

# Progressive Funding Options for Successful Solid Waste Planning and Management



Federation of New York Solid  
Waste Associations

Solid Waste and Recycling  
Conference  
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**MSWCONSULTANTS**

## About MSW Consultants

- ◆ Non-engineering consulting firm specializing in municipal waste and recycling industry
- ◆ National experience optimizing integrated waste management systems
- ◆ Solid waste financial analysis and rate-setting
  - ◆ User fees
  - ◆ Non-ad valorem assessments
  - ◆ Tip fees
  - ◆ Processing fees
  - ◆ Cost-of-service analysis



# Integrated Waste Management Systems

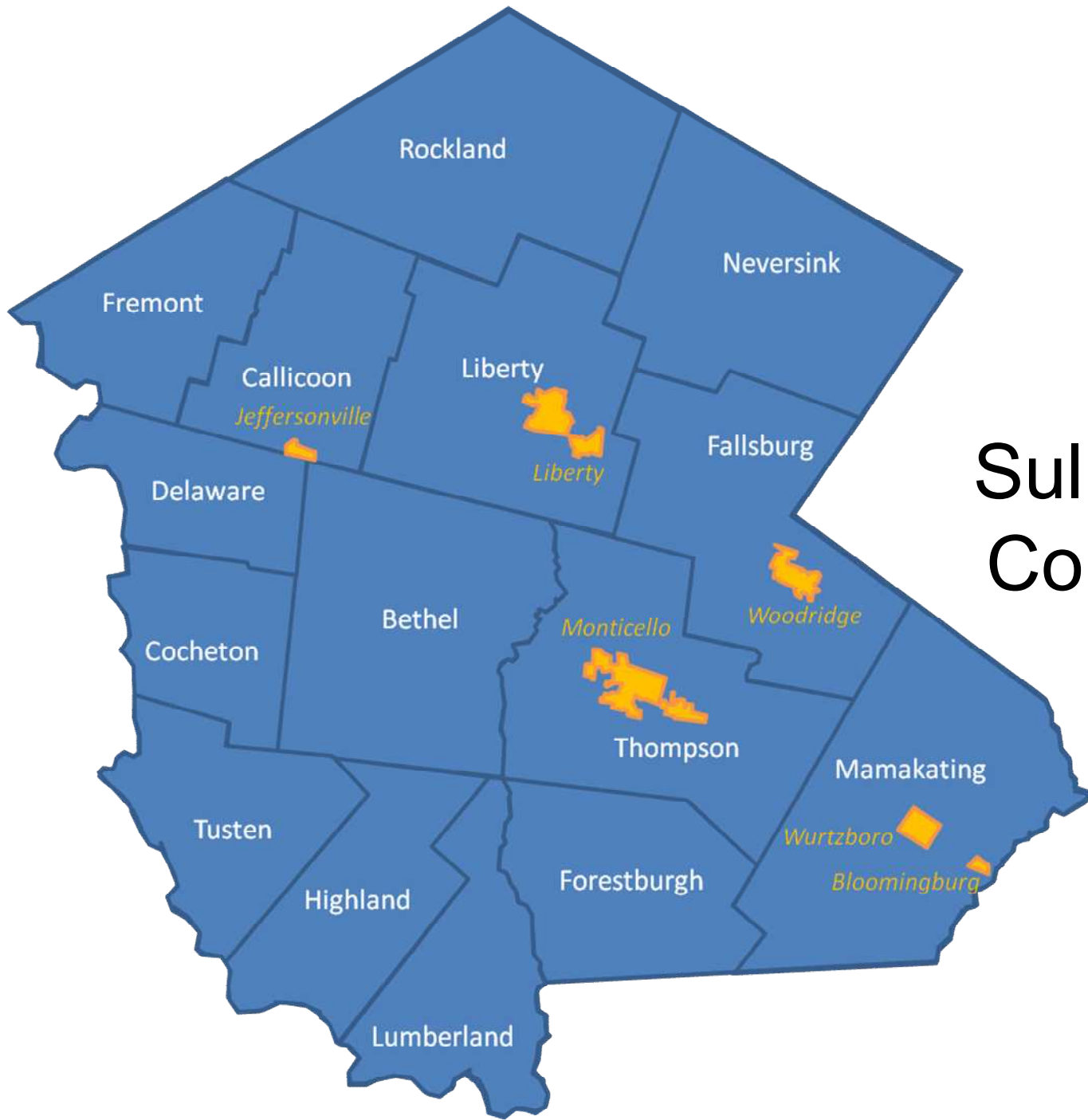


# Solid Waste System Funding Options

- ◆ Facility
  - ◆ MSW Tip Fees
  - ◆ C&D Tip Fees
  - ◆ Processing Fees (Rebates)
- ◆ Indirect
  - ◆ Ad valorem taxes
  - ◆ Collection franchise fees
- ◆ Service Charge to Generator
  - ◆ User fees on utility bill
  - ◆ User fee assessment on tax bill

