

Summarization of the Solid Waste Research Project:

I have to start off with a sentence out of an e-mail from Karl Hagerman (Public Works Director, Petersburg) that sums it all up, "It is hard to get things to pencil right out of the gate but the potential is there in the long run to set up a system that will keep solid waste expenses at lower overall levels – this is how I choose to look at the big picture in all of the options that are out there in the recycling world".

The City and Borough of Sitka hired Shaw Environmental, Inc., a CB&I (Chicago Bridge& Iron) Company to produce an Interim Solid Waste Management Plan Report to take us into the future with our MSW/Recycle needs. Shaw Environmental produced a final report that give us a lot of information to review. Section 6 of the report give a summary of their findings. There was three really good comments that was produced in the findings:

1. Disposal options were also considered by the SWAC, which recommended the continued use of the transfer station and off-island disposal. This disposal option is consistent with the goals of the community to increase recycling and waste diversion, since the costs of off-island disposal are variable and (currently) higher than the cost of off-island processing and marketing of recyclables. Development of a local disposal facility is challenged by space constraints and the fixed costs of such a facility could serve as an economic deterrent to increasing recycling.
2. From a financial standpoint, it is noted that although collection and disposal costs escalate annually, and recycling costs have also increased due to lower material revenues, monthly service rates and transfer station tipping fees charged by CBS to customers have remained flat for at least 10 years. This places significant challenges on the ability of the solid waste system to operate as a self-sufficient enterprise fund. Future rates and rate-setting will have to address both the historical escalation in costs that has occurred, as well as future annual escalations.
3. Based on the public input received through the citizen survey as well as discussions by the SWAC, curbside recycling is the program of most interest to the Sitka community. Curbside recycling is technically viable and is being evaluated and implemented by other communities in Southeast Alaska. That being said, implementation of curbside recycling would represent a major initiative for CBS, one that would require public outreach and coordination to be successful. In addition, vendor quotes to provide the service would have to be reasonable in terms of cost -- based on the survey, a few dollars per month in additional cost may be acceptable, but higher costs would be challenging. The key technical issue, which would impact economic feasibility, is whether the collected recyclable materials could be processed at the existing transfer station, or would require a new building or site to handle.

Based on the information that we have collected and from the Final Solid Waste Management Plan report it is clear to me the direction that we need to go for the future. We need to recycle and figuring that out comes with a lot of assumptions. Is the market for commodities going to hold? Will we be able to continue shipping our waste south to the State of Washington? Will Rabanco be able to continue giving us good commodity prices for our materials? These are just a few of many questions that automatically pop up in my mind when this subject comes up. The answer to all of this is the fact that we will never be able to completely figure out every aspect of this information. We can only base our facts off of the available information that we can get our hands on at this time.

It has become clear to me over the last few months in researching and gathering information for this project that the City and Borough of Sitka has looked at this issue and pondered about it for years with one conclusion. Clearly the public would like to see commingled recycle for a lot of reasons, for example: ease of getting rid of MSW and Recycle materials, is the right thing to do, and it could possibly save us money by diverting some of our waste stream.

The SWAC asked that the costing of three distinct scenarios be looked at in the August 28 SWAC Meeting minutes:

Scenario one; MSW every other week, Commingled every other week

Scenario two: MSW every week, Commingled every week

Both of these scenarios and a couple of others are attached in a spreadsheet.

The third scenario was to take a look at a breakdown of the costs per classification to see if one class is subsidizing the other classifications of how the CBS charges customers. The conclusions were:

- Larger waste receptacles subsidize the smaller waste receptacles
- Multiple pick-ups/week subsidize the cost of single pickups per week
- Commercial service subsidizes residential service.

There are five options that we have put on the table:

- Option 1; stay with the current system
- Option 2; Commingled, MSW every other week, Recycle every other week
- Option 3; Commingled, MSW every week, Recycle every other week
- Option 4; Commingled, MSW every other week, Recycle every week
- Option 5; Commingled, MSW every week, Recycle every week

Operations Summary:

Option 1; Current System

- **Sort separated recycle materials, higher commodity price**
- **Increase in capital just for replacement of current equipment**

Pros

Low dollar investment

Low frequency of collection

Sort separated material

Cardboard baled

Plastics baled

Cons

Drop off system at recycle center

Recycle not commingled for shipping

Recycle not picked up at curbside

Lose potential diversion volume

Commingled possibly easier to handle

Option 2; Commingled, MSW every other week, Recycle every other week

- **Dual stream transfer station**
- **Dual stream collection w/ additional trucks**
- **Separate can for recycle**

- **Drop off center (partial)**
- **Increase in capital for containers, employee, trucks, etc...**

Pros

Low frequency of collection
 Lowest impact of commingled options
 Lowest dollar investment of commingled options
 Lowest overhead costs of commingled
 Good way to start a recycle program
 Allows options for flexibility
 Possible bale cardboard separate
 Mandatory/non-mandatory

Cons

Will not capture all of the recyclables
 Still have recycle center for cardboard
 Bear issues
 Capital costs up front
 Recycle picked up every other week
 MSW picked up every other week
 Purchase of new containers
 Possible addition of one employee
 Possible mandatory recycle

Option 3; Commingled, MSW every week, Recycle every other week

- **Dual stream transfer station**
- **Dual stream collection w/ additional trucks**
- **Separate can for recycle**
- **Drop off center (partial)**
- **Substantial increase in capital for containers, employees, trucks, etc...**

Pros

MSW still collected every week
 Cardboard baled separately
 Possible mandatory recycle

Cons

Bear issues
 Capital costs up front
 MSW picked up every other week
 Addition of two employees
 Purchase of new containers
 Higher frequency of collection
 Recycle center still open
 Does not allow for as much flexibility
 Possible mandatory recycle
 Infrastructure issues with space restrictions

Option 4; Commingled, MSW every other week, Recycle every week

- **Dual stream transfer station**
- **Dual stream collection w/ additional trucks**
- **Separate can for recycle**
- **Drop off center would not be needed**
- **Substantial increase in capital for containers, employees, trucks, etc...**

Pros

More recyclables collected
Education
Mandatory recycle program
Recycle collected every week

Cons

Bear issues
Capital costs up front
MSW picked up every other week
Addition of two employees
Purchase of new containers
Higher frequency of collection
MSW not collected every week
Enforcement possibilities with mandatory
Mandatory recycle program
Infrastructure issues with space restrictions

Option 5; Commingled, MSW every week, Recycle every week

- **Dual stream transfer station**
- **Dual stream collection w/ additional trucks**
- **Separate can for recycle**
- **Drop off center would not be needed**
- **Substantial increase in capital for containers, employees, trucks, etc...**

Pros

More recyclables collected
MSW collected every week
Recycle materials collected every week
Mandatory recycle program

Cons

Capital costs up front
MSW picked up every other week
Addition of two employees
Purchase of new containers
Higher frequency of collection
Mandatory recycle program
Infrastructure issues with space restrictions