

Advancing Household Hazardous Waste Services in Ramsey County

Reducing Risk for All Residents

County Board Workshop January 12, 2020

Agenda

- I. **Introduction** – Kathy Hedin, Deputy County Manager of Health and Wellness

 - II. **Presentation** – Zack Hansen, Environmental Health Director

 - III. **Questions and Discussion**
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Workshop Purpose & Outcomes

- Purpose
 - Examine household hazardous waste (HHW) service gaps
 - Propose a system redesign
 - Show how the redesign addresses environmental, equity and economic issues
 - Board discussion and direction about HHW services
 - Expected Outcomes
 - Board preferences for a HHW system redesign
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HHW: Waste from households that is not regulated, but is:

- **Ignitable** (easily catches fire)
- **Toxic** (poisonous or harmful upon exposure)
- **Reactive** (reacts with other chemicals)
- **Corrosive** (acidic or alkaline and can corrode or cause chemical burns)

A system redesign is proposed to start in 2023

- A redesigned system will
 - better address equity and environmental justice,
 - serve more residents,
 - provide economic benefits,
 - be more cost effective from a per-participant and waste volume perspective.
- The current system to manage HHW, while somewhat effective, is expensive and underperforms.

Current County HHW Collection Service has been the same for 20 years.

- Service agreement with Bay West
 - Year-round collection at Bay West's facility on Empire Dr.
 - Up to 70 days of seasonal mobile sites
- Has been in place since 2000
- Agreement expires end of 2022

The current HHW program focuses on reducing risk.

Environmental

“Cleaning up trash” to reduce pollution of water, air, and land by managing HHW safely.

Property

Protecting property of residents and waste industry vehicles and facilities.

