



King County

Department of
Natural Resources and Parks
Solid Waste Division

Waste
Prevention

Resource
Recovery

Waste
Disposal

The Road to Zero Waste of Resources

MSWMAC April 10, 2015

Outline

- Solid Waste Division Director's Message and 5 Key Principles
- Background – Generator info and what has been done to date
- Which Path?
 - Collective action
 - Individual action
- Thoughts, reactions?

Solid Waste Division Director's Message:

- The region needs to collaborate on key policy decisions to achieve our environmental and service goals
 - How do we maximize capacity and lifespan of Cedar Hills?
 - How will we increase stalled recycling rates from 52% to 70% by 2030?
 - How do we capture and recover resources from the waste stream?
 - How will we be the best environmental stewards of our wastes and recovered resources?
 - What is the appropriate rate strategy for sustainable funding of desired services?
 - How do we create a positive customer experience at the curb, at the Transfer Station and as a neighbor?
 - How do we optimize the efficiency of our system given it is delivered by a combination of actions taken by customers, cities, haulers, county and other disposal/recycling companies?

5 Key Principles

- *System partners from multiple jurisdictions adopt a common set of policies and practices for managing waste and resources. Consistency across the region is key to success.*
- *Separation of garbage, recyclables, and organics is mandatory.*
- *Materials added to recycling collection programs are supported by adequate processing capacity, capability and markets.*
- *A robust enforcement program is in place to support separation of materials in curbside programs (garbage, recyclables, organics).*
- *The Solid Waste Division has adequate recovery and processing capability to harvest resources present at its facilities*

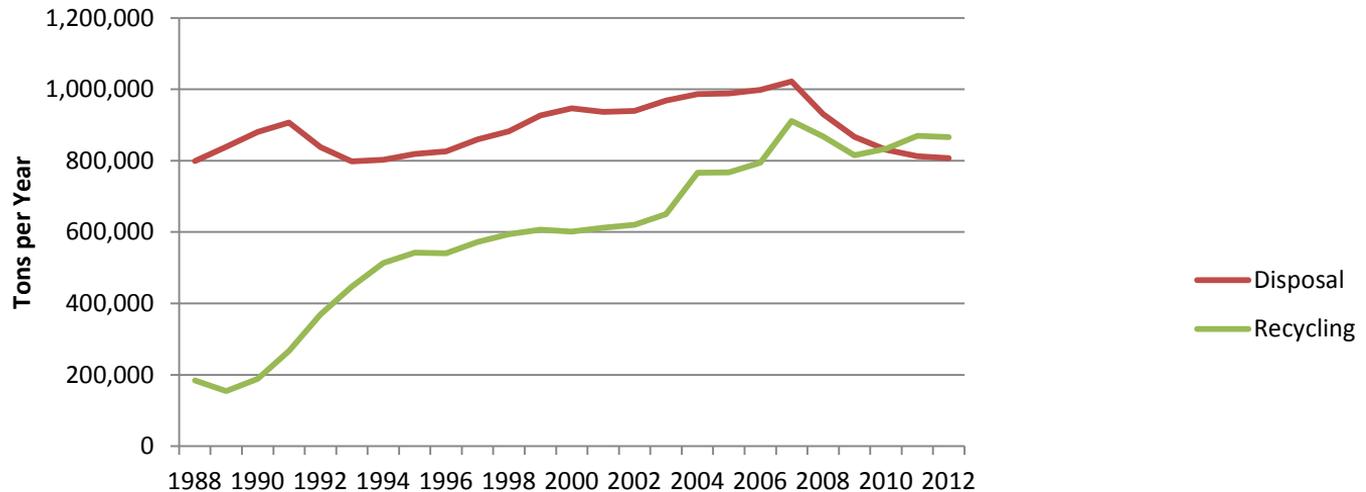
Which Path?

