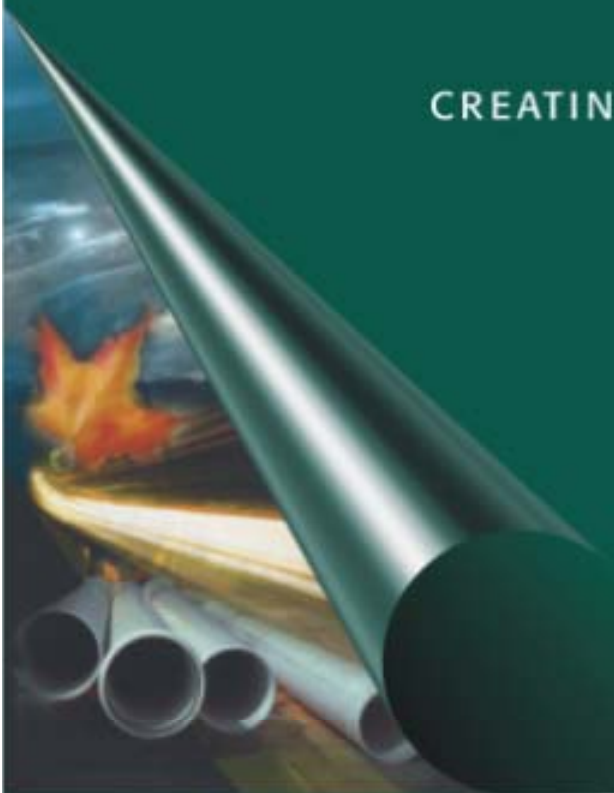




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CREATING AND DELIVERING BETTER SOLUTIONS



Yukon Solid Waste Review

Presentation for
Yukon Environment Forum 2009



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YUKON SOLID WASTE REVIEW

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Community Services retained EBA Engineering to:

- Conduct a comprehensive study of waste management practices in the territory
- Prepare an update to solid waste management strategy prepared by Gartner Lee in 2001
- Prepare an update to the waste management procedures and guidelines, last updated in 1997



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SCOPE OF WORK

- Initially only unincorporated communities were part of the solid waste review, but the scope has since been expanded to include incorporated communities
- Air dispersion modelling also added since project initiation.



Yukon Solid Waste Review – Release Schedule

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- Comprehensive Study: “Review of Existing Practices”
 - Volume 1: an overview of waste management practices in the Yukon, focusing on the existing practices in unincorporated communities (i.e. costs, carbon footprint, etc.). – RELEASED
 - Volume 2: Stakeholder Views” – Includes Volume 1 and with Stakeholder views added. Target Date for Release: June 30th
 - Volume 3: Strategy for Yukon Solid Waste – Will also include the review of incorporated communities – Target Date for Release: August 2009
- Solid Waste Strategy (High Level Document): Target Date for Release: August 2009
- Update to the Waste Management Procedures and Guidelines: Target Date for Release: August 2009



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WASTE DISPOSAL OPTIONS

EBA has considered current and potential alternative solid waste disposal options, including:

Current operations:

- Open trench burning and burial.
- Burn vessels and burial.
- Transfer stations.

Alternatives:

- Regional landfills (strategically located).
- Transfer stations with regional landfills.
- Incineration – higher temperatures and controlled burning with emission controls.



Yukon Comprehensive Solid Waste Study – Volume 1

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To date, EBA has completed:

- Comprehensive literature review
- Site visits for representative unincorporated facilities
- Identified challenges faced
- Identified alternatives available
- Produced cost estimates (capital and operational), carbon footprint estimates, and a relative evaluation of a facility's impact on the environment and human health for existing and proposed waste management alternatives
- Researched best practices across North America and Europe and assessed their suitability to the Yukon.



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Current State of Disposal

Highlights of the Volume 1 of the Solid Waste Review Include:

- The 2008 budget for solid waste management for unincorporated communities is \$1.2 M, which is allocated to 19 facilities.
- Solid waste facilities are not being utilized as intended due to many external factors (i.e. residents avoiding tipping fees)
- Troublesome wastes, such as HHW, white goods, and scrap metal often overload the waste facilities and are difficult to manage.
- Capital and operational costs, carbon footprint estimates, and relative environmental and human health and safety impacts have been put together to help identify potential waste management alternatives in unincorporated communities.
- Public and stakeholder meetings presently underway will provide additional input for the assessment process.



Yukon Solid Waste Study – Work Underway

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Project components currently underway include :

- Public and stakeholder meetings, which are to accomplish the following objectives:
 - Identification of public and stakeholder concerns
 - Identification of public understanding of waste management
 - Identification of public perceptions and waste management priorities
- Air Dispersion Modeling (released to the public May 19th, 2009), to be incorporated into future volumes of reporting
- Research of waste management practices in incorporated communities and determining the waste management infrastructure available
- Waste model finalization



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Yukon Solid Waste Study – Waste Model

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The waste model (presently under development) will help aid in the decision making process for waste management alternatives. The model calculates a number of factors (i.e. costs, carbon footprints, impact on environment) and determines the most suitable waste management alternative based on a weighting system. These weightings include the following considerations:

- the facility should be economically viable (considering capital and operational costs, respectively);
- the facility's carbon footprint should be limited;
- the facility's environmental health and human safety should be deemed acceptable;
- government efforts for industry and public processes for the facility's use or establishment should be reasonable; and
- user costs should be taken into consideration.



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WASTE MANAGEMENT – Envisioned Roles

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- **EBA and Community Services:** develop solid waste strategy for unincorporated community facilities, which will include cooperation with Municipal Governments and Department of Environment.
- **Municipal Governments:** potential partnerships may benefit all parties and help in the development of waste management solutions (i.e working together to establish new solid waste diversion programs, regional landfills, etc.).
- **Department of Environment:** provide input on draft solid waste strategy and recommendations, work with Community Services towards prioritizing and implementing initiatives to improve waste management territory wide. Also to facilitate cooperation between unincorporated communities and municipal governments to standardize waste management practices across the territory.



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