

Memorandum



CITY OF DALLAS

DATE June 1, 2018

TO Honorable Mayor and Members of the City Council

SUBJECT **Proposed Changes to the Bulk and Brush Collection Program**

On Wednesday, June 6, 2018, you will be briefed on the Proposed Changes to the Bulk and Brush Collection Program. The briefing material is attached for your review.

Please feel free to contact either myself or Kelly High, Director of Sanitation Services if you have any questions or need additional information.

A handwritten signature in blue ink, appearing to read 'Jo M. (Jody) Puckett', written over a large, stylized blue oval.

Jo M. (Jody) Puckett
Assistant City Manager (I)

c: T.C. Broadnax, City Manager
Larry Casto, City Attorney
Craig D. Kinton, City Auditor
Biliera Johnson, City Secretary
Daniel F. Solis, Administrative Judge
Kimberly Bizer Tolbert, Chief of Staff to the City Manager
Majed A. Al-Ghafry, Assistant City Manager

Jon Fortune, Assistant City Manager
Joey Zapata, Assistant City Manager
M. Elizabeth Reich, Chief Financial Officer
Nadia Chandler Hardy, Chief of Community Services
Raquel Favela, Chief of Economic Development & Neighborhood Services
Theresa O'Donnell, Chief of Resilience
Directors and Assistant Directors

Proposed Changes to the Bulk and Brush Collection Program

Dallas City Council

June 6, 2018

**Kelly High, Director
Sanitation Services**



Presentation Overview

- Program Background
 - Current program and associated challenges
 - Comparison of other Texas cities
- Committee Reviews and Recommendation
 - Alternatives studied, field survey review and development of a recommended program alternative
- Other Related Program Considerations
- Council Feedback and Next Steps

Background - Bulk/Brush Collection



Background – Current Collection Program

- Sanitation Services provides collection service to approximately 240,000 residential households
- The current bulk and brush collection program costs over \$20M annually
 - About \$8 of the monthly \$25.18 residential fee
- Bulk and brush service is provided monthly during designated collection weeks
- Broad ordinance language doesn't specify volume limits and allows bulk and brush to be comingled



Background – Challenges

- Bulk and brush are comingled and the organic material cannot be easily diverted or re-used
 - Making progress towards the City's residential diversion goal of 40%, by 2020, requires diversion of brush and yard waste
 - Currently diversion or re-use is at about 20%
 - 12% residential blue bin recycling
 - 8% beneficial re-use of brush



Background – Challenges (cont'd)

- With few restrictions, the program tolerates over use or inappropriate use
 - Program utilized by homeowner operated businesses
 - Non-resident material brought to Dallas for collection
 - Large and non-typical waste are set out by some