- Collective Action
 - Recycling is maximized at the curb and transfer stations by all partners adopting same strategies
- Individualized Action
 - Cities & county pursue their own strategies and if by 2020 not on a 70% path new strategies would need to be implemented

Municipal Solid Waste Generated in King County 1988-2013

(excluding Seattle & Milton)

King County Recycling and Disposal: 1988 - 2012



Top 12 Recyclable Materials Disposed at Cedar Hills

	Material	Tons	%
1	Food/soiled paper	239,042	30%
2	Recyclable Paper	87,776	11%
3	Clean Wood	52,273	6%
4	Rigid Packaging (TAPG)	39,329	5%
5	Yard Waste	39,002	5%
6	Scrap Metal	35,788	4%

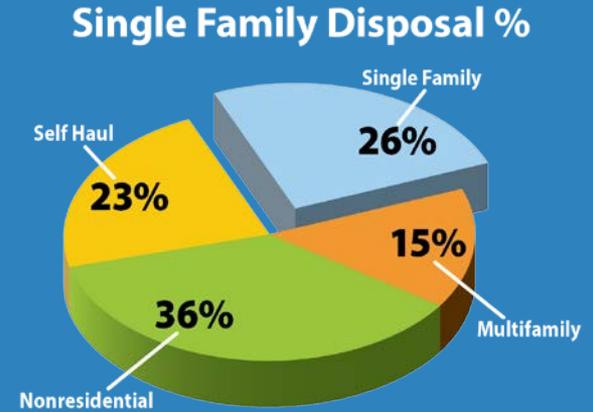
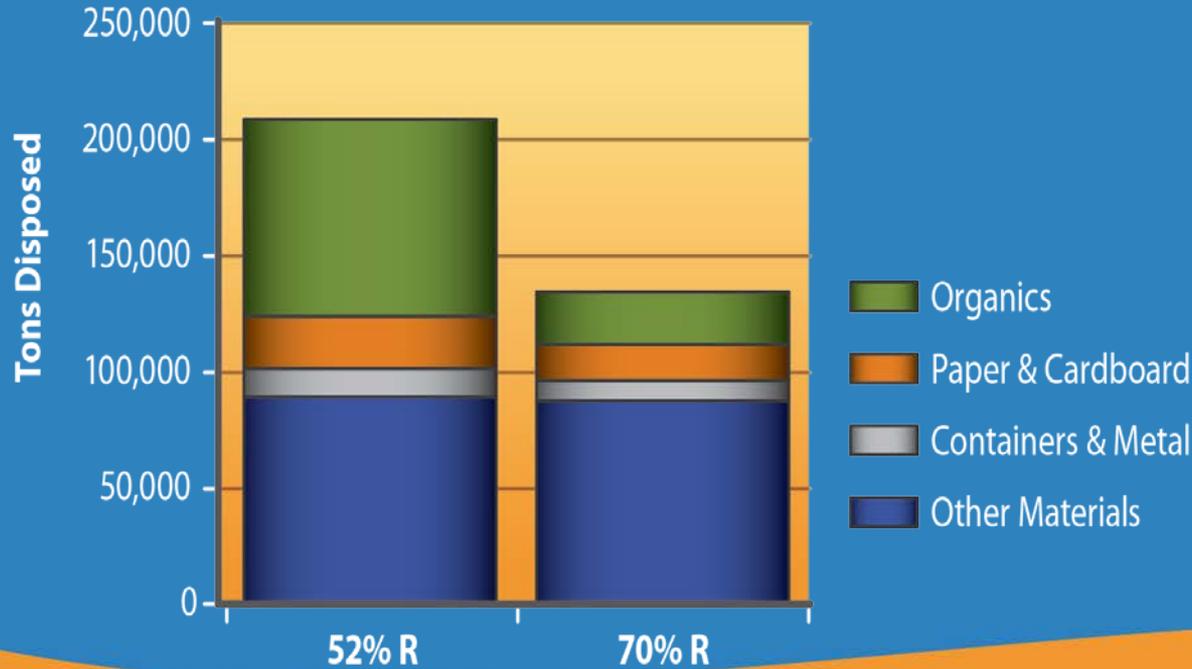
	Material	Tons	%
7	Plastic Film & Bags	29,677	4%
8	Cardboard	29,224	4%
9	Carpet & Carpet Padding	11,759	1%
10	Textiles: Clothes	9,423	1%
11	Furniture	9,390	1%
12	Gypsum Wallboard	8,781	1%

