

Solid Waste / Resource Recovery Forum

Wednesday October 14, 2015

9:30 am to 3:30 pm

The Ranch, Larimer County Events Complex



Timeline of Planning Process

2015-2016: Public Input & Dialogue

- Regional coalition formed (Spring 2015)
- Listening, gathering information, site visits
- Large stakeholder forum (Today)
- County-wide survey (2016)
- Multiple, regional community forums (2016)

2017-18: In-depth evaluation of options for regional waste management, in preparation for Larimer County Landfill closure in 2025

2020: New landfill decision deadline



CENTER FOR PUBLIC DELIBERATION

Dedicated to enhancing local democracy through improved public communication and community problem solving

www.cpd.colostate.edu

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Agenda

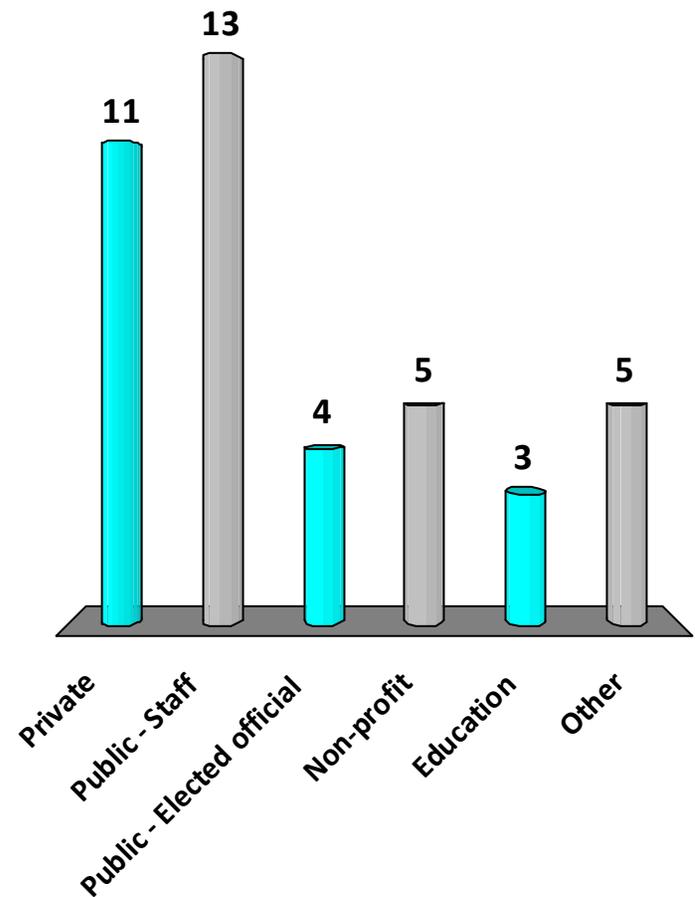
- 9:30 Welcome and overview
- 9:40 Introductions – who is in the room
- 10:10 Background presentation: The Existing Road Map
- 11:00 Discussion #1: What is working well right now?
- 11:25 Discussion #2: What concerns you about our current system?
What's missing?
- 12:00 Break for lunch
- 1:00 Review and reaction of themes from Discussion 1 and 2
- 1:30 Key Challenges to the Future of Materials Management & Resource Recovery
- 2:00 Discussion #3: Reaction to the four key challenges
- 2:45 Discussion #4: What is our most important next step?
- 3:25 Close & Final survey

Gathering Data

- Wireless clickers
- Notes from the tables
- Easel sheets with voting
- Written comments on worksheets

What sector do you represent today?

- A. Private
- B. Public - Staff
- C. Public - Elected official
- D. Non-profit
- E. Education
- F. Other



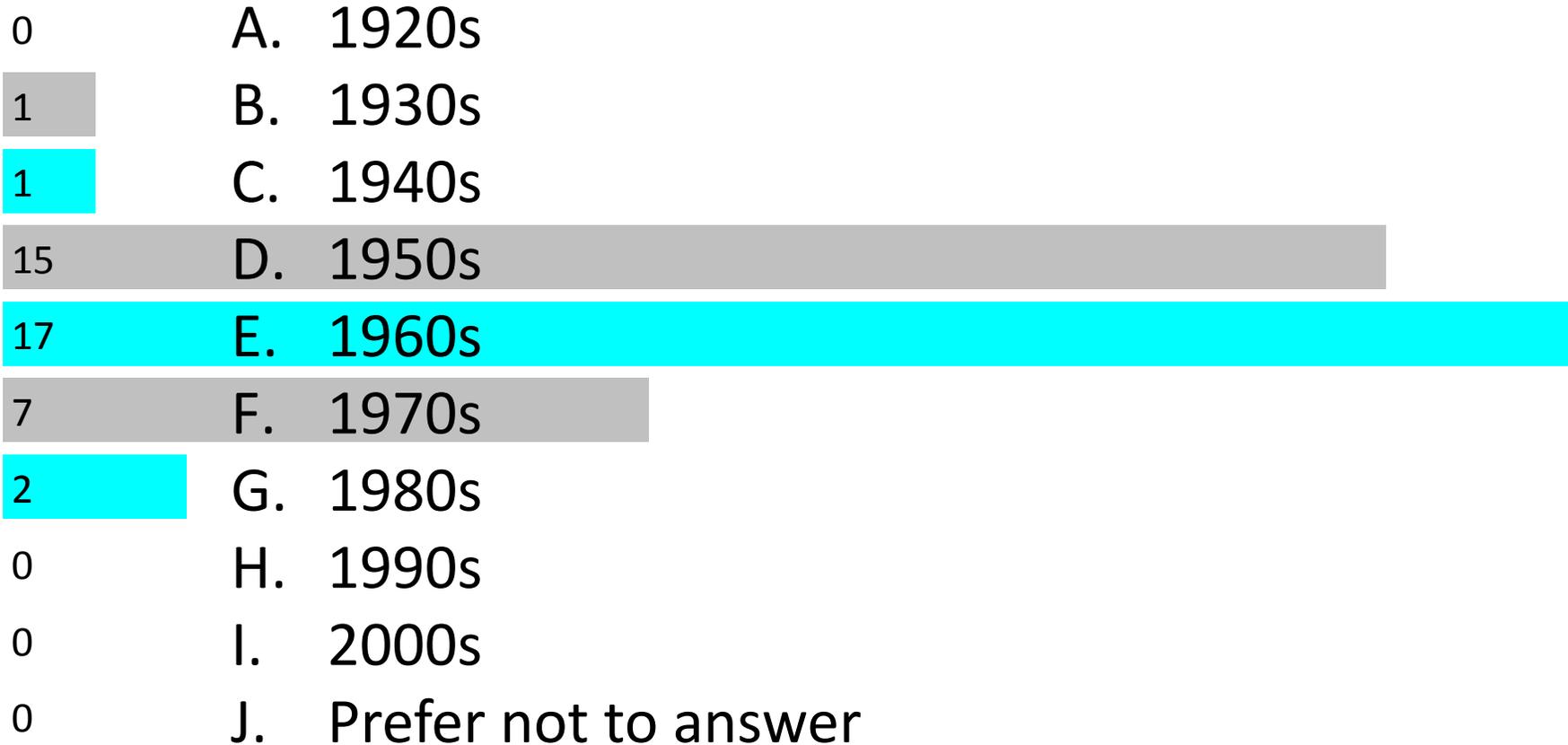
Where do you live?

20	A. Fort Collins
4	B. Loveland
2	C. Estes Park
0	D. Berthoud
2	E. Other town in Larimer County
2	F. Rural Larimer County
13	G. Outside Larimer County

Where do you primarily work?

- 21 A. Fort Collins
- 6 B. Loveland
- 3 C. Estes Park
- 0 D. Berthoud
- 1 E. Other town in Larimer County
- 3 F. Rural Larimer County
- 13 G. Outside Larimer County

What decade were you born?



How many years have you been involved with Solid Waste/Resource Recovery?

7 A. I am not professionally involved

3 B. Under a year

6 C. 1-5 years

9 D. 6-10 years

7 E. 11 to 20 years

11 F. More than 20

How long have you lived in Colorado?

1 A. Under a year

2 B. 1-5 years

1 C. 6-10 years

8 D. 11 to 20 years

26 E. More than 20

2 F. I don't live in Colorado

Quick Room Introductions

- 15 seconds max
- Your name, organization, and when you were growing up, what was the favorite Halloween costume you ever wore? (backup question: what is your favorite Halloween candy?)





Municipal Solid Waste (MSW)





Non MSW

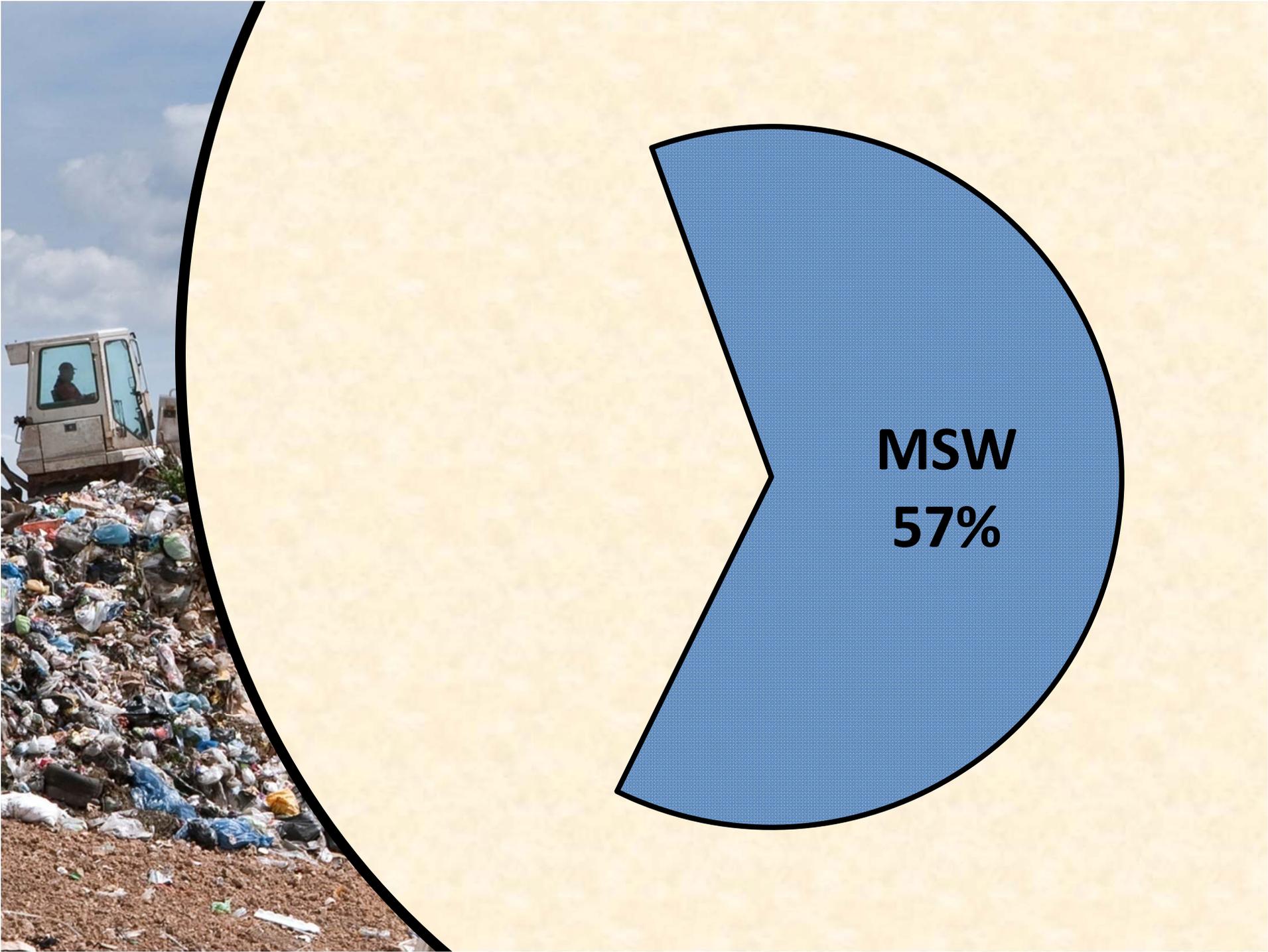




Non-MSW
43%

MSW
57%

© 2011 Peter Norby Photography



How much trash—MSW—do you think the average person in Larimer County generates every day?

