

Memorandum



CITY OF DALLAS

DATE November 11, 2016

TO Honorable Members of the Quality of Life and Environment Committee: Sandy Greyson (Chair), Tiffinni A. Young (Vice-Chair), Rickey D. Callahan, Mark Clayton, Philip T. Kingston, B. Adam McGough

SUBJECT **Sanitation Services Bulk and Brush Program Update**

Attached are the briefing materials for the current bulk and brush pickup program. Please contact me if you have any questions or need additional information.

A handwritten signature in black ink, appearing to read 'Joey Zapata'.

Joey Zapata
Assistant City Manager

c: Honorable Mayor and Members of the City Council
A.C. Gonzalez City Manager
Larry Casto, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager

Eric D. Campbell, Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
Mark McDaniel, Assistant City Manager
M. Elizabeth Reich, Chief Financial Officer
Sana Syed, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor & Council

Sanitation Services Bulk and Brush Program - Update

Quality of Life & Environment Committee
November 14, 2016



Briefing Overview

- Provide a recap of the current collection program
 - Provide information related to other Texas cities
 - Discuss challenges with the current program
- Review collection alternatives previously discussed
- Provide recently completed review of bulk and brush alternatives and their associated cost impacts
- Discuss consideration related to program changes or keeping the current program

Current Collection Program



Current Collection Program

- Bulk & Brush is collected monthly at approximately 240,000 households
 - Areas are divided into four collection weeks per month
- Essentially no limits on volumes
 - Ordinance allows director to limit "excessive" quantities, but since excessive is not defined it has evolved to no limits over the years
- Bulk and Brush set-outs are comingled
 - No construction/demolition waste, chemicals, electronics or tires

Current Collection Program

- Annual bulk/brush collections budget - \$15M
 - 115 positions
 - 5 Combo Booms
 - 26 Roto-booms
 - 52 brush truck/trailer combos
- Disposal cost - \$2.0M
- Transfer station and collection assistance - \$2.4M

Current Collection Volumes

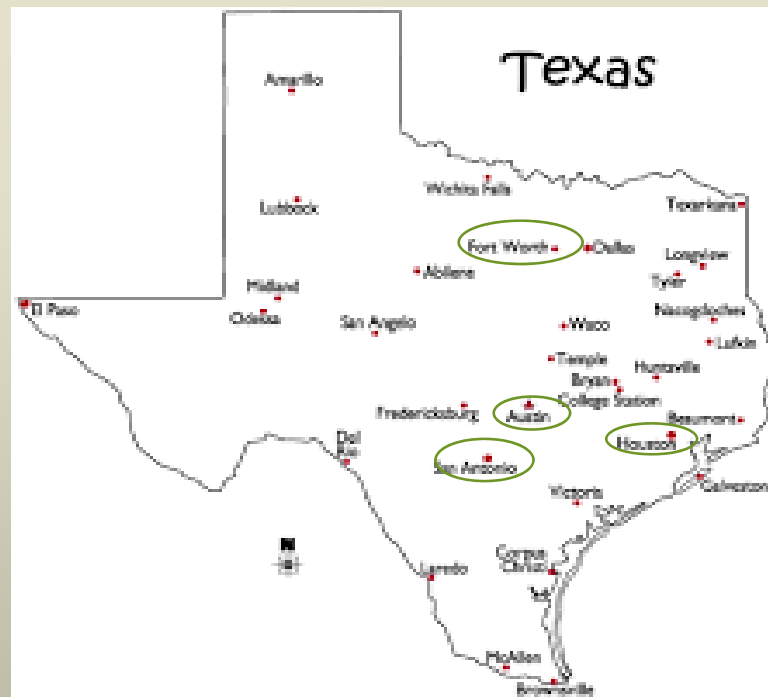
- Dallas crews collected approximately 172,000 tons last year and tonnages have been increasing annually over the last four years
- Monthly volumes range from less than 10K tons to greater than 20K tons
- Seasonal variations and storms can create significant volume increases

