

# **Municipal Solid Waste Management Services in Connecticut**

Staff Findings and Recommendations  
Legislative Program Review and Investigations  
Committee  
January 26, 2010

# Scope of Study

- Expanded 2008 briefing - resources recovery facility ownership
- Briefing October 2009 described solid waste management services
- Examine adequacy, cost, sustainability

# Presentation Contents

- Overview of study challenges, findings and recommendations/options
- Adequacy and sustainability
- Reasonable cost
- Other recommendations

# Overview Study Challenges

- Underlying premises
  - Projections 20 years into future
  - Balance between environmental goals and costs
  - Risk management approach

# Overview Study Challenges

- Complex system
  - State plan created by DEP, implemented by others
  - Municipalities/customers ultimately decide
  - Long lead time to make changes

# Overview Findings

## ■ Adequate and sustainable

- Good progress on some state goals, insufficient on others
- Practices inconsistent with state goals
- In-state capacity shortfall
- Self-sufficiency an issue

## ■ Reasonable cost

- Insufficient information about costs
- New fees for disposal not significantly different
- Market structure concerns
- Out-of-state options, risks

# Overview Recommendations and Options

- Few clear or easy answers:
  - Build more, buy more capacity
  - Generate less, divert more waste
  - Increase regulation

# Adequacy and Sustainability

- Topics are related
- Also related to self-sufficiency
  - handle all wastes in state
  - only examined MSW



# Self-Sufficiency Findings

- Current system is not self-sufficient
- Key premise of the Solid Waste Management Plan (SWMP)
- Judged on a continuum

# Self-Sufficiency

**Complete  
In-State  
Disposal**

**Complete  
Out-of-State  
Disposal**



# Risks and Issues

- Out-of-state reliance
  - possible sudden and dramatic changes
    - policies
    - transportation costs
  - environmental liability
- Self-Sufficiency
  - disposal costs
  - run out of capacity/land

# Self-Sufficiency

Complete  
In-State  
Disposal

Complete  
Out-of-State  
Disposal



8% Export  
FY 2008

# Self-Sufficiency

Complete  
In-State  
Disposal

Complete  
Out-of-State  
Disposal



13% Export  
w/o Landfill

FY 2008

# Self-Sufficiency Projection

Complete  
In-State  
Disposal

Complete  
Out-of-State  
Disposal



FY 2008



28% Export  
2024 Projection

# How we measured

- **Adequacy:**

- compare activities and outcomes to state policies and goals

- **Sustainability:**

- maintain status quo for 20 years
  - infrastructure
  - waste generation growth
  - diversion rates

# System Adequacy: Findings

- Some impact of original policies
  - but not systematically measured
- Overall hierarchy is not followed
  - hierarchy followed for disposal
- 40% diversion goal not met
  - achieved original 25% goal