What has been done to get to 52%

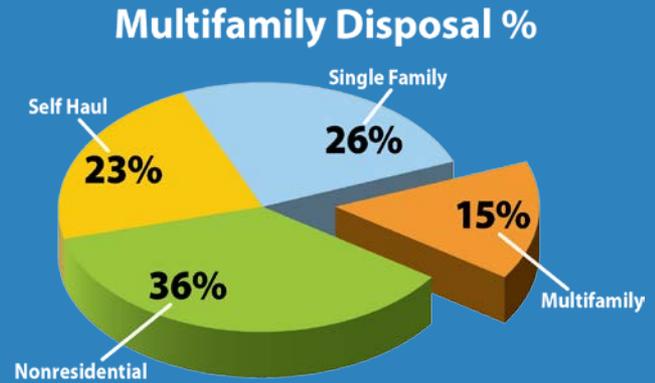
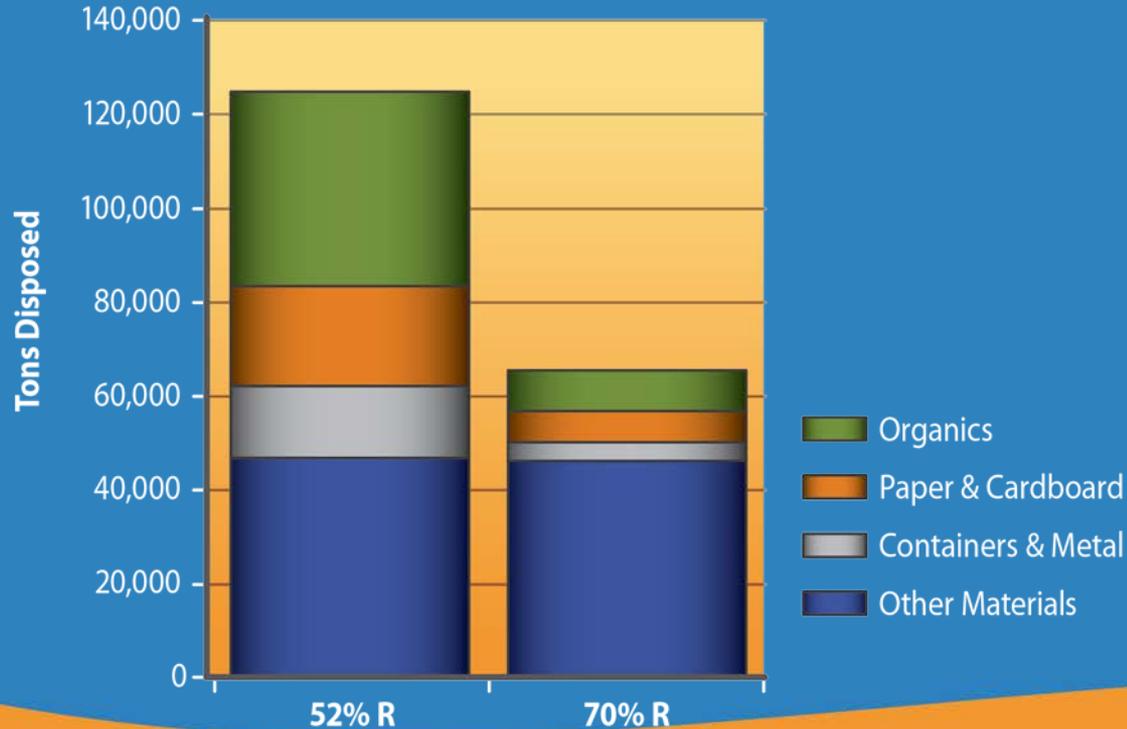
- ✓ Doing well
- Not widespread
- X Mixed results

