### Decision Support Tool for Evaluating Life-Cycle Environmental Tradeoffs and Full Costs of Municipal Solid Waste Management

## **Environmental Issue:**

#### **Integrated Municipal Solid Waste Management**

Millions of dollars are spent each year by cities and municipalities to manage municipal solid waste. More management options are available, but often officials must base waste management decisions on limited and conflicting information. There is a need for credible, science-based, objective information for evaluating waste management strategies to make more informed and defensible decisions.



# **Technical Solution:**

#### Municipal Solid Waste Decision Support Tool

The MSW-DST is a computer-based tool that provides a standard approach to evaluating integrated waste management strategies:

- Analyses **all waste management processes**, including collection, transfer, recycling, source reduction, composting, combustion, and landfilling
- Evaluates **life-cycle environmental tradeoffs** (multimedia, multipollutant), including potential benefits of recycling and energy recovery
- Estimates cost based on full cost accounting practices.

# **Impact:**

### **Better Solid Waste Management Decisions**

The MSW-DST has enabled more than 50 communities to

- Estimate the environmental and cost implications of waste management programs and strategies
- Develop waste management plans in a more regional and integrated fashion
- Evaluate new waste management technologies
- Measure progress over time.

## **Partnerships:**

#### Active Participation of Stakeholders and Partners

- 32 State and local governments
- 35 Industries
- 9 Nongovernmental organizations
- 4 Federal agencies.





#### MSW-DST captures all waste management operations, multimedia environmental burdens and full costs.



Analysis of greenhouse gas emissions (metric tons carbon equivalent) for alternative MSW management options.



### Web link: http://webdstmsw.rti.org