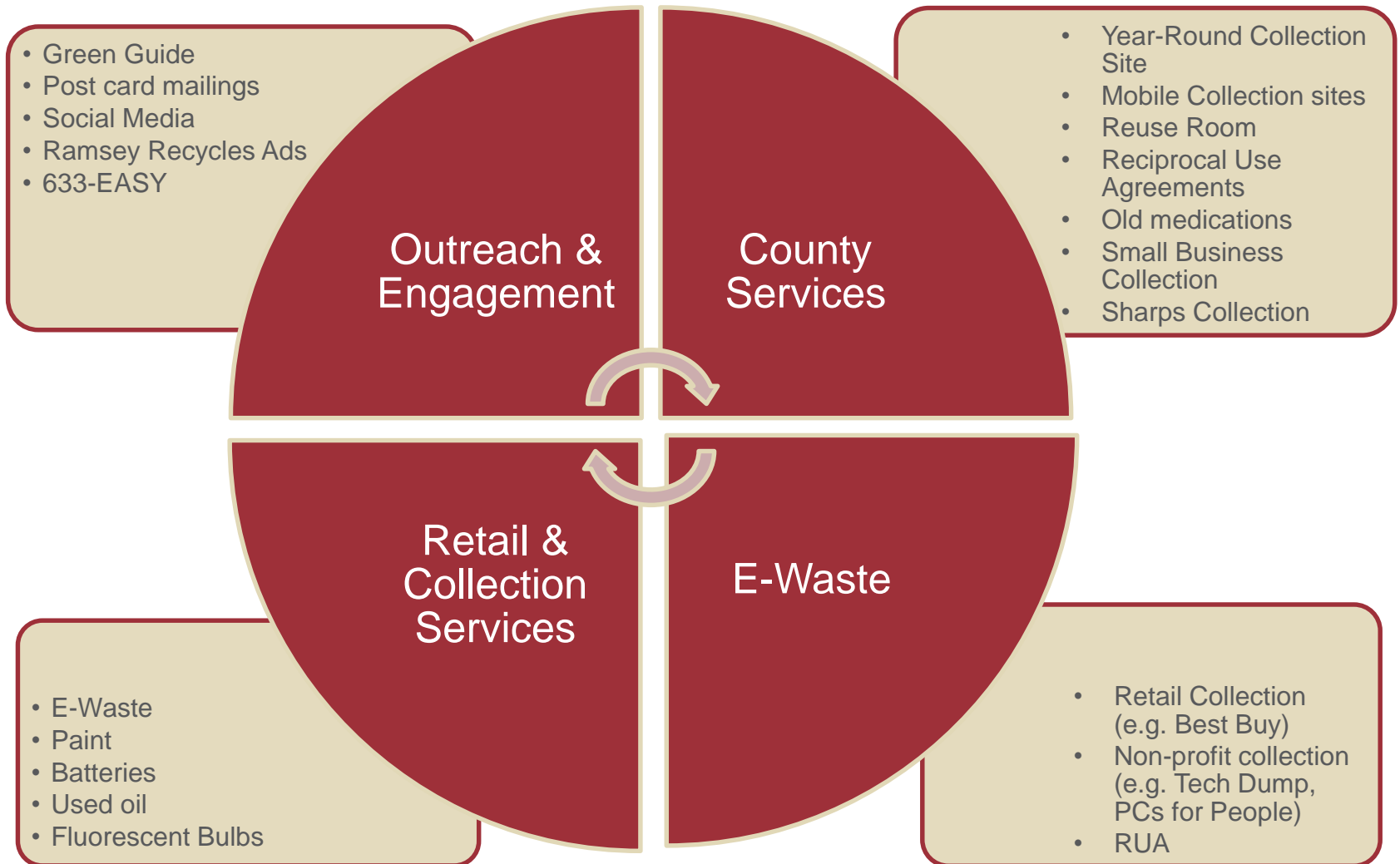
Health & Safety

Reducing people’s exposure to hazardous chemicals, especially waste industry workers.

Financial

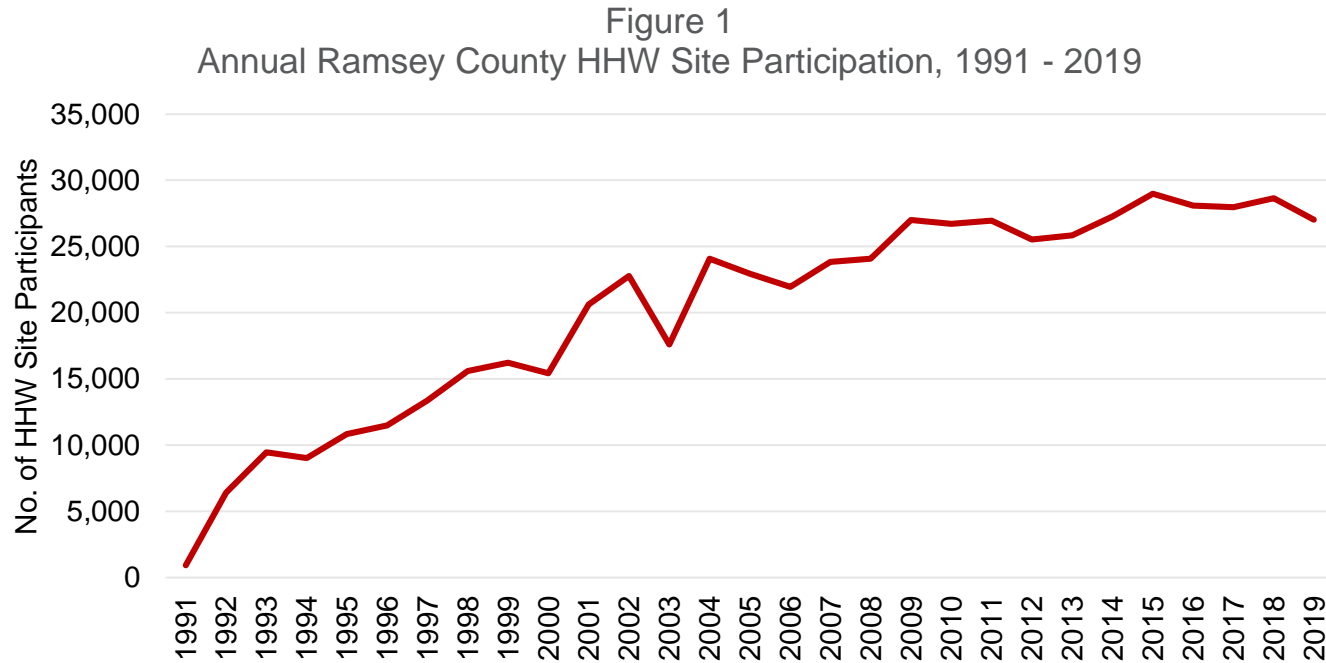
Reducing environmental liability and not deferring costs to future generations.

The current HHW system is made of these parts.



Takeaways:

- Participation has leveled off over past 10 years
- A lot of households have not participated: only 51% of households report that they have used HHW services



Compared to other metro counties, Ramsey County is the most expensive per participant, and serves fewer households.

2019 HHW Services Cost Per Participant			
County	Total HHW Cost	Participants	\$/Part.
Anoka	\$877,730	12,610	\$69.61
Carver*	\$653,173	15,117	\$43.21
Dakota*	\$2,531,762	60,230	\$42.03
Hennepin*	\$5,267,933	101,804	\$51.75
Ramsey	\$1,922,214	27,021	\$71.14
Scott*	\$829,819	13,576	\$61.12
Washington*	\$2,143,284	61,646	\$34.77
*Includes e-waste collection			

Community engagement has found gaps in HHW service.

