

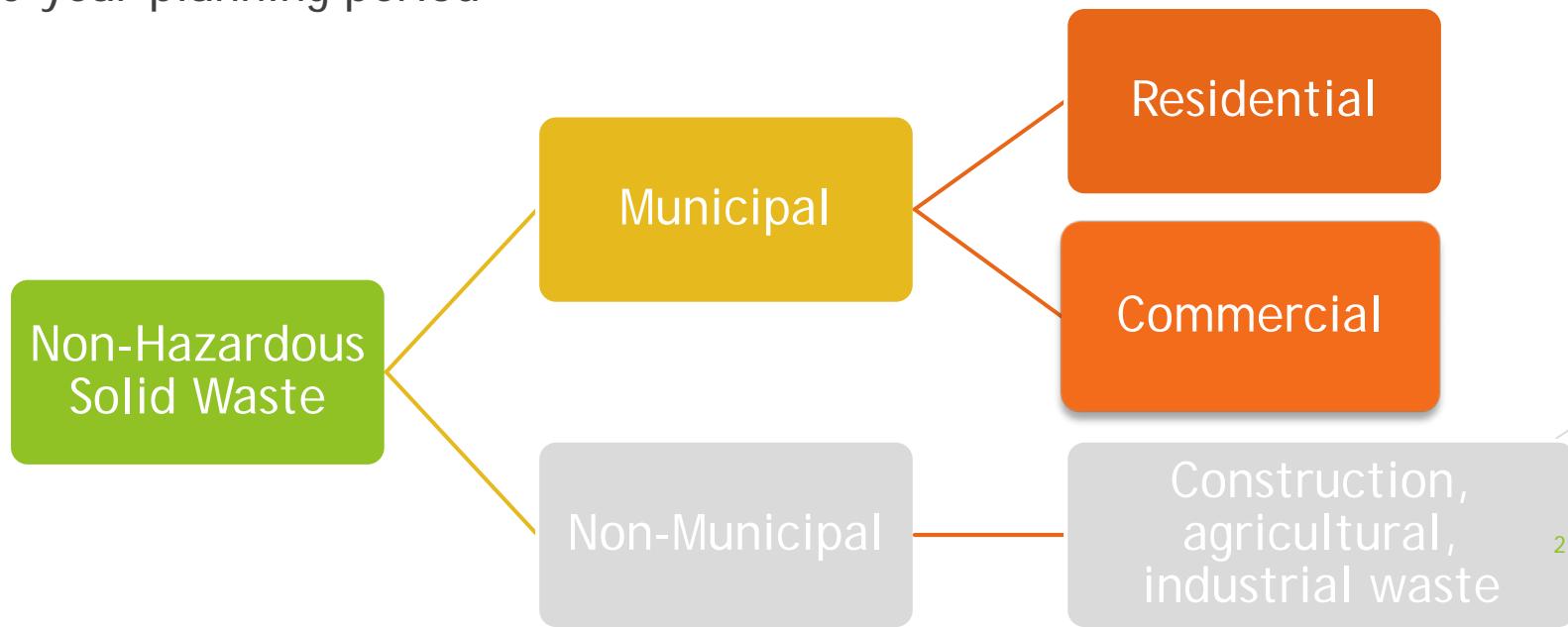


GRAND COUNTY WASTE DIVERSION STUDY

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

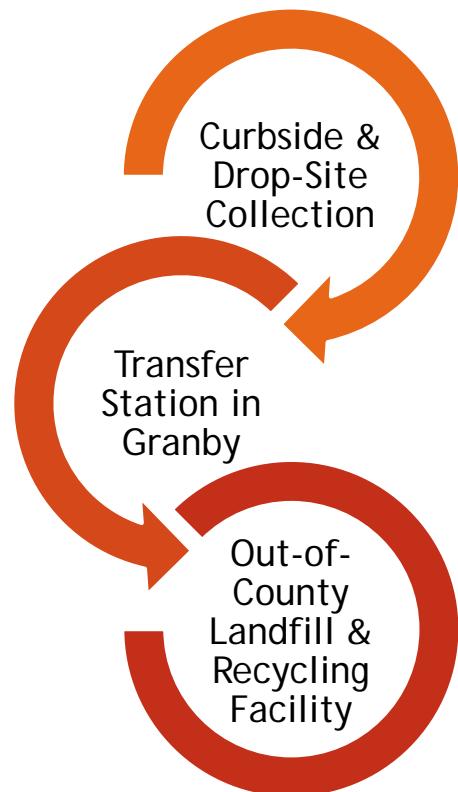


Study Components