4 A. 3 pounds per person per day

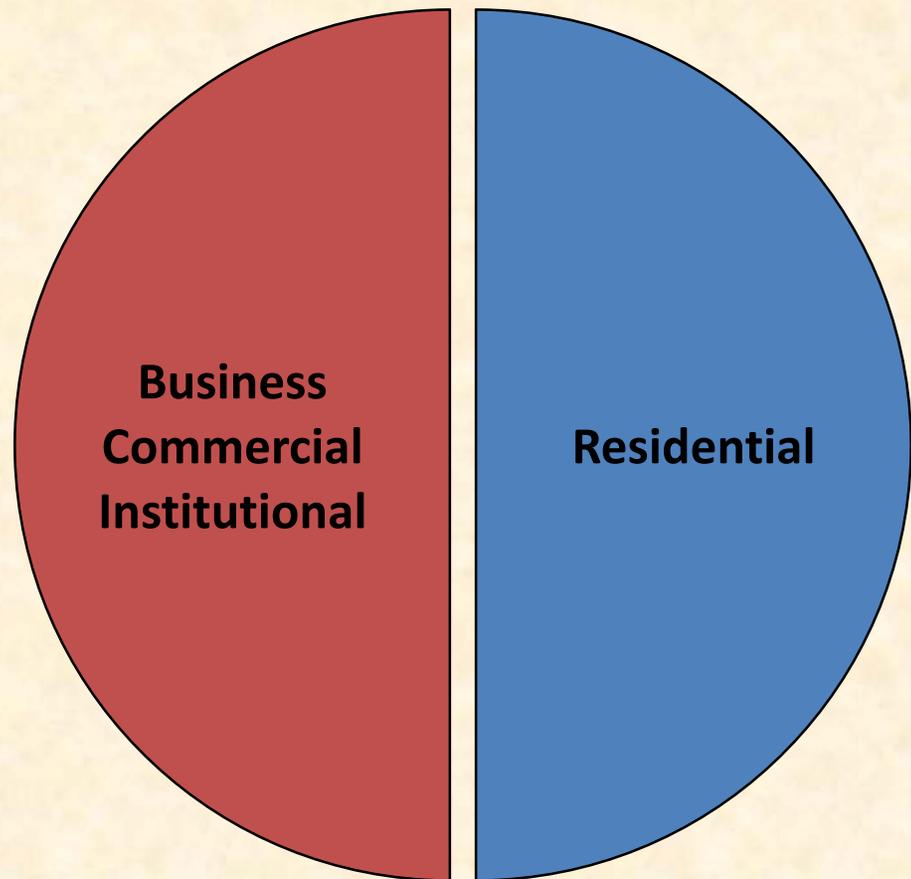
10 B. 5 lbs/person/day

19 C. 7 lbs/person/day

5 D. 9 lbs/person/day

Municipal solid waste generation

7 lbs/person/day



Municipal solid waste generation

7 lbs/person/day

2,500

lbs/person/year



2,500 lbs of compacted trash would fill a cube with each side measuring 5 feet

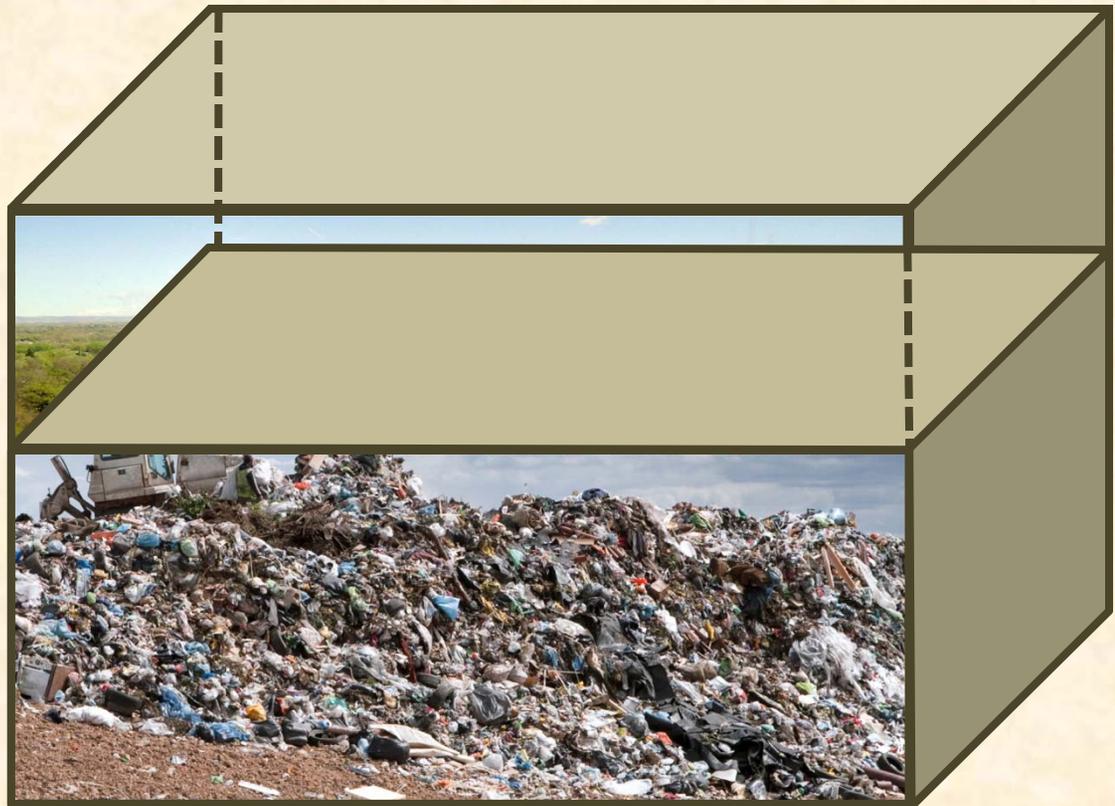
For Larimer County's 320,000 residents that would fill the Courthouse block to a depth of about 180 feet...!



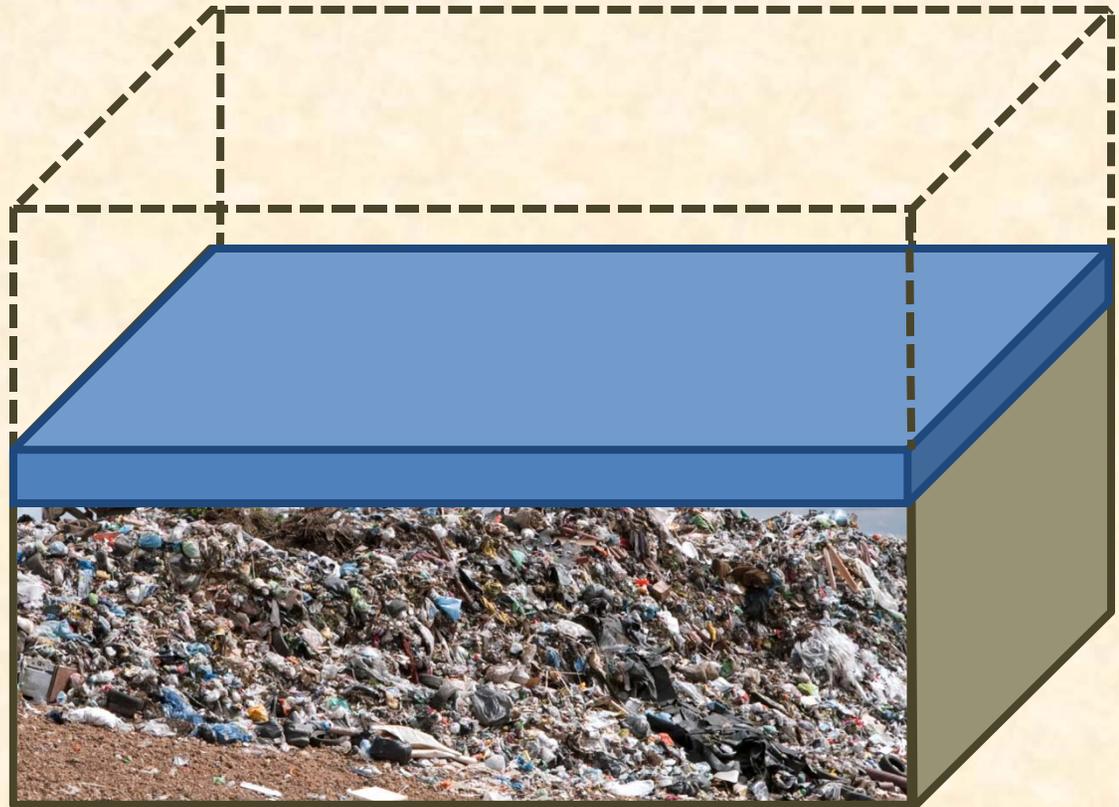
How much of the trash generated in Larimer County winds up at the County landfill?

- 1 A. Less than 50 percent
- 20 B. 51 to 70 percent
- 17 C. 71 to 90 percent
- 4 D. More than 90 percent

We estimate the County receives about 60 % of the municipal solid waste generated in Larimer County each year 40% goes to other landfills or is diverted

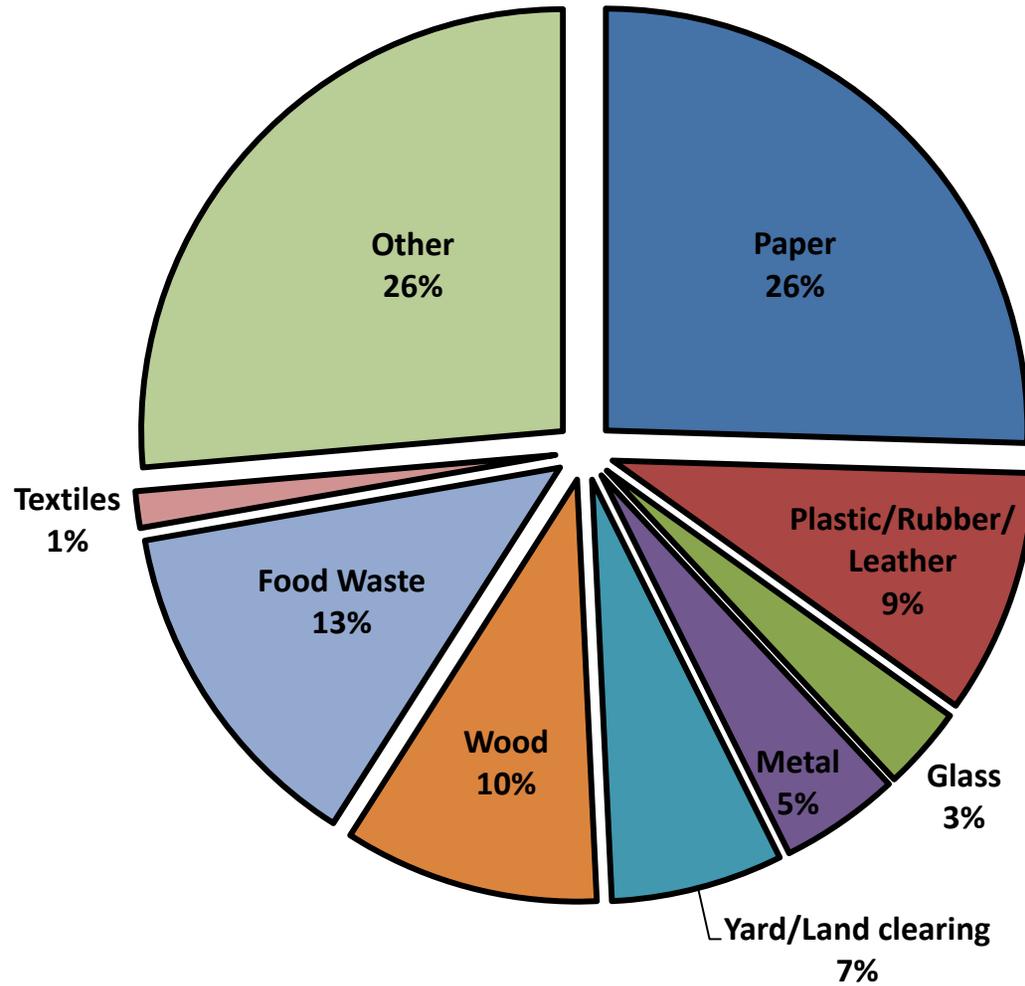


Of all the municipal solid waste brought to the County landfill about 40,000 tons/year or 15%—goes to the Recycling Center

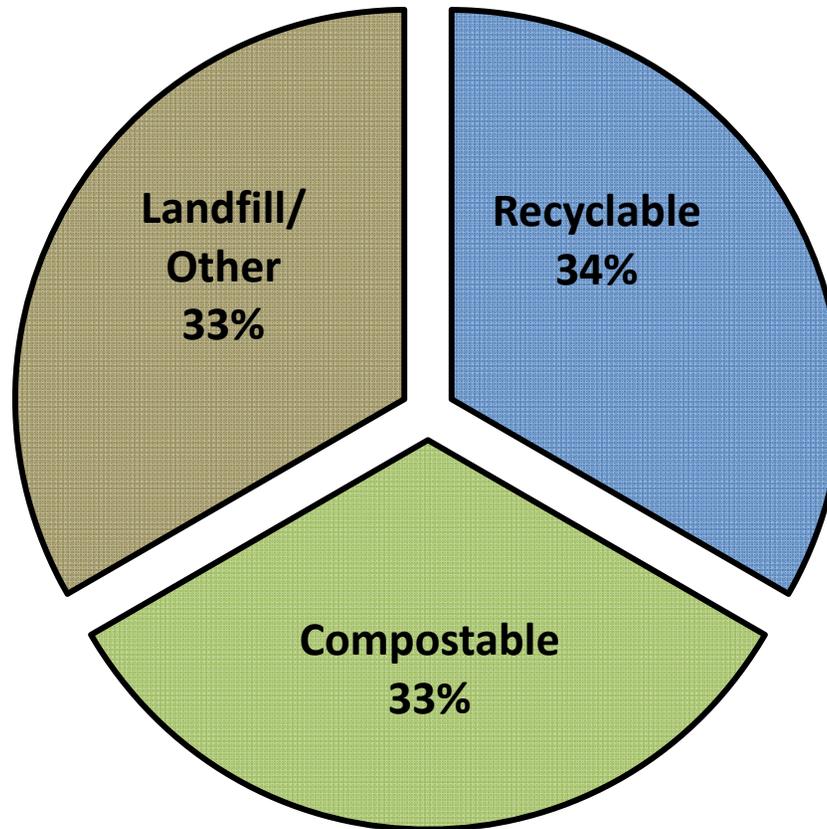


What's in our trash?

