To:       Selectmen  
From:  Stu  
Re:       Recycling Cost Analysis  
Date:   September 14, 2016  

As mentioned in the past couple of meetings, I wanted to do an analysis of how much it costs the town for its recycling program. To that end, I have put together figures for the past six years or so. Here’s what they show:

Town of Lamoine - Recycling Analysis

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Cost</th>
<th>Tons</th>
<th>Revenue</th>
<th>Net Cost</th>
<th>Cost/Ton</th>
<th>Avoided Cost</th>
<th>Calc Cost</th>
<th>Calc/ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$14,792.00</td>
<td>35.171</td>
<td>$1,618.72</td>
<td>$13,173.28</td>
<td>$374.55</td>
<td>$2,637.83</td>
<td>$10,535.46</td>
<td>$299.55</td>
</tr>
<tr>
<td>2011</td>
<td>$14,392.00</td>
<td>29.304</td>
<td>$3,877.04</td>
<td>$10,514.96</td>
<td>$358.82</td>
<td>$2,197.80</td>
<td>$8,317.16</td>
<td>$283.82</td>
</tr>
<tr>
<td>2012</td>
<td>$14,089.00</td>
<td>25.35</td>
<td>$2,648.52</td>
<td>$11,440.48</td>
<td>$451.30</td>
<td>$1,901.25</td>
<td>$9,539.23</td>
<td>$376.30</td>
</tr>
<tr>
<td>2013</td>
<td>$14,047.00</td>
<td>21.8365</td>
<td>$1,845.95</td>
<td>$12,201.05</td>
<td>$558.75</td>
<td>$1,637.74</td>
<td>$10,563.31</td>
<td>$483.75</td>
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<tr>
<td>2014</td>
<td>$14,304.00</td>
<td>20.1345</td>
<td>$2,129.70</td>
<td>$12,174.30</td>
<td>$604.65</td>
<td>$1,510.09</td>
<td>$10,664.21</td>
<td>$529.65</td>
</tr>
<tr>
<td>2015</td>
<td>$12,878.00</td>
<td>17.827</td>
<td>$258.51</td>
<td>$12,619.49</td>
<td>$707.89</td>
<td>$1,337.03</td>
<td>$11,282.47</td>
<td>$632.89</td>
</tr>
</tbody>
</table>

Avg  $14,083.67 | $24.94 | $2,063.07 | $12,020.59 | $509.33 | $1,870.29 | $10,150.31 | $434.33 |

Let me explain this chart

**Year** (not as obvious as you might think) – While the total cost column is an annual figure, it is the fiscal year, which runs July to June. The rest of the columns are from the first calendar year of the fiscal year because the state calculates recycling on a calendar year. While these will not match up exactly, it's pretty close and is meaningful.

**Total Cost** – This is the actual fiscal year cost booked to the Solid Waste/Recycling account. This includes the monthly cost of container rental and the per trip cost to empty the containers at Coastal Recycling.

**Tons** – This is the actual tonnage of the commodities sold through MRRA by Coastal Recycling attributable to Lamoine. This does not include the mixed paper, which is collected in a separate container and gathered and processed by Pine Tree Waste. We do not see any revenue from that commodity, and Pine Tree does not provide the tonnage amount.

**Revenue** – This was the annual calendar year revenue from Maine Resource Recovery Association for the net sales of the materials we delivered to Coastal Recycling. For the years listed above, those “commodities” were cardboard, newsprint, glass, #2 plastic, and metal cans.
Net Cost – This is the total cost with the revenue subtracted out.

Cost/Ton – This is the net cost divided by the tons.

Avoided Cost – One of the “marketing” tools for recycling programs is how much cost is avoided by not sending the material to PERC. This figure was derived by multiplying the tons by $75.00. The $75.00 is about the cost at PERC before any rebate. This will be an overstated figure – the actual avoided cost is likely significantly less because of the rebate.

Calculated Cost – This is the total cost with revenues and avoided cost subtracted out.

Calc/Ton – This is the calculated cost per ton for Lamoine’s recycling program, taken by dividing the calculated cost by the tons amount.

ANALYSIS

Trend – One thing struck me when entering the various figures, and that is that the amount of recycling has dropped by almost 50% in the past six year in terms of tonnage.

The calculated cost per ton has more than doubled during that time.

Cost Effectiveness – It is painfully obvious that it is nowhere close to cost effective for the town to participate in the recycling program. Obviously there is an environmental impact to recycling, perhaps, in that the materials recycled are not being landfilled or incinerated. There is no way to easily assign a cost to that. I’m not so sure that it’s more environmentally harmful adding 100-truck trips plus to the transfer station to haul our recycling to Coastal Recycling and back than the set number of trips to PERC.

Single Stream Option – I have placed a call to Casella to see if they’re prepared to offer a single stream program again. The last time it was discussed was in 2009, and at that time, we were recycling a fair amount of material and the cost for zero-sort was higher than the program we had in place. As of this writing, our salesman had not returned my call. I will follow up on that.

CONCLUSION

Lamoine’s recycling program is suffering from lack of utilization and is far more expensive than not recycling. Something different should be explored that makes more sense economically and environmentally