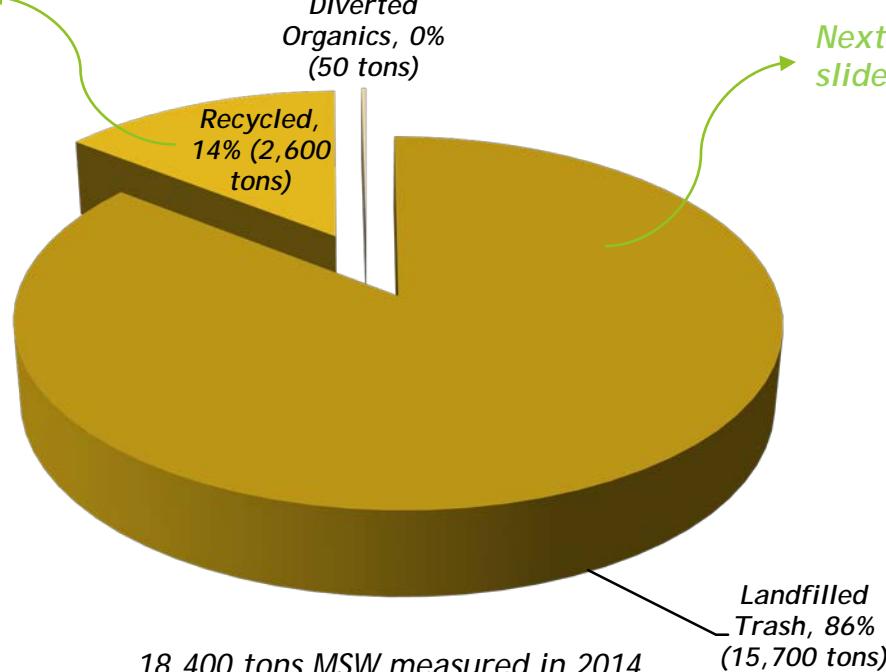
Existing Municipal Solid Waste System

Materials Flow

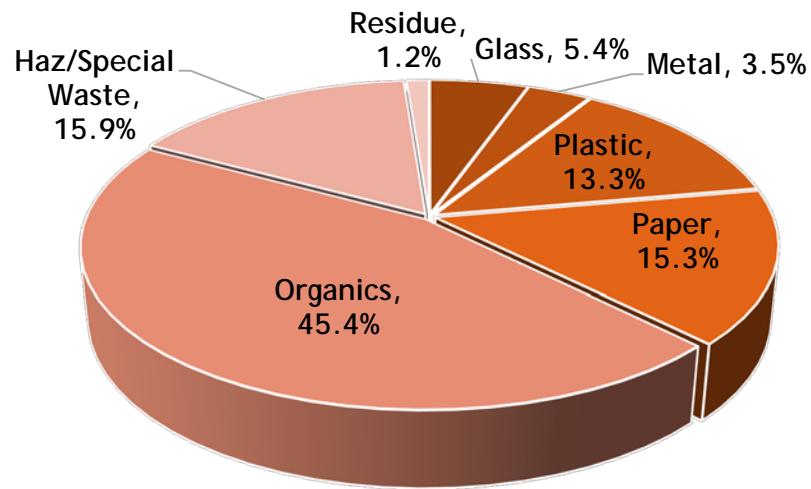


*In-county landfills are common in Colorado
\$113/ton tip fee is highest in state*