- Methods
 - Online survey
 - Listening sessions
 - Biennial residential survey
- Major findings
 - HHW continues to be disposed of in the trash or poured down drains, and e-waste services can be more effective.
 - Gaps in HHW service for some residents, particularly BIPOC and elderly residents and those without transportation.
 - Current service is frustrating and inconvenient.
 - Awareness of the program and services could be improved.

Resident suggestions have driven the HHW system redesign.

- Electronics recycling greatly desired
- Easier, more convenient options that are low-cost or free
 - Curbside pick-up of all materials.
 - One drop-off location for all materials with more operating hours.
- Organized HHW collection events at apartment buildings
- County should provide collection of HHW at residents' homes
- Drop-off and/or pickup services should be accessible, convenient, and affordable
- Businesses to take back the hazardous products they sell and to alert customers when they are purchasing an item that is considered hazardous

The redesign builds on the current system to focus on County priorities.

Continue Reducing Risk: Increase system use, types of HHW and volumes collected to reduce environmental, health & safety, property and financial risk with proper handling of more HHW

Equity: Residents first: Design HHW services based on their preferences; manage risks and provide benefits for all; find resources in waste, and cycle back to meet social needs

Economic: Work with community partners to provide job training; employ residents in HHW services

Filling the gaps – the redesign has four components that work together.

- Year-around County owned HHW site (Environmental Service Center, or ESC)
- Permanent year-around satellite site
- House-side collection/multi-unit collection
- E-Waste system changes

The Environmental Service Center is the foundation for the redesign.

- County-owned
- New construction or renovation
- HHW, small business collection
- 3-5 Acres
- 20-25,000 ft²
- Privately operated
- Reuse room, retail
- Easily accessible
- Designed for flexibility in service



The permanent satellite site will increase service for those with transportation.

- Replaces mobile collections and serves as a year-round satellite site
- Smaller operation than an ESC
- Located geographically to complement the ESC
- Drive-in or walk-up options
- Prepare some materials for shipment and transfer other sorted materials to ESC for shipment.



House-side collection is an innovative approach to reach households.

- Collection at households on request
- Same items collected house-side as at ESC
- Labor & equipment using contractor or County staff
- After collection, items hauled to ESC site for processing
- County residents who meet criteria are eligible
- Eligibility will begin with more restrictions, which will be eased with experience.
- No charge to residents.



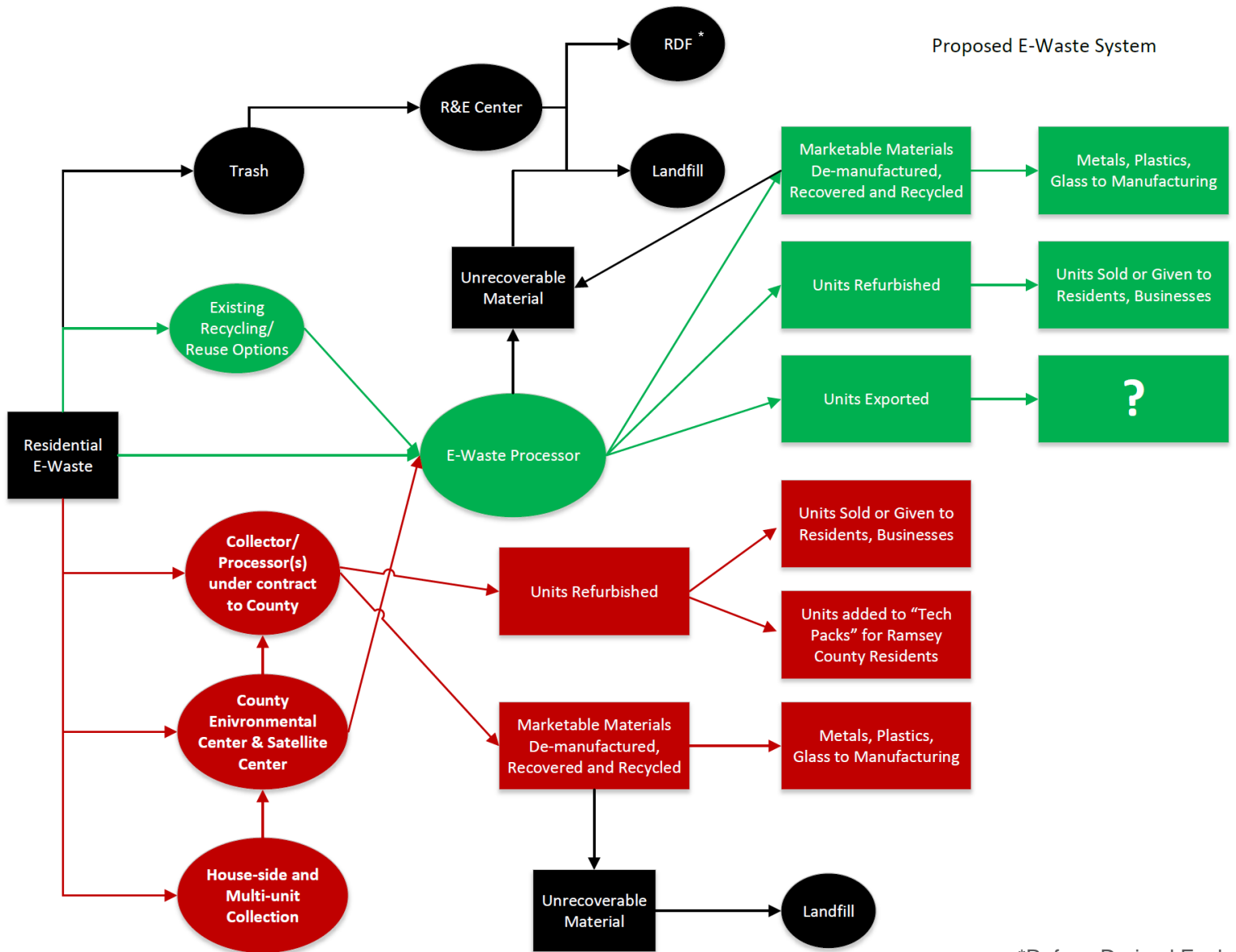
The amount of electronic waste (E-Waste) collected and recycled needs to increase.

