

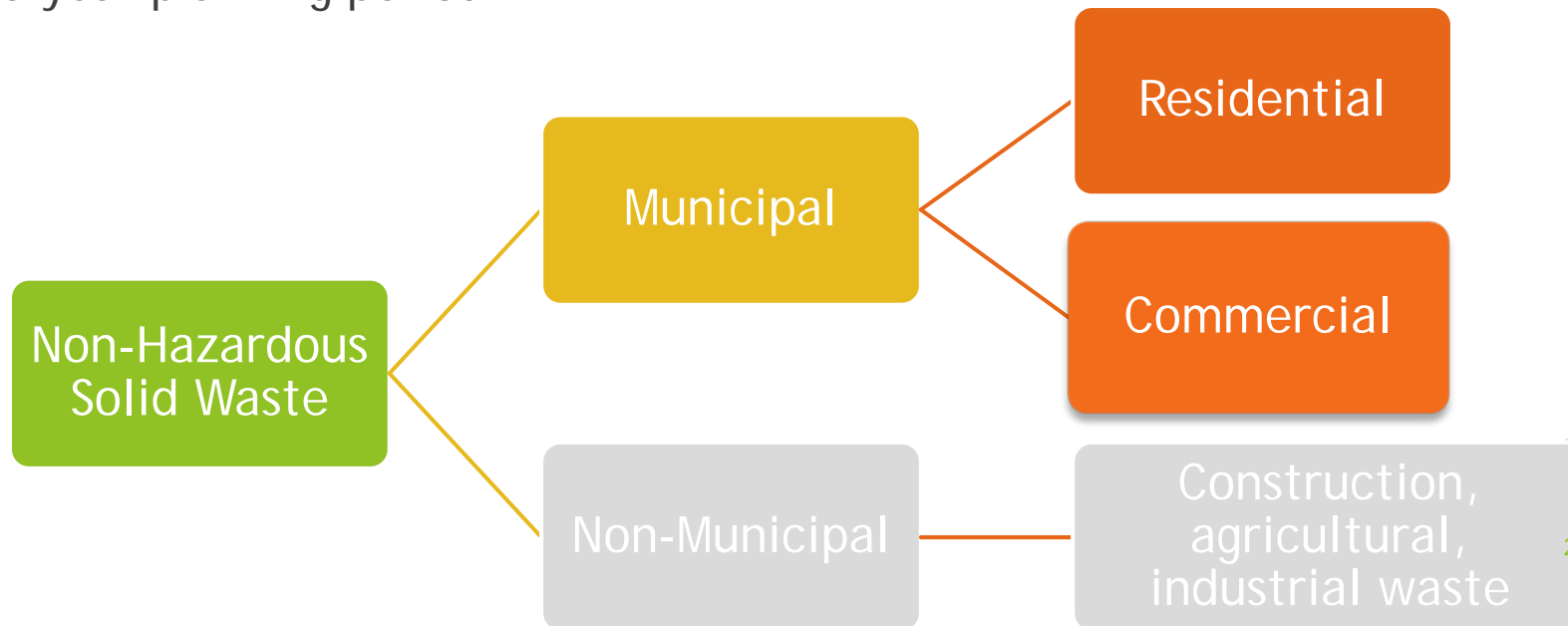


## GRAND COUNTY WASTE DIVERSION STUDY

October 2016

# Study Background

- ▶ Funded by RREO Grant with county-wide focus
- ▶ Goals
  - ▶ *Increase service options*
  - ▶ *Increase waste diversion*
  - ▶ *Operate cost-neutral programs*
- ▶ Leadership from Waste Diversion Task Force
- ▶ 10-year planning period



# Study Components

On-Line  
Survey  
(March/  
April)

Pre-Study Public  
Meetings  
(March)

