

Waste or Resource? Rethinking Solid Waste Policy

DID YOU KNOW?
NEWSPAPERS CAN BE USED TO MAKE KITCHEN COUNTERTOPS AND HOME INSULATIONS?

CONTRACTORS recycle
Recycling works. Everyday we use things made from recycled materials. Recycle. After all, everything deserves a second chance.

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DID YOU KNOW?
NEWSPAPERS CAN BE USED TO MAKE CEREAL BOXES?

FAMILIES recycle
Recycling works. Everyday we use things made from recycled materials. Recycle. After all, everything deserves a second chance.

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DID YOU KNOW?
PLASTIC MILK AND SAUCE CONTAINERS CAN BE USED TO MAKE FRISBEEES?

FRISBEE PLAYERS recycle
Recycling works. Everyday we use things made from recycled materials. Recycle. After all, everything deserves a second chance.

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Presentation to Maine Solid Waste
Management Advisory Council
June 25, 2008

Draft- not administration policy

Events overrun the plan for the Plan

- ▶ Draft plan developed in 2003
- ▶ State purchase of Juniper Ridge potential effects on system triggers decision to delay
- ▶ 2 years litigation
- ▶ MSW Policy Review Task Force -2005-6
- ▶ Blue Ribbon Commission-2006-7
- ▶ LD 810 now PL583

Preface

20 years of advances in MSW management

- ▶ Doubled recycling rate
- ▶ 98% Maine has access to recycling program
- ▶ Business Recycling
- ▶ Reduction of toxics in waste stream
- ▶ Municipal participation in HHW programs up from single digits to over 100 annually
- ▶ Unlined msw landfills down to 2

Preface

(cont.)

Erosion of state policy

- ▶ Recycling rate has declined from '97 high of 42% to "plateau" of 35-37% for the last several years
- ▶ In the last decade solid waste requiring landfilling up 60%
 - includes direct landfilling of msw, ash, and front end process residue (FEPR)

Preface

(cont.)

- ▶ We must counter the notion that useless waste is an unavoidable conclusion of modern life and...
- ▶ Work to return these “resources” to their natural or industrial systems



Draft- not administration policy

I. How is this Plan Used?

- ▶ It gives a historical perspective
- ▶ It brings up to date issues cited in the last plan
- ▶ It examines how solid waste is currently being managed in Maine.
- ▶ It identifies issues that warrant monitoring and new trends.
- ▶ It describes three possible scenarios for how Maine might move forward managing municipal solid waste into the next decade.
- ▶ The plan is intended to be a policy document.

How is this Plan Used? (cont.)

- ▶ In addition, the plan provides the basis for:
 - Communicating Maine's waste management priorities and policies;
 - Assessing statewide disposal capacity, recycling progress, and waste management strategies;
 - Monitoring of the effectiveness of state policies; and
 - Guiding public benefit determination for environmental licensing.

II. Maine's Waste Management Policies

Years of decisions, Decades of consequences

1. Bringing Land Disposal Operations into Environmental Compliance
2. Banning New Commercial Disposal Facilities
3. Out-of-state Wastes and Waste-to-energy Facilities
4. State Guarantee of Land Disposal Capacity for WTE facilities
5. Fostering the Solid Waste Management Hierarchy Policy
6. State Statutory Recycling Goal
7. Municipal Responsibility for Solid Waste Disposal
8. Conclusion: Positive Outcomes of Current Policy

Conclusion: Positive Outcomes of Current Policy

- ▶ unregulated disposal-gone
- ▶ opportunity to recycle-statewide
- ▶ process in place to manage problems
- ▶ everyday we manage 5,500 tons of msw
- ▶ state guarantee of land disposal capacity
- ▶ Maine manages its own municipal solid waste
- ▶ the hierarchy and the four strategies of 1989: still in use
- ▶ Maine as dumping ground for the northeast has not materialized

III. What has happened since the 1998 Waste Plan?

The '98 plan noted four areas of concern

- ▶ High costs of municipal solid waste management
- ▶ Need for secure and stable markets for recycled materials
- ▶ Desire to promote beneficial use
- ▶ Lack of management options for Construction and Demolition Debris (CDD)

IV. Maine's MSW Stream

Key Findings of the 2006 Capacity report

- ▶ Maine landfills only a fraction of its municipal solid waste.
- ▶ Waste tons generated by Mainers appears to be slowing
- ▶ Mainers' continue to recycle more each year, but recycling has not kept pace with the growth in the amount of waste we generate
- ▶ Maine's recycling rate is steady
- ▶ Imports of out-of-state waste continue to support Maine's solid waste management system
- ▶ Maine has sufficient disposal capacity for more than 20 years at projected generation and fill rates

