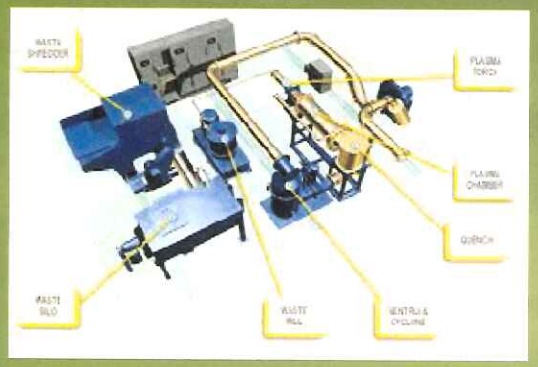
Lake County Solid Waste Disposal Options
January 31, 2011



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Solid Waste Disposal Options

Land Disposal System

Conventional Waste-to-Energy Conversion

Emerging Waste Conversion Technologies

Combination of the Above

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Key Decision Factors

Economics

Environmental Impacts

Flexibility

Reliability

Recycling Opportunities

Collection and Hauling Impacts

Municipal Participation

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Lake County's Unique Situation

County already has built a new landfill/ashfill (1.7 million cubic yards of existing capacity with no debt service)

County already has experience operating an ash monofill

Covanta already has an existing WTE facility

County may be able to negotiate a new, more attractive, WTE contract with Covanta (effective in 2014)

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Land Disposal Systems

Advantages

- Typically the lowest cost per ton option
- In some cases may generate revenues to fund additional services (collection centers, recycling, etc.)
- Renewable energy generation (landfill gas to energy)

Disadvantages

- No waste volume reduction
- Long term care costs
- Perceptions re odors, vermin, aesthetics, groundwater pollution, and other impacts

Unique to Lake County

- 1.7 million cubic yards of airspace already built and funded
- Already financially responsible for some environmental monitoring, plus closure and long-term care costs

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Conventional WTE Systems

Advantages

- Generates renewable energy
- Significant waste volume reduction
- Currently counts toward recycling goal
- Fewer complaints than landfills regarding odors, vermin, birds, and aesthetics

Disadvantages

- Typically higher cost per ton than landfills
- Requires operation of landfill for ash residuals management
- Typically requires long-term contractual obligations
- Perceptions regarding airborne pollution (dioxins; mercury)

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Emerging Conversion Technologies

Advantages

- Potential renewable energy generation
- Potential volume reduction
- Potential elimination of residuals and thus no need for landfills
- Many potential options/technologies being developed

Disadvantages

- Not demonstrated on a large scale, commercial basis in USA
- Significant uncertainty and risk concerning:
  - Potential limitations on quantity and quality of waste
  - Potential need for substantial pre-processing of waste
  - Long-term reliability
  - Ability to comply with environmental regulations
  - Cost per ton for waste disposal
  - Ability to use residuals

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Recommendations

Prepare Long-Term (10 and 20 Year) Economic Analyses for Primary Options:

1. County Operated Landfill
2. New Covanta Contract for WTE
3. Other?

Negotiate Term Sheet for Potential Future Contract with Covanta

Discuss Mutually Beneficial Opportunities with Municipalities

Evaluate Collection/Hauling Routes for Single Versus Multiple Disposal/Conversion Facilities

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