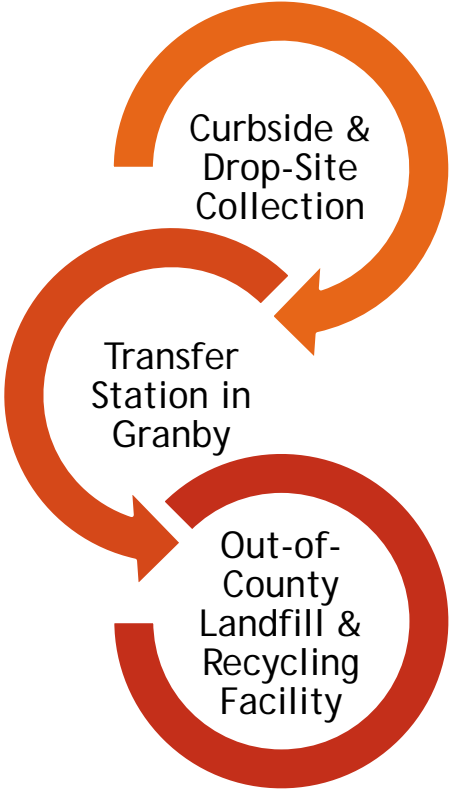
Trash &  
Recyclable  
Audits  
(May)

Research  
Improvements  
(June-Sept)

Public Input on Final  
Recommendations  
(October)

