MEMORANDUM

To: Mayor McConnell and Assembly Members
Jay Sweeney, Interim Municipal Administrator

From: Michael Harmon, Public Works Director

cc: Gary Baugher, Maintenance and Operations Superintendent
Mike Middleton, Interim Finance Director

Date: June 19, 2013

Subject: **Approval of Developing a Solid Waste Management Plan**

Background:

The City and Borough of Sitka (CBS) currently does not have a Solid Waste Management Plan to address the current or future needs of the Solid Waste Fund and general operations. As we approach the end of the current collection and off-island disposal contracts in 2015, we believe it is in the best interest of the CBS to be better prepared with a plan that details the goals and direction of our solid waste management backed with a financial plan. There are a few outdated memos and reports that have been put together in the past that focused on recycling, composting, and bear problems, but nothing completed with a funding plan and/or completed by professionals experienced in the field of solid waste management.

The business of solid waste management is an important and complex operation with revenues just over $3-million, of which approximately $2.1-million goes towards service contracts. Our current system was developed with the goal of low rates to the customer by way of an efficient operation. This started with Sitka being one of the first communities in Alaska to have automated collection utilizing trucks that can automatically pick up containers quickly without the driver exiting the vehicle. The off-island shipping removed the maintenance and operation challenges and costs associated to landfills and/or a incinerator. The result is low garbage rates especially considering our remote location and distance from the landfill.

To help illustrate some monthly garbage rate comparables, we were able to find the following rates from other communities that offer once a week collection of containers approximately 90 gallons in capacity:

• Seattle, Washington	$89.45	• **Sitka, Alaska**	**$42.00**
• Juneau, Alaska	$64.68	• Everett, Washington	$40.55
• Unalaska, Alaska	$68.16	• Spokane, Washington	$28.97
• King County, Washington	$44.40	• Nome, Alaska	$26.13
• Portland, Oregon	$43.30	• Ketchikan, Alaska	$18.60

This is by no means a comprehensive rate comparison and would benefit from more research on why rates vary from community and how we can capitalize on some of these differences. However, it does demonstrate that our rates are competitive, especially given our remote location and the fact that we operate an enterprise fund that is not subsidized by outside revenues such as property or sales tax.

Recycling is also a key part of the off-island disposal program. Our current recycling program has been very popular especially given it is primarily a grassroots program that has been pulled together with very little resources and cost to the CBS. The recycling program operates primarily out of two locations consisting of the Sawmill Cove Scrap Yard and the residential drop-off "Sitka Recycle Center" on Sawmill Creek Road across from the Trooper Academy. The Sawmill Cove Scrap Yard supports the collection and processing of scrap metals, cars, copper, freezers, refrigerators, steel, tires and paint. Sitka Recycling Center supports most common household recycling such as cardboard, paper, glass, metal cans, aluminum, milk jugs, shredded paper, fluorescent tubes, etc.

There are currently two main contracts associated to the processing of our solid waste and recycling. The shipping, disposal, and recycling of the materials off-island is accommodated by a contract with Republic Services (a.k.a. Rabanco or Allied Waste). Within this contract Republic Services runs the transfer station and processes the recycling collected at the Sitka Recycle Center. The work performed in Sitka under this contract is subcontracted to Alaska Pacific Environmental Services (a.k.a. APES or Stragier Sanitation). The second contract is directly with Alaska Pacific Environmental Services for the curbside/roadside collection of the Municipal Solid Waste (MSW). The Sitka Recycling Center was contracted to Community Schools in the past, but is currently being operated by Public Works.

When our waste is shipped to Washington there are two primary streams. The MSW goes to the Roosevelt Landfill in Eastern Washington and the recycling goes to the Republic Recycle Center. The shipping containers get shipped to the landfill and recycle center by way of railroad systems. At the Republic Recycle Center, advanced sorting equipment such as disk screens, magnets, and optical sorters are used to identify and separate different types of paper, metals, plastics, and construction and demolition material for processing. Given that Sitka's recycling program already sorts most recyclables, this process can be streamlined and improves the commodity credits we receive to offset the overall cost. The recyclable materials collected have an extended value to society through repurposing and remanufacturing.

The Roosevelt Landfill is considered a modern "green" landfill that was designed from the ground up to capitalize on utilizing the waste byproducts and reducing environmental impacts. For example, the landfill captures the gas emissions as an industry leader in utilizing this byproduct to produce 37-Megawatts of electricity to help power up to 37,000 homes. The power generated is produced 24/7 which has significant advantages over other alternative power such as wind and solar. The landfill will produce power well past the 40-year expected trash-receiving lifespan. Additionally,

the railcar shipping is unique to the facility and is extremely efficient as it significantly reduces fossil fuel consumption versus utilizing truck hauling.

The Roosevelt Landfill has an ideal location in a very dry climate to significantly reduce leach-aid and other environmental impacts. Southeast Alaska is generally a very poor location for MSW landfills and many of the environmental benefits provided by the Roosevelt Landfill in terms of climate and electric generation would not be possible. Additionally, it is important to keep the shipping in perspective in terms of our waste going to Washington. Our waste is transferred to Washington by way of barge and railcar which are both extremely efficient and piggyback onto barges and trains that are going to make the trip regardless of our few containers.