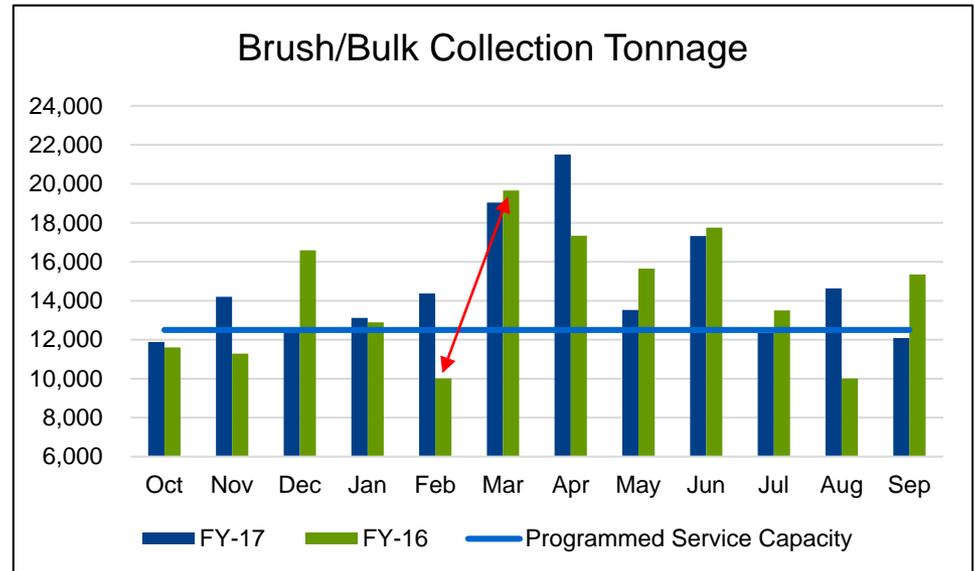
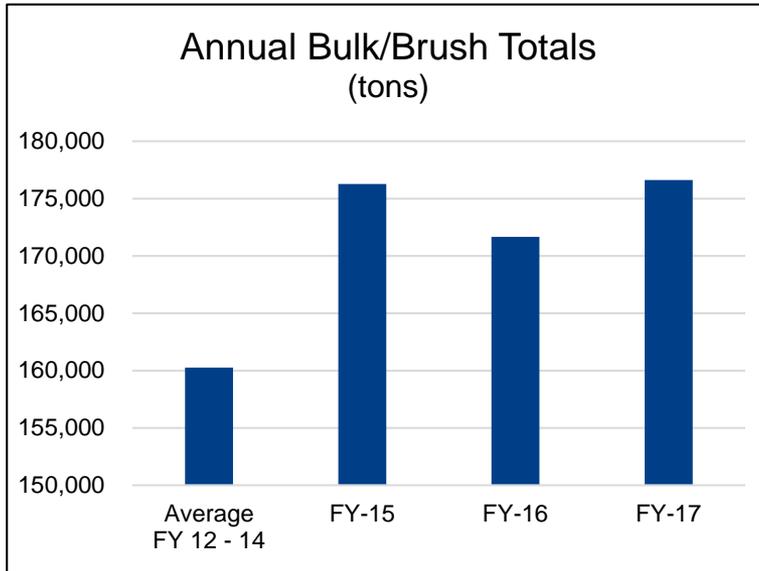
Background – Challenges (cont.)

- Volume spikes impact service delivery
 - In the last two years, crews were only able to finish by Friday about 60% -70% of the time
 - Additional funding would be needed to increase service delivery
- Frequent collections and limited restrictions can contribute to neighborhood blight
 - Potential indifference toward setting material out during non-collection weeks
 - Over 12,000 bulk and brush violation service requests worked annually by Code Compliance
 - Results in approximately 5,000 citations annually



Background – Challenges (cont.)

