



Memorandum

10/15/18

To: Steve Giesbrecht, Borough Manager
Mayor Jensen and Members of the Borough Assembly
From: Chris Cotta, Public Works Director
Re: Recycling Program Update

Since I last reported to the Assembly on recycling in August, the value of recyclables has continued to be low. However one key commodity – mixed paper, that constitutes almost 1/3 of our recyclable weight – has gained value. Our most recent shipment of recyclables cost us \$114 per ton vs. \$120 per ton that we are currently paying for municipal solid waste (MSW). So at least for the time being, it is once again costing us less to ship recyclables vs. solid waste. Although we are hopeful that commodity prices will continue to improve, the recyclable markets are still too volatile to know what the long-term outlook is going to be.

One very important indicator for the future of Petersburg's recycling program is whether the community is going to support the program going forward. Most of the comments received by Public Works to date – and in fact all of the written comment submitted thus far - are in favor of retaining the recycling program in some form. Petersburg's well-designed program is viewed as one of the premier recycling programs in southeast Alaska. We offer more value and convenience to our customers than almost anyone else in our area.

In addition to direct comments received, many questions about recycling and solid waste in general have been submitted to Public Works through the Assembly and Borough Manager, and I have provided these along with my responses as an attachment to this memorandum. All of this information, as well as a copy of this memo, will be posted to the Borough's website. Hard copies will also be made available upon request.

One subject of recent public discussion concerns the costs of operating Petersburg's recycling program inhouse, vs. using a contractor as in the past. The cost to operate the recycling program using Borough personnel is much less than using a contractor, and this savings is the primary reason the Borough took over recycling collections. One significant factor for the reduction in recycling program operating costs is that the Borough did not add any additional staff – we had (4) full-time Sanitation personnel prior to the implementation of the recycling program and we still have (4) full-time staff. In order to allow for time to do recycling collection routes with the same number of staff, we reduced public access hours at the baling facility on weekdays.

There were capital costs incurred to acquire the 3rd collection truck and an adequate supply of blue recycling carts. However, the only significant additional operating costs incurred by the Borough are the

Public Works Department

PO Box 329, Petersburg, AK 99833 – Phone (907) 772-4430 Fax (907) 772-4102

www.petersburgak.gov

costs of maintaining, and funding the replacement of, the 3rd collection truck. For the time being, these costs have been largely mitigated by extending the service life of our oldest collection truck, which is still in good condition. This has helped significantly reduce the cost of operating the Borough's recycling program, which is vitally important during these challenging times for the recycling industry.

Besides low commodity values, there are some additional challenges facing the recycling program. One of the more significant concerns is the implementation of contamination charges by our recycling vendor, Republic Services. According to a memo from Republic, charges of up to \$150 per ton will be assessed if a load is found to have more than 10% contamination. Although we have not been assessed any of these fees to date, we have been put on notice that our recycling stream has frequently exceeded the permissible level of contamination.

To try and bring the program into compliance and avoid contamination charges in the future, we have stepped up our monitoring of customer recyclables and have started tagging and rejecting carts that contain unacceptable materials. We are also planning to do some public outreach and education on this subject, to ensure that our recyclables are as clean as possible. This may also help raise the value of our commingled recyclables and bring the program closer to being self-sustaining in the future.

So, what happens now?

Based on feedback from the community received by Public Works, it seems that the citizens of Petersburg are generally supportive of the recycling program and wish for it to continue in some fashion. Although the recycling markets continue to be unpredictable, the costs of our program have been reduced to the point where they can be accommodated within the current operating budget. For now, Public Works recommends continuing with the curbside recycling program until the future direction of commodity values becomes clear, or such time as a lack of community support would indicate scaling back or eliminating the program. We also intend to investigate other options for reducing our solid waste costs, such as composting, and removing a larger percentage of glass from the waste stream.

This surely won't be the end of the recycling discussion in Petersburg. We are willing to participate in an Assembly work session and/or public meetings on this subject if this is desired. And anyone wanting more information on the recycling program or Petersburg's solid waste operations in general should feel free to contact us or stop by Public Works during business hours and we'll be glad to discuss these subjects further.

I'll be glad to take any questions you may have at this time. Thank you.

Attachment: Recycling and Solid Waste Q&A (4 pages)

October 2018

Petersburg Borough Public Works Dept.