	Collection Infrastructure	Education	Incentive	Policy	Product Stewardship
Single Family	<ul style="list-style-type: none"> ✓ Embed recycling ✓ Yard waste ✓ Food waste • EOW Garbage 	Campaigns: <ul style="list-style-type: none"> ✓ Regional ✓ Local ✓ Hauler 	<ul style="list-style-type: none"> ✓ \$1 million city grant ✓ Revenue sharing ✓ Municipal contracts ✓ Pay-throw fees 	<ul style="list-style-type: none"> ✓ Curbside yard ban - Transfer Station Bans: <ul style="list-style-type: none"> ✓ electronics ✓ mercury products ✓ CFC appliances 	<ul style="list-style-type: none"> ✓ Electronics ✓ Fluorescent tubes/bulbs ✓ Unwanted medicines
Multi-Family	<ul style="list-style-type: none"> ✓ Embed recycling • Limited food waste 	Campaigns: <ul style="list-style-type: none"> X Regional X Local X Hauler 	<ul style="list-style-type: none"> ✓ \$1 million city grant ✓ Revenue sharing ✓ Municipal contracts 	<ul style="list-style-type: none"> X Recycling space - Transfer Station Bans: <ul style="list-style-type: none"> ✓ electronics ✓ mercury products ✓ CFC appliances 	<ul style="list-style-type: none"> ✓ Electronics ✓ Fluorescent tubes/bulbs ✓ Unwanted medicines
Non-Res	<ul style="list-style-type: none"> • Embed recycling • Limited food waste 	<ul style="list-style-type: none"> X City & Hauler education efforts 	<ul style="list-style-type: none"> ✓ \$1 million city grant ✓ Municipal contracts 	<ul style="list-style-type: none"> - Transfer Station Bans: <ul style="list-style-type: none"> ✓ electronics ✓ mercury products ✓ CFC appliances 	<ul style="list-style-type: none"> ✓ Electronics ✓ Fluorescent tubes/bulbs ✓ Unwanted medicines
Self Haul	<ul style="list-style-type: none"> ✓ Curbside • Yard waste • Other materials • New facilities • Recovery 	<ul style="list-style-type: none"> • Website • Signage 	<ul style="list-style-type: none"> ✓ Free curbside ✓ Free scrap metal Reduced rate: <ul style="list-style-type: none"> ✓ yard & wood, appliances 	<ul style="list-style-type: none"> - Transfer Station Bans: <ul style="list-style-type: none"> ✓ electronics ✓ mercury products ✓ CFC appliances 	<ul style="list-style-type: none"> ✓ Electronics ✓ Fluorescent tubes/bulbs ✓ Unwanted medicines