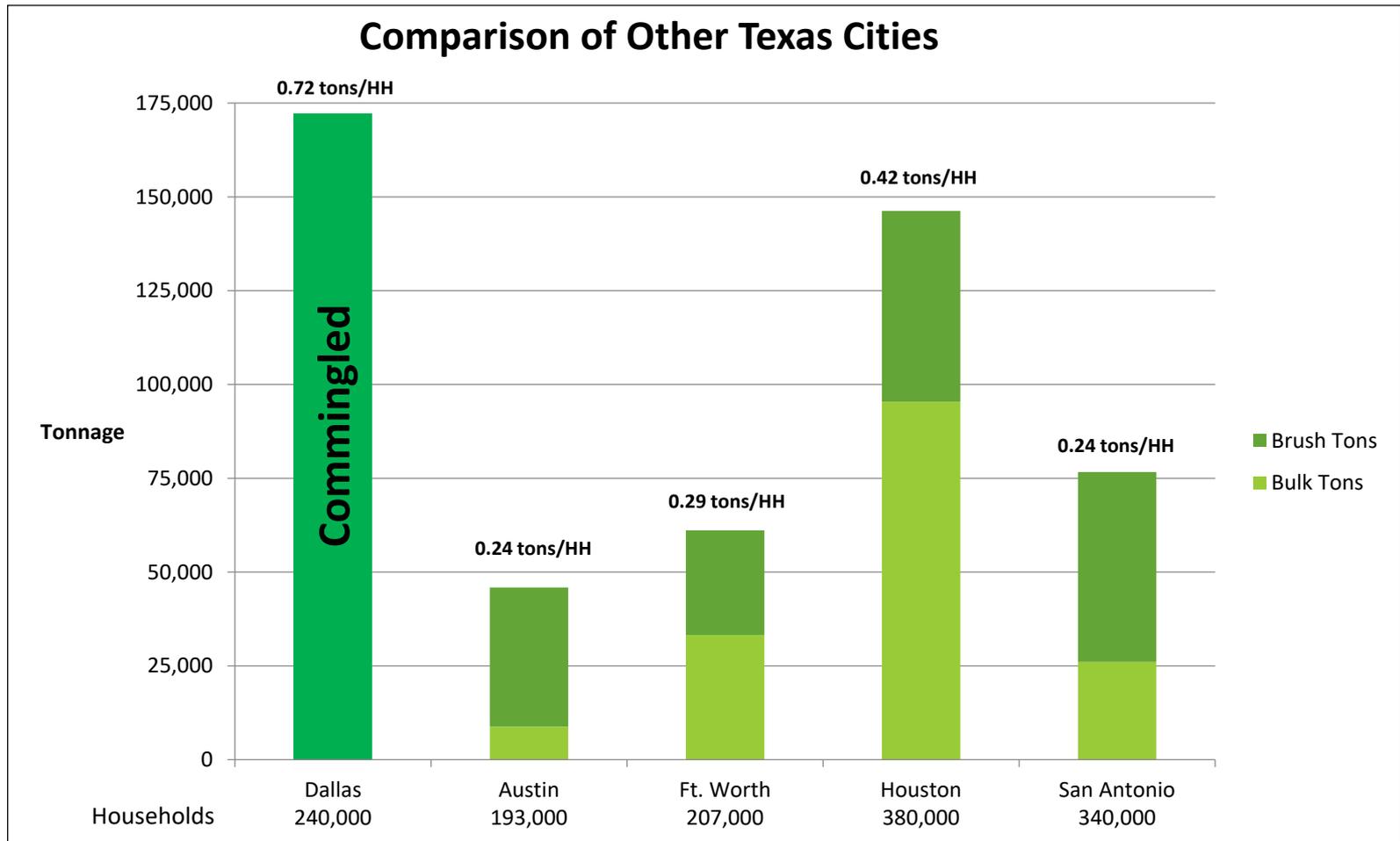
Annual Increases and Monthly Variations



Background - Other Texas Cities

Bulk, Brush and Yard Waste Collection					
City	Bulk Waste	Brush/Tree Waste	Yard Waste	Bulk, Brush and Yard Waste (comingled)	Bulk and Brush Collection Limits
Dallas	-	-	-	Monthly	No
Austin*	Twice per Year	Twice per Year	Weekly	-	8 Cubic Yards
Fort Worth	Monthly	-	Weekly	-	10 Cubic Yards
Houston	Even Months	Odd Months	Weekly	-	8 Cubic Yards
San Antonio**	Twice per Year	Twice per Year	Collection of leaves 2 on-call per year	-	8 Cubic Yards
* Austin - Bulk and Brush collection weeks not always on the same week and not always every 3 months.					
** San Antonio - Residents notified one week before their bulk or brush collection is scheduled to begin.					
<p><i>Note: Yard waste typically includes leaves, grass clippings, and small twigs/branches (branches typically tied/bundled or limited by diameter and length). Austin, Ft. Worth and San Antonio require bagged yard waste to be in paper yard/lawn bags and Houston requires use of approved compostable bags.</i></p>					

Background - Other Texas Cities



Note: Based on 2016/17 data

Program Review and Options



Committee Program Reviews

- Staff has been working with the Quality of Life, Arts and Culture Committee on the development and review of potential program alternatives
- The goals for developing new program alternatives included:
 - Meeting residents needs with reasonable collection frequency and limits
 - Increasing diversion or re-use of brush and yard waste material as outlined in the City's Zero Waste plan
 - Improving efficiency and consistency of service and reduce the amount of time that material is out for collection (i.e., improving neighborhood appearance)

