

# **Seattle's Journey Toward “Zero –Waste”**

**A Presentation to the  
MRN & SWANA-MidAtlantic Conference  
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# Seattle's Solid Waste System

- 617,000 population
- 155,000 residential can customers
- 4,000 residential dumpster customers
- 6,000 commercial dumpster customers
- Garbage, recycling, and compostables curbside collection

# Seattle's Solid Waste System (continued)

- In 2011 generated about 716,000 tons of MSW, of which 55.4% was recycled or composted
- Reliance on private, contracted partners for collection, some transfer, processing, and disposal
- City goal is to achieve 60% recycling by 2015; 70% by 2022
- Variable can rate for garbage and compostables

# Seattle Solid Waste Can Rates

<b>Service Level (weekly)</b>	<b>Garbage/mo</b>	<b>% of SF accounts</b>
micro-can (12 gallon)	\$18.65	10.7%
mini-can (20 gallon)	\$22.90	27.2%
one can (32 gallon)	\$29.80	57.1%
64-gallon cart	\$59.60	4.0%
96-gallon cart	\$89.40	1.0%
Extra bundle	\$10.00	

# Seattle Solid Waste Can Rates, con't

<b>Service Level (weekly)</b>	<b>YW/FW/mo</b>	<b>% of SF accounts</b>
micro-can (12 gallon)	\$4.95	21.9%
one can (32 gallon)	\$7.45	9.4%
96-gallon cart	\$9.50	68.7%
Extra bundle	\$4.75	

# Seattle's Philosophy of Recycling Programs

1. Provide a convenient program
2. Educate the customers / market the program
3. Give an economic signal (“pay as you throw”)
4. And finally, if necessary, require recycling

# Seattle's Philosophy of Managing Recycling Programs

- Make an ongoing investment in waste stream composition analysis – each sector covered every 3 years
- Require reporting by all recycling service providers that operate in the city limits
- Invest in data warehouse
- Very experienced economics staff
- Annual reporting to electeds and public
- Extensive modeling every 3-5 years

# Program efficacy – overall recycling rates

Year	Single Family	Multi Family	Res Total	Self Haul	Commerc.	Overall
2006	64.0%	26.3%	54.3%	18.8%	51.7%	47.6%
2007	64.8%	27.6%	55.1%	19.2%	52.5%	48.2%
2008	65.4%	28.3%	55.9%	18.4%	54.7%	50.0%
2009	68.7%	27.0%	58.4%	16.7%	54.9%	51.1%
2010	70.3%	29.6%	60.3%	13.5%	58.9%	53.7%
2011	70.6%	28.7%	60.2%	13.1%	61.4%	55.4%
2012	71.1%	32.2%	61.0%	12.5%	?	?
2015 Goal	75.4%	42.5%	66.9%	32.9%	63.4%	60.0%



# Existing Single Family Services

- Variable can rate for garbage
- Biweekly dry recyclables (commingled)
  - Ban on disposal of recyclables in garbage
- Weekly organics
  - Yardwaste plus all food waste and compostable paper
  - 3 subscription levels – subscription required unless backyard composting
  - Ban on disposal of yardwaste
- Extensive education/ marketing

# Program efficacy: 2010 Single family

<b>Target Material</b>	<b>Tons Recyc.</b>	<b>Tons Gener.</b>	<b>Target Mat. Recyc. % w/out back yard compost</b>	<b>Target Mat. Recyc. % w/ back yard compost</b>
Recyclables	57,000	65,200	88%	88%
Food waste	25,400	43,100	56%	59%
Yard Waste	63,800	64,800	98%	99%

# Program efficacy: 2010 Single family

<b>Target Material</b>	<b>Lbs/HH/yr Recyc.</b>	<b>Lbs/HH/yr Gener.</b>
Recyclables	736	842
Food waste	328	557
Yard Waste	824	837

# Possible Future Additional SF Programs

- Increase enforcement of ban on disposal of recyclables
- Increase marketing/education
- Ban disposal of food waste/ contaminated paper
- Textile recycling
- Pet waste & diaper recycling (2020)
- Possibly every other week garbage in 2015

# Existing Multi Family Services

- Commingled recycling
- Ban on disposal of recyclables in garbage
- Buildings required to provide food waste composting service.
- Extensive customer education/marketing