# Statutory Hierarchy

Most Favored  
Option



Source Reduction

Recycling

Composting

Bulky Waste Recycling

Resource Recovery

Incineration

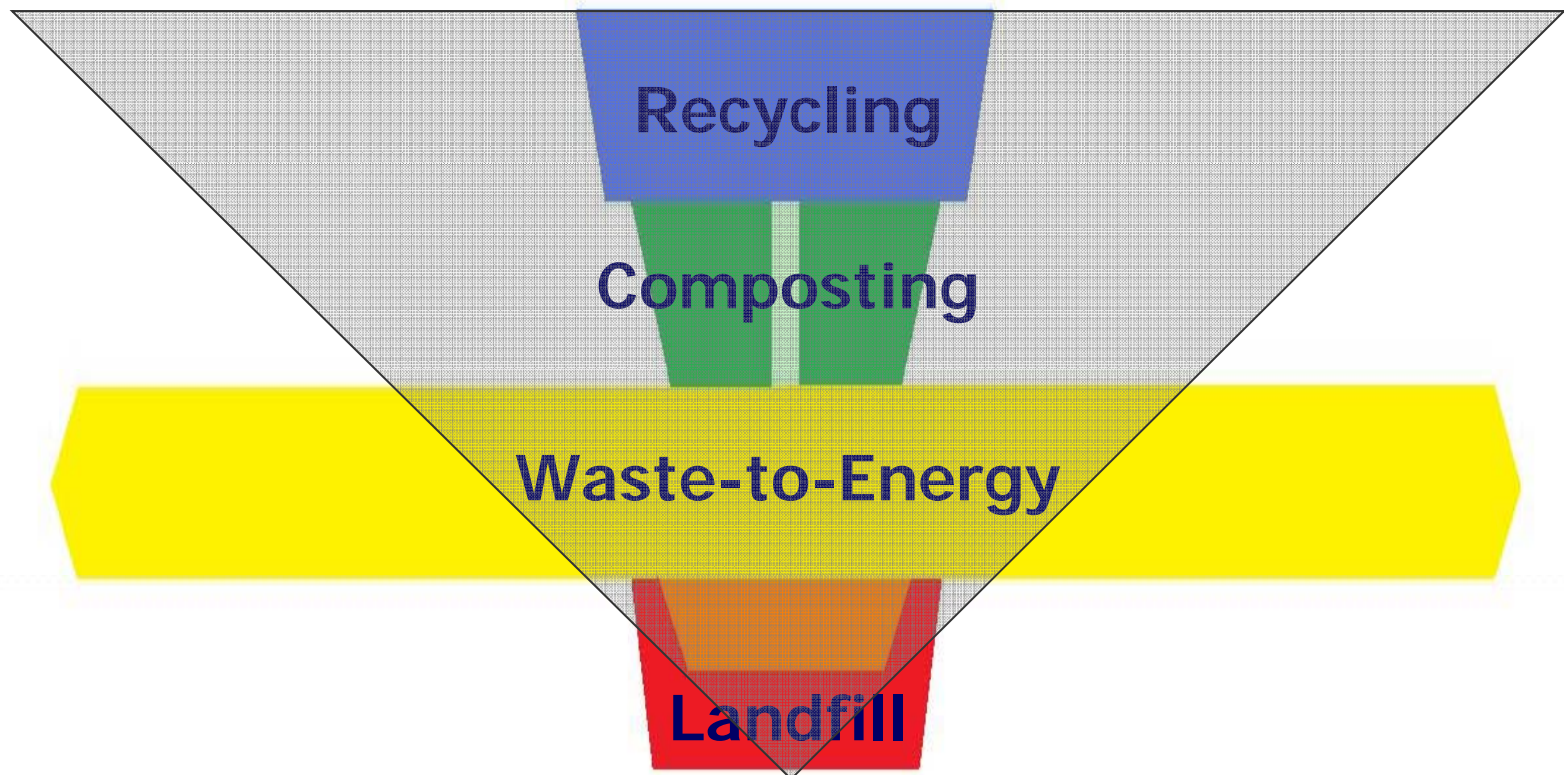
Landfill

Least Favored  
Option

# Actual Hierarchy



# Hierarchy Comparison



# System Sustainability: Findings

- Overall system sustainable
  - more dependence on out-of-state disposal
- In-state infrastructure sustainable
  - RRFs expected to last over 20 years
  - recycling facilities are under capacity

# Adequacy and Sustainability: Components

- Landfill Use
  - in-State
  - out-of-State
- RRF Use
- Diversion
  - recycling
  - composting

# In-State Landfill Findings

- **Adequate:**
  - landfills last in hierarchy
  - decreasing as capacity fills
- **Not sustainable:** lack of MSW or ash capacity
- **Not self-sufficient:**
  - waste generation/disposal increase
  - disposal capacity decrease

# Out-of-State Landfill Findings

- **Not adequate:**
  - last in hierarchy
  - use is increasing
- **Sustainable:** capacity likely available
- **Self-sufficiency:** use of out-of-state resources do not promote self-sufficiency

# RRF Findings

- **Adequate:** preferred disposal method
  - 83% of disposed MSW in FY 2008
  - 59% of disposed MSW in 2024 projection
- **Sustainable:**
  - most capacity expected to last 20+ years
- **Self-Sufficient:**
  - biggest current piece of self-sufficiency
  - current facilities will not be enough



# Diversion

- Source Reduction
- Recycling
- Composting

# Source Reduction Findings

- Clearly statutorily preferred
  - highest in hierarchy
  - specific mentions of reduction efforts
- Difficult to measure
  - per capita MSW generation increasing
  - suggests efforts are not adequate

# Recycling Findings

- **Not Adequate:**
  - met 25% goal
  - have not reached 40% goal
  - recyclable materials are still disposed in large quantities
- **Sustainable/Self-Sufficient:**
  - sorting centers (IPCs) have excess capacity
    - now and for most 20 year projections

# Composting Findings

- Yard waste (leaves, grass)
  - **adequate:**
    - Leaves and grass in statute
    - Less than 2% of disposed waste
  - **sustainable and self-sufficient:**
    - Home composting and town centers appear sufficient

# Composting Findings

- Food Waste
  - 15% of disposed waste
  - no specific statutory mention
  - little is done

# Summary:

## Adequacy and Sustainability

- System does not meet state goals
- System appears sustainable
  - In-state disposal capacity fixed
  - Out-of-state reliance will increase
- Diversion underutilized

# Recycling Recommendations

- Give DEP authority to add to mandatory list (#1)
  - repeat original process
  - markets change and should be reviewed

# Recycling Recommendations

- New incentive program (#2)
  - reward high-achievers
  - looking for temporary increase to “turn the curve”
  - expected to save money in short-term and long-term
- Committee did not adopt funding recommendation