Committee Program Reviews

- On February 26, 2018, staff provided the Committee with an update on a recently completed field survey to compare with alternatives developed to date
 - The 6 month citywide field survey showed how customers were utilizing the existing program
 - Frequency of use (participation levels)
 - Type of material set out (brush, non-brush, bagged leaves)
 - Set-out sizes (cubic yards)
 - The Committee was able to compare the field survey data to previously identified collection alternatives
 - Monthly brush collection, but on-call bulk collection
 - Monthly yard waste collection, with twice per year bulk and twice per year brush/yard waste
 - Alternating months of bulk and brush/yard waste collection

Committee Review – Field Survey Results

- The survey of about 5,200 homes was conducted over six months and indicated the following:
 - Most residents used the bulk and brush collection service at least once during the survey period
 - About 73% of the residents that used the service only used the service once or twice
 - Over 55% of the material was brush and yard waste, 17% commingled brush and non-brush, and 28% non-brush
 - About 85% of the time residents placed less than 5 cubic yards of material out for collection

Committee Program Reviews

- Based on a review of the survey in February, the Committee provided staff direction on developing an additional collection alternative
- On May 14, 2018, staff presented the additional collection alternative to Committee for review
 - The new option maintains monthly brush/yard waste collection and reduces bulk collection to quarterly
 - After review, the Committee recommended the new scenario be presented to full council for consideration

Proposed Committee Program Alternative

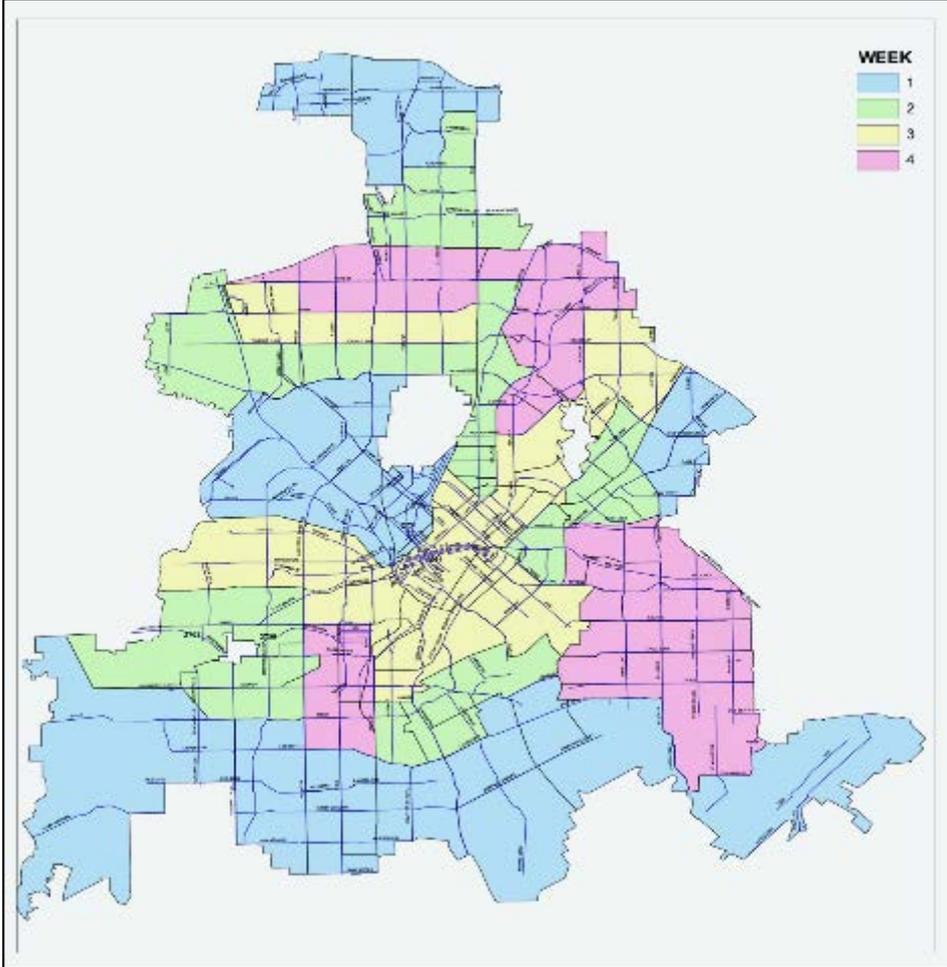
- Proposed bulk and brush collection program
 - Maintain monthly brush/yard waste collection
 - Suggested limit of 35 cubic yards (equal to one brush trailer)
 - Bagged yard waste must be in a paper yard bag or compliant compostable bag
 - Yard waste in plastic bags will be considered bulk waste and won't be collected with brush and yard waste
 - Bulk would only be collected quarterly, but during the same week as brush and yard waste

