Operational Efficiency Evaluation: An Overview of the Process used by the Fremont County Solid Waste Disposal District

Solid Waste Association of North America
Colorado Chapter
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Ken Schreuder, P.E., P.G., Trihydro

Purpose

- Concerns
  - Underfunded closure/post-closure costs at four landfills
  - Adequacy of tipping fees
  - Rising operating expenses
  - Evaluate alternatives for managing solid waste efficiently and in a financially responsible manner for the next 20 years

Existing System

- 4 landfills
- 2 bale stations
- 1 transfer station
- 7 LH/LV transfer stations
- 3 recycling centers
- 4 LH/LV contract transfer stations (Wind River Indian Reservation)

Project Scope and Schedule

- Phase 1 – Project Kick-Off (October 2013)
- Phase 2 – Existing Facilities Evaluation (February 2014)
- Phase 3 – Evaluation of Alternatives (April 2014)
- Phase 4 – Capital Improvement Plan and Fee Structure (June 2014)

Phase 2 – Existing Facilities Evaluation

- Full cost accounting of each cost center
- Revenues (mill levy and tipping fees)
- Expenses (annual operating, capital projects, and equipment replacement)
- Results:
  - Utilization rates below design capacity
  - Landfills ... $63 to $271 per ton
  - Balers ... $80 to $85 per ton
  - LH/LV Transfer Stations ... $106 to $3,044 per ton
  - District Diversion Rate ... 12%

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Phase 3 – Evaluation of Alternatives

- Inefficiencies identified in Phase 2
- State and national BMPs
- Performance Criteria
  - Maintain basic services within existing distances (<11 mi)
  - Maintain access to LH/LV facilities once per week
  - Maintain access to core facilities 4 of 5 week days, and one weekend day
  - Absorb changes in staffing through natural attrition
  - Maintain or increase capacity of core facilities (landfills)
  - Reduce costs to operate within existing revenue sources thru the planning period

Preferred Alternative Highlights

- Short-term diversion of MSW to Lander LF
- Long-term diversion of MSW to Sand Draw LF
- Reduce days of operation at core facilities from 7 to 5 days per week
- Close Shoshoni LF
- Change from bale fill to loose fill operation
- Change final cover designs from prescriptive to water balance

Preferred Alternative Impacts

- ~$18.4 million cost savings (net present value)
- ~18 years of additional life for Sand Draw LF
- Diversion to Lander LF for 9 years
- Increased air space utilization by changing from bale fill to loose fill
- Estimated value up to $4 million

Phase 4 – CIP & Fee Structure

- Capital Project and Equipment Replacement Schedules do not require grants or loans
- 90-day operating cash balance throughout 20-year planning period
- ~$3 million reserve fund at end of 20-year planning period
- Current tipping fee should be adequate for 20-year planning period, and may be reduced if all anticipated cost savings are realized

TAKE-AWAY:
Taking the time to consider alternatives can improve efficiency and save money!

QUESTIONS?