Recycling and Solid Waste Questions and Answers

1. Could the Borough reduce personnel in the Sanitation Department if we give up recycling? This would not be advisable. We have found that operating the combined garbage and recycling collection program with 4 full time personnel and 3 collection trucks works fine if no one is out sick or on leave, and we have a minimum of 2 trucks running routes – with 3 trucks being optimal. If we have less than 4 personnel working, we get behind quickly and overtime starts adding up. So we are understaffed at present, if anything. Going back to just picking up trash, we might be able to increase the hours we are open to the public. Labor costs would be reduced since less overtime would be needed. If we reduce staff, we would need to reduce public access hours and cuts to other services would also be likely.
2. Could the Borough go back to having our own landfill to cut down on disposal costs? This is not feasible. One big problem is that the existing landfill is too close to the airport and the FAA would very likely object to reopening it due to the increased potential for bird strikes. Even though there are some birds that currently hang around the baling facility, it is a small number compared to what we would have if we still had an open landfill for garbage disposal.

Developing a new landfill site is also cost prohibitive. We're talking millions in capital costs and a multi-year process to develop. There are additional factors to consider: public opinion (not in my backyard!); bears, rats, flies, and other undesirable creatures that would be drawn to the site and end up in town; odor from operations; and the costs of maintaining and operating a solid waste landfill, which are significant and burdensome. Petersburg has been through the exercise of asking the landfill question before, in the 1980s and early 90s, and came to the conclusion that continuing to operate the landfill was not a viable option compared to shipping waste out of the community. Since that time, operating a landfill has only gotten more expensive and regulation intensive. Unfortunately, there is no inexpensive solution to disposing of the community's garbage. But baling and shipping is, overall, a much less costly option than having our own landfill.

3. Are there any other communities in SE Alaska who are successfully (breaking even or making money) running a recycling program? If we're talking commingled recycling, I don't think there is anyone else in Southeast running a comprehensive commingled program that is making money. The communities that do source-separated programs for the most part seem satisfied that their programs are still paying for program costs.

A few examples of recycling programs in Southeast: Wrangell does not recycle and has no plans to start. Ketchikan seems satisfied with their program, which is largely a source-separated program consisting of several drop off sites. Sitka has one major drop off location with several 10-yard containers. Both Ketchikan and Sitka recycle fewer commodities than Petersburg, tending to focus on more valuable commodities like cardboard (OCC). Both programs have recently quit accepting mixed paper because its value had dropped to the point where it didn't pay to recycle it anymore – although the value of mixed paper is now coming back up. Sitka's recycling manager did say that retraining customers to eliminate mixed paper has been difficult. Craig is recycling on a very limited basis and some of their recyclables are ending up in the waste

stream as garbage. Haines has a source-separated recycling program run by community volunteers as a non-profit, that has had some modest success.

The only community I've spoken with to date that seems really enthusiastic about expanding recycling is Juneau, where both curbside and drop off options are offered. They are strongly encouraging recycling as a way to prolong the life of their solid waste landfill by diverting as much material as possible elsewhere.

4. How much would the Petersburg Borough trash rates have to go up if we continue to recycle in the same manner we do today? Assuming we would then have to cover the cost of adding the third trash truck. If we figure truck replacement costs into the equation, I would estimate approximately \$30K/year to operate the program. This is equivalent to roughly 2.5% of our FY19 budgeted revenues of \$1,175,000. So a rate increase of 2-3% would probably be needed to support recycling if the program continues to operate as at present, with commodity values remaining low. If commodity values increase to past levels, the program becomes self-sustaining and at a certain level, even profitable. We may be able to make changes to the existing program and reduce its costs.
5. Has the Borough's recycling "revenues" paid for the cost of the third truck and the purchase of the blue carts? The short answer is no. In 2016 and '17 the program was recouping its costs and it was hoped that over time, the capital cost of the additional truck and blue carts would be paid back in the form of reduced expenses vs. shipping municipal solid waste. With present recycling commodity values, this will not be possible in the short term and the longer term outlook is unclear.
6. Could we post the current commodity prices on the website for recycled goods and update it monthly? We can do this if desired.
7. Could the Borough purchase an incinerator and use it to reduce solid waste costs? This has been looked at and studied more than once in the past, and discarded for cost reasons. In addition, incinerators, like landfills, are always controversial due to pollution concerns.