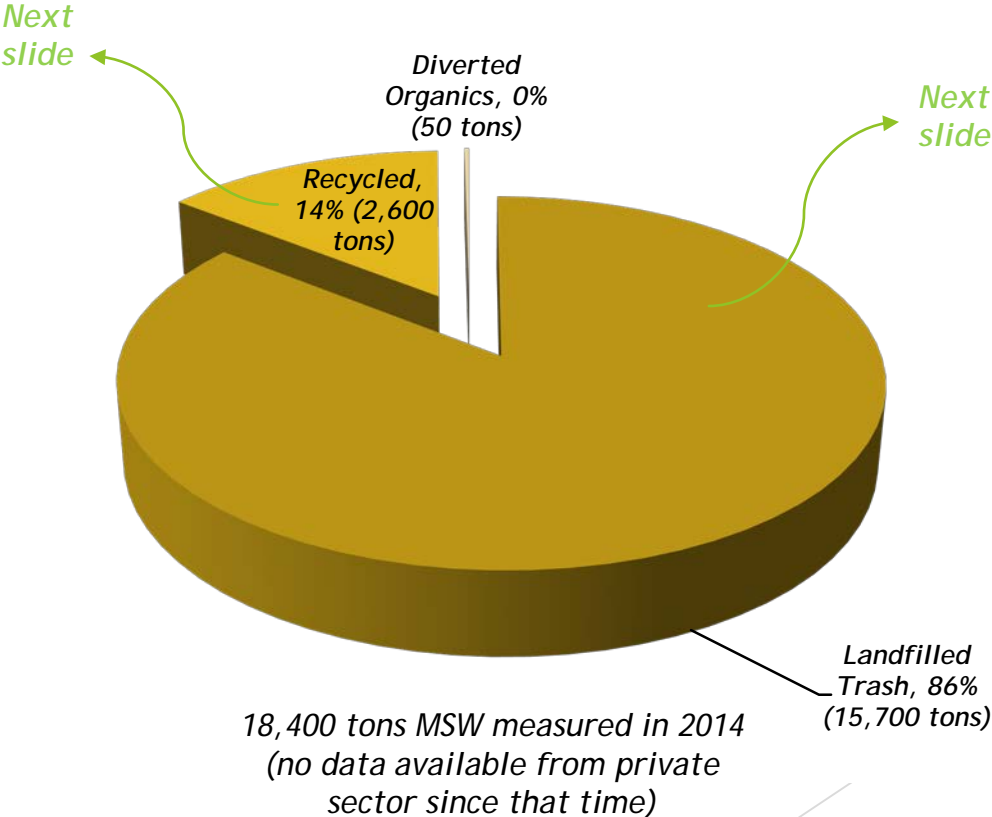
# Existing Municipal Solid Waste System

## Materials Flow

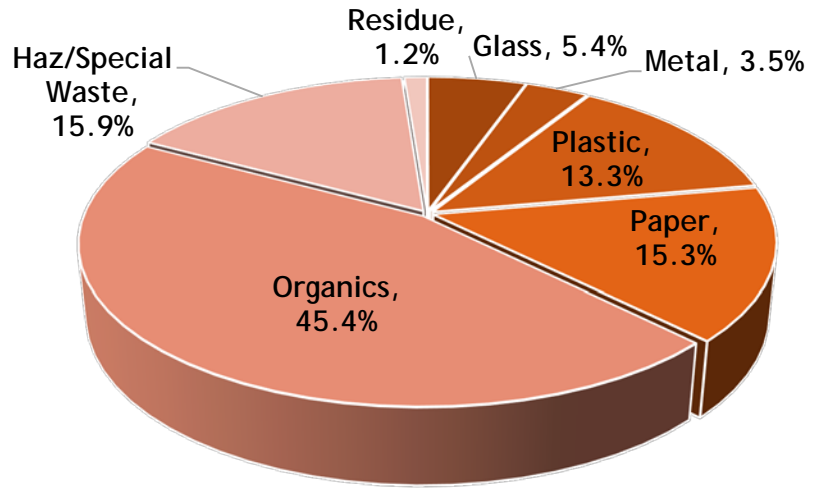


*In-county landfills are common in Colorado  
\$113/ton tip fee is highest in state*