# Sullivan County Integrated Waste Management System Overview

- ◆ Facilities managed
  - ◆ Landfill
  - ◆ Five local transfer stations (and related transportation)
  - ◆ Material Recovery Facility (MRF)
- ◆ County does not provide collection
- ◆ Sources of funding
  - ◆ \$75/ton tip fee for MSW
  - ◆ \$125/ton tip fee for C&D and bulky waste
  - ◆ Recycled material revenues
  - ◆ Supplemented by general fund transfers



# Sullivan County

## Brief History

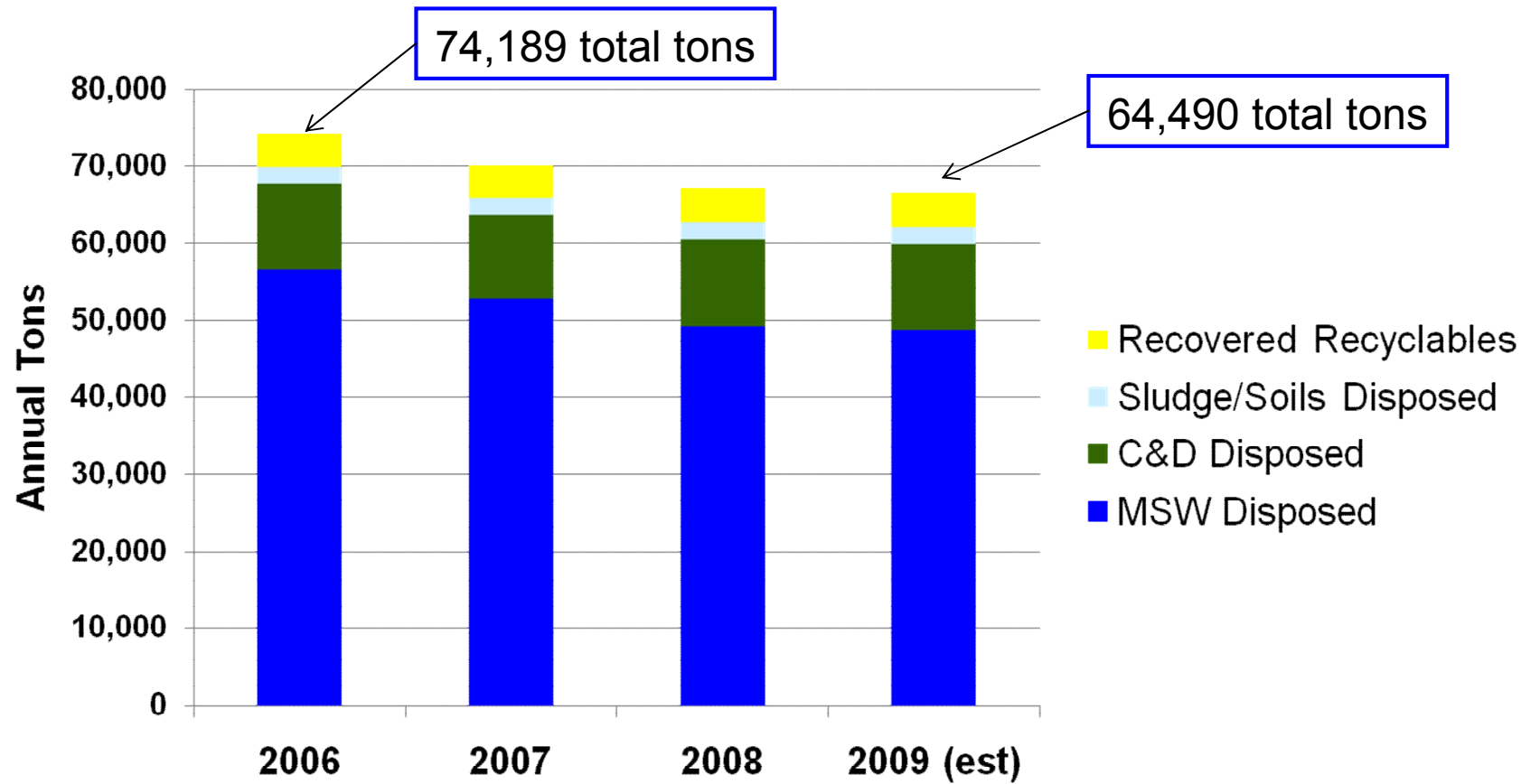
- ◆ 2007: Unforeseen permitting issues prevent expansion of County-owned landfill
- ◆ 2008: Solid Waste Task Force created
  - ◆ Alternate landfill site
  - ◆ Conversion or incineration technologies
  - ◆ Waste exportation
  - ◆ Districted collection
  - ◆ Privatization of system
  - ◆ Exiting the business