2005 to 2006

▶ Waste Generation	1,949,644 vs. 1,989,266
▶ Recycled/Reused	708,931 vs. 720,410
▶ Combusted	678,535 vs. 701,810
▶ Landfilled	490,799 vs. 491,066
▶ Exported	71,379 vs. 75,980
▶ Imported	436,412 vs. 437,037
▶ Total Disposed	1,677,125 vs. 1,740,498
▶ State Recycling Rate	36.4% vs. 36.2%

V. Long Term Issues to Watch

- ▶ Erosion of State Policy
- ▶ Growth in Waste Generation
- ▶ Out-of-state Wastes
- ▶ The Role of Local Government
- ▶ Challenges to the Existence of Certain Solid Waste Facilities
- ▶ The State of Maine as a Market Participant

Erosion of State Policy

- ▶ Any proposal for a facility or an activity that depends upon a guaranteed volume of waste for its financial viability where the hierarchy is not first vigorously applied to that waste stream represents an erosion of current state policy.
- ▶ Proposals will continue to be put forward. In some situations, their individual circumstances will be pushed forward to be evaluated outside the framework of the hierarchy.

Growth in Waste Generation

- ▶ In 2008, Maine disposes of more solid waste than it reduces or recycles, after twenty years of effort to reach 50% recycling goal.
- ▶ The data trend over the last six years shows that the increase in disposal is outpacing any increase in recycling. Though recycling tonnages continue to increase, recyclings' share of the MSW stream has declined relative to disposal over the last several years.

Out-of-state Wastes

- ▶ The types and amount of out-of-state waste will likely shift in response to changes overtime in Maine's waste generation and management systems

The Role of Local Government

- ▶ Under home rule, municipalities control the municipal solid waste stream.
- ▶ Municipalities have wrestled with their role in solid waste management and the question of who has control, who has ownership, and who has responsibility and what those words mean.
- ▶ Right to choose the level of services they want to pay for.
- ▶ MSW management systems are often not evaluated for the long term or even recognized in the typical annual “services versus taxes” municipal budgeting process.
- ▶ The recent U.S. Supreme Court ruling on flow control

Challenges to the Existence of Solid Waste Facilities-local vs. away

- ▶ For generations until the late 1970's and into the 1980's, most Mainers lived with unlined open burning dumps within their individual communities, often within a short driving distance to or bordering on residential areas.
- ▶ 2006 survey published in Waste News reflected current public sentiment as waste disposal facilities ranked at the bottom in a ranking of community development preference, below rock quarries, casinos, and airports.
- ▶ This has potential implications for our system - dependent upon maintaining a small number of relatively large regional waste processing & land disposal facilities.

The State of Maine as a Market Participant

- ▶ Maine now has capacity in WTEs more than sufficient for our needs and potential for very significant landfill capacity.
- ▶ Perceived as having an effect on disposal pricing,
- ▶ Significant factor in the decision of Casella Waste Systems, who hold the operating services agreement to operate Juniper Ridge, to close Pinetree landfill in Hampden and to permit the CDD processing facility in Westbrook.
- ▶ Also, Juniper Ridge may be directly impacted over time by the recent legislation defining by-pass and in-state processing wastes as in state wastes. Its capacity may be open to use for those waste streams.

New Trends

- ▶ Energy and Greenhouse Gas Initiatives
- ▶ New Technologies
- ▶ The Shared Responsibility Model
- ▶ Personal responsibility

Energy and Greenhouse Gas Initiatives

- ▶ All aspects of solid waste management have been drawn into discussions on several larger environmental issues, such as :
- ▶ Global warming related to greenhouse gas emissions reduction,
- ▶ Changing energy markets,
- ▶ Energy self reliance and conservation,
- ▶ Toxics reduction,
- ▶ The carbon cycle.
- ▶ These issues are at the table as we conduct our own debates on what is the best way for us to manage our solid waste and have the potential to be the controlling issues of the near future.

Energy and Greenhouse Gas Initiatives cont.