Matrix of Monthly Volumes

TONS	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	AVG	TOTAL
FY-16	11,606	11,292	16,586	12,892	10,020	19,662	17,341	15,652	17,754	13,501	10,011	15,351	14,306	171,668
FY-15	20,455	17,813	14,858	12,183	8,375	7,734	22,300	16,147	16,188	17,265	10,090	12,874	14,690	176,282
FY-14	14,473	10,788	21,567	18,758	8,871	12,227	17,319	18,632	12,925	15,732	11,862	9,082	14,353	172,236
FY-13	9,394	13,970	12,116	11,728	11,343	12,433	13,433	22,491	16,284	10,970	14,127	9,029	13,110	157,318
FY-12	10,950	12,177	10,576	12,071	10,254	16,315	15,847	15,063	14,148	10,020	13,779	10,043	12,604	151,243
5 yr Avg	13,376	13,208	15,141	13,526	9,773	13,674	17,248	17,597	15,460	13,498	11,974	11,276	13,812	165,749

Extremely High
Slightly Above
Within or Below

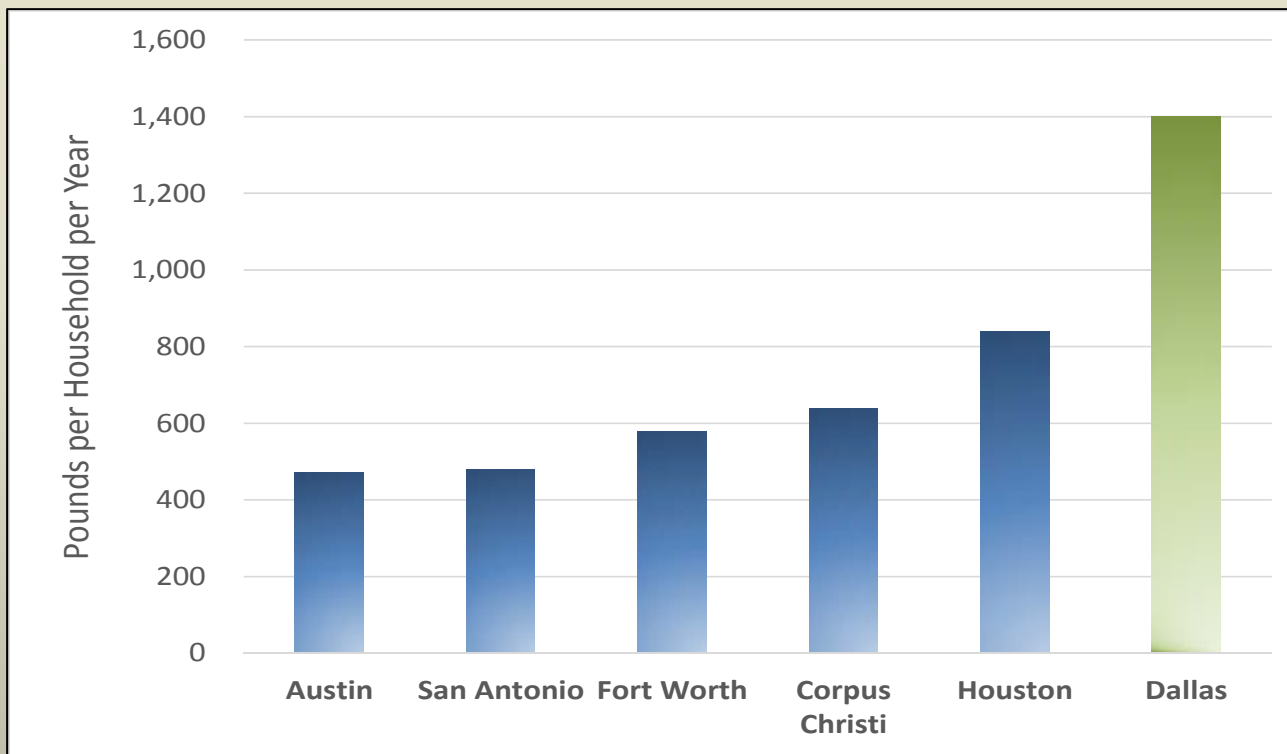
Comparison – Other Texas Cities



Comparison – Other Texas Cities

- Austin (193,000 households)
 - 2X per year bulk and 2x per year brush (restrictions)
 - Weekly yard waste (restrictions)
- Ft. Worth (207,000 households)
 - Monthly bulk (10 CY limit)
 - No monthly brush, but weekly yard waste (restrictions)
- Houston (380,000 households)
 - Alternating bulk and brush months (8 CY limit)
 - Weekly yard waste (restrictions)
- San Antonio (340,000 households)
 - 2X per year bulk and 2x per year brush (8 CY limit)