## Brief History (continued)

- ◆ 2009: Task Force Recommendations
  - ◆ Maintain management of the system
  - ◆ Solid waste infrastructure as enterprise fund
  - ◆ Construct transfer station for waste export
- ◆ Recommendations (cont.)
  - ◆ Do not impose flow control
  - ◆ Implement user fee
- ◆ 2009: Development of defensible generation-based rate model
  - ◆ Residential
  - ◆ Non-residential



# County Managed Wastes



## Financial Overview

2009 Estimated	Million \$
Tip Fee Revenues	\$5.15
Material Revenues	<u>\$0.21</u>
<i>Total Revenues</i>	\$5.36
Operating Costs	\$4.58
Post-Closure	\$0.14
Debt Service	<u>\$4.57</u>
<i>Total Cost</i>	\$9.29
<b>Shortfall: Ad Valorem Taxes</b>	<b>\$3.97</b>

Over 20% of waste generating parcels are tax-exempt and do not pay ad valorem taxes

# 2010 System Infrastructure



↑ Closure of Active Landfill



↑ Construction of Commercial Transfer Station for Waste Export



MRF Upgrade →

## Study Objective

- Implement integrated waste management system revenue mechanisms that:
  - Charge all users **equitably** for the cost of the system
  - Achieve **revenue-sufficiency** for Sullivan County waste management infrastructure
  - Provide **financial flexibility** to optimally manage County's system in the future
  - Have **rational underpinnings** that are proven in other municipal systems and can be defensibly documented

## Solid Waste Fee Background

- ◆ Thousands of municipalities nationally charge some form of fee directly to waste generators to fund solid waste collection, disposal and processing
  - ◆ Billing options: utility bill; tax bill
  - ◆ Multiple terms in use by other municipalities: System Benefit Charge; Solid Waste Assessment; Environmental Management Fee; Infrastructure Charge
- ◆ **Basis of Solid Waste Fee: Municipal Solid Waste (MSW) generation by residential dwellings and improved non-residential establishments**

## Generation-based User Fees in NY State

- ◆ Otsego County
- ◆ Tompkins County
- ◆ Rockland County
- ◆ Town of Babylon

## Comprehensive Generation-based User Fee Systems in U.S.

- ◆ Montgomery County, MD
- ◆ Palm Beach County, FL
- ◆ Montgomery County, PA
- ◆ Brevard County, FL
- ◆ Frederick County, MD

# Sullivan County Generator Classes – Improved Parcels

## 1) Residential Dwellings

- ◆ Single Family
- ◆ Apartments
- ◆ Mobile Homes
- ◆ Seasonal = 1/2 Year



## 3) Bungalows and Camps

Construction and  
Demolitions Debris



## 2) Non-Residential

- ◆ Commercial Businesses
- ◆ Institutions
- ◆ Manufacturing/Industrial
- ◆ Agricultural