# Program efficacy: 2010 multi family

<b>Target Material</b>	<b>Tons Recyc.</b>	<b>Tons Gener.</b>	<b>Target Mat. Recyc. %</b>
Recyclables	17,800	27,100	66%
Food waste	200	14,400	1%
Yard Waste	1,100	2,600	43%

# Program efficacy: 2010 multi family

<b>Target Material</b>	<b>Lbs/HH/yr Recyc.</b>	<b>Lbs/HH/yr Gener.</b>
Recyclables	283	431
Food waste	3	229
Yard Waste	18	41

# Possible Future Additional MF Programs

- Increase enforcement of ban on disposal of recyclables
- Increase marketing/education (especially organics)
- Ban disposal of food waste / compostable paper
- Textile recycling
- Audit top “residential” self-haulers
- Pet waste /diaper waste recycling (2020)



# Program efficacy: 2010 SF + MF

<b>Target Material</b>	<b>Tons Recyc.</b>	<b>Tons Gener.</b>	<b>Target Materials Recyc. % w/out back yard compost</b>	<b>Target Mat. Recyc. % w/ back yard compost</b>
Recyclables	74,800	92,300	83%	83%
Food waste	25,500	57,400	48%	51%
Yard Waste	64,900	67,300	96%	97%

# Existing Commercial Services

- Ban on the disposal of paper and cardboard
- Quick serve restaurants must use recyclable/compostable service ware and provide opportunity for customers to compost or recycle
- Extensive technical assistance

# Program Efficacy: 2010

## Commercial

Target Material	Tons Recyc.	Tons Gener.	Target Materials Recyc. %
Recyclables	120,300	166,200	72%
Food waste	34,000	69,700	49%
Yard Waste	19,400	22,900	85%

# Program Efficacy: 2010 Commercial

<b>Target Material</b>	<b>Lbs/Emp/yr Recyc.</b>	<b>Lbs/Emp/yr Gener.</b>
Recyclables	496	685
Food waste	140	287
Yard Waste	80	94

# Future Possible Additional Commercial Programs

- All quick-serve single use food ware to be compostable, except cups
- Increase enforcement of ban on disposal of paper and cardboard
- Increase marketing/education (especially for organics)
- Increase categories of recyclables banned from disposal
- Ban clean wood from disposal
- Plastic film recycling
- Ban food waste & contaminated paper from disposal

# Existing Self-haul programs

- Yard waste & clean wood waste composting
- Appliance and general metal recycling
- Cardboard recycling
- Commingled recycling collection plus separate glass
- Ban on disposal of yard waste and cardboard
- Misc. other recycling (e.g., motor oil)

# Program Efficacy: 2010 Self-Haul

Target Material	Tons Recyc.	Tons Gener.	Target Materials Recyc. %
Recyclables	1,900	6,600	29%
Metals	4,400	8,300	53%
Yard waste	11,400	15,000	76%
C&D materials	1,900	6,600	29%

# Program Efficacy: 2010 Self-Haul

<b>Target Material</b>	<b>Lbs/capita/yr Recyc.</b>	<b>Lbs/capita/yr Gener.</b>
Recyclables	6	21
Metals	14	27
Yard waste	37	49
C&D materials	6	21



# Potential Future Self-Haul Programs

- Ban on disposal of asphalt, brick, concrete, asphalt shingles, clean wood, plastic film,
- Pre-scale recycling at both transfer stations
- Carpet take-back program
- Audits of top “residential” self-haulers (e.g., University of Washington)
- Enhanced recovery of reuseables
- Floor sorting of construction/demolition loads with high % of recyclables

# Product Stewardship / Waste Prevention Programs

- State electronics take back (mfg. financed)
- State Hg lighting take back (mfg. financed)
- County unused medicine take back (mfg. financed)
- City ban on plastic “grocery” bags
- City yellow pages directories opt out program with teeth (overturned in court)

# Links

## Solid Waste Plan

<http://www.seattle.gov/util/MyServices/FoodYard/AboutFoodYard/SolidWastePlans/SolidWasteManagementPlan/index.htm>

## Zero Waste Plan

<http://www.seattle.gov/util/MyServices/FoodYard/AboutFoodYard/SolidWastePlans/ZeroWaste/index.htm>

## Waste Composition Studies

<http://www.seattle.gov/util/Documents/Reports/SolidWasteReports/CompositionStudies/index.htm>

## Solid Waste & Recycling Reports

<http://www.seattle.gov/util/Documents/Reports/SolidWasteReports/index.htm>

# Questions?

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