Statewide Solid Waste Plan
Public Forums
State of Waste Review

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Recycling.
Make it second nature.

Rhode Island Resource Recovery Corporation

Quasi-public state agency, established in 1974, charged with managing the state's solid waste and recycling program by meeting high industry standards for recycling and waste disposal, and using the best mix of public and private processing, recycling and disposal systems, programs, and facilities for both commercial and municipal waste in order to meet Rhode Island's needs. *RIGL 23-19*

Current Mission/Objectives

Mission: Provide safe, environmentally compliant, clean, and cost effective solid waste and recycling services for all Rhode Islanders.

Key Objectives:

1. Work collaboratively with stakeholders to increase recycling and diversion to make RI a greener and healthier place to live.
2. Continue to increase the life of the landfill in order to provide long term significantly reduced waste disposal costs versus the market for all municipalities.
3. Remain financially self-sufficient funding all operational and capital requirements from fees.

Rhode Island Resource Recovery - Johnston, RI

Today's Discussion:

A. Overview of planning process.
B. Scope of the issue.
C. RIRRC's funding dilemma.
D. Discuss key issues.
E. Solicit your input and comments.

Plan Vision-2035:

To be truly sustainable, Rhode Island must invest in full-scale residential composting facilities. We must make organics management a top statewide priority. This will remove 30% of the waste from the waste stream, and will generate much needed energy.

We must continue to invest in manufacturing processes that use recyclables as feedstock and provide long-term high-quality jobs.

We must implement the best state of the art technologies and public policy practices to maximize the remaining years of the central landfill, increase the remaining usefulness of the Materials Recycling Facility, and begin the transition to the solid waste management practices that will take Rhode Island into the 22nd century.

A. The Planning Process

Q: What is the Plan?

A: Very simply, this plan sets a course for how the state deals with trash over the next 25+ years.

Q: Who is managing the planning process for the SWMP?

A: Two major groups are involved with this process:

- Working Group – Responsible agencies
- Advisory Committee - Stakeholders

Q: How can I get involved?

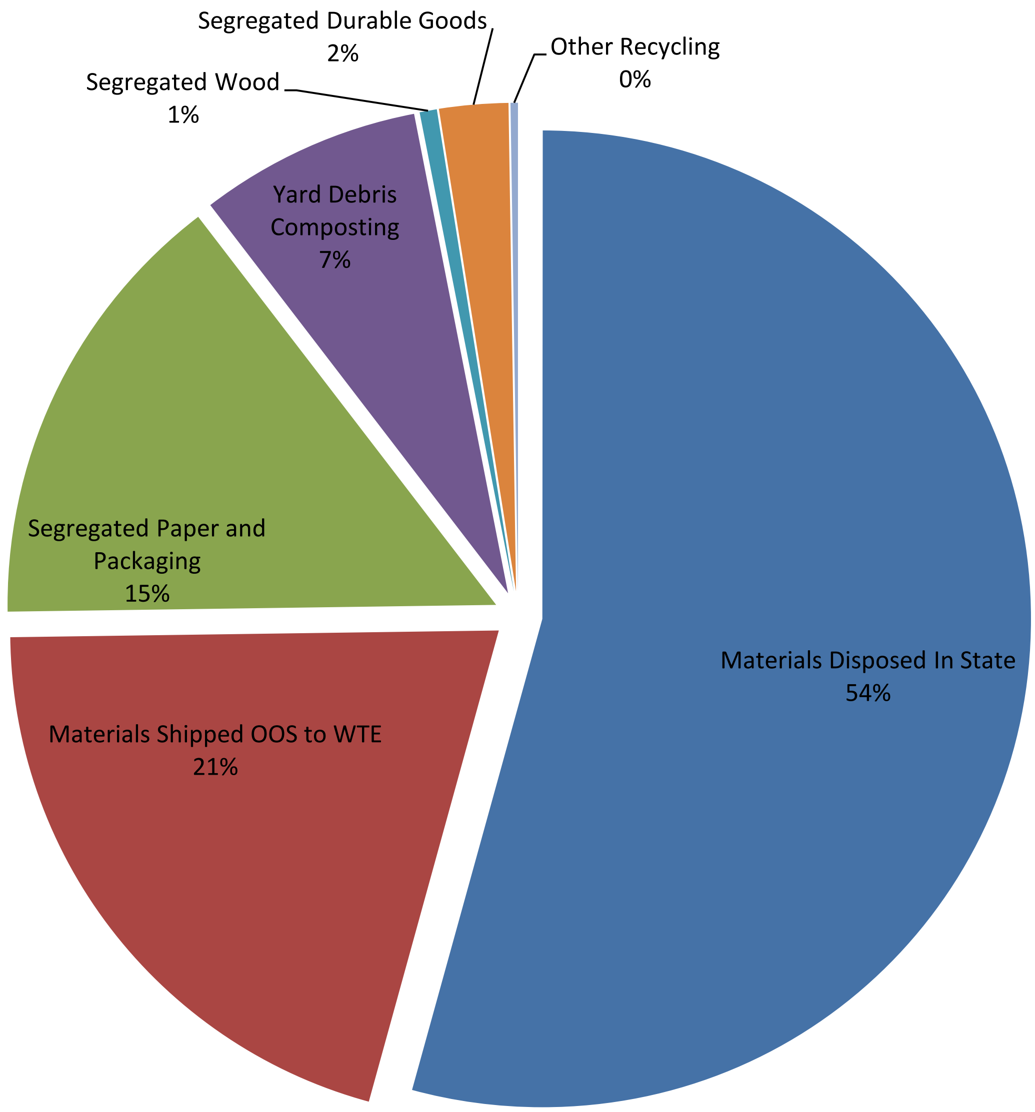
A:

- Come to this meeting
- Fill out survey
- Visit http://www.planning.ri.gov

B. Scope of the Issue

- Rhode generates about 1.5M tons of solid wastes each year:
- About 25% of RI refuse is recycled or composted;
- and about 20% is transported and disposed out of state
- leaving about 750K tons of wastes currently disposed in the Central Landfill annually

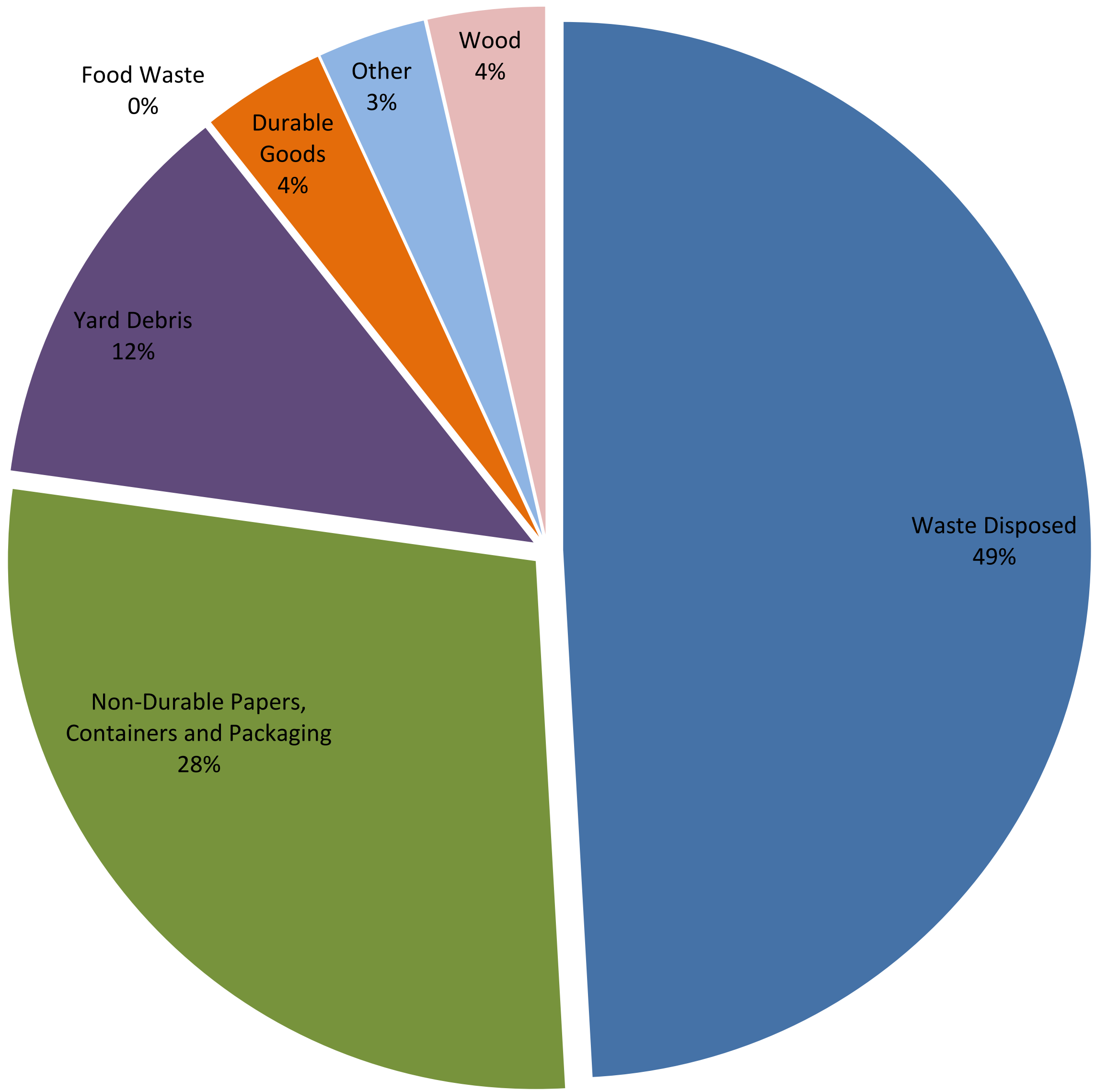
Current Disposition of 1.2M tons of RI Refuse



Scope of the Issue - continued

- Remaining approved landfill volume is 18.7M tons = 25 years at current loading rates
- Limited potential for further landfill expansion
- Additional waste reduction and recycling is possible but constrained by limited markets for recovered waste materials, required investment and additional costs.
- With almost full recovery of currently mandated materials and significant gains in food waste recovery there will remain about 400K – 500K tons of wastes that will need to be disposed each year.

Potential Disposition of RI Refuse Assuming 90% Recovery of Mandatory Recyclables



Potential Waste Diversion Initiatives

- Maximize paper and packaging recovery
- Expand recycling of durables (e.g. tires, mattresses, carpet, electronics, appliances)
- Commercial Food Waste
- Residential Food Waste
- Construction and Demolition and Wood

D. The Funding Dilemma

- The system is funded through disposal fees and sales from recovered materials.
- Landfill has high fixed costs = higher per ton costs at lower volumes.
- Diversion from landfill decreases RIRRC revenue.
- Alternatives to landfilling have much higher costs.

RIRRC Landfill Costs Per Ton Estimates

Solid Waste Landfilled (K Tons)	500	750	1,000
Total Landfill Cost ($M)	$ 25.7	$ 30.0	$ 34.5
Average Cost Per Ton	$ 51.50	$ 40.00	$ 34.50
Landfill Life(Years)	37	25	19