- E-waste: one of the fastest growing waste streams
- Full cost of e-waste management not paid by manufacturers, counter to the intent of the state
- The e-waste law hasn't worked well for county residents because of fees
- E-waste that is not recycled is placed in the trash, is illegally dumped, or stored at home
- 2014 waste sort study: Electronics disposed of in the trash made up 4.4 million pounds of Ramsey County residential waste
- The use of lithium-ion batteries in electronics has grown and is associated with waste facility fires.

E-waste collection can grow with more County involvement, and through partnerships.

- Begins with the same options
- Collection of e-waste at ESC, satellite site and in house-side program at no charge to residents;
- Contracts with selected private providers to create a broader collection network with fewer barriers to participation.

The following slide illustrates the complexity of the e-waste system and proposed new components (in red) that increase availability of service.



*Refuse Derived Fuel

The private e-waste service providers would be required to help meet County priorities.

<i>Environmental</i>	Meet minimum County standards for e-waste collection and management including necessary certifications
<i>Economic</i>	Provide jobs and job-training to county residents
<i>Equity</i>	Work with the County to provide no-cost/low-cost technology hardware to county residents that demonstrate need based on income and/or unemployment

A focus on residents-first costs more but produces better results.

- Total program costs increase 115% with increased service:
 - But can be paid for without increasing revenue
 - Will result in a projected 73% increase in participation and a 183% increase in HHW collected
- At the same time unit costs are reduced:
 - Total cost per pound of HHW decreases by 24%
 - Labor costs reduced by 15%

The details of the financial analysis favor the redesign as being more effective and efficient.

	Measure	Status Quo	System Redesign
Effectiveness	Participation – visits per year	30,000	52,000
	Pounds of HHW Collected	1,600,000	2,970,000
	Pounds of E-Waste Collected	0	1,560,000
Efficiency	Cost per pound of HHW	\$0.86	\$0.65
	Total annual operating cost	\$1,370,000	\$2,940,000
	Total cost per participant:	\$45.70	\$56.58
	Labor cost per participant:	\$28.15	\$23.92
	Disposal Cost per participant:	\$19.67	\$22.28
Capital Cost		Included in Base Monthly Service Fee of \$8,000 per month	Use of Solid Waste Fund Balance: \$13,060,990

The redesign improves service in most categories.

Criterion	Status Quo	Redesign
Convenience		✓
Accessibility		✓
Flexibility		✓
Environmental justice – Racial equity – Health equity:		✓
Resilience/Sustainability		✓
Environmental Protection Risk		✓
Property Damage Risk		✓
Occupational Health Risk		✓

The system redesign better aligns with County goals, priorities

	Status Quo	ESC	Permanent Satellite Site	House-side Collection	Modified E-Waste System
 WELL-BEING	XX	XXX	XXX	XXX	XXX
 PROSPERITY	X	XX	XX	XXX	XXX
 OPPORTUNITY	X	XX	XX	XX	XXX
 ACCOUNTABILITY		XX	XX	XX	XX
Residents First	X	XXX	XXX	XXX	XXX
Equity, Environmental Justice	X	XX	XX	XXX	XXX