Comparison – Other Texas Cities



Collection Challenges – Storms



Collection Challenges – Large Set Outs



Small Set-outs and Bagged Set Outs



Collection Challenges – Mixed Set Outs



Disposal and Diversion Challenges



Mixed bulk and brush disposal at landfill



Ground "mixed brush" at landfill



Ground "brush" October 2014
Storm Event

Alternative Program Review



Collection Alternatives

- Based on current program challenges, staff began reviewing operational changes and alternative programs that are similar to those used in other major Texas cities.
- When staff last briefed the Quality of Life Committee (QoL) on potential alternatives, the committee recommended that staff evaluate the financial impacts of various alternatives
- Since then Council approved a contract with solid waste consultant Burns and McDonnell to review and evaluate the City's current collection program, and develop financial impacts of various alternatives

Previously Discussed Collection Alternatives

- Considerations for Alternatives:
 - Place volume restrictions on set outs
 - Separate brush/yard waste collection and/or change frequency of bulk and brush collection
 - Monthly brush collection and limited “on call” bulk collection (e.g., 4 times per year)
 - Alternating monthly collection (bulk one month, then brush the next)
 - Quarterly collections (twice annual bulk and twice annual brush) with weekly yard waste collection

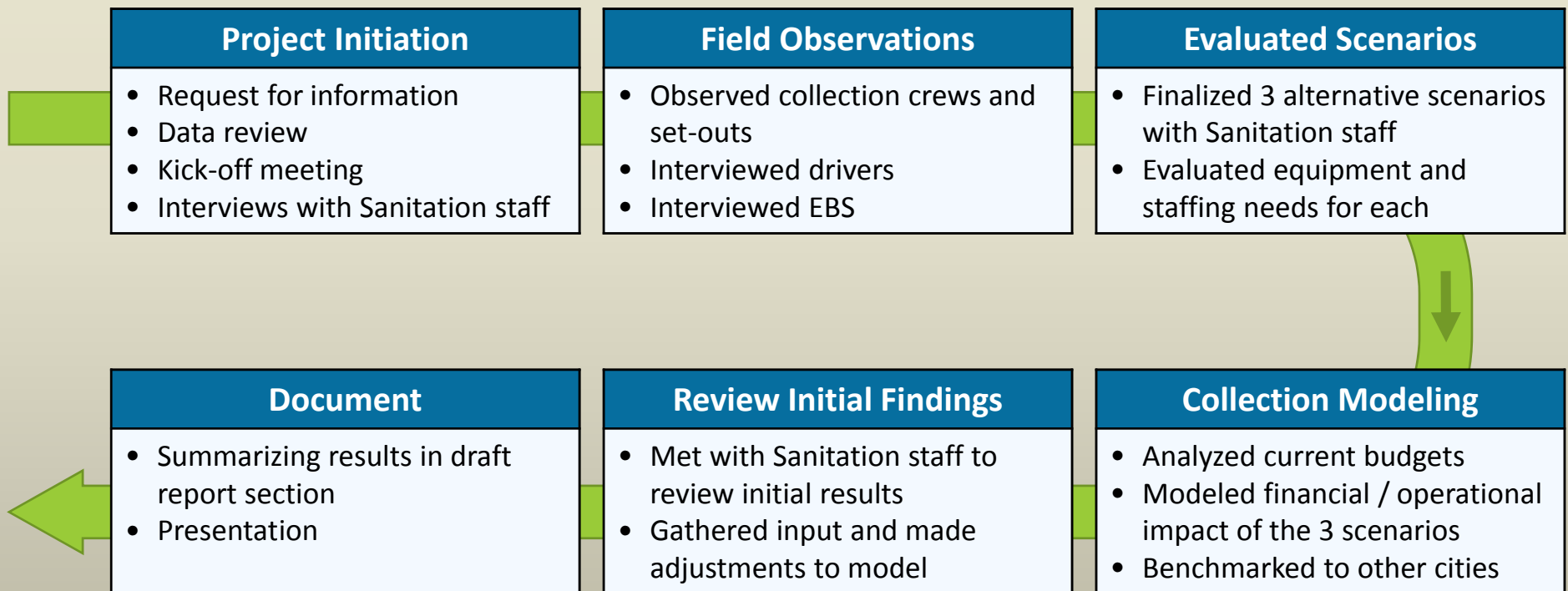
Other Cities Facing Similar Challenge

- Bulk and brush collection is challenge for many cities due to things such as overuse and unpredictable set out rates
- Burns and McDonnell has evaluated bulk and brush programs for a number of cities in the Southwest:
 - Austin
 - Corpus Christi
 - El Paso
 - Fort Worth
 - Garland
 - Irving
 - Phoenix
 - San Antonio
 - Tempe
 - Victoria