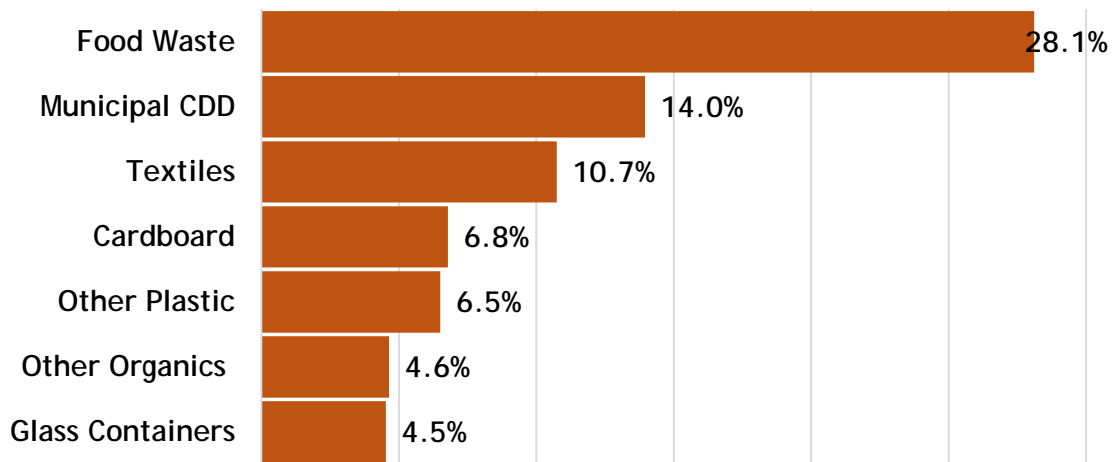
## Material Quantities



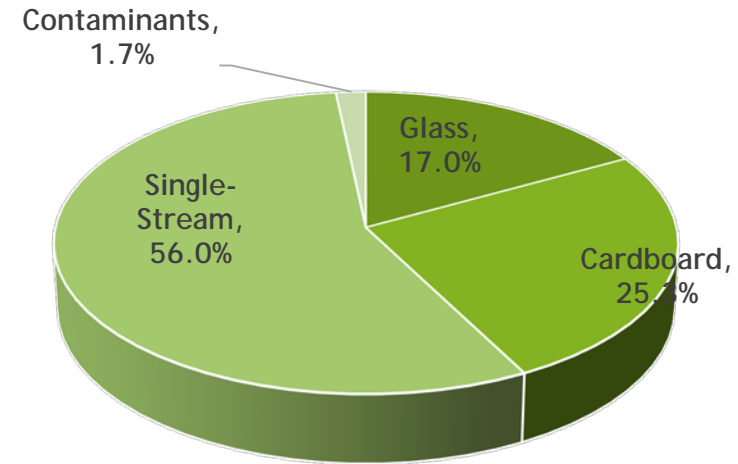
## Trash Sample Composition



## 10 Ten Trash Components



## Recyclables Sample Composition



*Contamination level unusually low - reflects that county generally "recycles right"*

# Survey Results

## *Trash and Recyclables Collection*

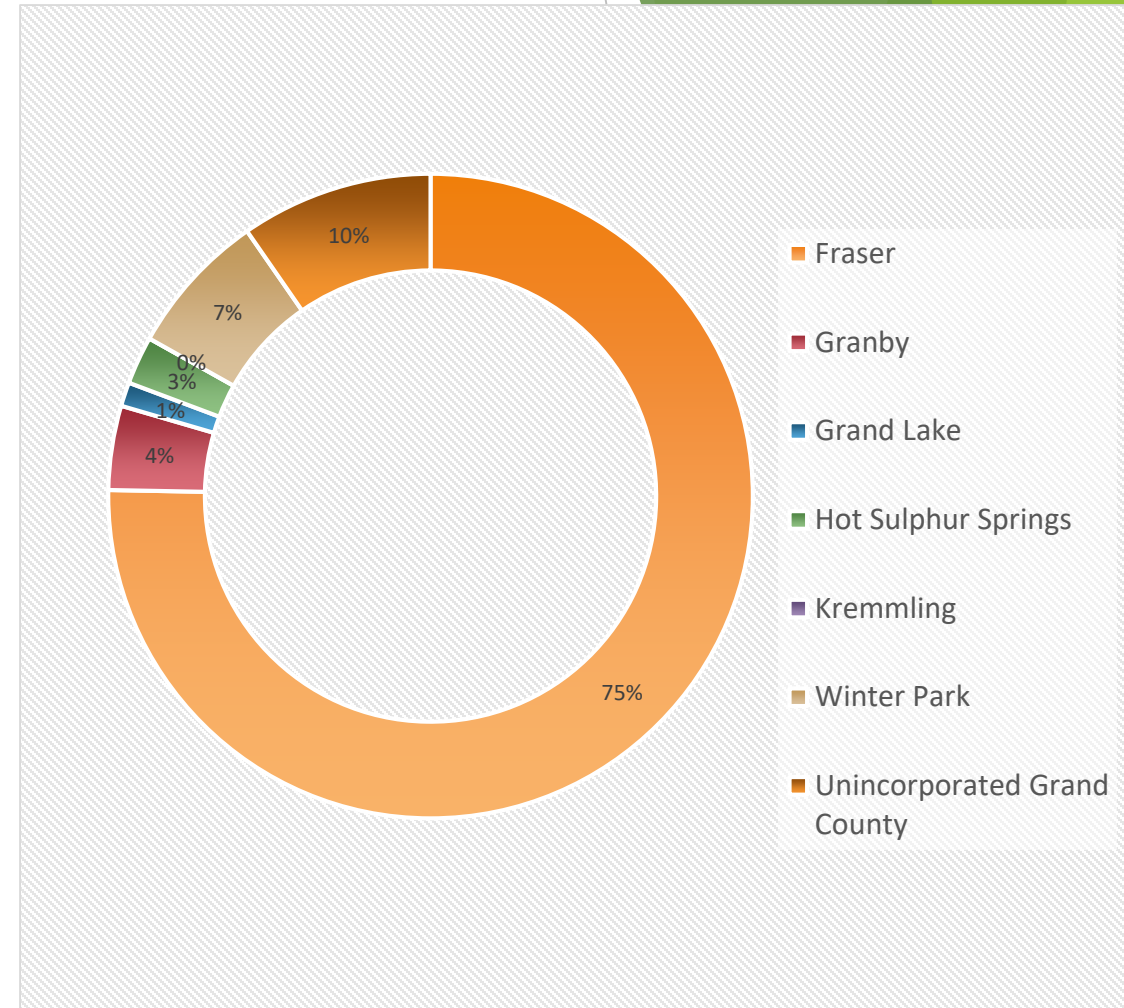
- 44% curbside trash - 18% transfer station - 38% alternative
- 18% don't recycle - 13% curbside - 24% drop sites - 45% other
- Equally inclined/disinclined on drop-site recycling if limited to Granby - most don't want to pay for drop-site recycling