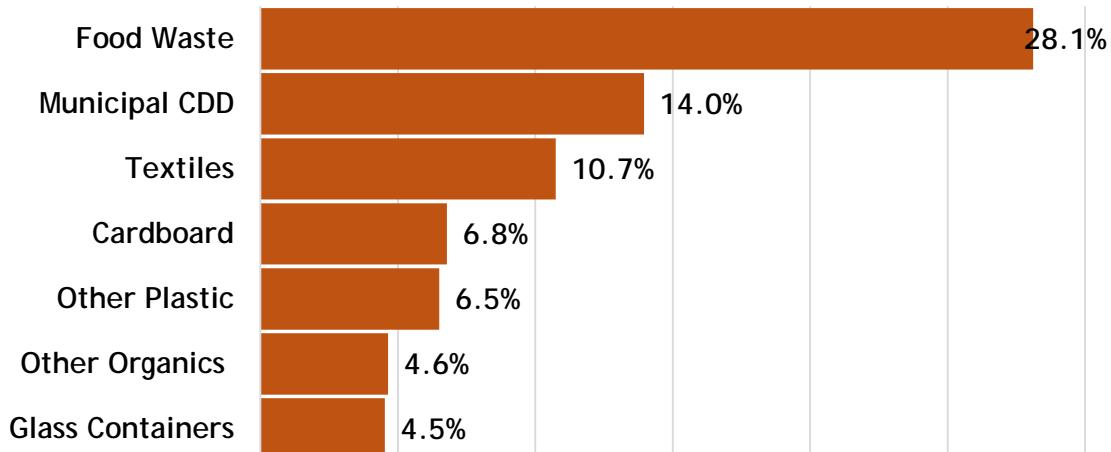
Material Quantities



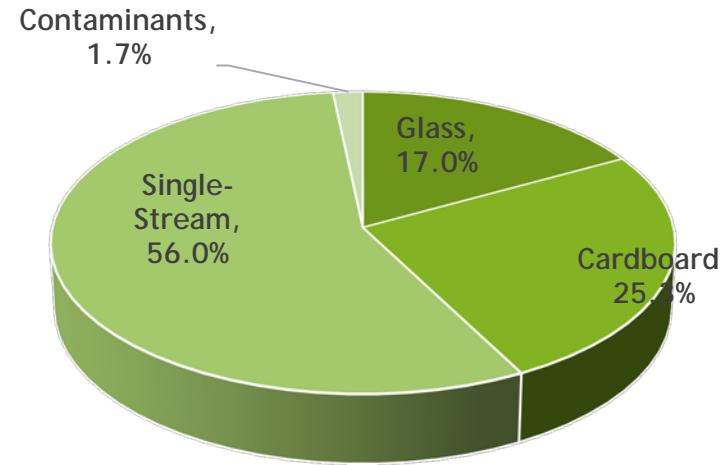
Trash Sample Composition



10 Ten Trash Components



Recyclables Sample Composition



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

Survey Results

Trash and Recyclables Collection

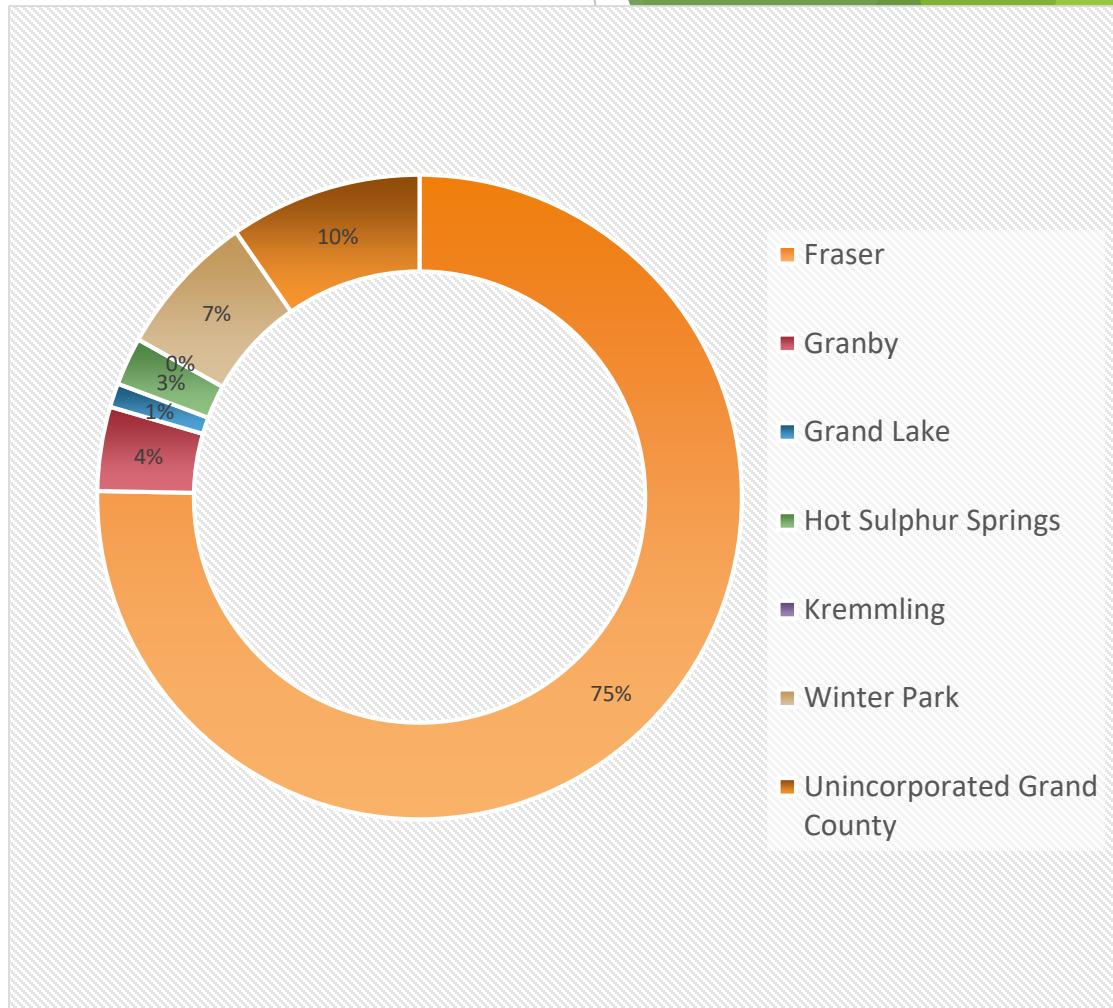
- 44% curbside trash - 18% transfer station - 38% alternative
- 18% don't recycle - 13% curbside - 24% drop sites - 45% other
- Equally inclined/disinclined on drop-site recycling if limited to Granby - most don't want to pay for drop-site recycling

