



Ramsey/Washington County Resource Recovery Project



Solid Waste System Data

Solid Waste System Results

- ▶ **1988 – 2012:**
 - ▶ Recycling (excl. organics) moves from very low to **41%**
 - ▶ Organics recovery moves from 0% to **6.9%**
 - ▶ Development of extensive system to handle yard waste by public and private sector
 - ▶ Processing
 - ▶ 9.1 millions tons of MSW delivered to Facility
 - ▶ 6.8 millions tons of RDF converted to electricity (**75%** of MSW)
 - ▶ 294,000 tons of ferrous metals recycled
 - ▶ Significant development of risk reduction activities related to hazardous waste regulation and household hazardous waste management



Key Question

Over the next 20 – 25 years, how much mixed municipal solid waste will be available for processing, and what will it be like?

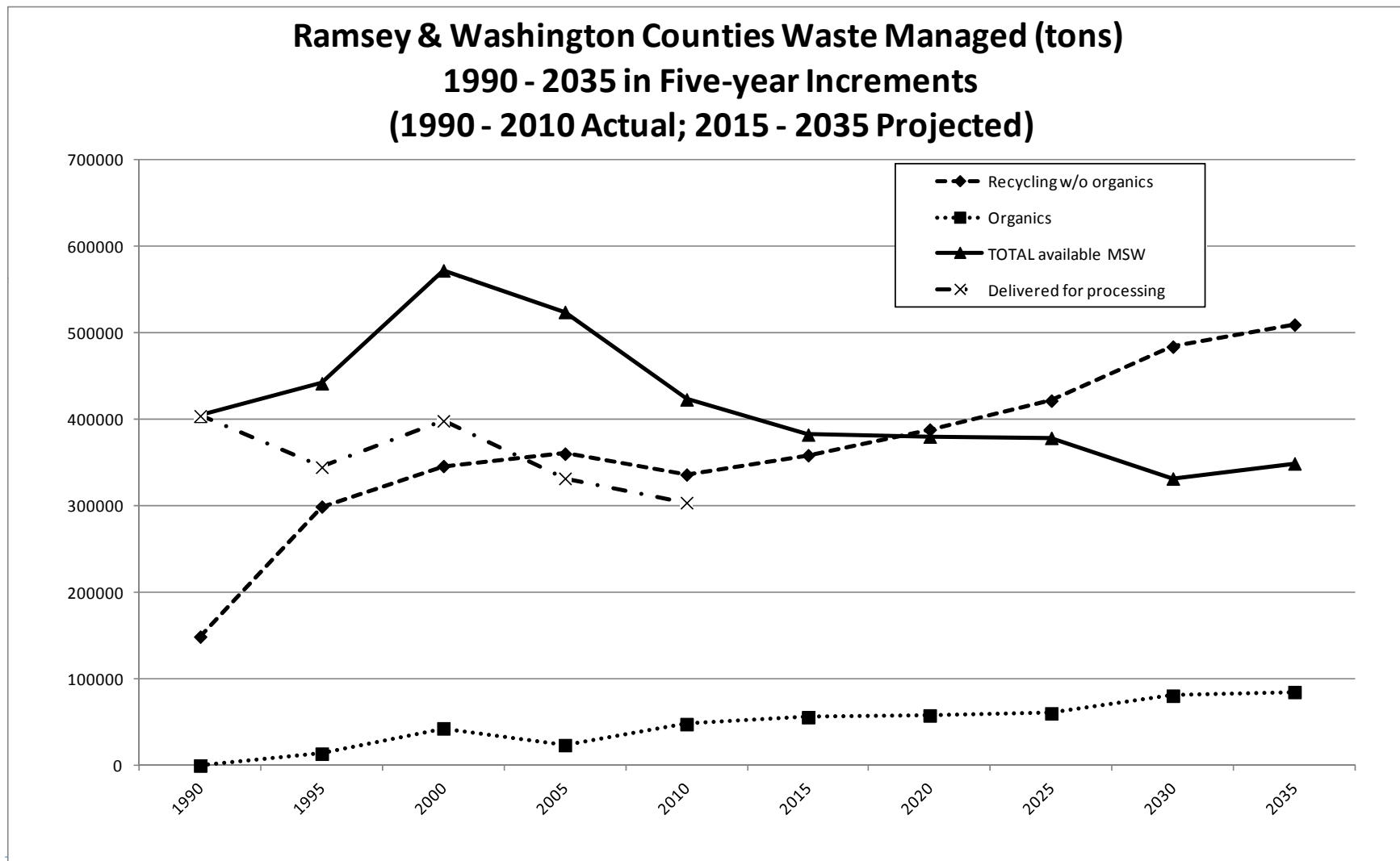


Metropolitan Area MSW Management Objectives: 2010-2030

Management Method	Ramsey County 2012	Washington County 2012	Combined Ramsey/ Washington 2012	2015	2020	2025	2030
Source Reduction	-	-	-	1-2%	2-4%	3-5%	4-6%
Recycling	41.1%	41.9%	41.3%	45-48%	47-51%	49-54%	54-60%
Organics Recovery	7.3%	5.9%	6.9%	3-6%	4-8%	6-12%	9-15%
Resource Recovery	36.9%	42.5%	38.3%	32-34%	32-33%	30-31%	24-28%
Landfill	12.5%	6%	11%	20%	17%	15%	9%