## *Disposal Bag Policy*

- Most opposed to regulating paper but support ban or fee on plastic

## *County Landfill Need*

- Most don't understand pros/cons but concerned about environmental impacts of both long-distance hauls (to out-of-county facilities) both of local disposal site



# Waste Diversion Task Force & Its Study Priorities

## Voluntary Task Force Members

- ▶ Brett Hanlon, Grand County
- ▶ Kayleen Reeve, Resident (Grand County)
- ▶ Nancy Franz, GRRC
- ▶ Art Ferrari, Winter Park
- ▶ Jim White, Grand Lake
- ▶ Eileen Waldow, Fraser/Infinite West
- ▶ Katie Soles, Fraser





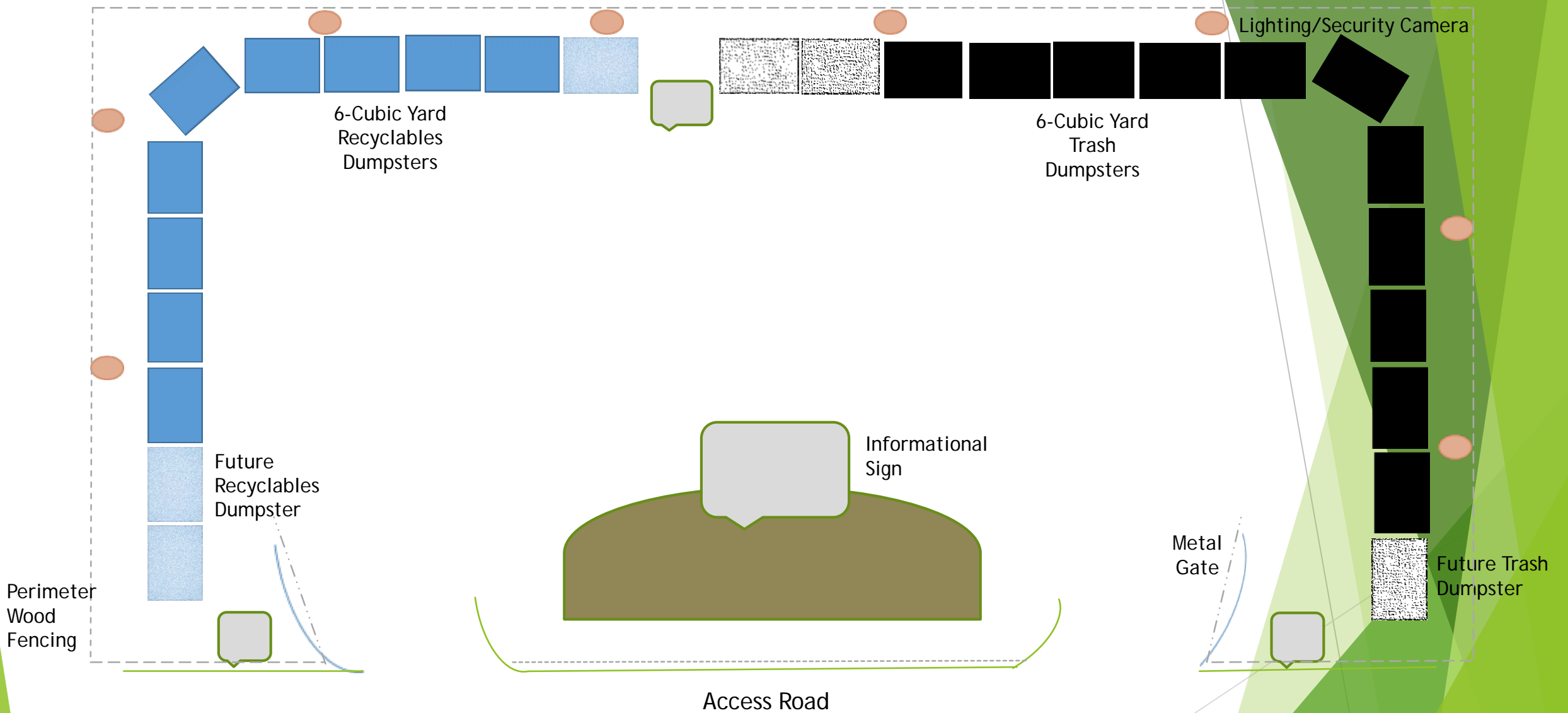
# New Public Drop Site in Fraser/Winter Park