(2007)



What's in our trash?



What percentage of the waste stream—
including recyclables and organics—
currently end up in landfills?

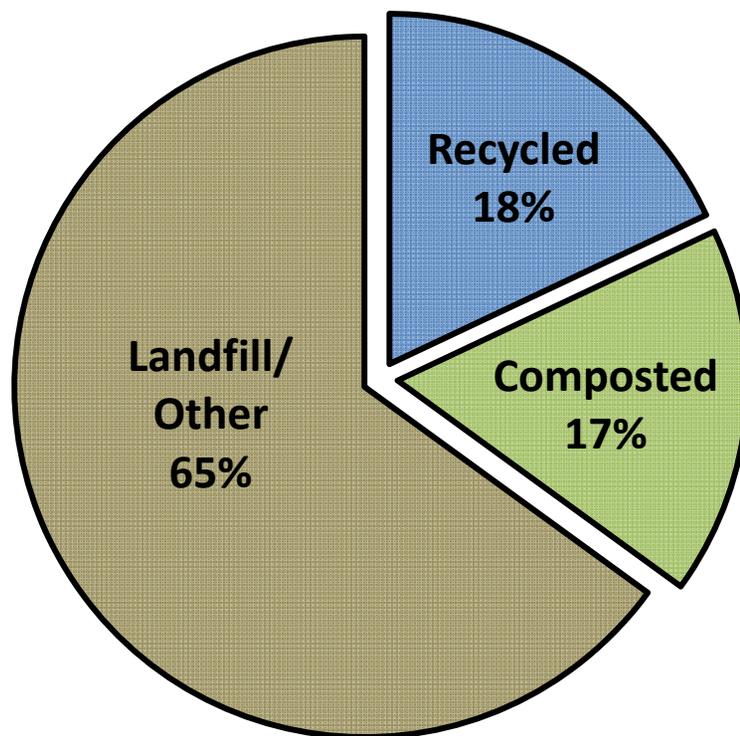
4 A. About 33%

17 B. About 50%

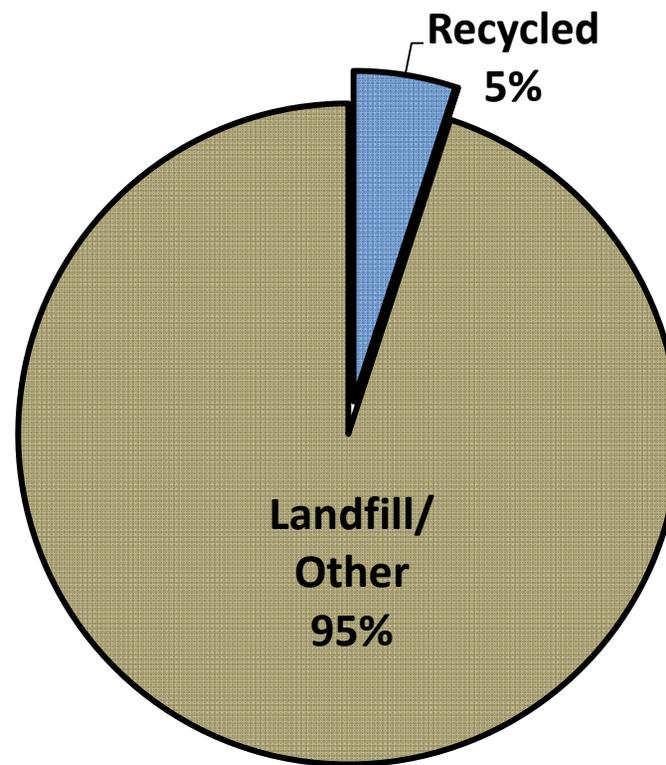
18 C. About 75%

2 D. More than 75%

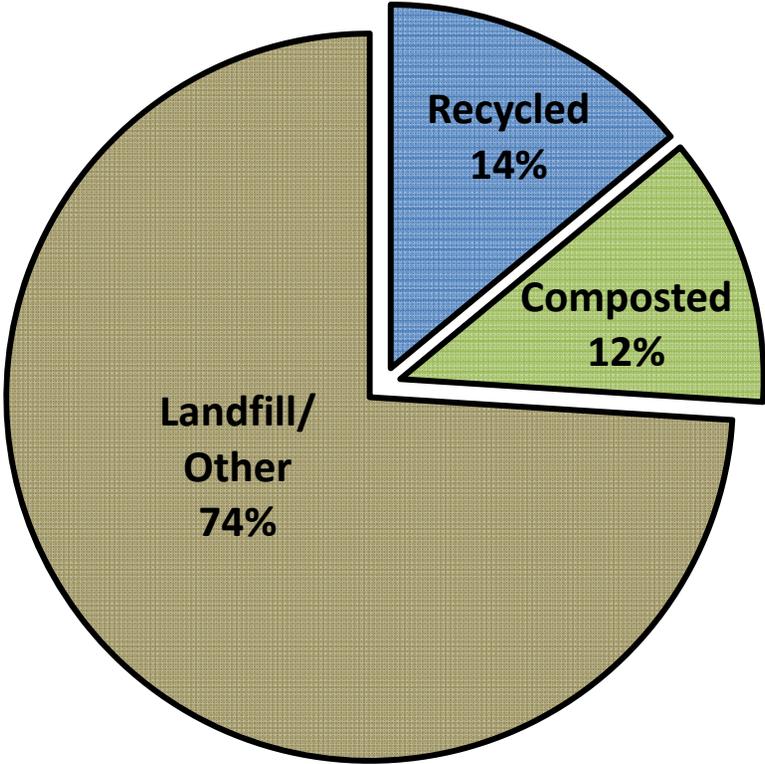
Fort Collins Loveland



Towns & Unincorporated

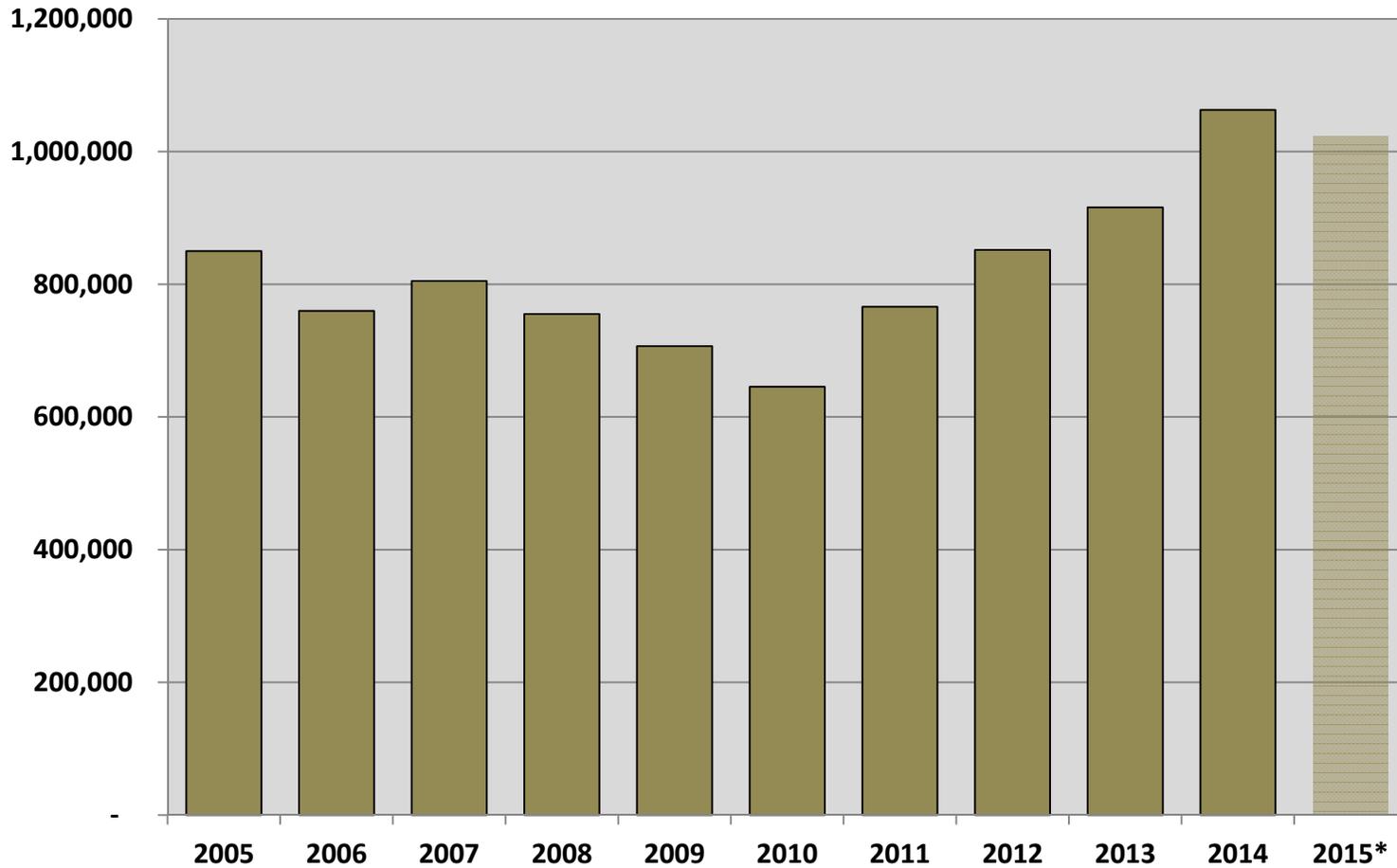


All of Larimer County



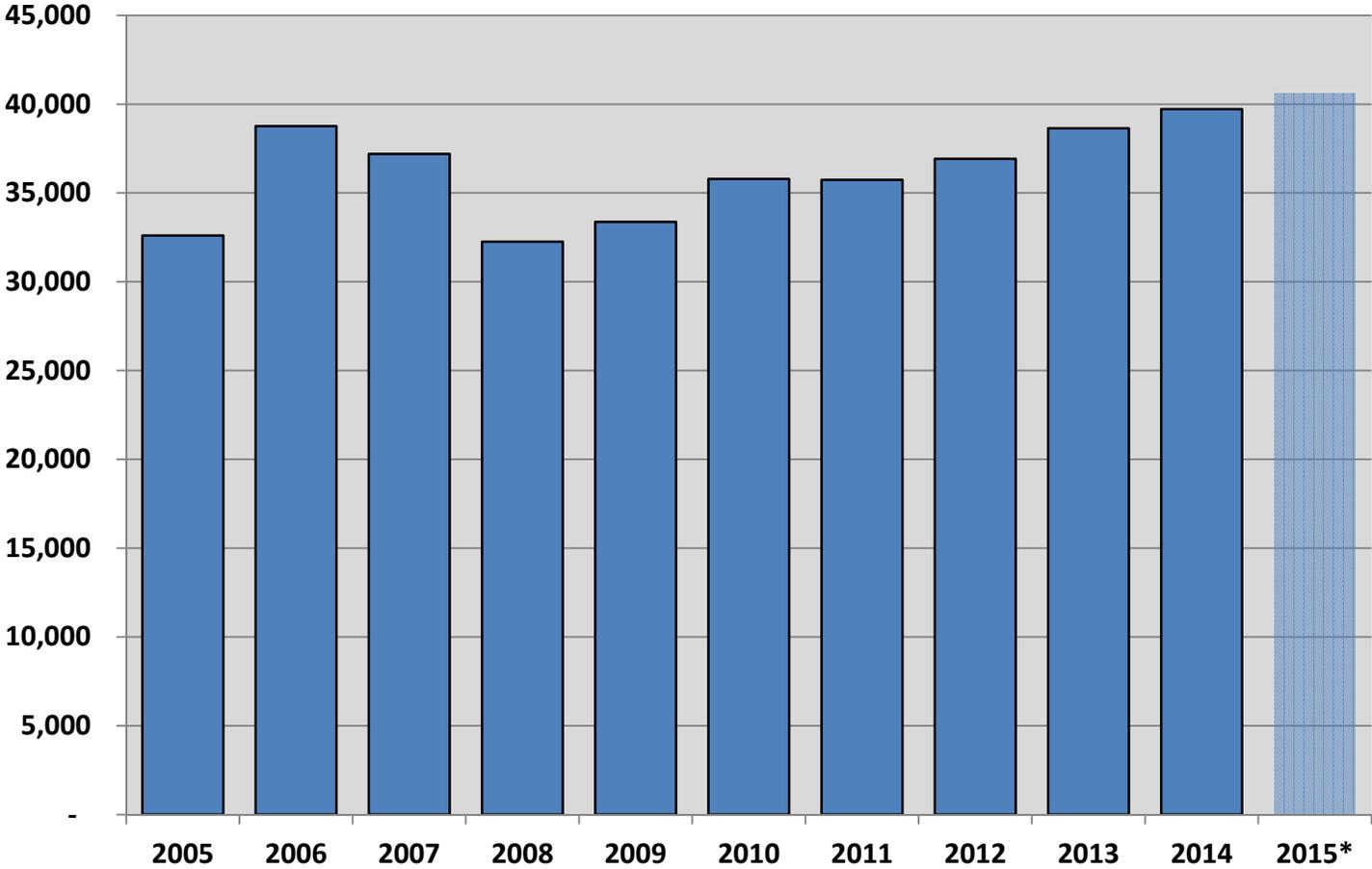
Landfill Volumes Have Increased

Landfill Volume (cubic yards)