Analysis:

There is an exorbitant amount of data and information related to analyzing of our current waste management and any potential changes to consider for the future. Many community members have expressed interest in improving our process in terms of waste diversions, recycling, composting, and bear protection. Various ad-hoc groups have dedicated a significant amount of time trying to develop ideas to improve our system with very little resources or data. We believe that the development of a Solid Waste Management Plan would be a significant first step to work with the community to improve services and develop an appropriate business plan through the help of solid waste professionals. Such plan would engage the community and analyze options and provide recommendations. Once a plan is in place, it will become a consistent resource that will identify our goals and objectives along with the needed funding.

The timing is excellent to start the planning ahead of the 2015 expiration of our current service contracts. The proposed management plan would be all encompassing covering all aspects of the Solid Waste Enterprise Fund and solid waste management activities. This would include the infrastructure and a customer rate analysis associated to the future revenue requirements.

The following is a list of common objectives to consider for the Solid Waste Management Plan:

Reduce Waste and Increase Recycling:

- Increase Business and Institutional Recycling and Composting, through technical assistance to businesses.
- Focus on paper and organics as priority materials because they continue to be disposed of in large quantities and they have the greatest potential for significant improvement in their capture and use as resources.
- Increase Residential Recycling and Composting – Using technical assistance and targeted grant programs, increase recycling and composting through development of cost-effective municipal and regional residential recycling programs.

- Pay-As-You-Throw program implementation and collection of all recyclables together through single-stream recycling. As with businesses, focus on paper and organics as priority materials for their additional diversion potential.
- Stimulate Greater Reuse of Materials and Products – Implement a regional materials exchange to facilitate material reuse among businesses and institutions and work with broad groups of stakeholders to develop new strategies to encourage increased reuse of materials and products to save money for businesses, institutions, and residents and to reduce disposal.
- Deploy Diversion Strategies for Organics and C&D– Implement integrated organics and C&D diversion strategies that include a combination of initiatives to increase diversion and build markets.
- Build Local and Regional Recycling Markets – Drive development of new and expanded recycling markets and bolster existing markets through innovative pilot projects, state procurement, cost-effective regional programs, targeted business development assistance, and implementation of existing and new waste bans.
- Education Campaigns – Work with municipal, non-profit, and business stakeholders, including the waste management industry, to develop and implement a series of targeted education campaigns and school educational programs to support waste reduction and increased recycling by residents, businesses, and institutions.
- Eliminate Barriers to Siting Composting Facilities – Working with a broad stakeholder group, identify barriers to siting anaerobic digestion, recycling, and composting facilities and develop codes, technical, and financial mechanisms to mitigate or eliminate those barriers.
- Keep Toxics Out of the Waste Stream –Expand regional programs to collect and safely manage hazardous household products before they are sent for disposal.

<u>Develop Integrated Solid Waste Management Systems</u>

- Integrated Facility Partnerships - Work with interested parties, including businesses, to develop integrated solid waste management systems that achieve our objectives by integrating reuse, recycling, and composting opportunities into holistic solid waste facility design.
- Innovative Pilot Projects – Pilot Project innovative approaches that can achieve the goals identified in the plan.
- Highlight Successful Systems – Don't forget to recognize the leadership examples within our current program:
    - Comprehensive recycling drop-off center
    - Past and present education in schools
    - Climate Action Plan
    - Composting Pilot Projects
    - Community involvement, task forces, and ad-hoc groups
    - biannual Household Hazardous Waste Events
    - Spring Cleanup
    - Reused building materials
    - C&D handling facility, and landfill

    - Overburden and "Green Waste" landfill
- Goals and Objectives Plan for the short-term and long-term programs and infrastructure – 5, 10, 20, and 50-year goals, objectives, and milestones associated to developing integrated solid waste management programs.
- Business Plan – Rate study that includes a sustainable infrastructure plan and overall funding for operations in a manner to maintain financial stability meeting all goals and objectives.

Currently the CBS does not offer curbside collection for recycling like many other communities. Once again, the focus of our current system was to reduce the cost to the customer. The additional service of curbside/roadside recycle collection generally does not produce the same level of segregated recycling as a drop-off center and comes with the additional cost of collection. However, it should produce a significant increase in recycling due to the convenience. This would be an important focus of the management plan.

Solid waste management plans can be very robust planning tools to promote change in the future that will lead to common goals and objectives. They can evolve and function as a living document, but are intended to unite the community towards a common path to improving waste management. These elements are missing in our program which makes it slow to change, evolve, or be prepared for the future. Most things are being managed in a reactionary manner versus proactive.

Fiscal Note:

The funding for a Solid Waste Management Plan would come from the working capital of the Solid Waste Fund which is approximately $1.5-million. It is projected that a Solid Waste Management Plan would cost between $150,000 to $250,000 depending on the complexity of future goals and the amount of public process exploring options. This cost estimate is based from other master planning we have accomplished for Water, Wastewater, and Harbors.

Recommendation:

Approve the Administrator to advertise a Request for Qualifications and select a consultant to assist Public Works in developing a Solid Waste Management Plan. A scope of work, budget, and contract will be presented to the Assembly for review, comment, and approval.