*Unknowns: quantity estimates based on current tons at Grand Lake (trash) & GRRC (recycling)*

<b>SITE SIZE</b>	Approximately 0.15 acres (not yet identified)
<b>STAFFING</b>	Trash - unstaffed Recyclables - staff
<b>HOURS</b>	Trash - 24/7 Recyclables - during staffed hours (~ 12 hrs/week)
<b>SECURITY</b>	Surveillance - mounted cameras Fencing - pressure-treated wood with metal gates
<b>CONTAINERS</b>	Trash - 10 to 15 six-cubic yard Dumpsters Recyclables - 8 to 13 six-cubic yard Dumpsters
<b>CUSTOMER BAGS</b>	Trash - pre-purchase plastic (available throughout the county) Recyclables - loose (no plastic bags)
<b>HAULING</b>	Private collection of trash & recyclables by contract hauler - both through Granby to Front Range
<b>MAINTENANCE</b>	Daily for overflows, damage & clean-up





**Figure 3-1**  
**Conceptual Layout - Fraser/Winter Park Drop Site**  
 (~0.15 acres - not to scale)

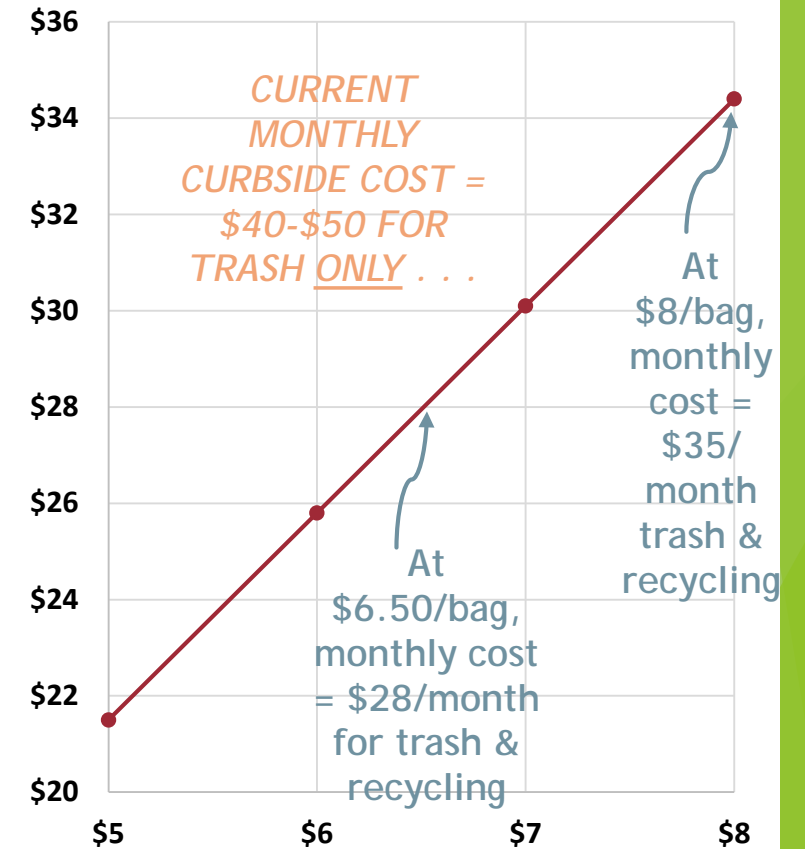
# ESTIMATED DROP SITE DEVELOPMENT & OPERATION (in \$1,000s)

