel market and the current high price level for diesel fuel, we are offering this formula. The fuel adjustment would be based on the increase or decrease of diesel fuel cost, as measured by the U.S. Department of Energy, Energy Information Administration, (website <http://tonto.eia.doe.gov/oog/info/gdu/gasdiesel.asp>) for the New England region, from the established baseline cost of \$3.80 per gallon (including taxes) of diesel fuel.*

*The increase or decrease, as determined above, will be applied to the volume of fuel used, which will be fixed at 360 gallons per month for curbside collection of both MSW and Single Stream. Adjustments will be made bi-annually on January 1 and July 1, based on the average cost of diesel for the six months prior to adjustment (1/1/14 to 6/30/14 for 7/1/14 adjustment).*

*Fuel Adjustment Example:*

<i>Average Fuel Price per DOE</i>	<i>= \$3.60 per Gal</i>
<i>Established Baseline Fuel price</i>	<i>= \$3.80 per Gal</i>
<i>Increase /(decrease)</i>	<i>= (\$0.20 per Gal)</i>
<i>Fuel Adjustment (\$0.20 x 360Gals)</i>	<i>= (\$72.00) per mo</i>

*In the above example, the Town would receive a credit of \$72.00 per month for the six months subsequent to the adjustment. We believe this is an equitable approach for all parties and respectfully request your consideration.*

### **Advantages of this option**

1. Provides the Town with set costs over the ten year period. The only variable would be the fuel surcharge.
2. The Town would not have to be concerned with personnel issues, the maintenance/repair issues for a vehicle or insuring a vehicle.
3. Weather events would not cause a cancellation of curbside pickup.

4. Dispose of the Town garbage truck resulting in an unknown sales value.

**Disadvantages of this option**

1. Contracting out for solid waste collection would require that one full time highway department position would need to be eliminated to provide sufficient funding for the contract. This would require the layoff of one highway department employee.
2. Although this option appears to be the lowest cost option the fuel surcharge could and would most likely increase the cost to make it commensurate with the cost of the Casella and Pinard proposals.
3. This option does not provide carts/bins as the Casella and Pinard proposals do. The carts/bins are of tangible value to the residents.
4. The cost formula for recyclable materials appears to be more costly to the Town than that proposed by Casella or Pinard.

**RECOMMENDATION**

The option that provides the lowest cost and the most advantages would be the Casella proposal. This option provides cost containment with a known set of variables.

Casella would require 60-90 days advance notice to be able to start providing services. It is our recommendation that the BOS choose an option to begin immediately. This would allow the contract to begin as early as this spring. The contractor would be required to transport solid waste to Penacook until January of 2015 at which time the disposal portion of the contract would begin.

Starting January of 2015 we would no longer be under the Capital Area Solid Waste Cooperative that requires private vendors who pick up solid waste within the Town to transport it to the Penacook facility. We would no longer be responsible for this cost that we have traditionally charged back to those commercial haulers. Commercial haulers who collect solid waste within the Town will be on their own to make arrangements for disposal of solid waste.

This option would require the layoff of one full time highway department employee. This option would allow us to dispose of the present Town owned garbage truck and realize the proceeds of the sale of the vehicle.

This option would make available for other purposes the \$20,000 in the Solid Waste Vehicle capital reserve fund. This assumes that approval is sought and granted at a future town meeting to change the purpose of the fund.

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