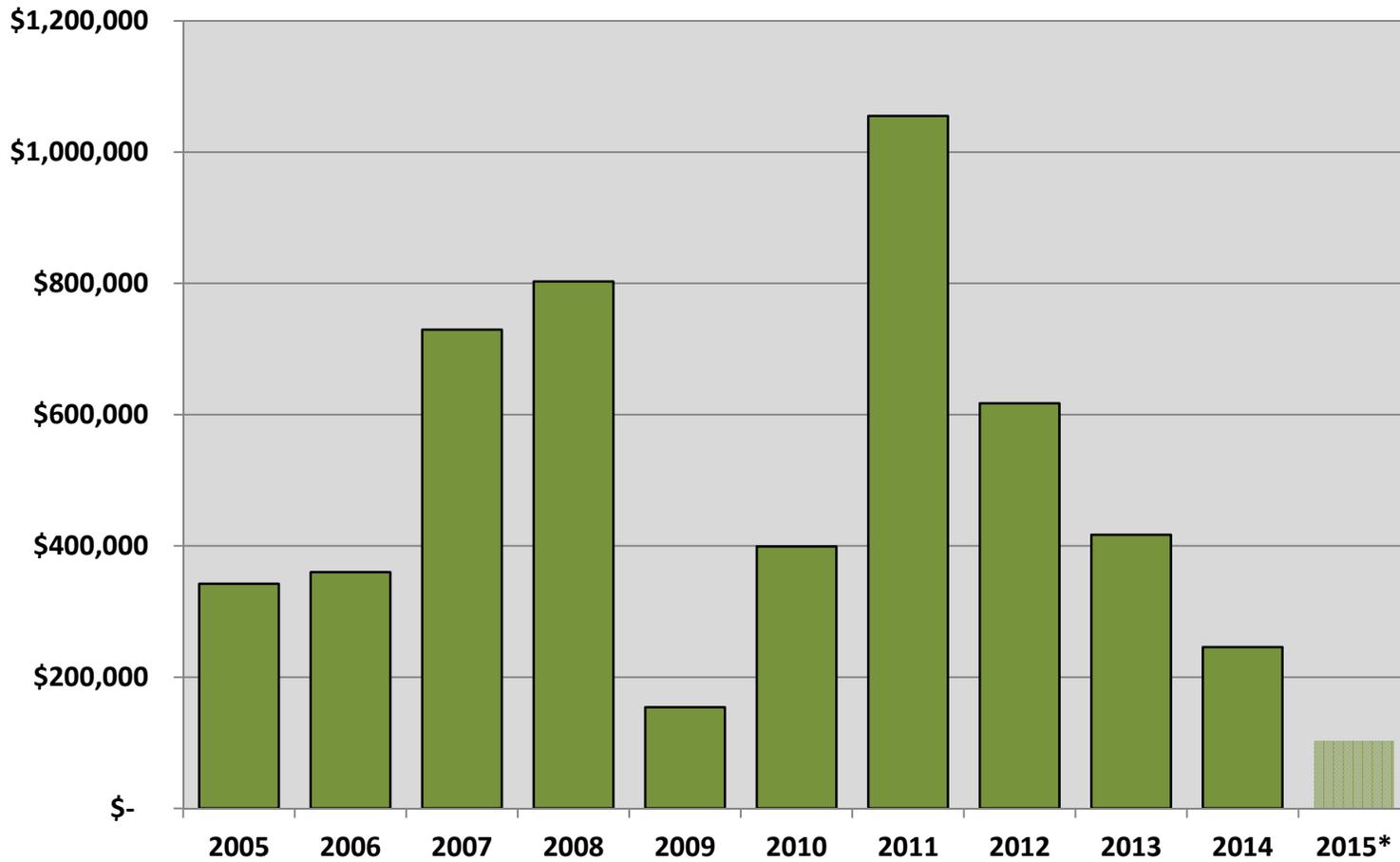
Recycling Volumes Are Increasing...

Recyclables (tons)

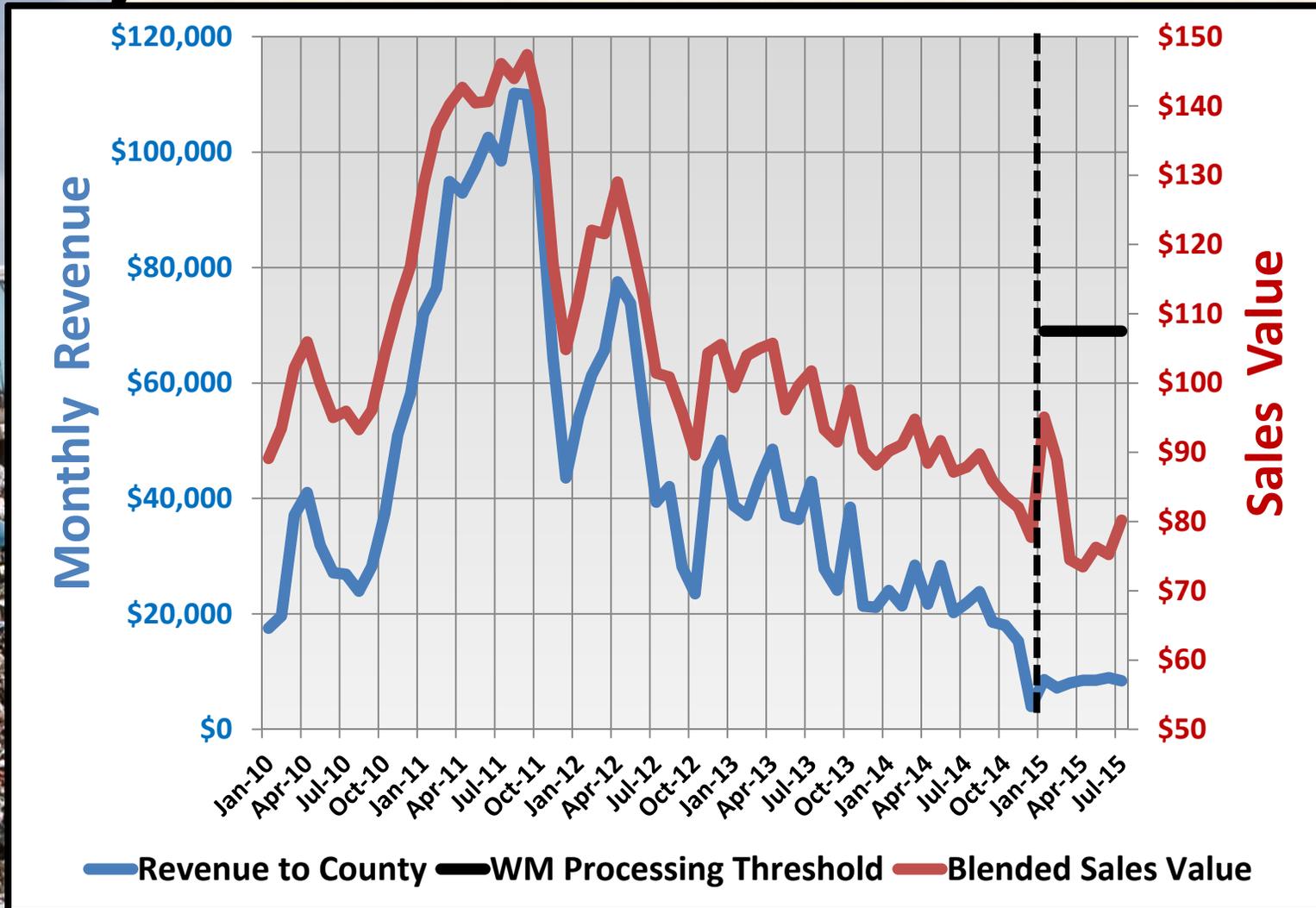


...But Revenues Are Not

Recycling Revenue



Prices for recyclables have dropped



Landfilling vs. Recycling Costs



Compacted - \$6.29/cubic yard
\$20.97/ton

Rubble - \$12.00/cubic yard
\$16.67/ton

Loose (self-haul) - \$5.46/cubic yard
\$39.71/ton



Single Stream - **\$28.91/ton**

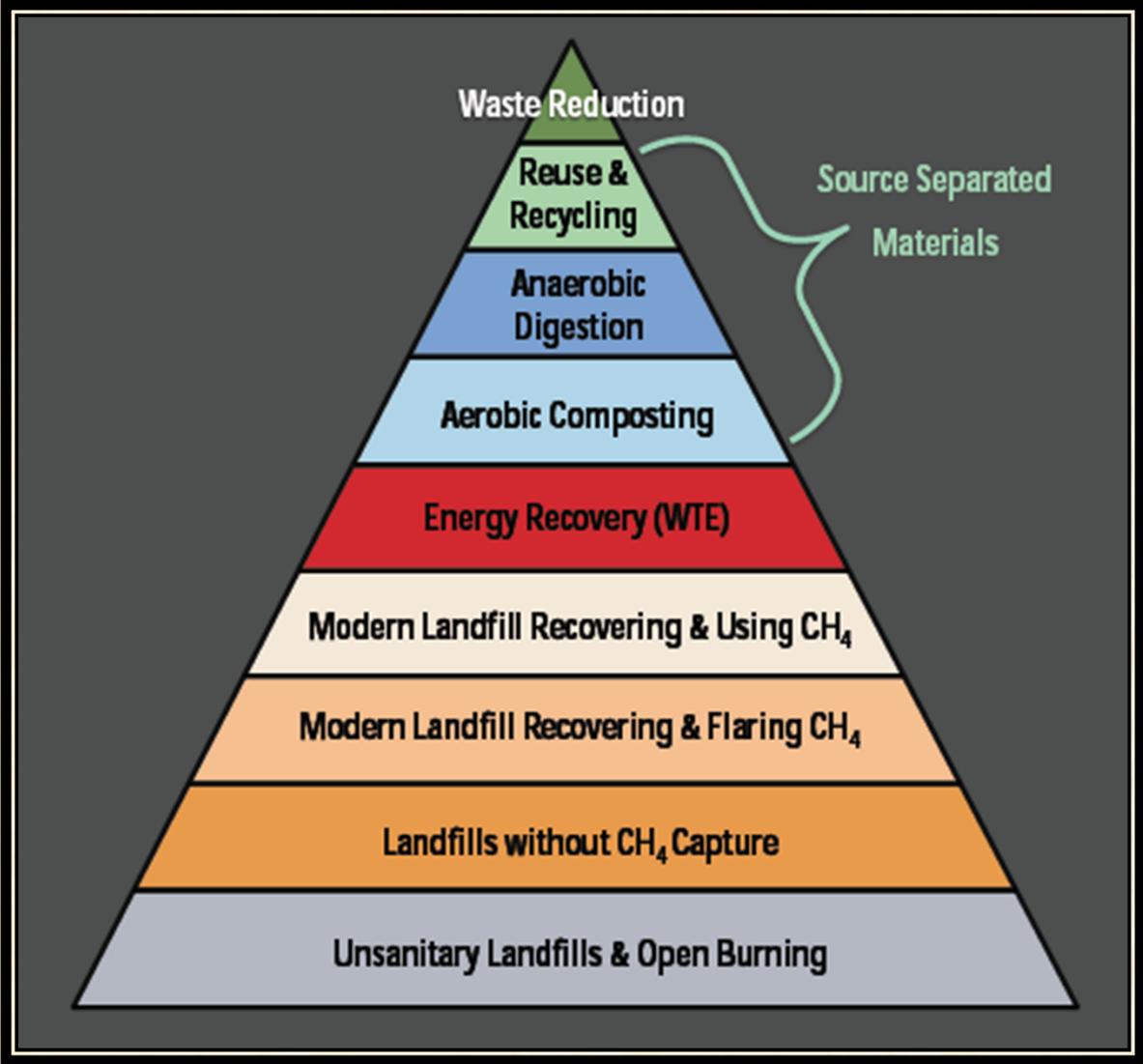
Source-separated materials such as paper, cardboard and containers receive a rebate based on current market prices for commodities

At the current rate of utilization, the
County landfill has a remaining life of...

