

**City and Borough of Juneau**  
**Solid Waste Strategy**  
**Executive Summary**

February 2008

Prepared by

**WIH RESOURCE GROUP**  
*Environmental & Logistical Solutions™*

In association with



## **City and Borough of Juneau Solid Waste Strategy**

### **Executive Summary**

#### **Background**

In early 2007, the City and Borough of Juneau (CBJ) retained WIH Resource Group (WIH) to assist with conducting a long range solid waste management strategy and alternatives analysis. In order to achieve the City's objectives, the project work was performed in two phases. Phase one consists of information gathering and preliminary analysis and Phase Two work consists of identifying, analyzing and making recommendations on alternatives.

The final report provides a strategy for implementing environmentally prudent and cost-effective integrated solid waste management components to enhance or upgrade the CBJ's existing solid waste management and recycling systems. The strategy begins with an overview of the CBJ's existing solid waste management system and the subsequent sections of the strategy discuss individual solid waste programs in detail.

Some driving factors resulted in prompting the City to undertake this long-range solid waste management strategy and alternatives analysis. Specifically, in 2004 the private landfill operator ceased operations of its two incinerators (that had been operating for approximately 20 years) and returned to direct landfilling of the CBJ's solid waste. This forced the City to become more involved in solid waste and special waste management such as disposal of medical waste.

Since the closure of the incinerators, the landfill is growing and a mound of solid waste is visible from the adjacent highway and is generating interest from the public. Items of concern include the visual impact of the landfill mound as well as the long-term environmental effects of direct solid waste disposal near the wetlands of Lemon Creek. The incinerator closure has also meant that more birds have been attracted to the landfill, causing concern for aircraft safety, as the airport is located nearby. These visible solid waste issues were the impetus for the project. In addition, a large segment of the community continues to push for increased opportunities to recycle.

The data, information, analysis, conclusions, and recommendations in the Solid Waste Strategy consider the planning period from 2007 to 2030.

The original Request for Proposals (RFP) issued by the CBJ for a Solid Waste Management Strategy stated the Strategy should address methods of achieving Juneau's commitment to integrated solid waste management practices as expressed in the Comprehensive Plan and Assembly Resolution 1433 (March 19, 1990). Those practices are, in order of priority:

- Waste reduction,
- Recovery / recycling of resources,
- Recovery / recycling of heat or electricity from waste incineration,
- Treatment and processing of waste to reduce volume,
- Waste incineration, and,
- Landfilling in an environmentally sound manner

Given these priority objectives, two key questions were considered and contemplated by the WIH Resource Group Project Team, the SWWG and the CBJ staff throughout the course of the project as follows:

1. What is the future role and involvement of CBJ in solid waste management?
2. What form of "control" should the CBJ have over solid waste management and what is the rationale for this?

The central conclusion is that under present circumstances the CBJ has only marginal control and leverage in the present solid waste system and this is not consistent with having extensive public policy expectations, priorities, and objectives for solid waste management.

### **Solid Waste Strategy Planning Process**

The WIH Project Team developed the Solid Waste Strategy by visiting Juneau on four separate trips and having discussions with public and private sector representatives about solid waste management conditions and needs. There was ongoing cooperation and coordination with the various representatives for the purposes of gathering data and sharing ideas. The information used in preparing the Solid Waste Strategy is the most accurate data that the WIH Project Team was able to obtain, either through published reports, interviews with personnel, or from records

kept by the appropriate governmental entity / department. Material, data, and comments have also been specifically provided by Arrow Refuse and Waste Management, Inc. as the local refuse collection and disposal service providers respectively for the CBJ and its citizens.

The WIH Project Team approached the analysis of the CBJ's solid waste management issues and alternatives from an integrated perspective. The various practices and operations that characterize how solid waste is handled in a given area are viewed as the related components of a solid waste management system. Consideration of individual elements is done within the framework of the whole program and involves examining how they are related and conflict with, or support, each other.

A Solid Waste Working Group (SWWG) was formed to provide feedback to the WIH Project Team and CBJ Staff and Assembly as to the contents of the Solid Waste Management Strategy as it was being developed. Four meetings of the SWWG were held. The SWWG consisted of eight members made up of residents from the community both in public roles, with the City and Borough of Juneau, as well as members from privately held companies and other citizens. The Project Manager for the CBJ recruited members of the SWWG.

With assistance from the City and Borough of Juneau (CBJ) staff, the CBJ's Solid Waste Working Group (SWWG), City contracted, non-contracted private service providers, and other key stakeholders, the WIH Resource Group Project Team gathered data to characterize how solid waste and recycling is managed within the CBJ including a list of programs, quantities collected, and planning-level cost estimates. The components of the current solid waste management system include:

- Solid waste collection
- Privately owned landfill
- Recycling drop off program
- Special waste management – Junked Vehicles
- Urban Bear Ordinance enforcement
- Household hazardous waste (HHW) management
- SE Conference (SEC) regional solid waste management efforts
- Public Education

The final report provided to the CBJ by WIH Resource Group provides the CBJ with recommendations for the long-term management of solid waste considering cost effectiveness, service to the community, and the ability to achieve the City's goals of integrated solid waste management. The analysis includes planning-level costs for various alternatives plus short-term (1-5 years), mid-term (5-10 years), and long-term (20-30-years) implementation recommendations.