Bulk and Brush Program Review

- The program review had several key goals:
 - Meet residents needs while evaluate reasonable residential collection frequency and limits
 - Improve consistency and efficiency of service
 - Increase diversion or re-use of brush and yard waste material
 - Consider ability to provide storm response
 - Develop costs of alternatives and impacts to the residential fee

Project Approach



Bulk and Brush Collection Review

- The three alternatives evaluated were:
 - Monthly collection of brush/yard trimmings and scheduled bulk collection (e.g., four times per year)
 - Monthly collection of yard trimmings and twice per year collection of large brush and twice per year collection of bulk items
 - Every other month collection of Brush/Yard Trimmings and Bulk Items

Bulk and Brush Alternatives Evaluated

Material Type	Existing System	Alternative 1	Alternative 2	Alternative 3
Yard Trimmings	Monthly	Monthly	Monthly	Every Other Month
Large Brush			Twice per Year	
Bulky Items		Call-in ¹	Twice per Year	Every Other Month

1. The analysis assumes that a certain number of collections per year would be included in the base residential rate, with additional collections charged an additional fee.

All alternatives Include:

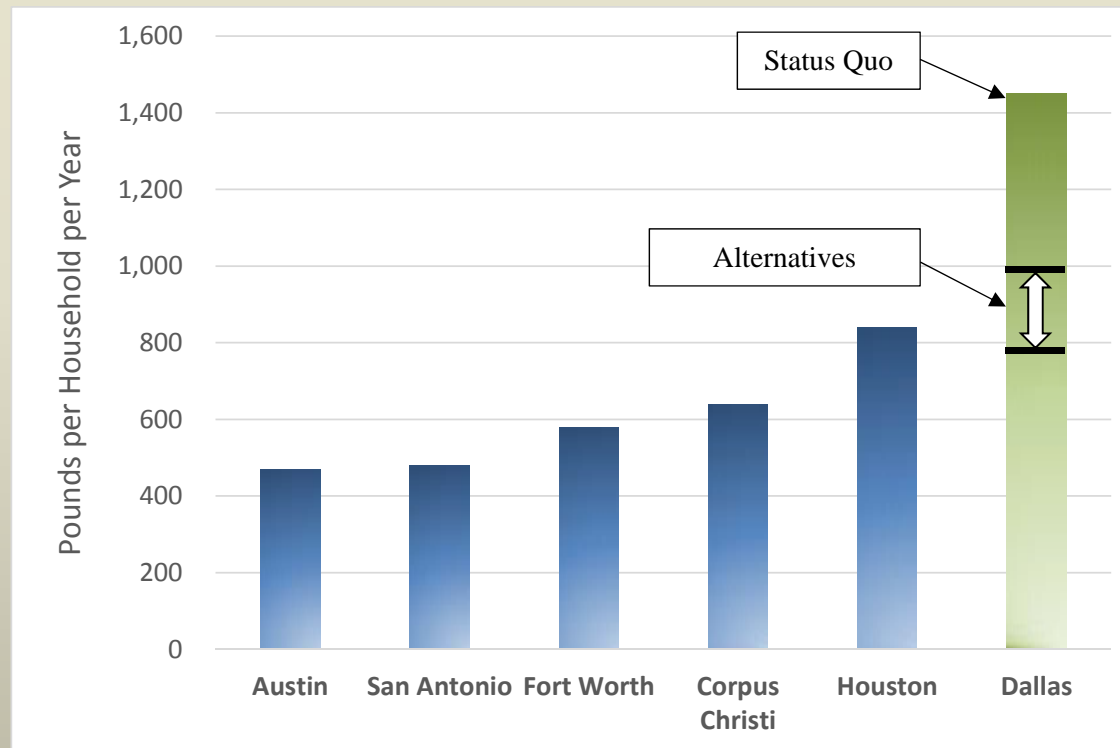
- Volume limits (8-10 cubic yards) on bulky items or large brush
- No collection of construction and demolition debris
- Require use of bundles or compostable bags for yard trimmings
- No material collected from private landscapers

