

Republic Services and Alaska Waste Fire Mitigation Recommendations



May 11, 2021



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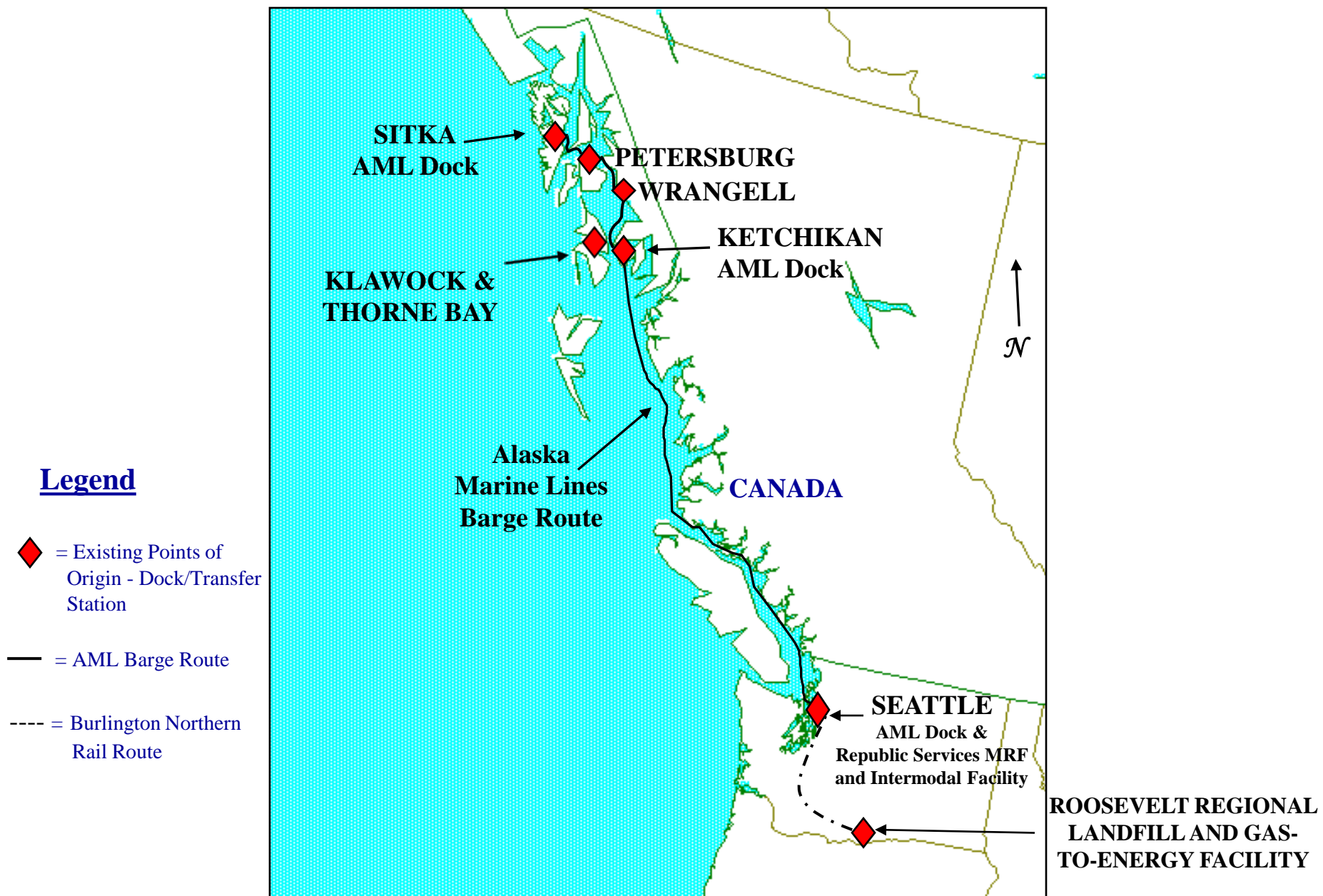


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Solid Waste containers shipped by AML from Southeast Alaska to Republic Services for disposal at the Roosevelt Landfill

Existing Solid Waste and Recycling Regional System



Serving SE Alaska Since 1995: Utilizing Barge and Rail Service to Republic Services Roosevelt Regional Landfill



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Material & Transportation Safety



Brief History of Fires in Sitka Solid Waste

- Two Significant Fires on Alaska Marine Lines Barges
 - 2010
 - 2016
- 2016 AML notified Republic Services of their intention to discontinue service of MSW Loads in open top containers
- 2017 Republic Services & AML began to work with local communities to educate on Unacceptable Waste and Fire Mitigation measures with a goal of achieving compacted waste in closed top containers
- Two Fire Responses at Sitka Transfer Facility in Summer of 2020
- Additional Unrelated Fire from Neighboring Community (Wrangell) in Fall of 2020 burning 2 loads of MSW at AML's Ketchikan Facility
- October 15, 2020 AML Notified Republic Services of their intent to refuse service of open top equipment effective June 1st, 2021 unless significant measures are adopted to mitigate fire risk



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Risks & Liabilities

Container Fires are an avoidable risk to public health and safety

Resulting damage to solid waste equipment and collateral property damage increases costs of services, loss of service, higher liability risks to partners and communities of Southeast Alaska.