10
YEARS



Future Considerations



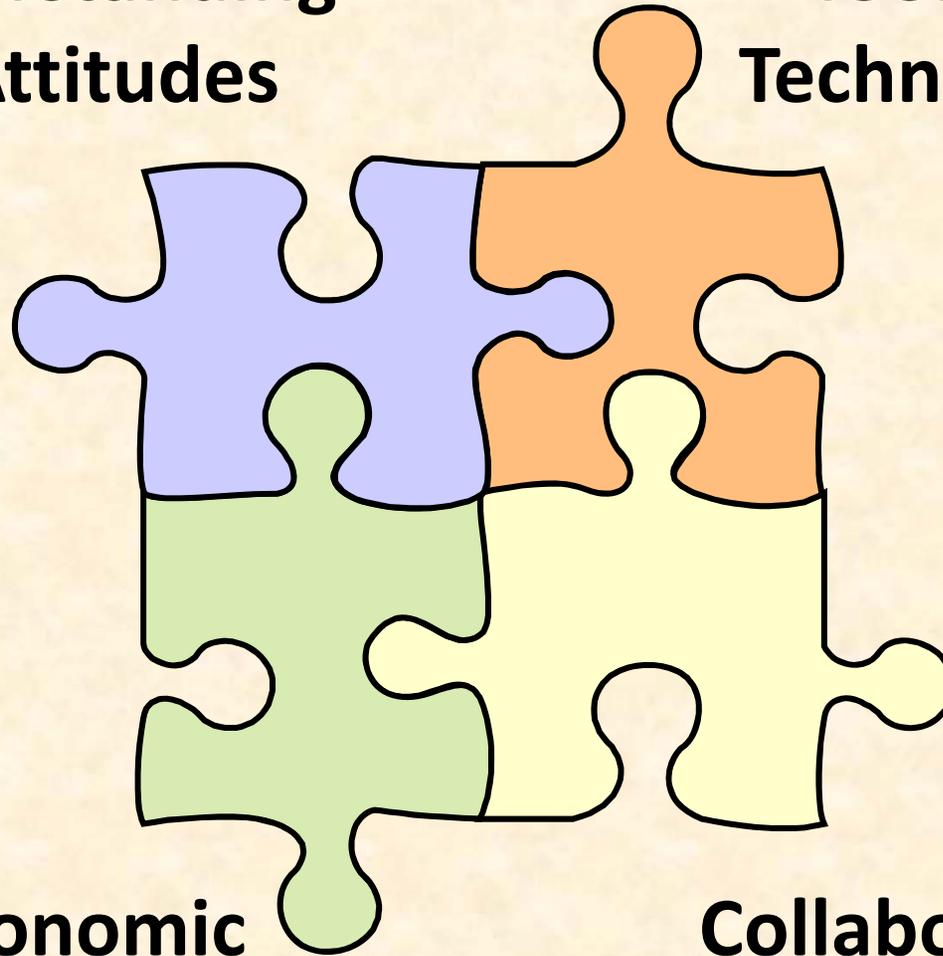
Hierarchy of Sustainable Waste Management developed by the EEC





**Understanding
& Attitudes**

**Tools &
Technology**



**Economic
Model**

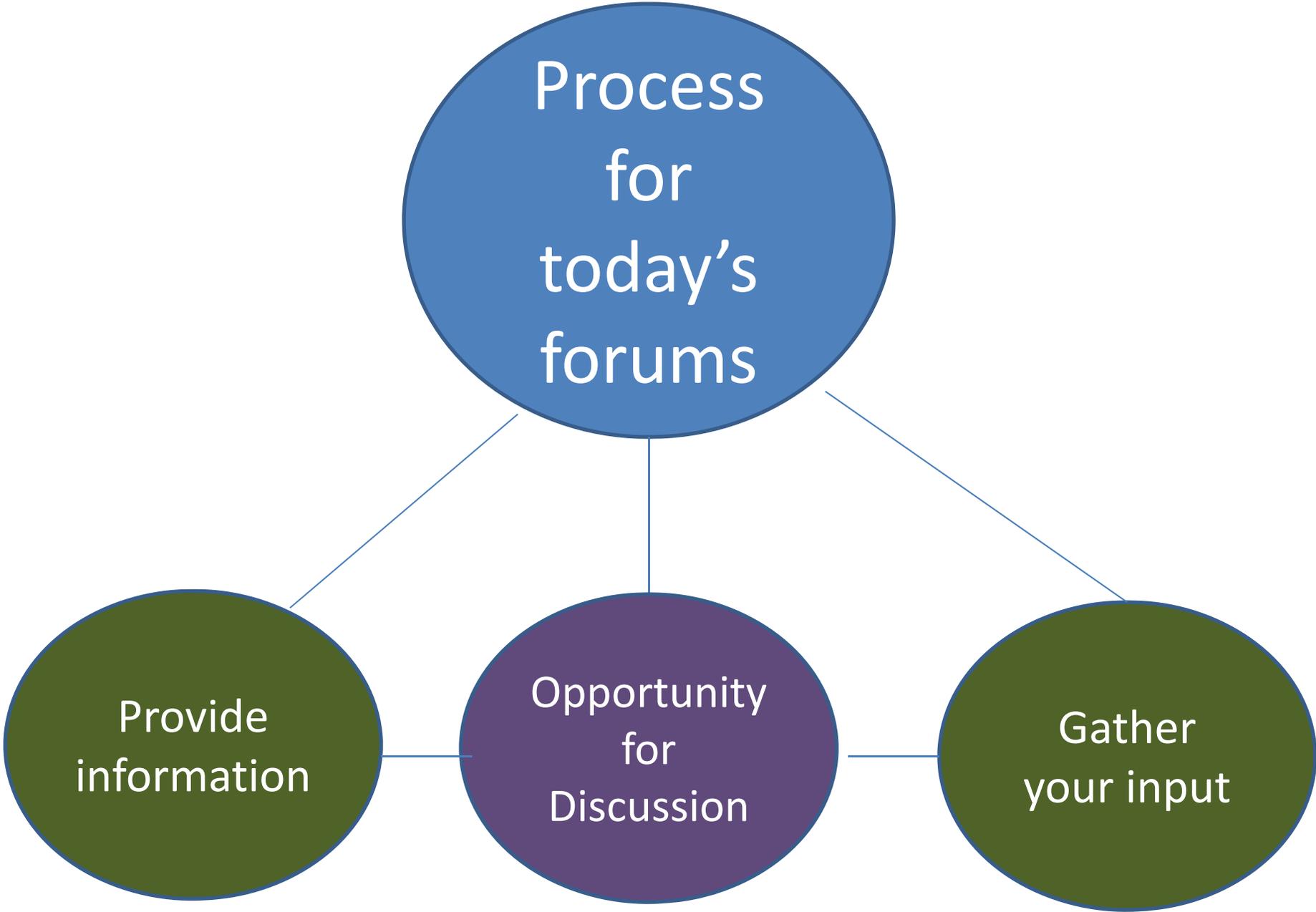
**Collaboration
& Partners**

Solid Waste Public Process



**October 2015—Focus Group
Cities/Towns, Industry, Business**





Ground Rules

- Speak honestly and respectfully
- Listen to understand
- Its okay to disagree, but do so with curiosity, not hostility
- Be brief and allow others to participate, no one should dominate

11:00 Discussion #1: What is working well right now?

11:25 Discussion #2: What concerns you about our current system? What's missing?

How would you rank the importance of these themes for “Whats working now?”

61 A. Commitment to collaboration/planning

40 B. Community attitudes/ethic of recycling

48 C. Landfill (functions well, one stop shop)

22 D. Strong education and outreach

31 E. Strong and engaged private sector

17 F. Good policies (single stream, no cardboard)

18 G. Recycling opportunities

6 H. Single family service / participation

How would you rank the importance of these themes for “What concerns do you have? What’s missing?”

- 35 A. Insufficient education
- 34 B. Limits of single stream
- 30 C. Limited composting options
- 29 D. Waste to energy
- 22 E. Inconsistencies between communities
- 35 F. Not enough focus on waste reeducation
- 31 G. Weak incentives for separation
- 16 H. Commercial sector not in pay as you throw system