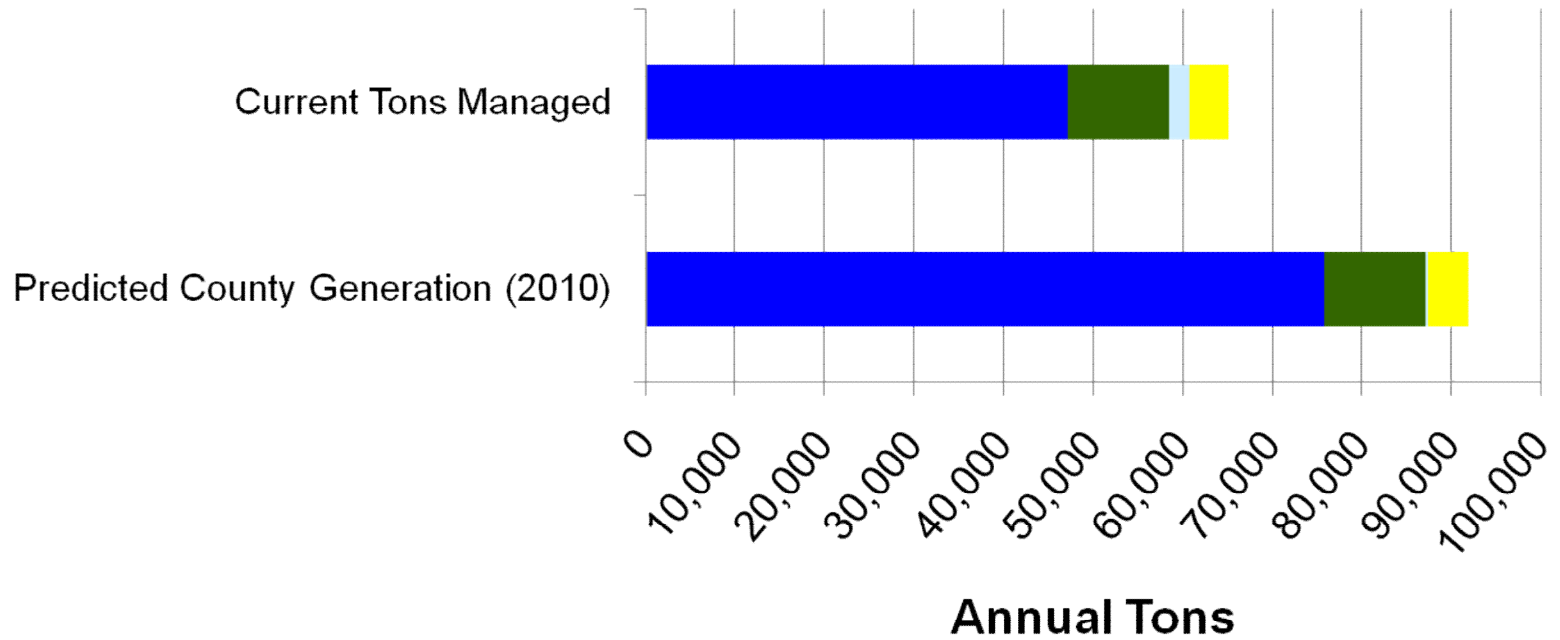
# Waste Generation Research Methodology

- ◆ Surveys and local research
  - ◆ Municipalities
  - ◆ Haulers
  - ◆ Hospital
  - ◆ School districts
- ◆ Compile prior non-residential waste generation studies
- ◆ Normalize reported generation rates
- ◆ Overlay generator classes with Sullivan County tax rolls

## Waste Generation by Generator Class

Generator Classes	Annual Generation Rate	Subclass (Class Code)	Billing Basis	Predicted Waste Generation (tons)
1) Year-Round Residential	1.22 tons	Single Family (200s)	Dwelling	48,974
		Apartments (417)	900 sq ft	
		Mobile Home Park (416)	Pad	
2) Seasonal Residential	0.61 tons	(260)	Dwelling	1,804
3) Bungalow/ Camp	0.92 tons	(417; 581)	900 sq ft	11,788
4) Non-residential –Low	0.93 tons	Various (Various)	2,000 sq ft	5,961
5) Non-residential –Medium	1.09 tons	Various (Various)	2,000 sq ft	2,732
6) Non-residential –High	4.50 tons	Various (Various)	2,000 sq ft	3,624
7) Non-residential –Very High	11.30 tons	Various (Various)	2,000 sq ft	5,317
			<b>Total</b>	<b>80,200</b>