Proposed Committee Program Alternative

- Bulk collection schedule
 - During the quarterly collection bulk and brush/yard waste must be separated and not commingled
 - Staff recommends a 10 CY limit on bulk material
 - Each collection week would be divided into 3 separate bulk groups for quarterly collection

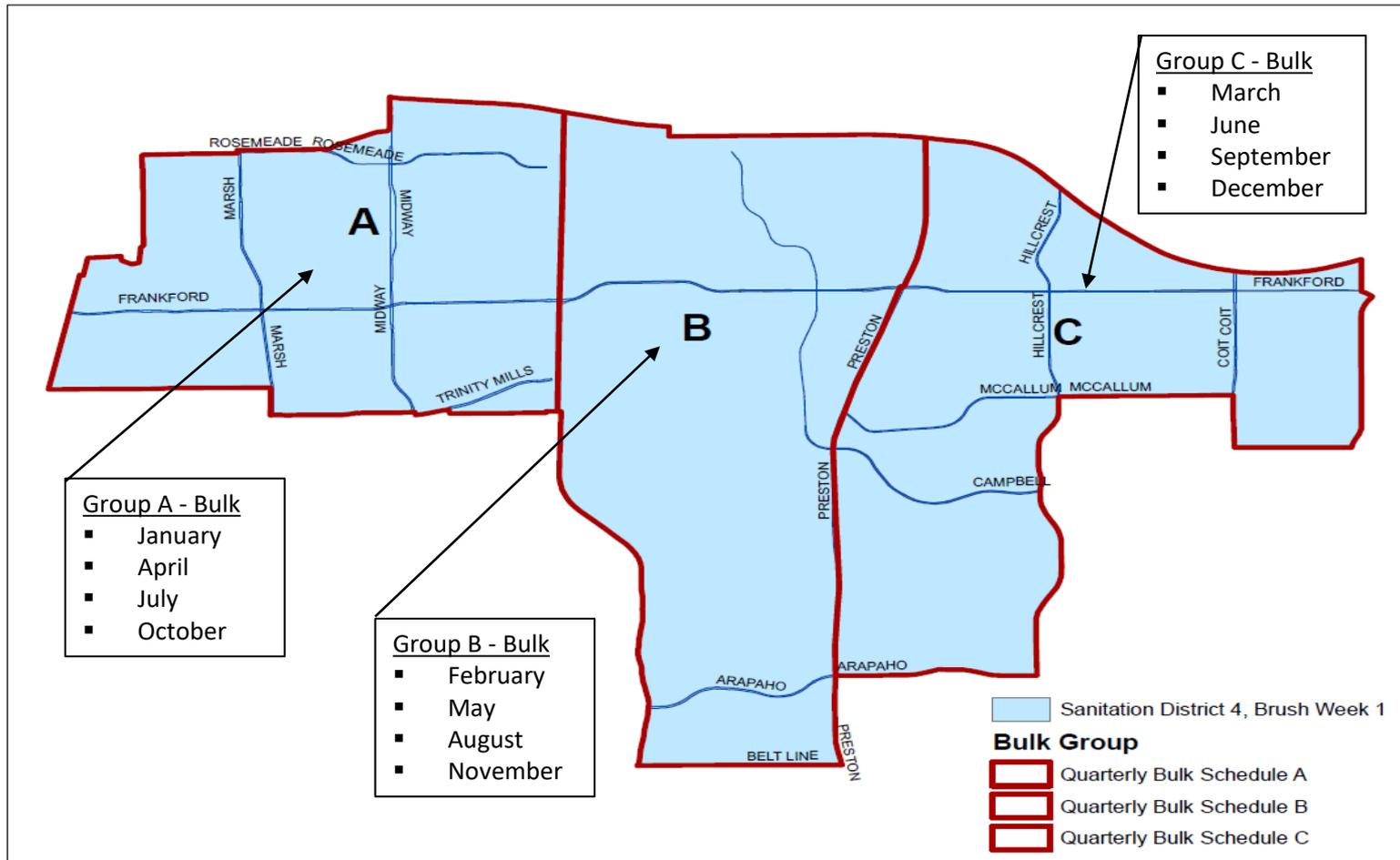
Quarterly Bulk Collection Schedule (Draft)		
Schedule A	Schedule B	Schedule C
January	February	March
April	May	June
July	August	September
October	November	December