Community of origin is liable for damages from improper handling of waste

Alaska Marine Lines is unable to continue to accept the risk of uncompacted waste shipments from Southeast Alaska.





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Sitka Stakeholders Group Approach

- Sitka MSW Stakeholders Group was formed with representation from:
 - City and Borough of Sitka Staff
 - Republic Services
 - Alaska Waste
 - Alaska Marine Lines

The goal of the Stakeholders group was to work collaboratively to evaluate all reasonable options and identify recommendations to mitigate future fire risk associated with current practices of processing Municipal Solid Waste



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Methodology of Compactions

- Current Top Loading Methods
 - Additions of Lids on Containers
 - Retrofitted Lids
 - New Purpose-Built Lidded Shoebox Style Containers
- Baled Material
 - Use of Existing Closed Top Units Supplied by Republic Services
 - Could be used with Retrofitted Lidded Container or Purpose-Built Shoebox Style Containers
- Pre-Loaded Compactor
 - Use of Existing Closed Top Units Supplied by Republic Services
 - No Impact to Current Transportation and Disposal Contract



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Retrofitted Lid System

- Two Piece 24' Lid system retrofitted to fit Current 48' Open Top Containers
- Does not seal Air-tight
- Need for additional handling costs to Remove and Replace Lids
- Additional maintenance costs
- Cost per unit approximately \$40K
- Initial Purchase of 50 Units \$2,000,000
- Lids can stay on while off loading at Landfill
- Not Currently widely used in Waste Industry





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Shoebox Lidded Container System

- Purpose-Built to provide for Lidded System
- Provides for an Air-tight seal
- Need for additional handling costs to Remove and Replace Lids at Transfer Facility
- \$12-15K
- Initial Purchase of 20-30 Units between \$250-350K





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Fully Enclosed Container System

- Fully Enclosed and Sealed container designed specifically to handle heavy MSW Material and protect the environment
- Built to be durable and withstand the riggers of Transfer and Transportation of MSW Material
- Currently in use as Part of Republic Services Waste By Rail System
- Available for immediate implementation with no additional costs





Potential Baler Expenses

Used Harris Gorilla or Centurion req. 480 volts	\$150,000 – \$200,000
Caterpillar P6000 Forklifts	\$55,000 - \$60,000
Portable Loading Ramps	\$20,000



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Potential Compactor Expenses

Used SSI 2500 Compactor	~ \$492,000
New SSI 2500 Compactor	~ \$900,000
Prototype Republic/SSI Compactor (under development)	~ \$525,000



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Republic Contribution to Pre-Load Compactor

- Republic Services has offered the City and Borough of Sitka the transfer of a 1996 AMFAB Trans-Pack TP 2500 Pre-Load Compactor
- Cost of Sale \$1.00 (USD)
- Unit is in current daily use at Republic's Ferndale, WA Transfer Facility
- Republic will commit \$25,000 towards the cost of refurbishment of Compactor
- Republic Services & Alaska Marine Lines will partner to transport the Compactor to Sitka at their own expense
- Sitka will be responsible for the installation of the unit at Transfer facility



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Transportation & Disposal Impacts

- The City and Borough of Sitka and Republic Services will have no additional impacts to the Transportation and Disposal Agreement with the implementation of either Bailed or Compacted Waste in Closed Top Containers
- With the prospect of a Retrofitted Lid System or Shoebox Style Containers, Additional expenses would need to be negotiated into the T&D Agreement to account for equipment costs and operational handling of the lids either at the Transfer Facility, AML Yard or Landfill.
- The CBS Solid Waste System would benefit from higher average container weights that provide economic benefit through the elimination of Under Weight Container Penalties



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Impact to the Transfer Station Operations

Changes in Transfer Methodology has significant impacts to the operations of the Facility

Baler Operations

- Transfer Station Traffic Routing
- Additional Equipment Needs
 - Baler
 - Fork Lift
 - Ramp
 - Construction and Demolition Material Processing
- Additional Staffing
- Additional Maintenance



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Impact to the Transfer Station Operations

Pre-Load Compactor Operations

- Need for some Transfer Station upgrades
- Compactor better fit for Current Transfer Station configuration
- Construction and Demolition Material can be processed using compactor
- Additional Staffing
- Additional Maintenance



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What if we do nothing?

As part of the Stakeholders evaluation, It was important to CBS Staff to explore the impacts of what would happen if the community elected to make no changes to the Solid Waste System and maintain service in Open Top Containers.

- Effective June 1, 2021 Alaska Marine Lines will discontinue service in open top containers without an adopted plan to transition to compacted waste in sealed containers
- Republic Services would be responsible under current Transportation and Disposal agreement to provide alternate shipping of CBS Solid Waste.
- Under current Transportation and Disposal Agreement, The City and Borough of Sitka would be responsible to pay all additional transportation fees for alternative service.



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Recommendations

As part of the Stakeholders evaluation, all reasonable options were evaluated for cost, operational impacts, systems durability and effectiveness in mitigating risk.

Based on all items considered, members of the Sitka Solid Waste Stakeholders Group representing Republic Services and Alaska Waste concur that the most effective methodology to provide security, certainty and the greatest economic benefit over the duration of the current T&D and Transfer Station Operations agreements for the Sitka Solid Waste System is to make the transition to Compacted Solid Waste in Closed Top Containers through the implementation of a Pre-Load Compactor at the Sitka Transfer Facility.

Thank You