Solid Waste

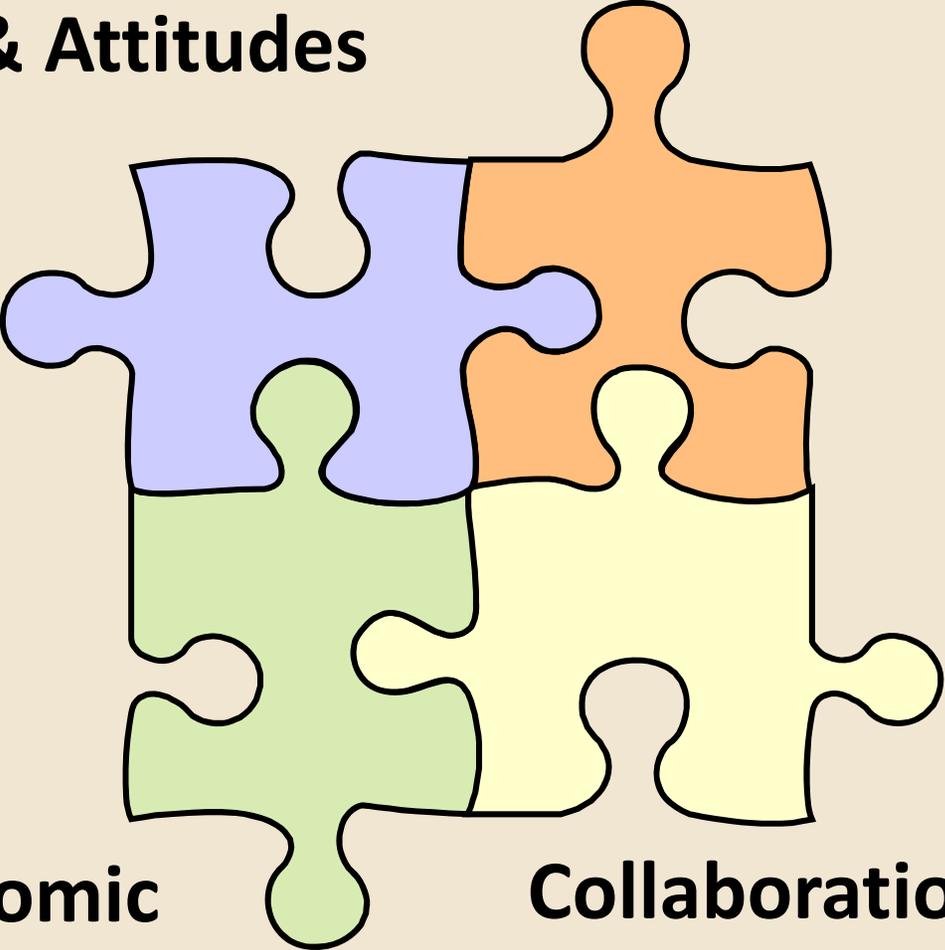
Future Vision

October 2015



**Understanding
& Attitudes**

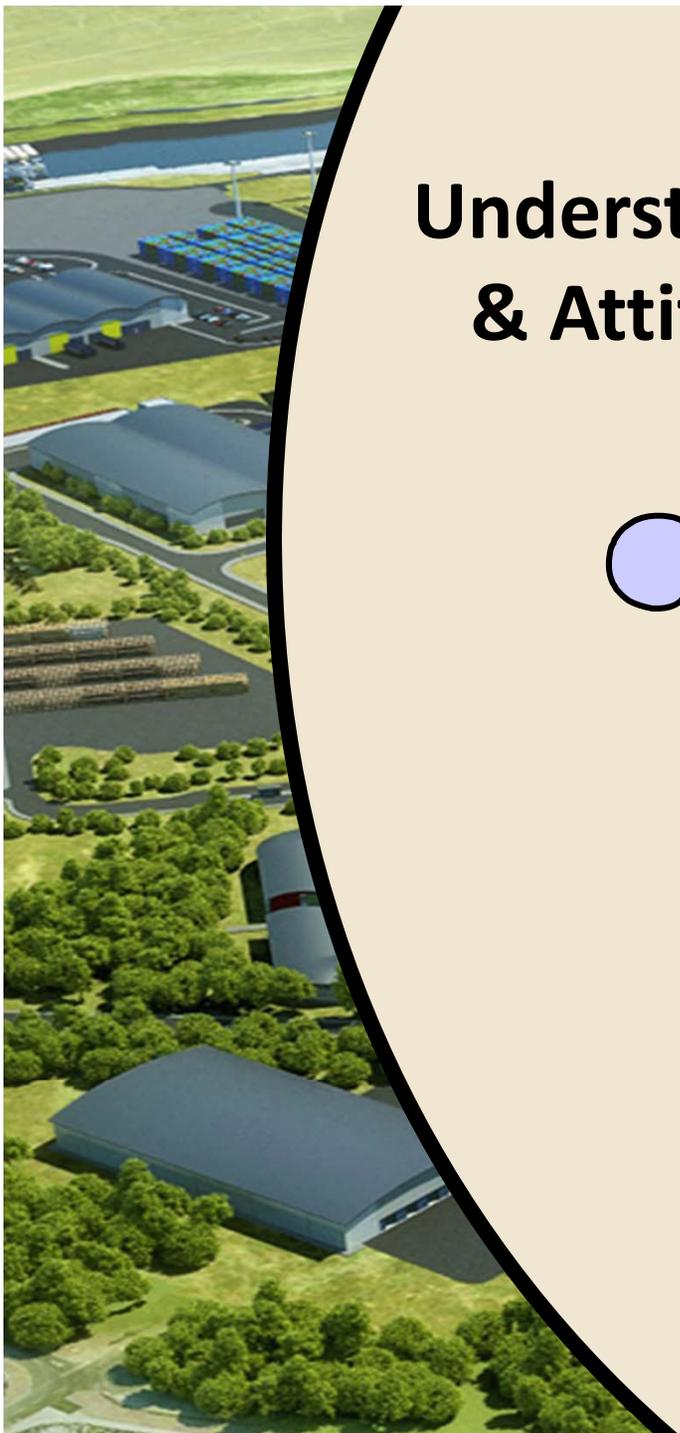
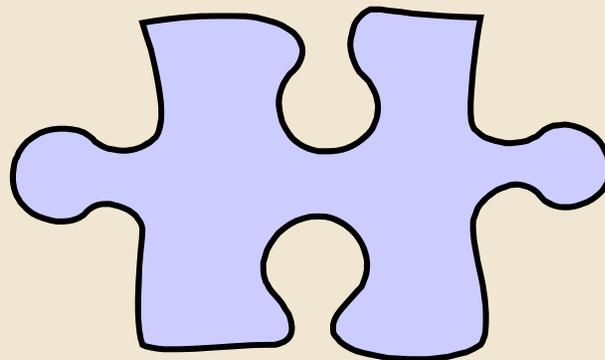
**Tools &
Technology**



**Economic
Model**

**Collaboration
& Partners**

Understanding & Attitudes





**Processing Cost
\$107 per ton**

**Market Value
\$1100 per ton**





**Market Value
\$1100 per ton**

Attitudes

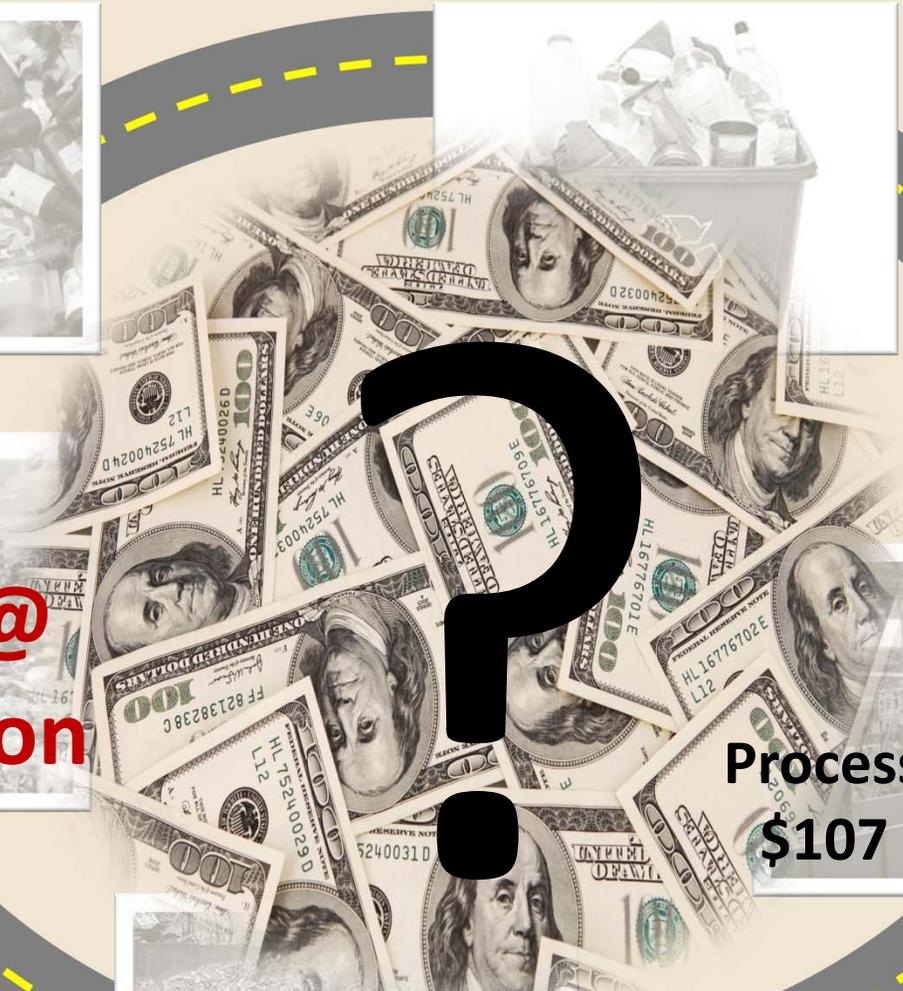


**Processing Cost
\$107 per ton**



**Post Processing
-\$8 per ton**





**Landfilled @
-\$115 per ton**



**Processing Cost
\$107 per ton**



**Post Processing
-\$8 per ton**

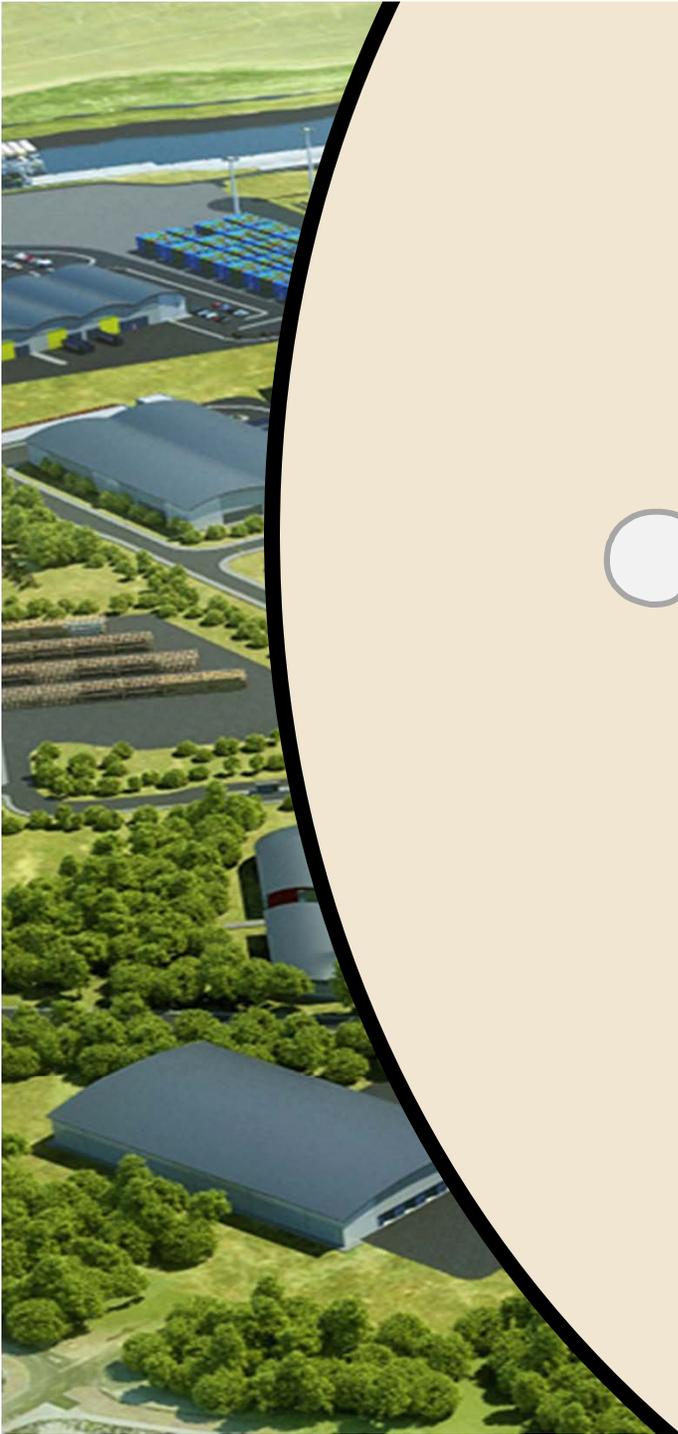
Understanding

Respond to this statement:
The public has a high level of
understanding/knowledge of solid waste
management issues

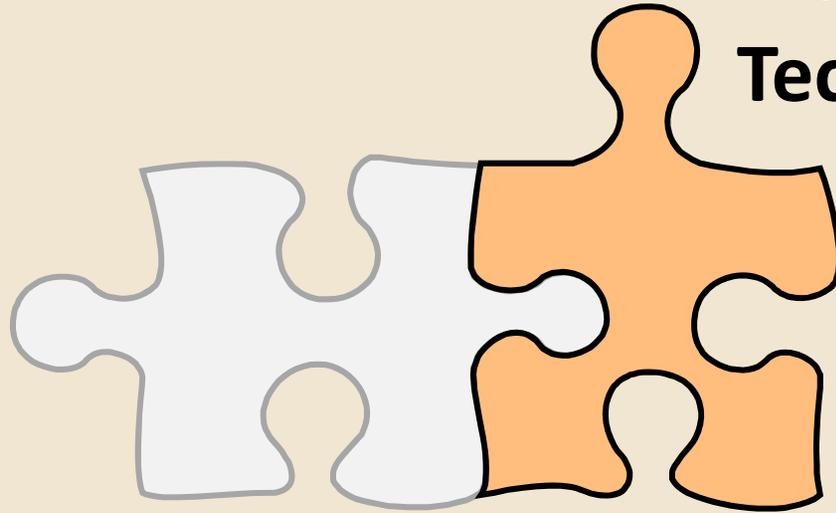
0	A. Strongly agree
2	B. Agree
2	C. Not sure
18	D. Disagree
13	E. Strongly Disagree

Respond to this statement:
The public has a high level of
interest/motivation regarding solid waste
management issues

- | | |
|----|----------------------|
| 2 | A. Strongly agree |
| 15 | B. Agree |
| 7 | C. Not sure |
| 7 | D. Disagree |
| 3 | E. Strongly Disagree |



Tools & Technology





Source Separation

**Material
Recovery**



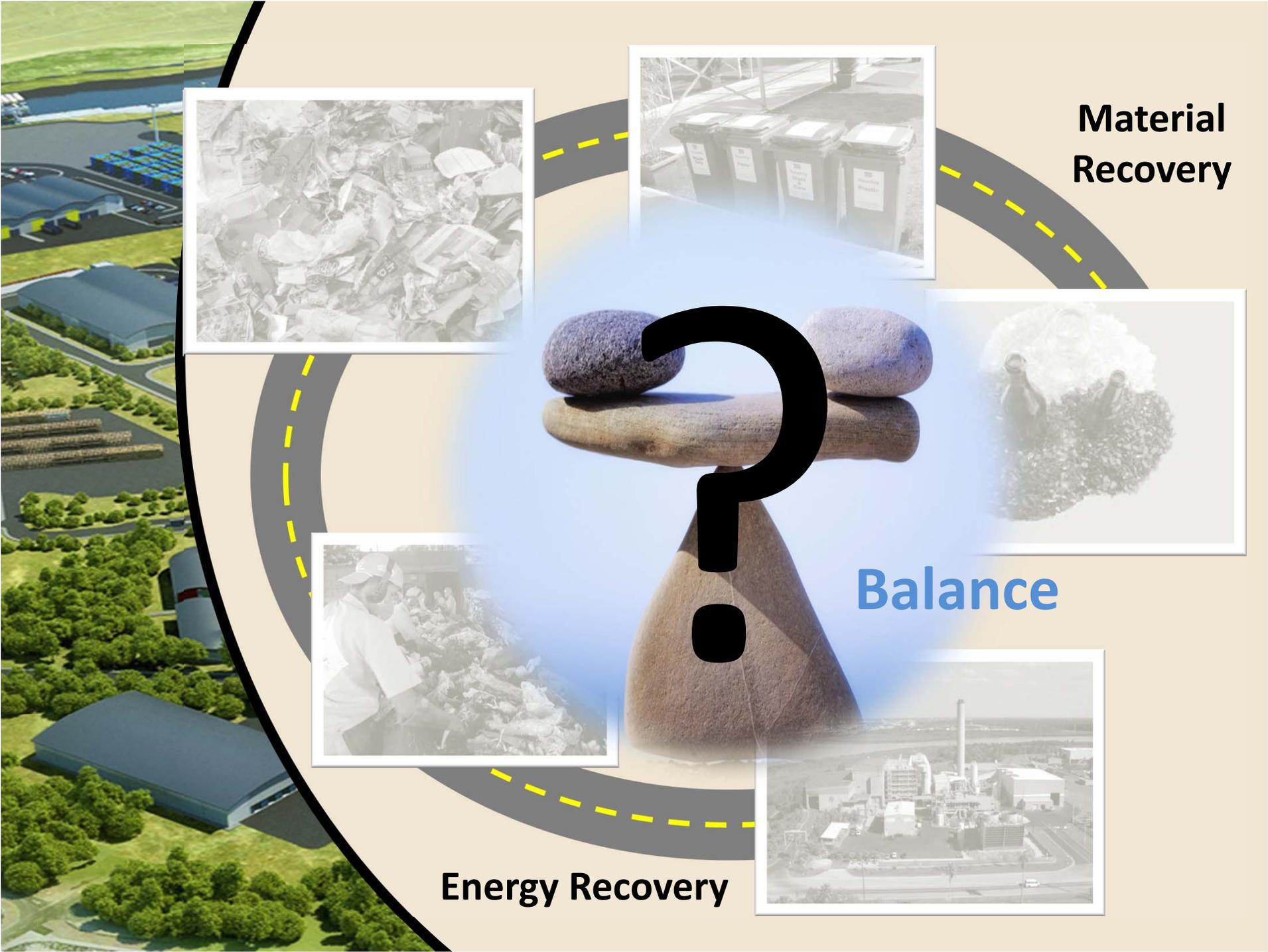


Dirty Materials Recovery Facility (MRF)