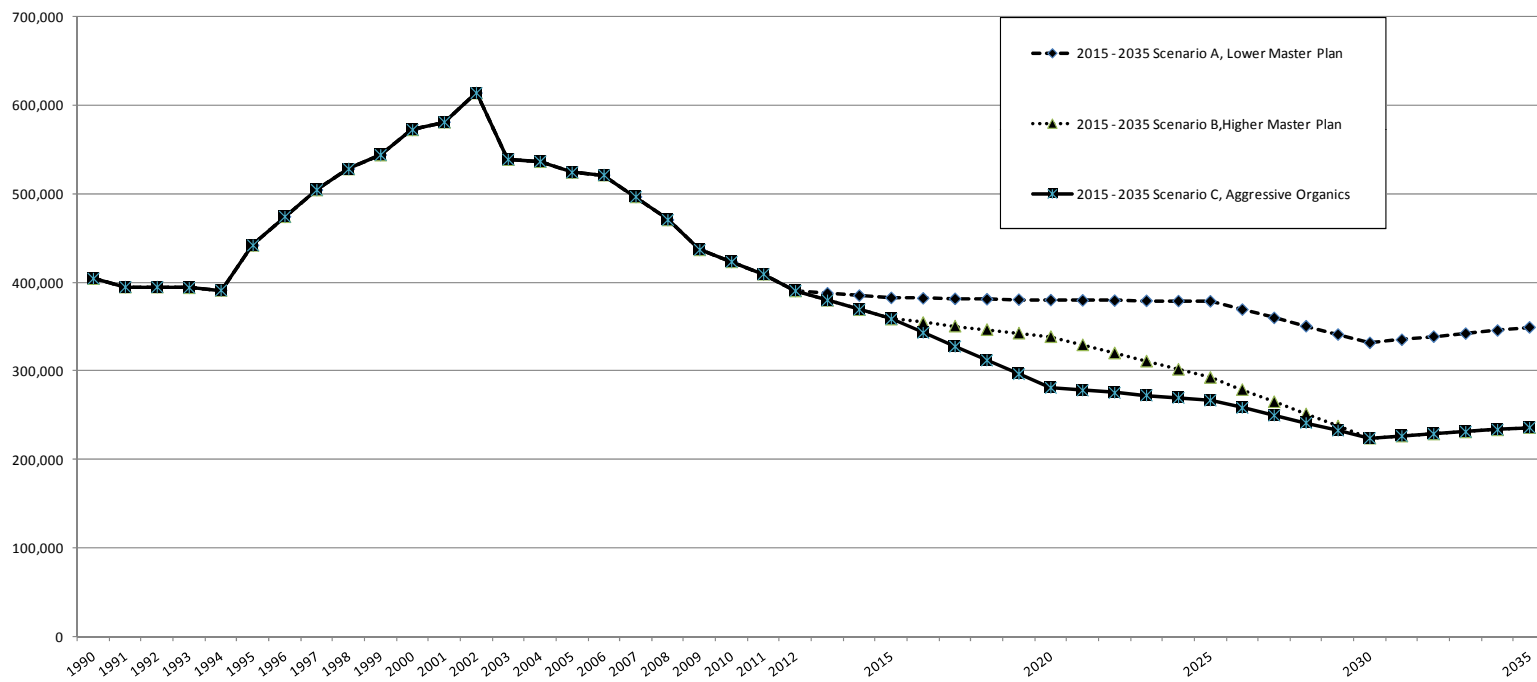


Waste Management History and Projections



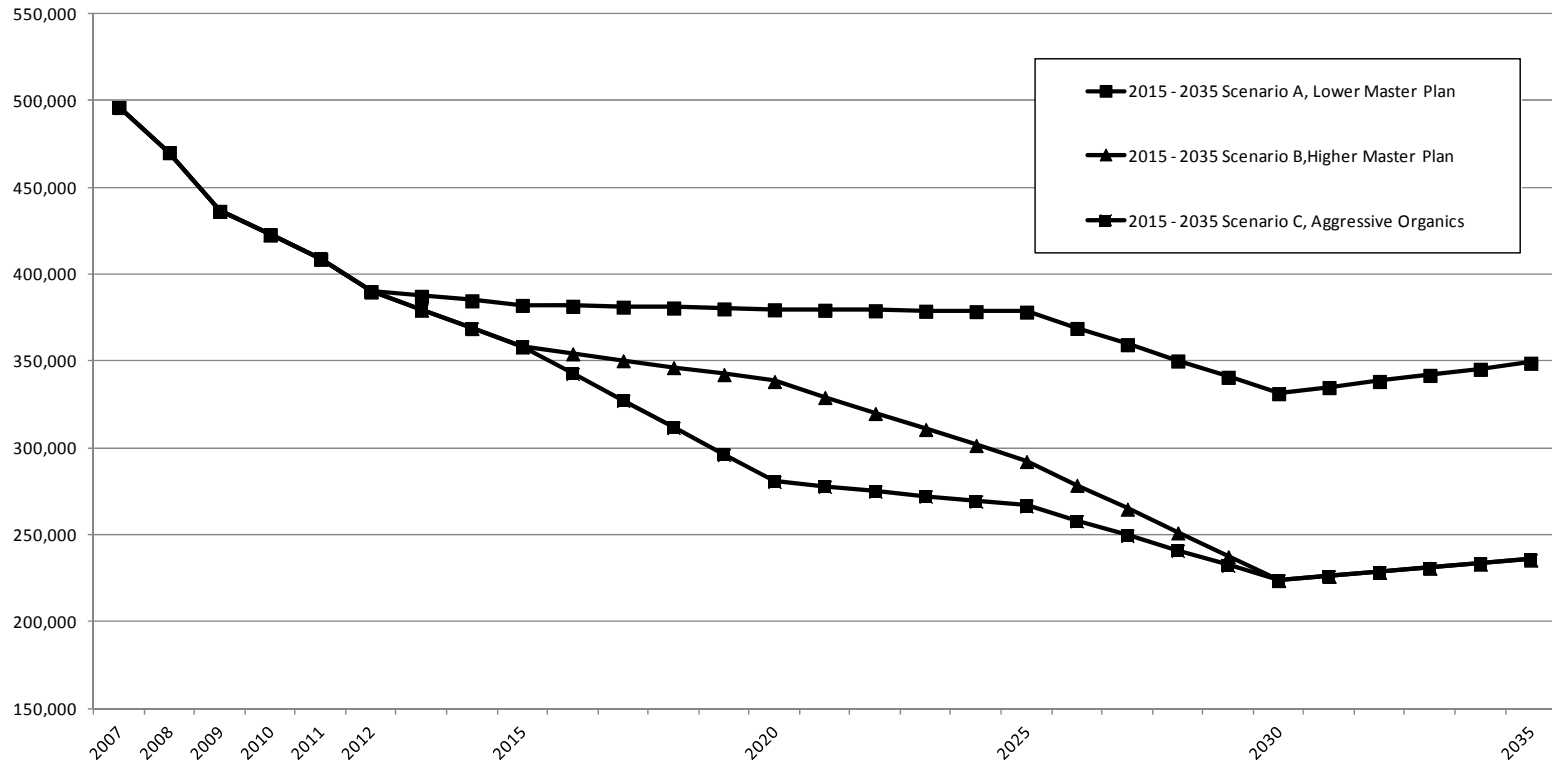
Waste Quantity Projections: Scenarios

Ramsey & Washington Counties Mixed Municipal Solid Waste (MSW) Available for Processing, 1990 - 2035
(1990 - 2012 Actual; 2015 - 2035 Projected)