Current Collection Weeks - Overview



Citywide Bulk and Brush – Weeks of Service

Proposed Alternative - Quarterly Schedule Map



Far North – Week 1 (Brush/Yard Waste – All Areas)

Proposed Committee Collection Alternative – Cost and Diversion

- The financial impacts are short-term neutral
 - Cost reductions are offset by short-term cost increases related to equipment procurement and implementation costs
 - Avoids additional costs to maintain current program and meet service schedules
- Net positive operational savings of up to \$1M annually could be realized over the long term
- Program changes could decrease overall collection tonnage by approximately 50,000 tons annually
- Could increase diversion or beneficial re-use by 90,000 tons annually
 - Could increase diversion by over 12%, from 20% to over 32%
 - Equates to about 2.7M tons over a 30-year period

20

Other Related Program Considerations



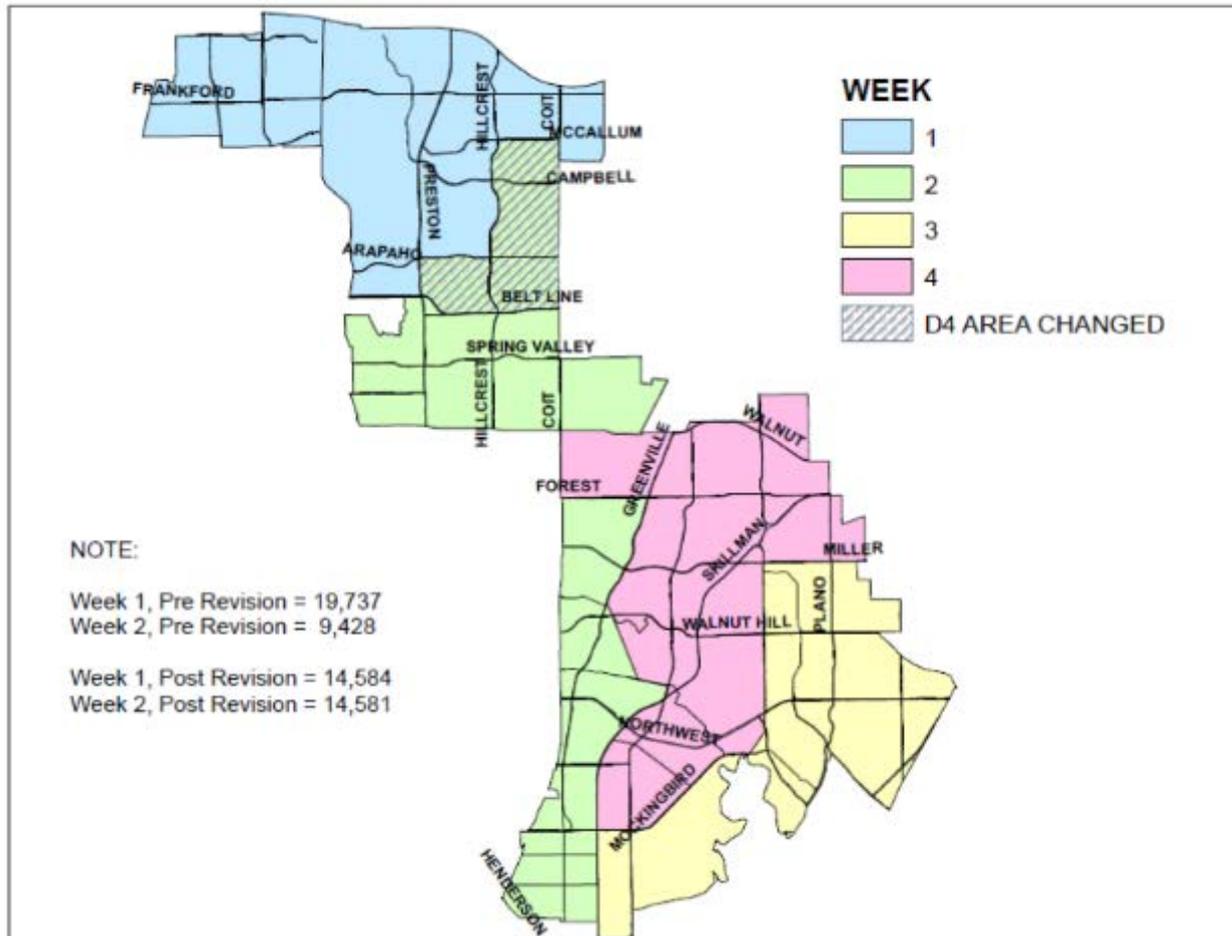
Other Related Program Considerations

- Also briefed at the May 14th meeting were other bulk and brush related considerations:
 - Brush/bulk week realignments
 - Developing a temporary citizen drop-off site
 - Streamlining Sanitation's current Cost-plus process

Brush/Bulk Week Realignment

- Some bulk and brush weeks need realignment to better distribute the number of households collected
 - Some weeks have significant household disparities
 - For example, a Sanitation District may have a Week 3 house count of 9,000 and a Week 4 house count of 18,000
- Previously, Week 1 and Week 2, in far north Dallas, were realigned based on a disparity of almost 10,000 homes between weeks