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

New
Disposable
Bag Policy

County-
Wide
Education
Program

County
Landfill
Discussion

New Public Drop Site in Fraser/Winter Park



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

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

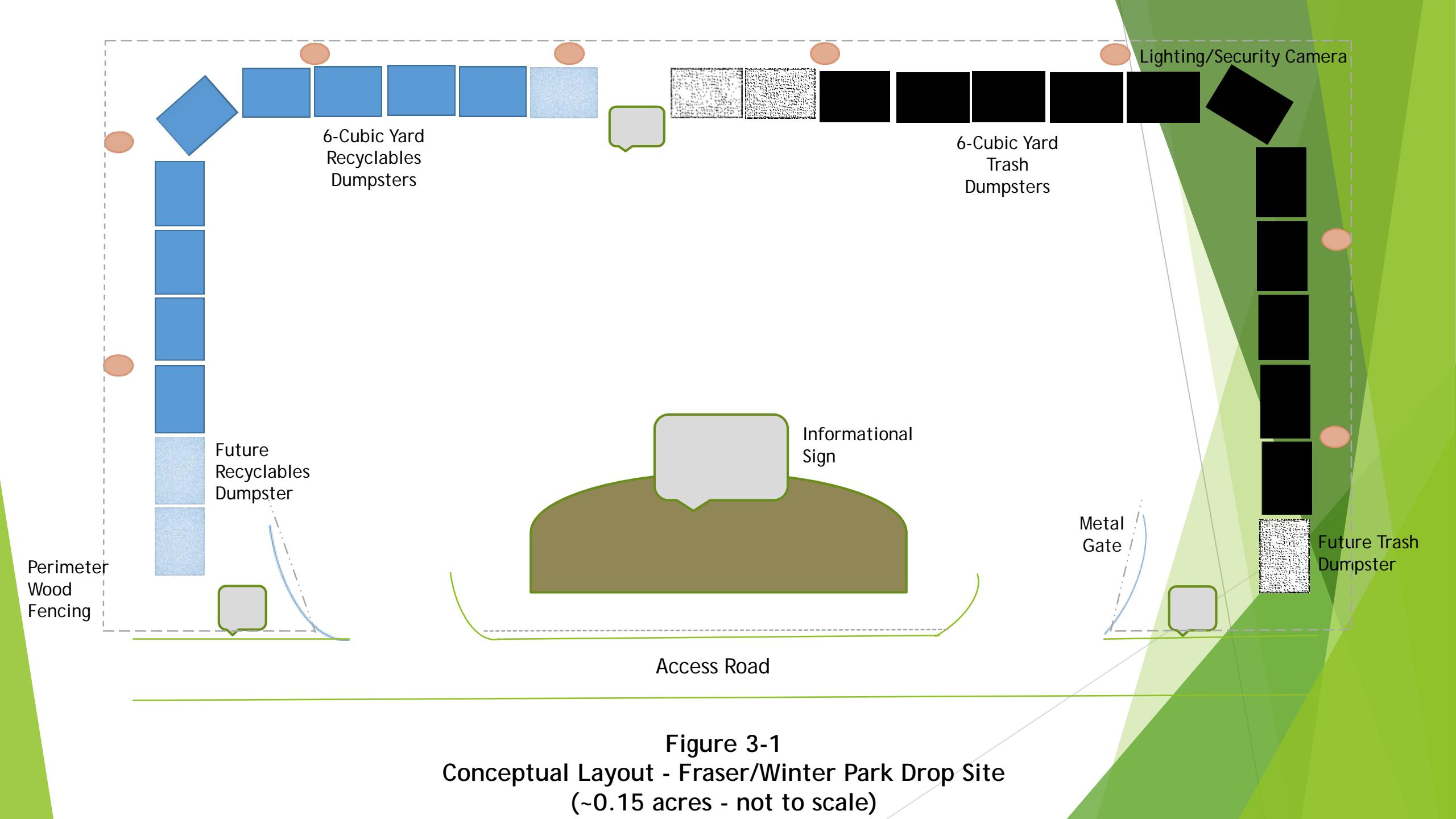


Figure 3-1
Conceptual Layout - Fraser/Winter Park Drop Site
(~0.15 acres - not to scale)

ESTIMATED DROP SITE DEVELOPMENT & OPERATION

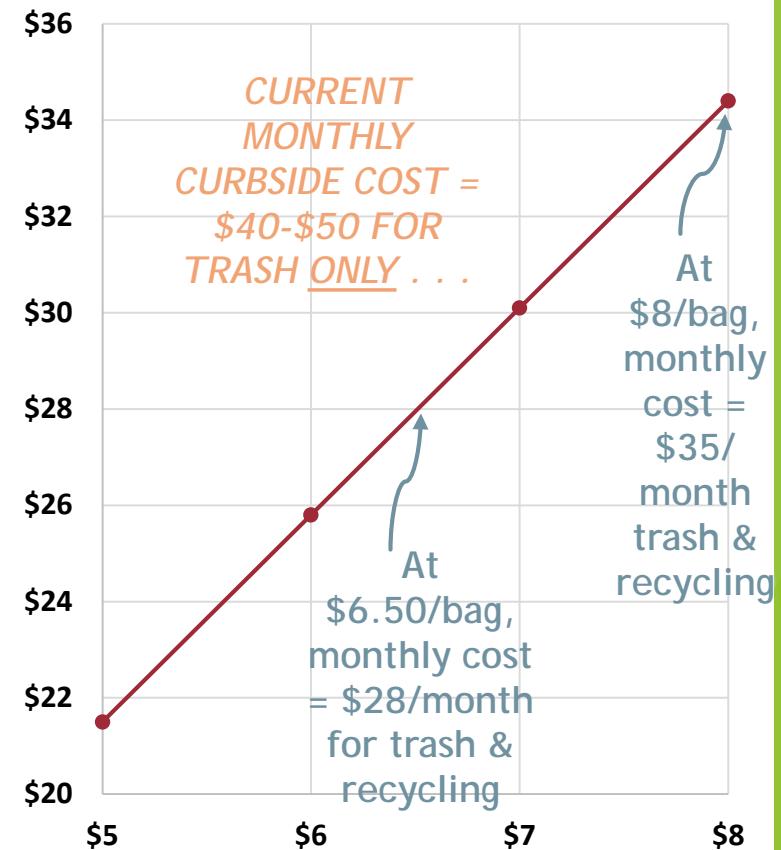
(in \$1,000s)

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

Cost/40-Gallon Bag

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/2nd 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

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

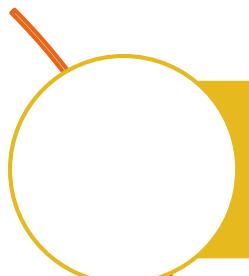
*Increased fossil
fuel consumption,
GHG emissions,
highway
congestion - also
higher local
service prices*

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

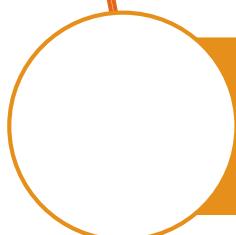
Grand County landfill
closed in 2010

*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!

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- ▶ Bektur Sakiev, Fraser Asst Town Manager - 970.726.5491, x-212,
bsakiev@town.fraser.co.us
- ▶ Task Force Members (see slide 7)
- ▶ Laurie Batchelder Adams, LBA Associates - 303.733.7943,
laurie@lbaassoc.com