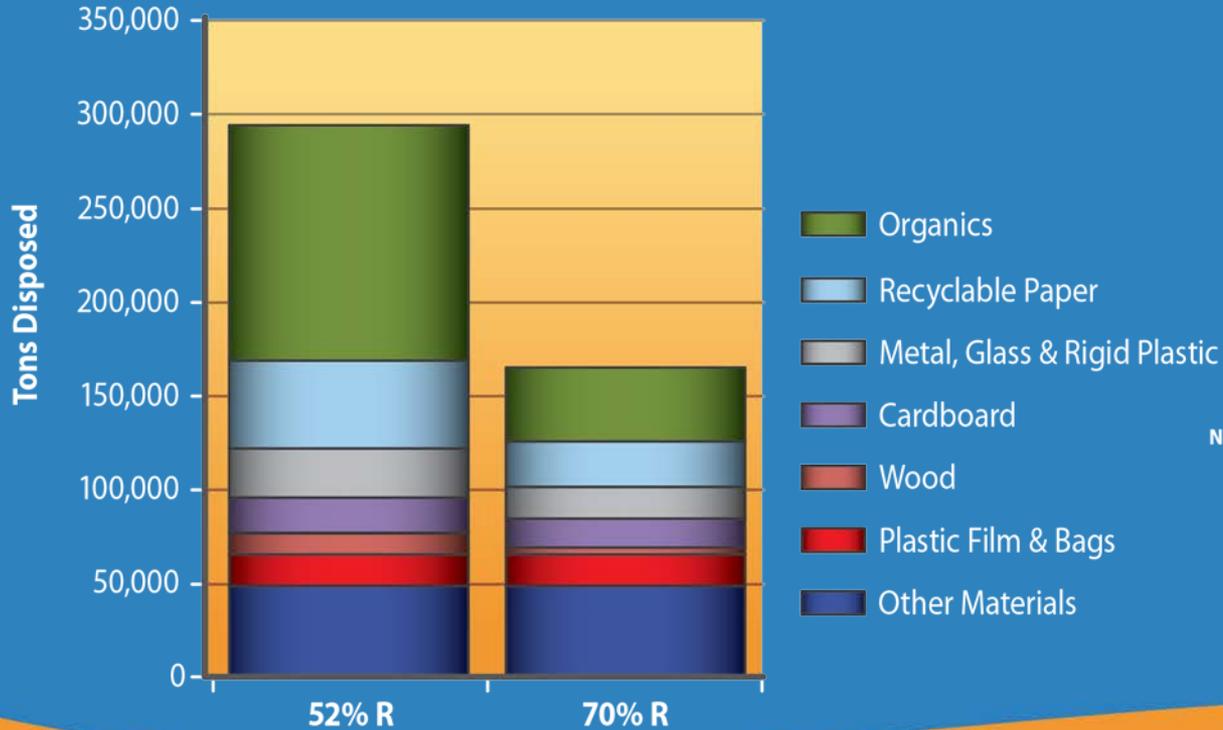
Single Family Diversion Needed to Reach 70%



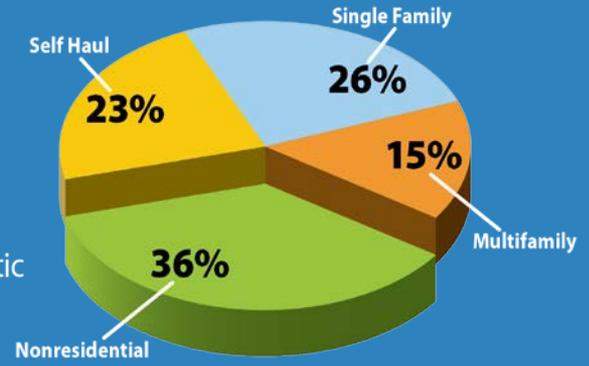
Multifamily Diversion Needed to Reach 70%