 - The realignment was successfully completed and has been beneficial to service delivery and operational efficiency
- Staff plans to proceed with these realignments this summer

Brush Week Realignment - Example



Week 1 and Week 2 Realignment (Far North)

Consideration of a Citizen Drop Off Site - Temporary/Pilot Site

- Staff also briefed the Committee related to developing a neighborhood drop-off site in coordination with program changes
- A drop-off site would be self-service in an area that currently has limited self disposal options
 - Should be strategically placed for convenient access
 - Recommended site map in the appendix
 - Minimally staffed, appropriately designed, and landscaped
 - Intended to discourage neighborhood illegal dumping by providing a convenient drop off location
 - Per TCEQ regulations, the facility would be “for the convenience and exclusive use of residents” (no commercial or industrial users or collection vehicles)

Consideration of a Citizen Drop Off Site - Temporary/Pilot Site

- Based on Committee feedback Sanitation staff intends to pursue developing a temporary facility with minimal start up costs and utilizing existing City property
 - Preliminary estimated annual operating cost of about \$300-\$400K, but site requirement could affect cost
 - Would require purchase of equipment and containers
 - Site could be minimally staffed (2-3 staff members)
 - Site may require some paving, fencing and a mobile/temporary office
 - About \$0.12 - \$0.16 increase in the residential fee
 - Staff would include funding for this temporary option as part of the FY 2018-19 budget development
- A fully developed neighborhood drop off site requires 1-2 acres and a capital cost of approximately \$2.5M - \$3.5M

