

Republic Services and Alaska Waste Fire Mitigation Recommendations



May 11, 2021



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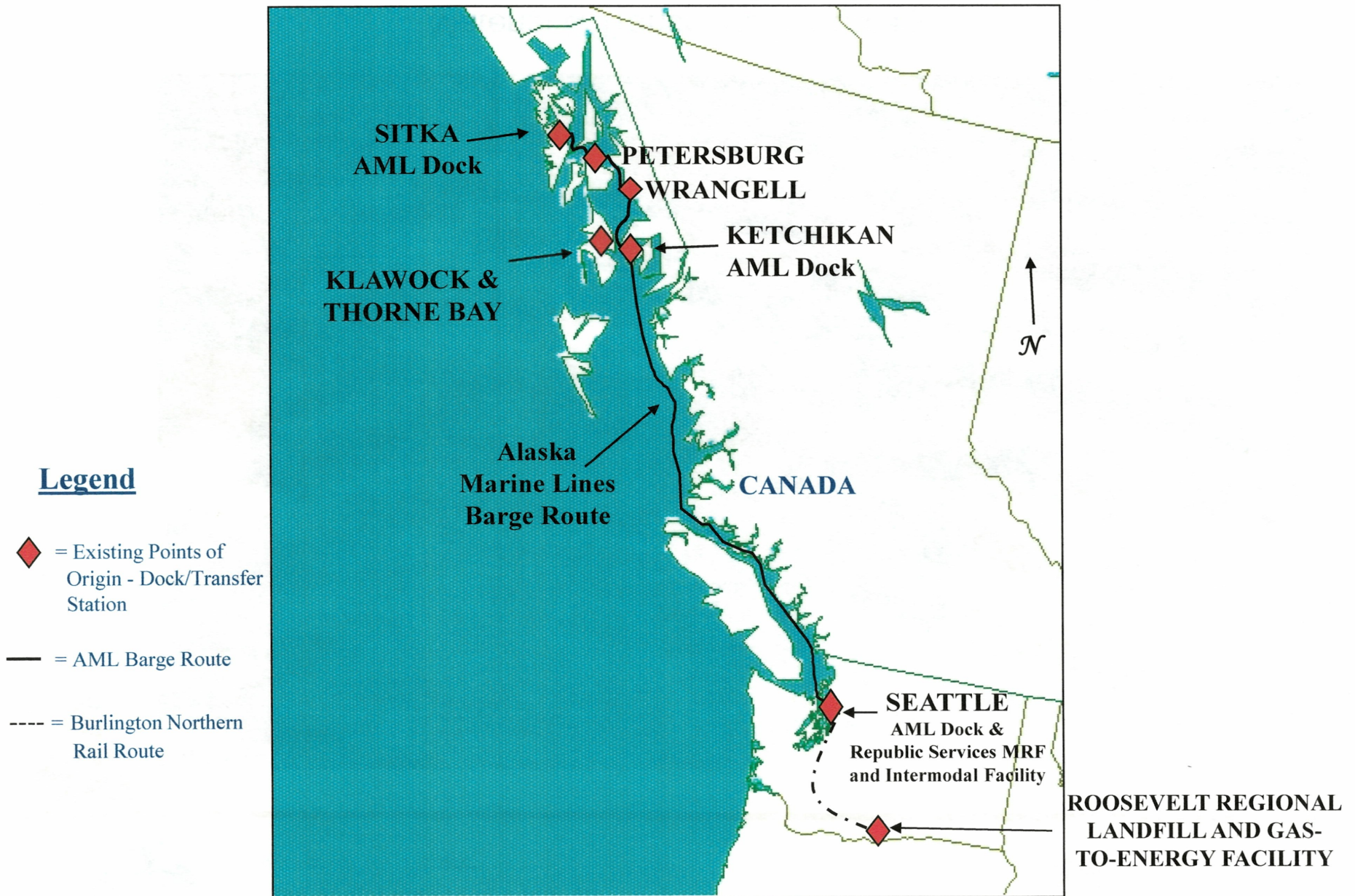


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Solid Waste containers shipped by AML from Southeast Alaska to Republic Services for disposal at the Roosevelt Landfill

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



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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