Alternatives - Impacts on collected tons

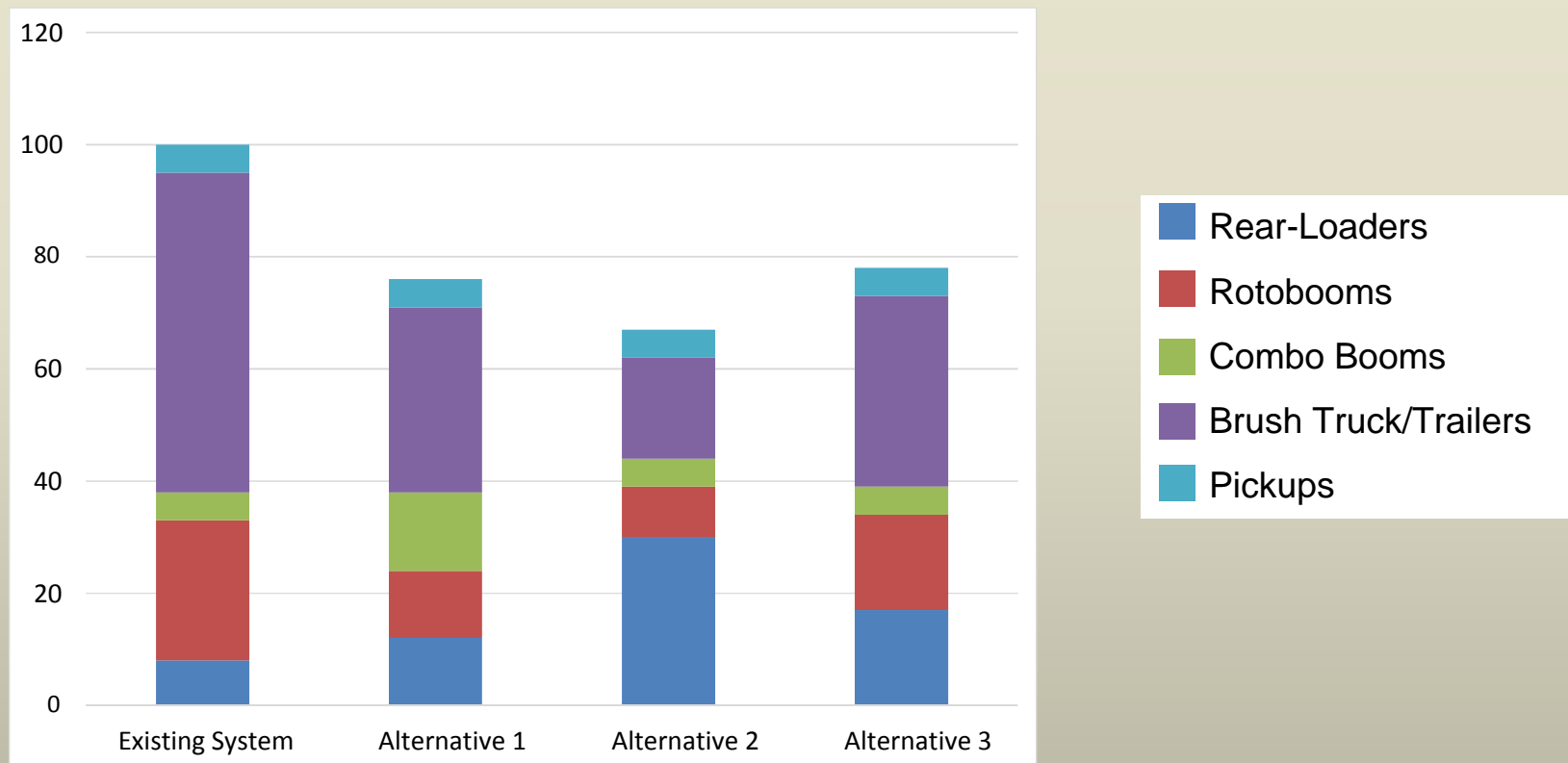
- Dallas collects approximately 172K tons annually, which on a per household basis is approximately three times that of other major Texas cities
- Each collection alternative evaluated would reduce collected tonnage

