Presentation Outline

**Shifting Thinking – Confronting Challenges**

Drivers for change

Edmonton’s approach to waste management

Components of Integrated System

Our future activities
Drivers for Change (1980’s)

Landfill Capacity

Changing Attitudes
Waste Management Strategic Approach

Delivery Framework

Hierarchy of Action

1st – Reduce

2nd – Reuse

3rd – Recycle

4th - Resource Recovery

Waste As A Resource
Waste Management Strategic Approach
Delivery Framework

- Social Marketing
- Input Opportunities
- Communications

Fully Integrated Voluntary, Convenient, Responsive System
Community Engagement

Education Programs

Public
- Service Centre & Web
- Open Houses
- Publications

Students
- E-Learning
- Classroom
- Teachers
- Facility Tours
Community Engagement

Volunteer Programs

- Master Composter /Recycler
- Reuse
Community Engagement

Reuse Centre

Grasscycling

Public Events

Composting
Direct Collection Programs

Two Streams

1. Garbage

2. Commingled Recyclables

Multi-families

Single Families

The City of Edmonton
Community Facilities

Eco Stations

Community Depots
Edmonton Waste Management Centre

Commitment to Excellence and Waste Diversion

Unique World Class Centre
Integrated Processing & Transfer Facility

Three Systems

Transfer Station
Pre-processing
RDF Production
Composting Facility
Materials Recovery Facility

Manual Sorting

Automated Sorting
Leachate Treatment

Automated Extraction & Treatment
Landfill Gas Recovery

Power Generation
Electronic and Electrical Waste Recycling Facility

In Partnership with GEEP
Research and Demonstration Facility

Commitment to Excellence
Other Existing Facilities and Operations

- Construction and Demolition Recycling
- Long Haul to Remote Landfill
- Environmental Protection & Monitoring
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<td>- C&amp;D Facility</td>
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<td>- Higher Alcohols</td>
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Edmonton Biofuels Facility

Advanced Processing

90% Landfill Diversion
Environmental Benefits – Biofuels Facility

Solid Waste Feedstock

Advanced Gasification & Biofuels Synthesis

- Methanol / Ethanol
- CO₂ Capture
- Inert Reusable Residuals
- Cleaned Process Water
- Excess Heat Capture - District Heating

Clean Air Emissions
Research and Demonstration Facility

Energy Research

Advanced Energy Research Facility
Paper and Glass Brick Production Facilities

Business Development

Greys Recycling Industries Inc.
Indicators of Success

- Highest ranked municipal service
- Satisfaction with programs - 92% to 95%
- High Participation - Blue Bag Recycling - 89%
- Ongoing volunteer support
- Private sector partnerships
- Edmonton Waste Management Centre of Excellence
Overall Integrated Plan Considerations

- Alternative Systems
- Governance (Long Term)
- Cost Predictability
- Business Development
- Financial (Affordability)
- Technically Feasible
- Waste Diversion
- Residents’ Needs (Convenience)
- Private Sector Involvement
- Environmental Sustainability
- Political Longevity
- Social (Equity)
- Continual Improvement

30 Yr. Plan