### **Solid Waste Strategy Recommendations**

The process for preparing the Solid Waste Management Strategy for the CBJ consists of a series of logically connected technical steps and feedback interactions involving the WIH Project Team, the SWWG, CBJ Staff and the CBJ Assembly.

The recommended solid waste management strategy is designed to build on the strengths of the present system by encouraging further development of the private refuse collection / disposal and recyclables processing / marketing operations but with CBJ providing more substantive program / policy guidance and contractual oversight.

The recommendations are intended to be considered, approved, and implemented as integrated package instead of on an item-by-item basis. This approach offers a comprehensive rather than a piecemeal strategy for addressing the CBJ's solid waste priorities. The recommendations are also intended to be consistent with the analysis regarding solid waste issues affecting the CBJ.

The core twelve recommendations of the Solid Waste Management Strategy that were developed by the WIH Project Team for the CBJ are to be implemented during the time frame 2008 to 2012. The specific twelve recommendations are as follows:

1. Continue to Use Waste Management (WM) Landfill for Disposal
2. Hire Solid Waste Coordinator
3. Adopt Policy on Universal Trash & Recycling Collection Service
4. Transfer Arrow Refuse RCA Certificate to CBJ

5. Form Contractual Partnerships Between CBJ, Arrow Refuse, & Waste Management
6. Secure Land for Multi – Purpose Materials Recovery Facility (MRF)
7. Design & Implement Fully Automated Residential Refuse Collection with Variable Rates
8. Design & Construct a Material Recovery Facility (MRF)
9. Design & Implement Promotion, Education, Outreach (PEO) Plan
10. Design & Implement Residential Recycling Collection Service
11. Design & Implement Commercial / Institutional Recycling Collection Service
12. Develop Recycling Standards for Designated Construction & Demolition Projects

Recommendations # 2 (Transfer Arrow Refuse RCA certificate to CBJ) and # 5 (Form a long – term contractual partnership between the CBJ, Arrow Refuse, and Waste Management, Inc. for a minimum period of 10 years) are the essential basis for the other recommendations and for the overall solid waste management strategy.

Once transfer of the Certificate of Public Convenience and Necessity from Arrow Refuse to the CBJ has been officially approved by the RCA then a contract for solid waste services can be established directly between CBJ and Arrow Refuse without involvement of the RCA. As part of the contract negotiation service rates would be determined.

### **Adoption of Solid Waste Strategy by CBJ Assembly**

A special meeting of the City and Borough of Juneau Assembly (Special Assembly Meeting 2007-29) was held in the Assembly Chambers of the Municipal Building on November 29<sup>th</sup>, 2007. At the meeting, members of the WIH Resource Group Project Team, along with CBJ Staff, made presentations to the Assembly about the Solid Waste Strategy recommendations.

The WIH Project Team made a PowerPoint presentation and distributed a modified implementation schedule to the “Final Draft of the Solid Waste Management Strategy for the City and Borough of Juneau,” dated November 30, 2007, by the WIH Resource Group, in association with Zia Engineering and Environmental Consultants. The Solid Waste Working

Group (SWWG) had reviewed the plan before it was presented to the public and the Assembly and outlined a modified Section 8.0, Table 7, and Implementation Schedule for review.

The CBJ Project Manager explained that the issue before the Assembly was a fundamental policy call as to what the city should or should not be doing regarding solid waste. The city has had long range solid waste goals. The Assembly has passed resolutions and comprehensive plan policies regarding integrated solid waste management regarding recycling and there has been a fundamental disconnect with those goals and the city's ability to influence those goals, given that the landfill and the separate waste hauling service are both owned by private companies.

After the presentation and a question and answer session, members expressed conceptual agreement with the direction recommended by this process, and said they looked forward to working with Waste Management and Arrow Refuse to move the CBJ forward.

Assembly Member Doll complimented the CBJ's Project Manager and the WIH Resource Group Project Team for the product of their work.

## **Acknowledgements**

The WIH Resource Group Project Team would like to extend its appreciation to the following municipalities, agencies and companies that provided the WIH Project Team and the CBJ with critical information and key data throughout the project that assisted in the development of the Solid Waste Strategy for the CBJ.

A significant amount of time, effort, research and analysis went into the development of the CBJ's Solid Waste Strategy and the WIH Resource Group Project Team extends its sincere appreciation to those who participated in the project. The following participating parties are listed in alphabetical order.

- ADEC – Alaska Department of Environmental Conservation
- Advanced Combustion Services (ACS, Inc.)
- Alaska Electric Light and Power Company (AEL&P)
- Alaska Marine Lines
- Allied Waste Services
- Arrow Refuse
- Channel Construction, Inc.
- City and Borough of Juneau Alaska - Staff; Solid Waste Working Group; City Manager; Public Works Director; Assembly Members and the Mayor
- City of Ketchikan Public Works Department
- Idaho Waste Systems
- Northland Marine
- Philips Services (PSC) Burlington Environmental
- Regulatory Commission of Alaska (RCA)
- Southeast Conference
- Waste Connections
- Waste Management, Inc.

We apologize for any parties that may have been unintentionally omitted from this Acknowledgement.