Thus far, the only municipal government I've talked to in Southeast that operates an incinerator is Ketchikan, and they generally do not use theirs except for special circumstances, such as burning Japanese knotweed and other deleterious materials, or upon special request from a customer – which has its own rate. The reason that they only occasionally use their incinerator plant is that it costs them more to operate their incinerators vs. shipping baled solid waste in closed containers. Currently, they bale the bulk of their recyclables and solid waste onsite and ship them south via Republic Services, just as Petersburg does.

8. Would it be worth it to recycle just aluminum, cardboard and metal cans? (deleting all of the plastic goods). Would this raise our "comingled" values high enough to justify continuing curbside pickup? At current commodity prices, it wouldn't make much difference since the tonnage of all 3 commodities combined is not a high percentage of the total tonnage, even though the per ton values of these commodities are high. If we eliminate other commodities from the comingled recycling stream, our tonnage is sharply reduced. If other commodity values were predictably and consistently low, it might make sense to do this, however commodity values are very volatile at present. If we had eliminated mixed paper at its low point

for instance, we would now wish we had it back in the waste stream since the value is up again. Here is how the numbers break down for the current value of aluminum, cardboard, and tin vs. all recyclables assuming 300 tons of commingled recyclables total:

Commodity	% of recyclables	Tonnage	Value/Ton	Total Value
Aluminum	.6	1.8	1,343.00	\$2,417
OCC (cardboard)	16.1	48.3	91.00	\$4,395
Tin Cans	2.1	6.3	115.00	\$725
			Total for above	\$7,537
Commingled	100	300	23.00	\$6,900

From this table it can be seen that the aggregate value of the subject commodities does not differ significantly enough from the value of commingled recyclables to warrant changing the program. Keep in mind also, that while the tonnage of recyclables shipped would go down thus reducing the cost of shipping the Borough’s recyclables, the eliminated materials would end up in the solid waste stream and incur the full cost of disposal as solid waste. So there really is no compelling reason to modify the program as described, at this time.

9. Can you tell me of our recycled materials how much is actually recycled or does some of it go into a land fill somewhere? I posed this question to Republic Services last week, and was told that currently 100% of non-contaminated commodities are being marketed and sold. So no usable material is going into a landfill at present.
10. Can I get a break down of our recycling numbers over the last year? We collect and dispose of approximately 300 tons of recyclables per year via the commingled recycling program. At present, we have 1150 residential customers, of which 914 customers participate in the commingled recycling program. This works out to an almost 80% participation level.
11. Is there a different price for customers for how or if they recycle? Are they charged a recycling pick up fee even if their blue can is not at curb side on recycling day? Is there a penalty for not recycling? The majority of residential customers have the lowest solid waste service level of 32-gallons per week. In order to make recycling more attractive to these folks, an incentive rate was established. Regular 32-gallon customers currently pay \$36.61 per month, compared with \$30.51 per month for 32-gallon customers who opt to recycle. There was supposed to be a penalty assessed if a customer was getting the incentive rate but not putting out their recycle container, however few if any of those fees were ever assessed to customer accounts. In the larger service sizes, customers have an automatic incentive to recycle since many are able to reduce their monthly garbage service size one level by recycling. Conversely, if we eliminate curbside recycling, many customers would have to size up their garbage service level, which would cost them more per month.
12. What happens to the local cannery materials? Non-contaminated recyclable material is baled and shipped with our other recyclables. Wood and metal go to the landfill. Garbage gets baled and shipped out as solid waste.

13. Is there too much glass in our solid waste stream? Yes, we need to get more glass out of our waste stream. We will be looking at ways to encourage this.
14. What happens to the glass that is recycled locally? All glass goes to the landfill, where it is used as fill for various projects or simply buried if we don't have a need for it. Since glass is inert, there are no environmental concerns, and we save money by diverting this relatively heavy material from our solid waste stream.
15. What becomes of the glass bottles from the local places that have liquor licenses? See question 14.
16. What drives the cost of recycling? Significant factors in the cost of Petersburg's recycling program include: operating and maintaining the 3rd collection truck; market values of recycling commodities; and cost to transport and dispose of recyclables via Republic Services.
17. Have you looked into to new Zealand glass grinding machines? Not in depth, although the subject of glass grinding has come up numerous times in the past. The major benefit of getting glass out of the waste stream is weight reduction (each ton removed saves the Borough \$120), as described above. Being able to produce a useful product with our glass waste would be a bonus, but the payback numbers have not added up when we have looked at this in the past. If desired, we can take a fresh look at this subject and present some numbers to the Assembly.