Material Type	2015 Tons Collected	Alternative 1	Alternative 2	Alternative 3
Yard Trimmings		35,000	35,000	73,500
Large Brush		54,250	31,000	
Bulky Items		31,000	31,000	
Total	176,282	120,250	97,000	120,000
Annual Pounds per Household	1,449	989	797	987

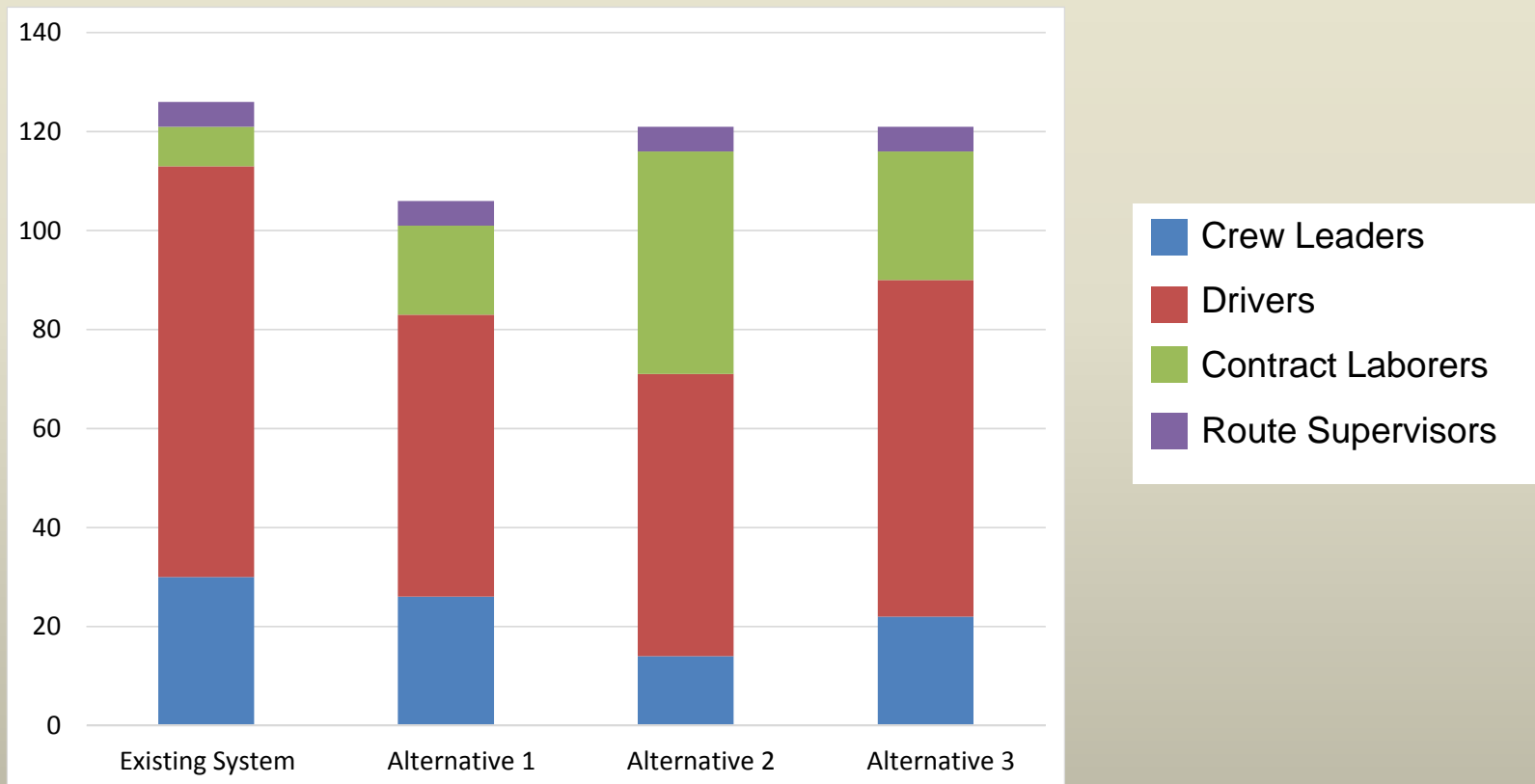
Alternatives - Impacts on collected tons