Key Business Trends

Category	Actual Fiscal 2007	Actual Fiscal 2008	Actual Fiscal 2009	Actual Fiscal 2010	Actual Fiscal 2011	Actual Fiscal 2012	Actual Fiscal 2013
Statistical							
Solid Waste Tons(millions)	1.1	1.0	0.6	0.7	0.7	0.6	0.7
Average Tip Fee/Ton:							
*Municipal	$32	$32	$32	$32	$32	$32	$32
**Commercial	$52	$55	$61	$53	$50	$50	$50
Remaining Landfill Life (years)	19	20	29	28	27	26	25
Recycled Tons (000)	91	97	99	97	99	97	107
Leaf & Yard Waste Tons (000)	44	40	38	40	37	39	41
*$32 ton since 1992 **$50 ton in 1990							

Funding Dilemma - Conclusion

Solid Waste **disposal fees will need to increase** in order to:

- operate the landfill at lower volumes to conserve landfill life;
- fund any new programs and technologies
- encourage sustainable management decisions.

E. <u>Key Issues to be addressed in the Plan</u>

- What programs and policies should we explore/ adopt that will significantly reduce the amount of RI generated solid waste requiring disposal in order to increase landfill life?
- What infrastructure investments are required by these programs and policies both in the short and long run to reduce solid waste; and to manage the solid waste that remains in an efficient, equitable, and environmentally protective manner?
- How do we fund these investments as well as fund the ongoing costs of the system?

PLANNING APPROACH

- Strategies and Programs to reduce solid waste disposal have to be evaluated not only by their environmental benefits but by their affordability and impact on system costs.

- It must be recognized that the era of significantly lower than market tip fees for Rhode Island is coming to an end.

- This plan will consider:
  - a) A short term strategy to further reduce solid waste generation and disposal while adopting a funding arrangement that encourages sustainable decisions; implementation targeted to begin in 2015.
  - b) A process to investigate, evaluate, and recommend a long term sustainable solid waste disposal option will be completed by 2020. If justified, implementation is targeted for 2025.

The Planning Time Horizon and Alternatives

<u>Near Term (5 years)</u>

1. Maintain status quo
2. Become primarily a municipal disposal/recycling facility.
3. Develop specific programs to further divert materials from disposal.

<u>Long Term Sustainable (10+ years)</u>

1. Utilize technology that meets RIRRC stated objectives(long term).
2. Before landfill closes, develop long term/cost effective contracts with regional incinerators/transfer station owners to ship RI municipal sector solid waste out of state(long term).

D. Your input and comments


WE RECYCLE


THE EARTH MACHINE


PLEASE
RECYCLE
GLASS BOTTLES

Regional Solid Waste Market

New England Solid Waste Disposal Capacity (Annual Tons)
(ME, NH, MA, CT, and RI)

	Landfill	WTE	Supply Total	Demand	Excess Capacity
2008	5.9M	6.7M	12.6M	~ 12.6M	None
2015E	5.0M	6.7M	11.5M	~ 10.0M	+1.5M

Observations:

- Current regional waste generation in the 10 million ton range.
- Market overcapacity will keep pricing unstable.
- Key Drivers affecting overall supply/demand:
  - » Economy and waste generation
  - » Transportation costs
  - » New legislation
  - » New technology
  - » Recycling markets

Rhode Island Market Dominated By Regional Incinerators

	Number of Incinerators	Percent Incinerated	National Rank
Connecticut	6	65%	1
Massachusetts	7	34%	2
United States	87	7%	N/A

Waste To Energy Economics/RIRRC Position

- Capital costs of $200,000/ton of installed capacity = **$400 million** for a 2,000 ton facility.
- Tipping fee ~$99-$111/ton (per study by GBB)
- RIRRC is open to utilizing WTE technology under the following conditions:
  - Meets regulatory requirements.
  - Uses proven, not experimental, processes.
  - Must be economically attractive to municipalities.

Regional Solid Waste Market in Conclusion

- Waste Disposal currently a buyer’s market.
- No opportunity for RIRRC to raise prices and increase cash flow.
- No new greenfield WTE plant built in 18 years.
- Incinerators are price leaders, landfills are price followers.
- Potential now exists to lock up relatively low disposal prices for major long term commitments of solid waste volumes.