# Predicted Sullivan County Municipal Solid Waste Generation



■ MSW Disposed ■ C&D Disposed ■ Sludge/Soils ■ MSW Recycled

# Solid Waste Fee Revenue Options

- ◆ Option 1
  - ◆ Maintain \$75/ton tip fee for MSW
  - ◆ Maintain \$125/ton tip fee for C&D
  - ◆ MSW and C&D waste disposal to remain near 60,000 tons
  - ◆ Risk of future waste loss due to changes in local market
- ◆ Option 2
  - ◆ Allow County-generated MSW to tip for free
  - ◆ Maintain \$125/ton tip fee for C&D
  - ◆ MSW and C&D waste disposal approaches 88,000 tons
  - ◆ Strong economic incentive for all MSW to be delivered to County

## Tip Fee and System Cost Comparison

		Option 1: \$75 Tip Fees	Option 2: \$0 Tip Fees for In- County Waste
Tip Fees	In-County MSW Tip Fees	\$75/ton	\$0/ton
	C&D Tip Fees	\$125/ton	\$125/ton
	Out-of-System Tip Fees	\$75/ton	Not accepted
System Costs	System Fixed Costs	\$7.7 million	\$7.7 million
	Total System Costs	\$12.0 million	\$13.8 million
	Cost per Disposed Ton	\$205/ton	\$158/ton
Revenue Mix	Tip Fee Revenue	\$5.1 million	\$2.0 million
	Solid Waste Fee Revenue	\$6.5 million	11.9 million

## Solid Waste Fee Schedule – Maintain \$75 MSW Tip Fees

Customer Class	Subclass	Solid Waste Fee Revenue Requirements	Billing Units	Solid Waste Fee per Billing Unit
Year-round Residential	Single Family	\$3,498,755	35,165	\$99.50
	Apartment	\$360,419	3,623	\$99.48
	Mobile Home	\$134,744	1,354	\$99.52
Seasonal Residential		\$147,149	2,958	\$49.75
Cottages/Bungalows		\$961,340	12,813	\$75.03
Non Residential	Low	\$486,124	6,410	\$75.84
	Medium	\$222,815	1,416	\$157.35
	High	\$295,548	805	\$367.14
	Very High	\$433,619	471	\$920.63
<b>Total</b>		<b>\$6,540,513</b>		

# Solid Waste Fee Schedule– \$0 MSW Tip Fee for County Waste

Customer Class	Subclass	Solid Waste Fee Revenue Requirements	Billing Units	Solid Waste Fee per Billing Unit
Year-round Residential	Single Family	\$6,349,919	35,165	\$180.57
	Apartment	\$654,127	3,623	\$180.55
	Mobile Home	\$244,549,	1,354	\$180.61
Seasonal Residential		\$267,061	2,958	\$90.28
Cottages/Bungalows		\$1,744,744	12,813	\$136.17
Non Residential	Low	\$882,270	6,410	\$137.64
	Medium	\$404,388	1,416	\$285.58
	High	\$536,393	805	\$666.33
	Very High	\$786,978	471	\$1,670.87
<b>Total</b>		<b>\$11,870,429</b>		

## Findings

- Waste generation-based Solid Waste Fee is supported by documented waste generation rates overlaid on County real property data
- Predicted waste generation rates are reasonable and defensible (but not precise)
- Implementing Solid Waste Fees with \$0 tip fee on MSW
  - Is the most equitable funding mechanism
  - Provides best value for all county waste generators by increasing economy of scale



# Implementation Considerations

- Enabling legislation and regulations
- Process for appeal/grievance
- Expectation for improvement to real property data prior to and after implementation of Solid Waste Fee
- Prevention of waste imports
- Outreach/education
  - Customers
  - Haulers
- Possible refinement of waste generation rates and Solid Waste Fee after 2 or 3 years

## Current Status

- End of 2009
  - Landfill Closed
  - Out-of-county disposal agreement executed
  - Interim transfer solution established
  - Tip fees retained and increased
  - Construction initiated on new transfer station
- Jan 2010
  - Tip fees maintained
  - Solid Waste User Fee implemented to fund budget shortfall
- Current
  - Solid Waste Task Force still debating appropriate balance and structure of User Fee and Tip Fees

## Feedback To Date

### Pros

- Generator-based user fee found to have highly rational underpinnings for use in Sullivan County
- User fee is most equitable means of recouping revenue from taxable and tax-exempt parcels

### Cons

- Data deficiencies in tax parcel database undermine confidence in fee
- Complexity of fee to layperson complicates political engineering
- 100% reliance on User Fee as revenue mechanism eliminates incentive to recycle

## Questions

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