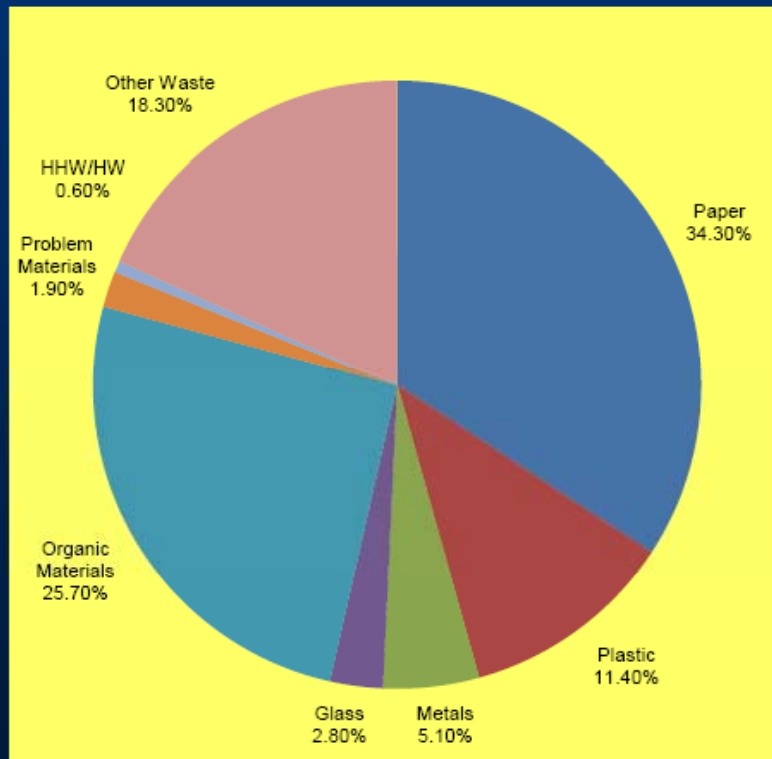
Waste Quantity Projections: Scenarios

**Ramsey & Washington Counties Mixed Municipal Solid Waste (MSW, tons)
Available for Processing, 2007 - 2035
(2007 - 2012 Actual; 2015 - 2035 Projected)**

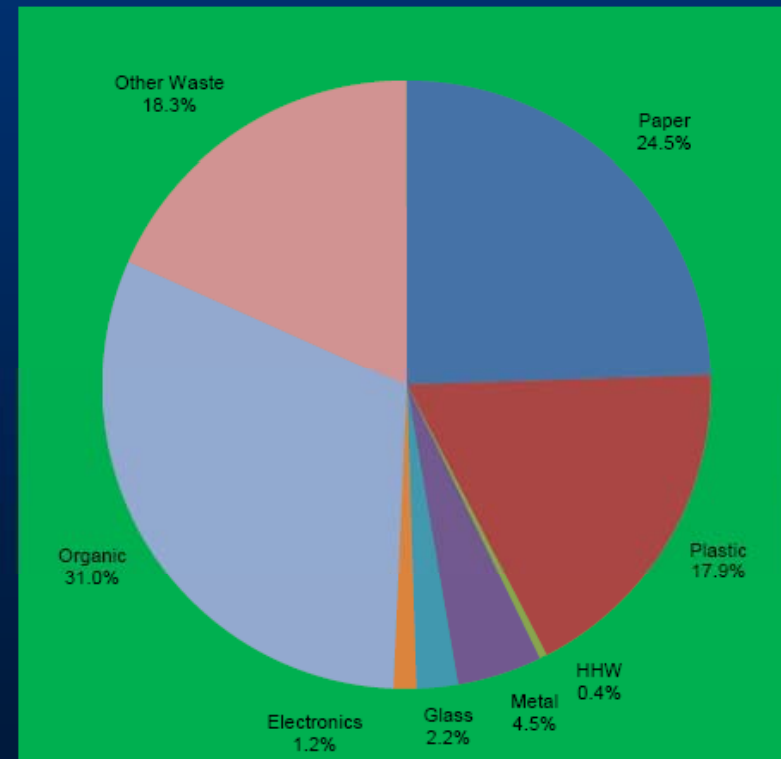


Waste Composition (MPCA, 2013)

2000 Results (mean by weight)



2013 Results (mean by weight)



Material Trends in MSW

- ▶ **Paper/Cardboard:** generally declining; increasing recovery of non-recyclable paper for composting
- ▶ **Plastic:** Overall increasing; film-plastic a challenge
- ▶ **Metal:** Steady
- ▶ **Glass:** Declining
- ▶ **Organics:** Increasing
- ▶ **Other**
 - ▶ Increase in composite materials which are difficult to recycle
 - ▶ Textiles, bulky materials (furniture), carpet, C&D



Conclusions

- ▶ Understanding the amount and character of solid waste is a fundamental aspect of evaluating the future of processing.
- ▶ Projections are difficult; scenarios suggest waste will increase with population, and, depending on the rate of recycling and organics recovery, the amount of MSW available by 2035 could range from 236,000 to 349,000 tons per year.
- ▶ Systems should be designed to be flexible in terms of volume and character of waste.