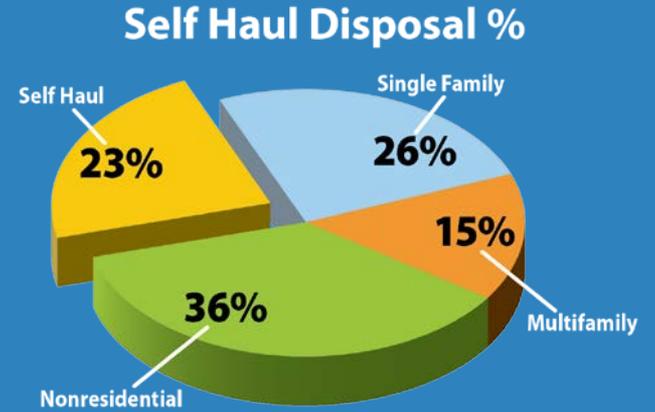
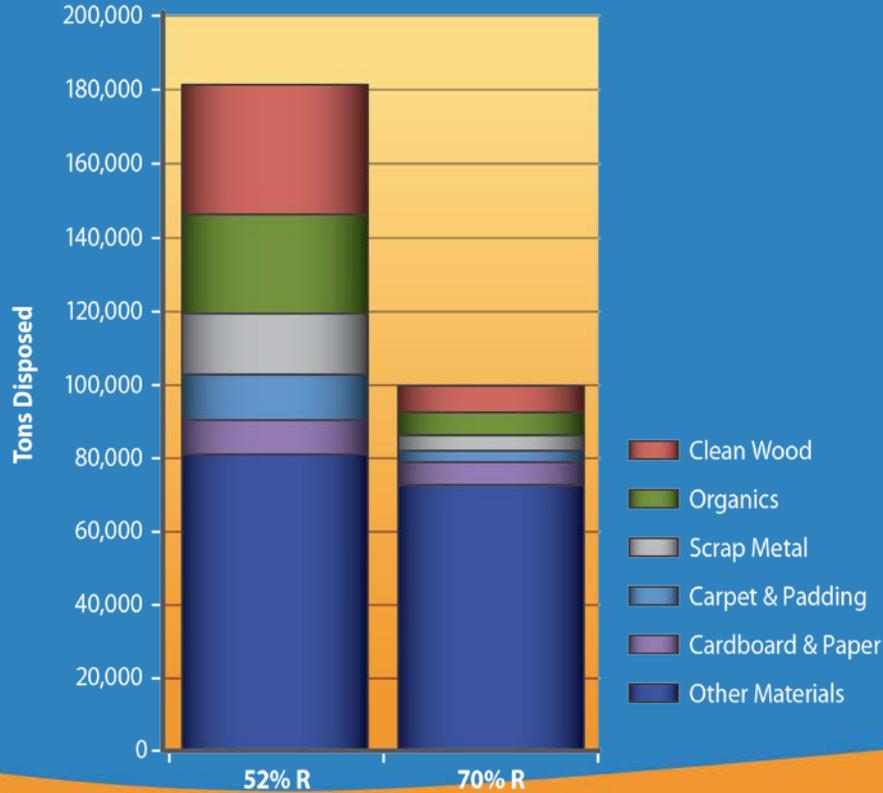
Nonresidential Diversion Needed to Reach 70%



Nonresidential Disposal %



Self Haul Diversion Needed to Reach 70%



Which Path?

- Collective Action
 - Recycling occurs at the curb and transfer stations by all partners adopting the same strategies (education, incentives, embedded rates, EOW, mandatory separation)

Summary of Collective Actions to Reach 70%

Generator	Strategy	Impact on 70%
Non Res	Mandatory Separation – Food	4.5%
Single Family	Mandatory Separation – Food	3.2%
Self Haul	Mandatory Separation - Wood, metal, cardboard, paper, yard	2.5%
Non Res	Mandatory Separation – Recycling	2.2%
Multi-Family	Mandatory Separation – Food	1.8%
Single Family	Every-other-week - Garbage	1.6%
Multi-Family	Mandatory Separation – Recycling	1.4%
Self Haul	Mandatory Separation - Carpet, tires, mattresses, asphalt shingle, gypsum	1.0%
Single Family	Mandatory Separation – Recycling	0.5%

Which Path?

- Individualized Action
 - Cities & county pursue their own strategies and if by 2020, city or county is not on a 70% path, new strategies would need to be implemented

Rates/Dates Path

- Cities & county each implement strategies of choice to increase recycling: education, collection frequency, rate incentives, etc.
- By 2020 city and unincorporated single family recycling rate must be 61%, to be on path to 70% recycling
- If rate is less than 61% either:
 - Implements mandatory separation or
 - Pays an incentive based disposal fee

Rates/Dates Path

Action	2016	2018	2020	Impact on 70%
Setting rate/date options				
- More education	▲	▲		?
- Reduce single family food waste by 30%	▲	▲		.7%
- Every-other-week garbage	▲	▲		1.6%
- Embed yard waste	▲	▲		.2%
If 70% not met				
- Require separation			▲	3.7%
- Incentive disposal fee			▲	?



Which Path?

- Collective Action – presented in 5 key principles
- Individualized Action – presented in “Rates/Dates” chart



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