	PHASE I (2016-2018)	PHASE II (2019-2022)	PHASE III (2023-2026)
<b>COSTS</b> (donated site & grant for development)	Development <b>(\$29)</b>	Development \$0	Development \$0
	<i>Operations</i> <b>(\$259-\$320)</b>	<i>Operations</i> <b>(\$279-\$347)</b>	<i>Operations</i> <b>(\$301-\$375)</b>
<b>REVENUES</b> (\$6.5 to 8/bag & \$2 donations)	Bags \$248-308 Donations \$11	Bags \$275-\$342 Donations \$12	Bags \$311-\$386 Donations \$14
<b>NET OPERATING REVENUES (COSTS)</b>	Each Town \$0- <b>(\$1)</b>	Each Town \$4-\$4	Each Town \$12-\$13

*Operating costs includes:*

- *Recycling staff*
- *Daily maintenance*
- *Trash & recyclables hauling (low to high contract hauler estimate)*

## Monthly Household Drop-Site Cost (1 bag/week)



Opportunities to reduce drop site costs & standardize collection sites?

- Collaborate with other public drop sites on shared hauler contract
- Share drop site model with private HOAs, subdivisions, business parks

# New Disposable Bag Policy (Granby, Fraser, Winter Park)

Applicability	Large grocers (Safeway & City Market)
Number of Bags	\$2.1M/year or approx. 230 bags/person-year
Policy Approach	\$0.10 fee on every paper & plastic bag used at grocery checkout
Exemptions	Non-grocery checkout, non-grocery, state/federal food assistance program users
Fee Split Between Grocers & Towns	50/50 (ultimate net revenues will vary)



*Winter Park  
grocery expected  
to be included next  
year*

## ESTIMATED DISPOSABLE BAG PROGRAM OPERATING NET REVENUES (COSTS) (in \$1,000s)



	PHASE I (2016-2018)	PHASE II (2019-2022)	PHASE III (2023-2026)
BAN ON ALL BAGS	Grocers - (\$9) Towns - (\$45)	Grocers - \$0 Towns - (\$23)	Grocers - \$0 Towns - (\$12)
PLASTIC BAN & FEE ON PAPER	Grocers - (\$8) Towns - (\$39)	Grocers - <\$1 Towns - (\$20)	Grocers - <\$1 Towns - (\$10)
FEE ON ALL BAGS	Grocers - \$6 Towns -\$7	Grocers - \$3 Towns -\$6	Grocers - \$2 Towns -\$7

### Ways to expand impact of initial policy?

- Encourage voluntary & regulated retailer participation
- Increase bag fee
- Support local reusable bag manufacturer