- ▶ Tools to use- Lifecycle assessments of products and activities
- ▶ Waste Reduction Model (WARM)
- ▶ Recycled Content (ReCon) Tool
- ▶ Regional Greenhouse Gas Initiative (RGGI)

New Technologies

- ▶ Waste Conversion Technologies (WCT)
- ▶ Gasification
- ▶ Plasma Arc technology and waste management
- ▶ Single Sort Recycling
- ▶ Bioreactor Landfills

The Shared Responsibility Model

- ▶ The model puts forth that the responsibility for reducing product impacts is shared among industry, government, and consumers.
- ▶ For example, cathode ray tubes (crt's)
- ▶ Once all program elements were in place, crt's were banned from disposal and required to be recycled by state law.
- ▶ Shared responsibility is an approach that can be widely applied to the MSW stream

The Shared Responsibility Model-

"Product Stewardship", "Extended Producer Responsibility"

- ▶ Nationwide movement
- ▶ Product Stewardship Institute in Northeast
- ▶ Product Policy Institute in CA
- ▶ California Product Stewardship Council
- ▶ Northwest Product Stewardship Council
- ▶ Mandatory programs in place in BC, Ontario, Maritimes
- ▶ Addressing a wide range of products

Personal responsibility

- ▶ Generally, there is a disconnection between the consumption of goods and services and the full, or life cycle costs –social, environmental, as well as financial –of those goods and services.
- ▶ Municipal solid waste management comes down to mitigating the effects wrought by the choices we make as consumers and the consequences of the actions we take as individuals to manage our own waste.

Where do We Go from Here? Scenarios for Maine

- ▶ The No-change Scenario
- ▶ The Run Up to 50%
- ▶ Beyond 50%

The No-change Scenario

- ▶ What if we stay at or near our current recycling rates of 36%?
- ▶ Disposal Capacity Maine in aggregate (all sources state, private, and municipal) will have over 42 million yards of landfill capacity, 10 million yards over our projected need for 2025.
- ▶ Out-of-state Waste Maine-generated solid waste tonnages needing disposal increase, waste-to-energy facilities' need for imported municipal solid waste will decrease to a minimal amount
- ▶ Impact on Recycling systems Total recycling tonnage will climb to 1.4 million by 2025.

The Run Up to 50%

- ▶ Meeting a 50% recycling goal requires an increase in recycling by 300,000 more tons a year at today's generation totals and up to 2 million by 2025.
- ▶ Improved collection and participation in recycling programs
- ▶ Targeted infrastructure, planning, and equipment grants to regions to improve collection and participation rates
- ▶ Expanding recycling opportunities for commercial sources
- ▶ Mandatory recycling of corrugated cardboard
- ▶ Local bans on the disposal of leaf and yard waste and local compost programs
- ▶ Maine state government leads by example
- ▶ Among the outcomes - extends the life of the state's existing land disposal facilities. May cause one of the four WTE facilities to decide to close

Beyond 50%

- ▶ Once we get to the 50% goal, what could we do to move beyond it? What if we change our perspective on who's responsible for the products that we make and buy and then no longer want? What if we view waste as a resource?
- ▶ Beyond 50% will call for building on the steps outlined to get to there and then proceeding on two pathways.
 1. One fully exploits our traditional means of resource recovery.
 2. The other pursues shared responsibility or stewardship for certain individual products or classes of products.

Beyond 50%

- ▶ 1.) Although waste prevention remains a challenge, the state puts in place extended producer responsibility programs for products covered under the product responsibility framework legislation, using sales bans and mandatory producer recycling efforts and encouraging sustainable purchasing by the retail markets.
- ▶ The reduction and elimination of toxic and complex products remains the number one priority.

Beyond 50%

- ▶ 2.) There is on-going public relations and education campaigns across media and in all markets utilizing as many channels as practical with several specific annual elements

Beyond 50%

- ▶ 3.) Statewide bans on the disposal of all materials for which there was an established, proven market demand; eventually including all fiber products, 1-7 plastics, metals, and glass.

Beyond 50%

- ▶ 4.) Market demand and prices for recycled commodities remain stable
- ▶ 5.) Local governments' role in MSW management essential as the key proponents of recycling
- ▶ 6.) Grants and aid to pursue the separation and collection of organics, communities encouraged to include organics collection provisions to homes and commercial establishments in their contracts.
- ▶ 7.) Effects on the state's recycling and disposal capacity

Beyond 50%-

A separate scenario for waste and greenhouse gas emissions

- ▶ Establish a unit of measure and performance standards for all recycling and waste facilities
- ▶ The performance measure encourages collection and transportation efficiencies to reduce to the greatest extent practical the energy required to collect and transport Maine's MSW and the emissions from our facilities.

Conclusion: Common Threads

- ▶ Waste prevention remains the top priority
- ▶ The State must continue to make every effort to remove toxics from our MSW stream
- ▶ We must factor greenhouse gas emissions reduction, energy self reliance, and energy conservation in our discussions
- ▶ We must promote personal responsibility