Energy Recovery





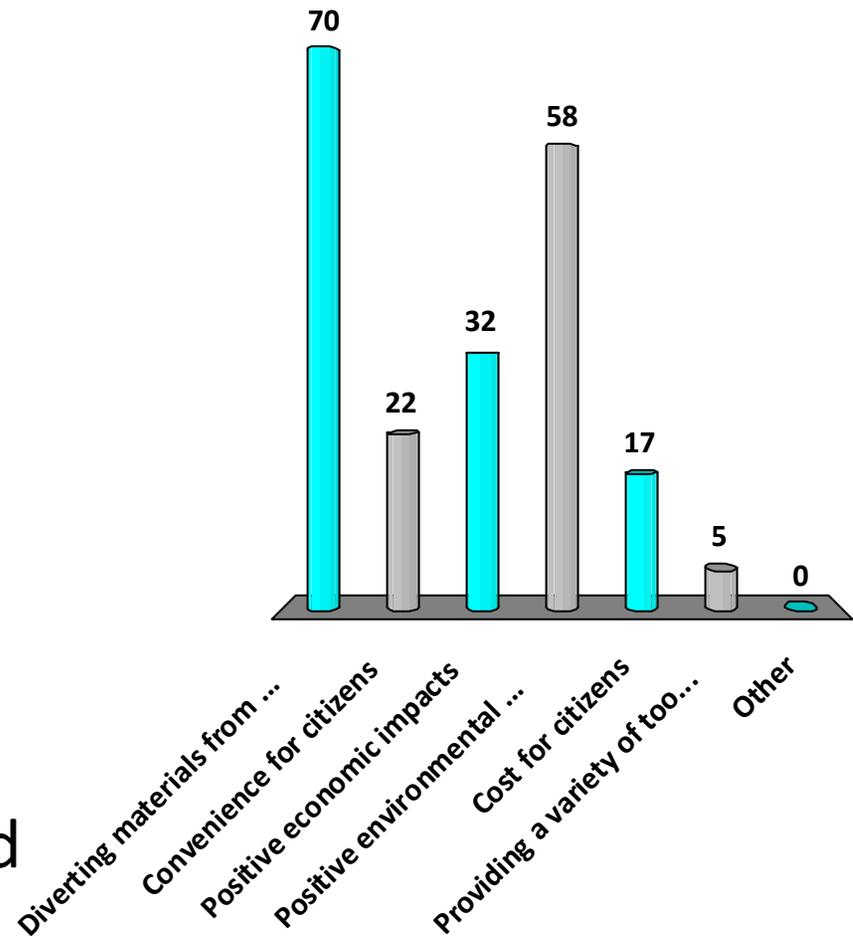
**Material
Recovery**

Balance

Energy Recovery

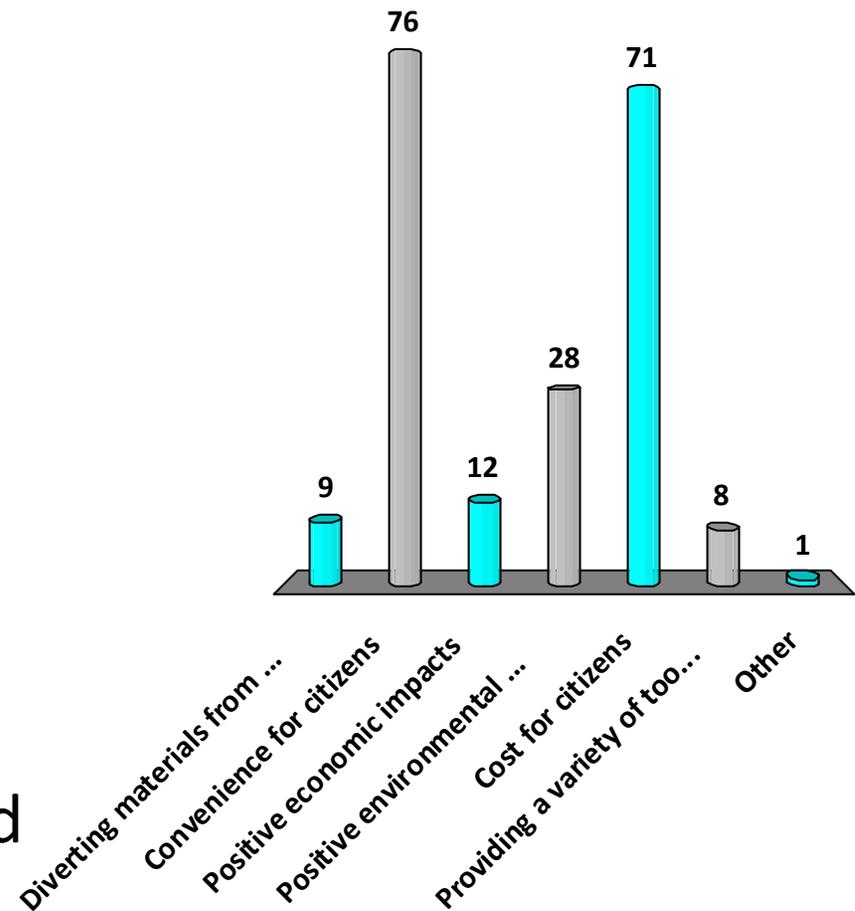
For you, what are the most important factors in considering tools/technologies for waste management? (pick top 3 in order)

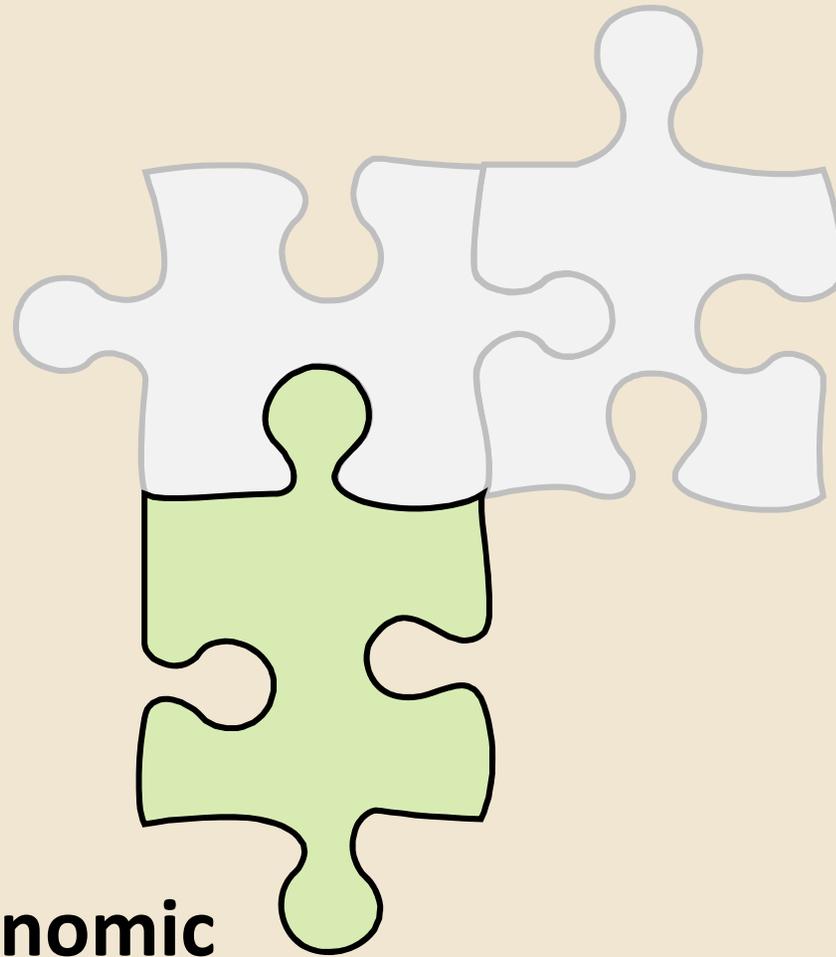
- A. Diverting materials from the landfill for their “highest and best” use
- B. Convenience for citizens
- C. Positive economic impacts
- D. Positive environmental impacts
- E. Cost for citizens
- F. Providing a variety of tools/technologies that people can choose from based on their own priorities
- G. Other



In your opinion, how do you think the general public would rank these factors in considering tools/ technologies for waste management? (top 3 in order)

- A. Diverting materials from the landfill for their “highest and best” use
- B. Convenience for citizens
- C. Positive economic impacts
- D. Positive environmental impacts
- E. Cost for citizens
- F. Providing a variety of tools/technologies that people can choose from based on their own priorities
- G. Other





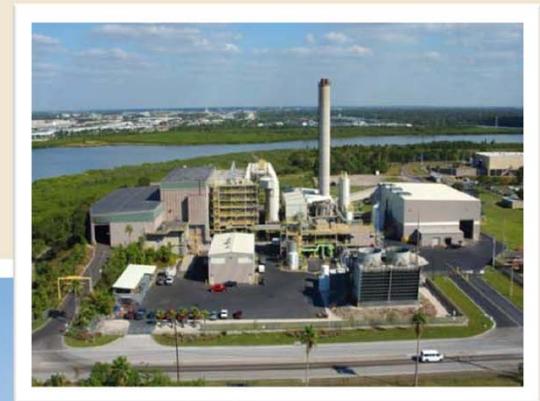
**Economic
Model**



\$30-50
per ton



\$60-100
per ton

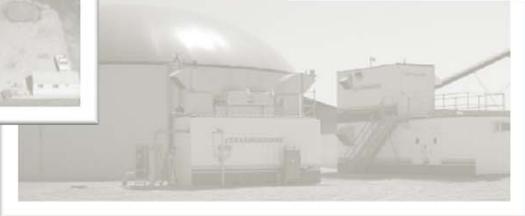
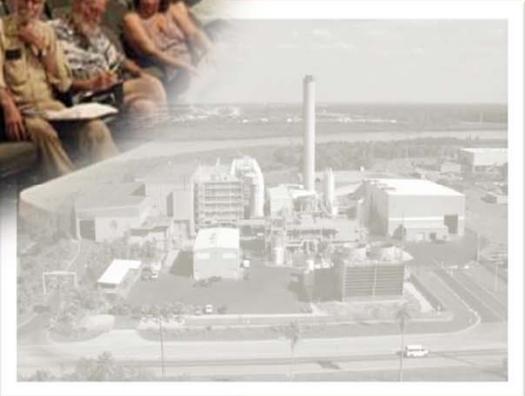