Alternatives - Impacts on Daily Vehicles



Alternatives - Impacts on Daily Personnel



Alternatives - Impacts on Program Cost

	Existing System	Alternative 1	Alternative 2	Alternative 3
Personnel	\$7,806,000	\$5,908,000	\$5,933,000	\$6,359,000
Vehicle Costs	\$5,876,000	\$4,876,000	\$4,499,000	\$5,175,000
Other O&M	\$1,709,000	\$1,695,000	\$1,629,000	\$1,737,000
Disposal and Transfer	\$4,006,000	\$4,098,000	\$3,400,000	\$3,894,000
Total	\$19,397,000	\$16,577,000	\$15,461,000	\$17,165,000
Annual Difference From Existing	\$0	(\$2,820,000)	(\$3,936,000)	(\$2,232,000)
Percent Decrease	0.0%	14.5%	20.3%	11.5%
Difference from HH per Month	\$0.00	(\$0.97)	(\$1.35)	(\$0.76)

Summary of Key Findings and Recommendations

- The amount of tonnage collected, on a per household basis, by the City under its existing brush and bulky program is high relative to other large cities in Texas.
- Current equipment is efficient at collecting large set-outs, but not smaller set-outs.
- Overtime is significant compared to most operations, impacted by excessive tonnage and aging equipment
- Average age of equipment exceeds that of most other municipal operations.

Summary of Key Findings and Recommendations

- A change in the collection frequency, with a change in set-out policies, should reduce the amount of material the City collects from households.
- Alternatives result in lower overtime and more consistent equipment replacement – both of which will help provide consistent service within normal collection days/hours.
- Alternatives could potentially save the City \$2.2 to \$3.9 million per year while diverting 66,000 to 90,000 tons per year from the landfill.
- The City should conduct a pilot study based on the preferred scenario that includes homes from various areas of the City that have differing set-out profiles (e.g., bulk vs. brush or yard trimmings)

Alternative Program Considerations

- Any significant program changes will require substantial public outreach and education
 - Program changes, with a pilot, is a multi-year transition
 - Development of mulching and/or composting program would need to be evaluated (internal or contracted)
 - Beneficially re-used mulch at the McCommas Bluff Landfill would reduce processing cost
 - Staff could develop a plan to receive public input and gather data related to average customer needs
- Limiting brush collection frequency can significantly impact response after storm events
- Strategically located neighborhood drop off sites should also be considered

Impacts of no changes (maintain status quo)

- Diversion or beneficial reuse of organic material would be limited
 - This would prevent the City from reaching its Zero Waste goals
- Operational modifications and enhancements will be needed to more consistently finish collections by Thursday
 - Operational adjustments needed to address monthly tonnage variations and the variety of set out sizes
 - Additional resources (personnel and equipment) and collection equipment changes
 - Set-out limits and/or professional landscaper restrictions would reduce the need for additional resources
- Over use and abuse of current system will continue without limitations

Summary

- The amount of tonnage collected in Dallas' bulk and brush program continues to grow and is high compared to other Texas cities. Additionally, Dallas is the only major Texas city with comingled collection and no established set out limits
- Sanitation Services began reviewing collection alternatives due to tonnage growth and collection challenges
- After Council review and input, Sanitation Services contracted with a Solid Waste consultant to review of our current program and evaluate operational and financial impacts of alternative programs
 - Program alternatives could significantly increase waste diversion, improve collection consistency and provide cost savings of \$2.2M to \$3.0M a year (with full implementation)
- Even without pursuing reviewed program alternatives, set out limits needs to be considered and Sanitation Services needs make operational changes and additions to handle current volumes and variations in monthly set outs

Questions?

Appendix

Example – Austin Large Brush Requirements (twice yearly service)



Example – Fort Worth Bulk and Brush limitations (10 CY - monthly)



Note: Limit for monthly bulk collection and limit for weekly brush (excluding bags and bundled trimmings)

Example - Compostable and Kraft Bags



Neighborhood Drop Off



**San Antonio
Neighborhood Drop Off**

Neighborhood Drop Off



Houston Neighborhood Drop Off

Other Major Texas Cities (drop off sites)

- Austin
 - 1 drop off location
 - Open 40 hours/week (Monday thru Friday 8-4)
- Ft. Worth
 - 3 drop off locations
 - Open 59 hours/week (Monday thru Friday 8-6, Saturday 8-5)
- Houston
 - 6 drop off locations
 - Open 45 hours/week (Wednesday thru Sunday 10-7)
- San Antonio
 - 4 drop off locations
 - Open 40 hours/week (Tuesday thru Friday 8-5, Saturday 8-12)