*Town revenues would be shared by all towns with policy in place*

*Net revenues drop over time as less disposable bags are purchased by customers*



# County-Wide Public Education Program

- ▶ Needs to
  - ▶ Support new public drop site & disposable bag policy
  - ▶ Reach permanent residents/businesses & tourists/2<sup>nd</sup> homeowners
  - ▶ Encourage recycling & unify efforts county-wide
- ▶ Components may include
  - ▶ Establish dedicated staff
  - ▶ Develop simple brand, messaging & roll-out mechanisms
  - ▶ Help make trash & recyclables collected *the same in every program/at every drop site*
  - ▶ Work to bring recycling to every special event & every school

Estimated costs :  
Grand County (\$9,000) to  
(\$17,000)  
Towns on average (\$1,000)  
to (\$2,000)

## Ways to leverage program impact?

- Include Winter Park Resort & Rocky Mountain National Park
- Use widely on municipal/county websites & public spaces
- Have a presence at events, markets, fairs
- Pursue grant funding to support new campaigns

**DURANGO** CO  
recycles!



# Collective Net Revenues (Net Costs)

(in \$1,000s)

PROGRAM	PHASE I	PHASE II	PHASE III
DROP SITE OPERATIONS (assumes higher contract haul costs)	Fraser (\$1) Winter Park (\$1)	Fraser \$4 Winter Park \$4	Fraser \$13 Winter Park \$13
DISPOSABLE BAG POLICY (assumes \$8/bag)	Fraser \$2 Granby \$2 Winter Park \$2	Fraser \$2 Granby \$2 Winter Park \$2	Fraser \$2 Granby \$2 Winter Park \$2
EDUCATION PROGRAM	County (\$17) Town Average (\$2)	County (\$9) Town Average (\$1)	County (\$11) Town Average (\$1)
TOTAL	Fraser (\$1) Winter Park (\$1) Granby \$0 Other Towns (\$2) County (\$17)	Fraser \$5 Winter Park \$5 Granby \$1 Other Towns (\$1) County (\$9)	Fraser \$14 Winter Park \$14 Granby \$1 Other Towns (\$1) County (\$11)

# 10-Year Implementation Strategy

## PHASE I (2016-2018)

### *NEW DROP SITE:*

- Find site & grant funding to develop
- Fraser/Winter Park MOU
- Negotiate hauler contract

### *EDUCATION:*

- Dedicate staff
- Develop brand & messaging
- Support drop site & bag policy
- Drive consistent materials

### *DISPOSABLE BAG:*

- Fraser, Granby, Winter Park develop ordinance
- Specify re-useable bags
- Implement & enforce

### PHASE II

- Grow drop sites
- Expand bag policy
- Add special event & school recycling program
- Start landfill discussion

### PHASE III

- Update waste diversion strategy
- Begin to look at organics recovery
- Measure, revise & repeat



# Local Landfill Discussion

*Increased fossil  
fuel consumption,  
GHG emissions,  
highway  
congestion - also  
higher local  
service prices*

Grand County landfill  
closed in 2010

Now all trash & recyclables  
hailed through Granby to  
the Front Range (approx.  
100 one-way miles)

*No potential for  
environmental  
impacts from new  
landfill - no county  
involvement in  
waste management*

# Final Observations & Recommendations

- Improvements Have Benefits Beyond Diversion: *Increased Services, Awareness & Communication*
- County & Town Involvement is *Critical* - *joint collaboration will increase services & reduce costs more broadly*
- Need to Start Program & Policy Development Now

# Give us your input!

- ▶ Jeff Durbin Fraser Town Manager - 970.726-5491, x-202,  
[jdurbin@town.fraser.co.us](mailto:jdurbin@town.fraser.co.us)
- ▶ Bektur Sakiev, Fraser Asst Town Manager - 970.726.5491, x-212,  
[bsakiev@town.fraser.co.us](mailto:bsakiev@town.fraser.co.us)
- ▶ Task Force Members (see slide 7)
- ▶ Laurie Batchelder Adams, LBA Associates - 303.733.7943,  
[laurie@lbaassoc.com](mailto:laurie@lbaassoc.com)