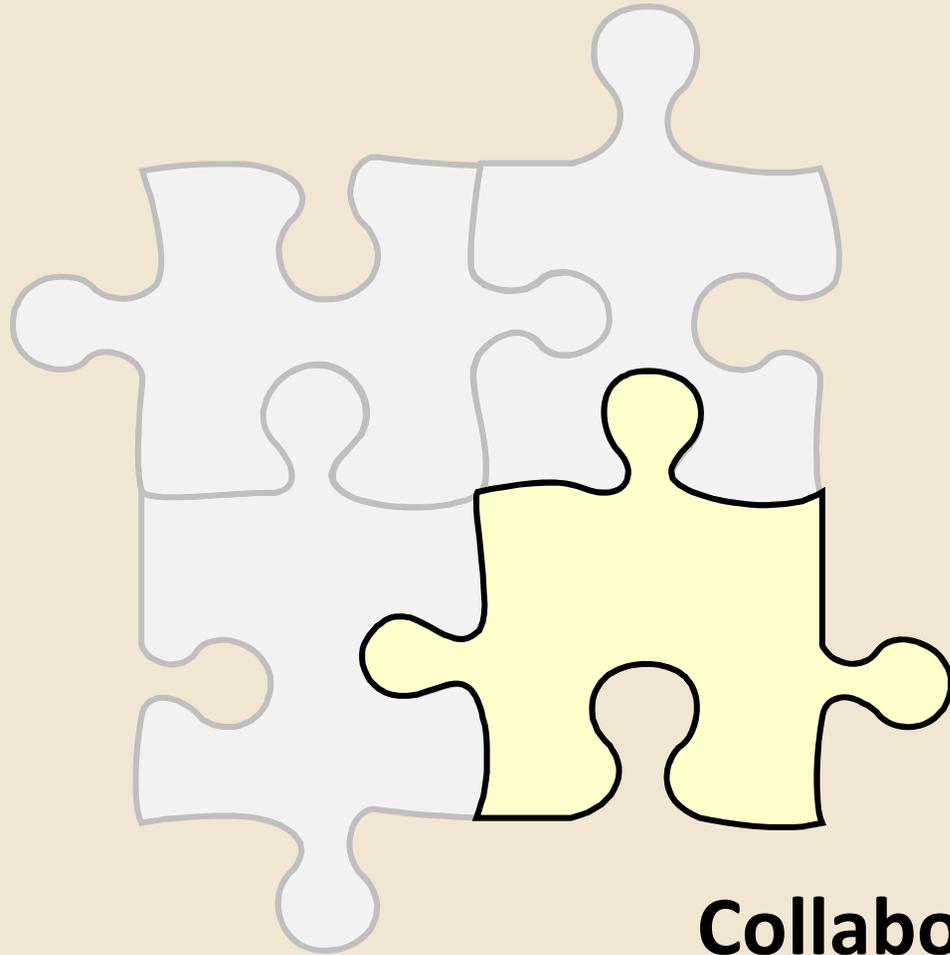
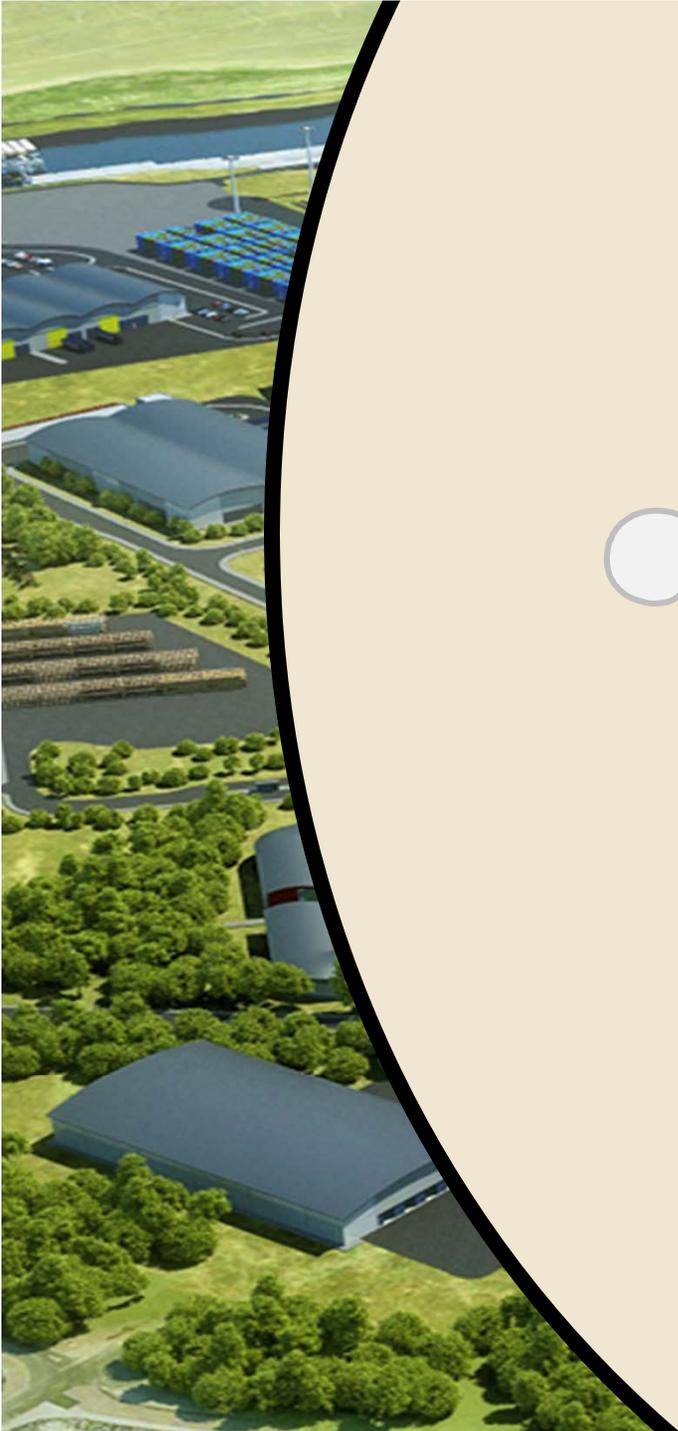
Political & Legal Issues

\$30-50
per ton

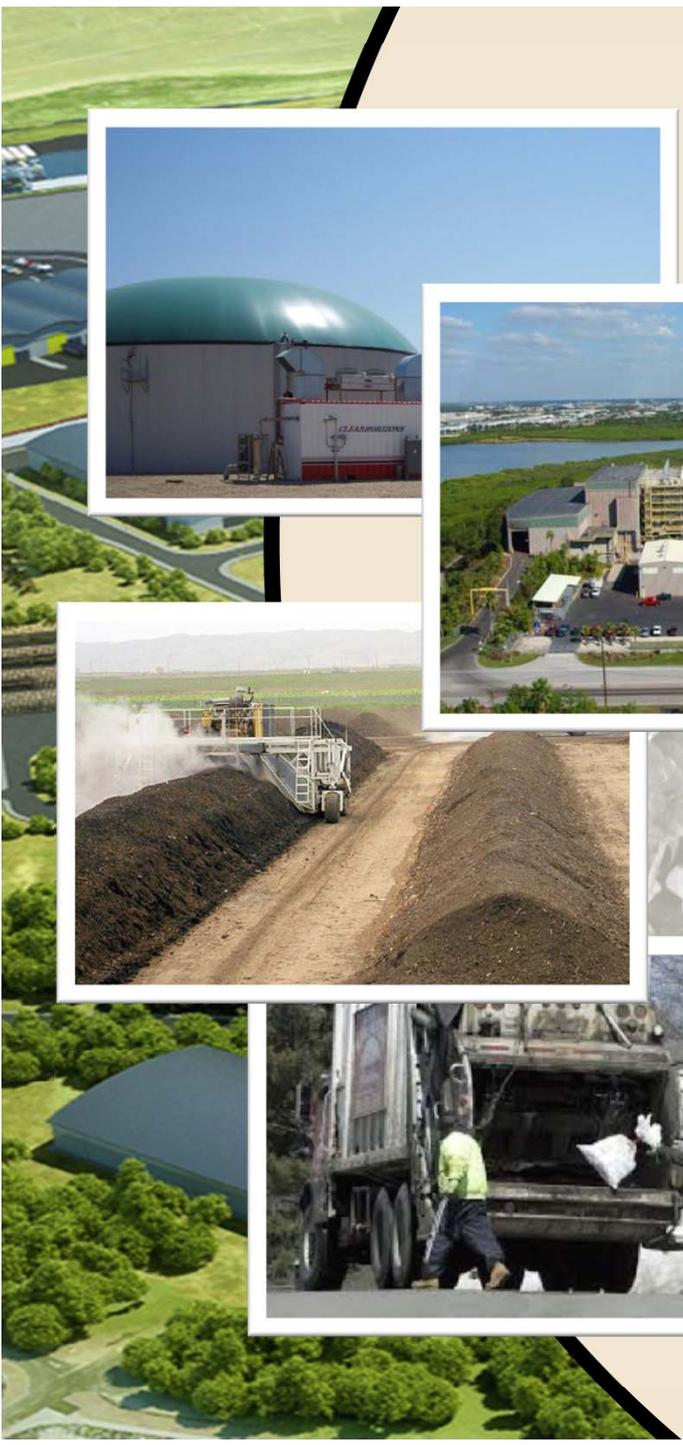
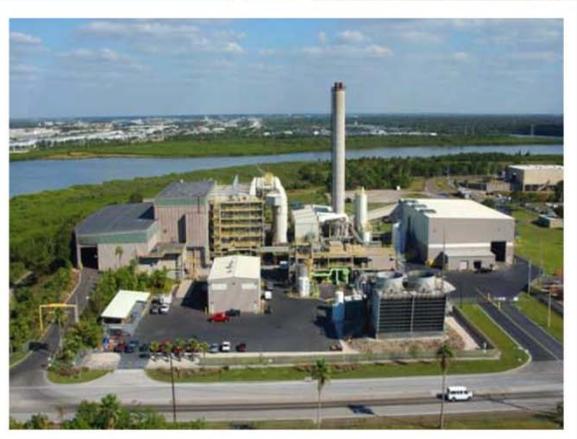


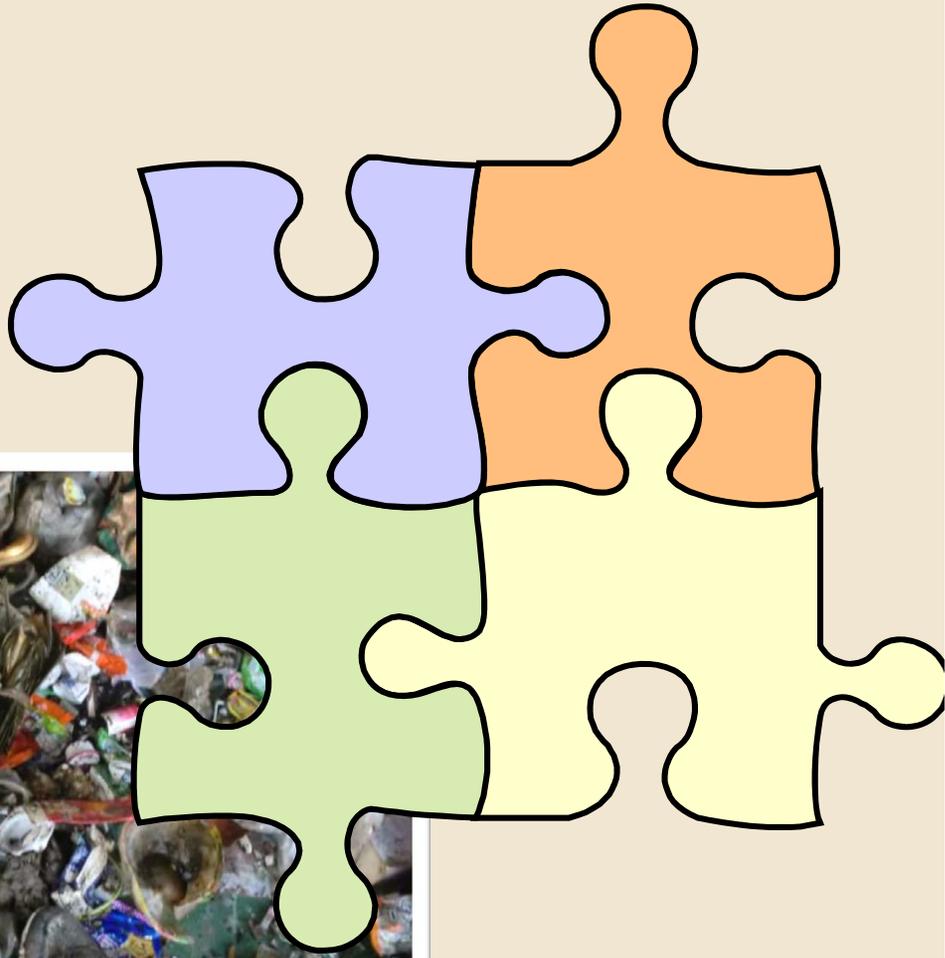
\$60-100
per ton





**Collaboration
& Partners**





Which of the four major challenges are most important for us to talk about today? (top 3 in order)

51 A. Public attitudes and understanding

47 B. Tools and technologies

54 C. Economic model

45 D. Collaboration and partnerships

Which ideas do you like? (choose all that apply)

- 23 A. Increase alignment between markets and public
- 23 B. Collaboration and financial strategies must stay together
- 22 C. Collaboration critical throughout the process/ to end mkt
- 21 D. Need for regional cooperation, consistency
- 18 E. Need for tying the consumption and disposal sides together
- 22 F. Recovery Park with private sector running different parts
- 23 G. Need an innovative method to educate across ed levels, age, \$
- 9 H. Easier accessibility to new technologies (and their parts)
- 21 I. Education is critical, expand efforts, get beyond cost focus
- 12 J. Need more details on the technologies and tools

How would you prioritize our most important next steps? (top 3 in order)

- 20 A. Formalize the collaboration
- 32 B. Focus on the decision on the landfill (public v. private)
- 26 C. Look at the waste diversion campus model (MRFs)
- 28 D. Develop a task force to further develop the ideas (multi-sector)
- 13 E. Look at smaller scale demonstration projects with triple helix
- 29 F. Develop solid waste and recycling district and/or authority
- 31 G. Regional Education campaign – funded, consistent, updated
- 2 H. Maximize social media/communication/surveys
- 12 I. Keep this group engaged and connected