# Composting Recommendation

- Recommend DEP study of food waste composting feasibility (#4)
  - large-scale institutional
    - Infrastructure
    - Implementation
  - incentives for home composting

# Data Recommendations

- Electronic submission of waste tonnage data (#9)
  - RRFs already collect electronically
  - manual entry of data wastes resources

# Data Recommendations

- Report waste tonnage by hauler (#10)
  - enhance accuracy of data
  - greater detail in analysis
  - RRFs already collect information
  - already allowed, would now be specified

# Data Recommendations

- Publish waste data online (#11)
  - allows stakeholder access
  - increase timeliness of data
  - publishing interim data may help accuracy

# Reasonable Cost

- Collection services
- Disposal services
- Defined by competition and market

# Reasonable Cost Findings: Collection Services

- Not enough information to examine market concentration
- Potential exists for noncompetitive pricing of collection services
  - surveys indicate towns with only one hauler, or one bidder
  - history of illegal anti-competitive practices
- Uneven application of registration requirements

# Reasonable Cost Recommendations: Collection Services

- Amend municipal registration requirements (#5)
  - include additional information about owners/partners, subsidiaries, type of waste, etc.
  - provide to DEP, online access

# Reasonable Cost Policy Options: Collection Services

- Licensing
- Rate regulation
- Mandate franchising for collection districts
- Regulate rates if municipality does not franchise, contract, or self-collect



# Reasonable Cost: Disposal Services

## ■ Methods

- national and regional tip fees
- out-of-state market
- two case studies (Bridgeport and Wallingford)

## Reasonable Cost: Disposal Services

- National and regional tip fees
  - difficult to compare, not best measure
  - landfills less expensive than RRFs
  - Northeast most expensive
  - Connecticut comparable to region

## Reasonable Cost: Disposal Services

- Out-of-state market
  - DEP study – rail and road haul
  - SCRCOG study – road haul
  - actual bids
- Both rail and road haul to landfills could be competitive to municipalities with higher end tip fees

# Reasonable Cost: Disposal Services

- Case Studies
  - Bridgeport and Wallingford Projects
    - compare AVERAGE post-CRRA costs to CRRA
  - Tip fees complex
    - under CRRA, subsidies for recycling, transfer, transportation, and landfill closure
    - did not have complete access to cost of services

# Reasonable Cost: Disposal Services Findings

- New tip fees not significantly different than CRRA
- Assumes CRRA fees were reasonable and competitive
- Preference for reentering contracts with RRF, only one group solicited bids
- Fees comparable to or less than out-of-state options
- Long-term implications unclear

# Reasonable Cost: Disposal Services

- Market structure concerns
  - lack of in-state capacity
  - 6 RRF plants, 4 owners, 2 operators
  - RRFs can contract with out-of-state entities, diminish capacity – not happening

# Reasonable Cost: Disposal Services

- Market structure concerns (con't)
  - no competing in-state MSW or ash landfill capacity
  - high barriers to entry
  - period of increased market concentration

# Reasonable Cost: Disposal Services

- Self-sufficiency barriers:
  - high cost to build or expand RRFs
  - requires aggressive diversion efforts
  - requires development of landfills
  - could be more costly than out-of-state options
  - may be a limit to self-sufficiency due to land constraints



## Reasonable Cost: Disposal Services Recommendations

- Recommend at minimum revise state policies to:
  - encourage competition
  - possibly reduce reliance on ash landfill
  - reduce risk of price shock

## Reasonable Cost: Disposal Services Recommendations

- Staff recommended elimination of Determination of Need for RRFs and landfills
  - acts as barrier to developing excess capacity, reduce costs
- Committee did not adopt

# Reasonable Cost: Disposal Services Recommendations

- Request CASE evaluate potential beneficial reuse of ash residue (#7)
  - reduce need for ash landfill
  - ash reuse has not been fully explored
  - other states reportedly allow reuse
  - uncertain market

# Reasonable Cost: Disposal Services Recommendations

- Study of acquire and hold landfill space (#8)
  - reduce risk of significant and sudden price shock or disposal unavailability
  - site availability is extremely limited and will become more so
  - emergency disposal option

# Reasonable Cost: Policy Options

- Options intended to:
  - influence long-term cost competitiveness
  - improve capacity
  - provide more information on costs
- Options include:
  - build/expand RRF and landfill capacity
  - purchase/access out-of-state capacity
  - regulation of rates
- Options may conflict with state policies

# Other Recommendations

- Task force examine possible changes to CRRRA statutory role and purpose (#13)
  - major purposes of CRRRA accomplished
  - significant changes in ownership have occurred
  - state plan has new vision and goals
  - tension between municipal control and state goals
  - examine impact on disposal prices

# Other Recommendations

- Require revision to State Solid Waste Management Plan every 10 years, status every 5 years (#12)
- DEP review and report on landfill monitoring practices, recommend changes (#14)

# **Municipal Solid Waste Management Services in Connecticut**