26

Cost Plus Improvements

- Sanitation staff will be pursuing implementation of a streamlined Cost-Plus process:
 - Citizen calls for service and is informed of potential volume service cost
 - May be e-mailed or referred to Sanitation's website for more cost of service information (including graphics for estimating set-out size)
 - If citizen wants to proceed, collection is scheduled and they verbally agree to be billed for service based on set-out size at time of collection
 - Before collection, the set-out size is measured and photographed
 - Material is collected, paperwork and associated photograph(s) uploaded into CRMS, the service request is closed and referred to billing
 - The department's financial service division will place the collection charge on the citizen's next water bill
- Additional details, documentation and legal requirements, CRMS configuration and process flow need to be further refined
- Process changes tentatively proposed for late summer

Program Changes – Potential Timeline

Bulk and Brush Program Changes - Implementation Timeline

- August/September 2018
 - Further City Council consideration of collection program changes as part of budget adoption process
- October 1, 2018 through September 30, 2019
 - Equipment Procurement and delivery
 - Education and Outreach on program changes
- December 2018
 - Publish 2019 collection schedule, indicating new schedule to begin in October 2019

Bulk and Brush Program Changes - Implementation Timeline

- October 1, 2019
 - First quarterly bulk collection, with limits, for Group A
 - October through December “soft opening”
- December 2019
 - Publish 2020 calendars for the upcoming year

Bulk and Brush Week Realignmentments

- June/July 2018
 - Finalize brush week realignment
- July 2018 and August 2018
 - Brush week realignment outreach in the community
- September 1, 2018
 - Begin using new brush week areas

Next Steps

- Receive Council feedback on Committee recommended bulk and brush program alternative
- Begin bulk and brush week realignments this summer
 - If no program changes selected, staff will proceed to “right-size” staffing and equipment to meet service schedules
- Continue to finalize and implement streamlined Cost Plus changes
- Include budget considerations for a temporary citizen drop-off site as part of the FY 2018/19 budget
 - Target implementation of the site for the spring of 2019 (prior to revised bulk and brush program implementation)

Proposed Changes to the Bulk and Brush Collection Program

Dallas City Council

June 6, 2018

**Kelly High, Director
Sanitation Services**



Appendix – Scenarios/Options



Program Review – Bulk and Brush Study

- In FY 2016-17 Sanitation Services, with assistance of a solid waste consultant, conducted a review of the current collection program was completed
- The program review included:
 - Review of the Dallas' current collection program, including operational set up and collection challenges
 - Benchmarking related to other Texas cities
 - Development of collection alternatives to consider
 - Diversion and financial impacts of collection alternatives
 - Review of implementation considerations

Program Review – Bulk and Brush Study

- The study initially resulted in 3 alternative scenarios for Dallas to consider:
 - Monthly brush collection, but on-call bulk collection
 - Monthly yard waste collection, with twice per year bulk and twice per year brush/yard waste
 - Alternating months of bulk and brush/yard waste collection
 - All 3 scenarios included 10 cubic yard limits
- The estimated long-term financial impacts of the 3 scenarios ranged from approximately \$2M - \$4M in savings annually

Program Review – Bulk and Brush Study

Bulk and Brush Collection Scenarios and Potential Long-Term Savings

Material Type	Existing System	Scenario 1*	Scenario 2*	Scenario 3*	Scenario 4*
Yard Trimmings	Monthly	Monthly	Monthly	Every Other Month	Monthly
Large Brush			Twice per Year		
Bulky Items		Call- in**	Twice per Year	Every Other Month	Quarterly***
Estimated Long-term Savings		(\$2.9M)	(\$4.0M)	(\$2.2M)	(\$1.1M)

* **Scenarios 1-3 assume 10 cubic yard limits.** Scenario 4 assumes 10 cubic yard limit on bulk and 35 cubic yard limit on brush/yard waste.

** Analysis assumes a certain number of collections per year, with additional collections charged at an additional fee.

*** Quarterly on same week as brush and yard waste, but separated at the curb.

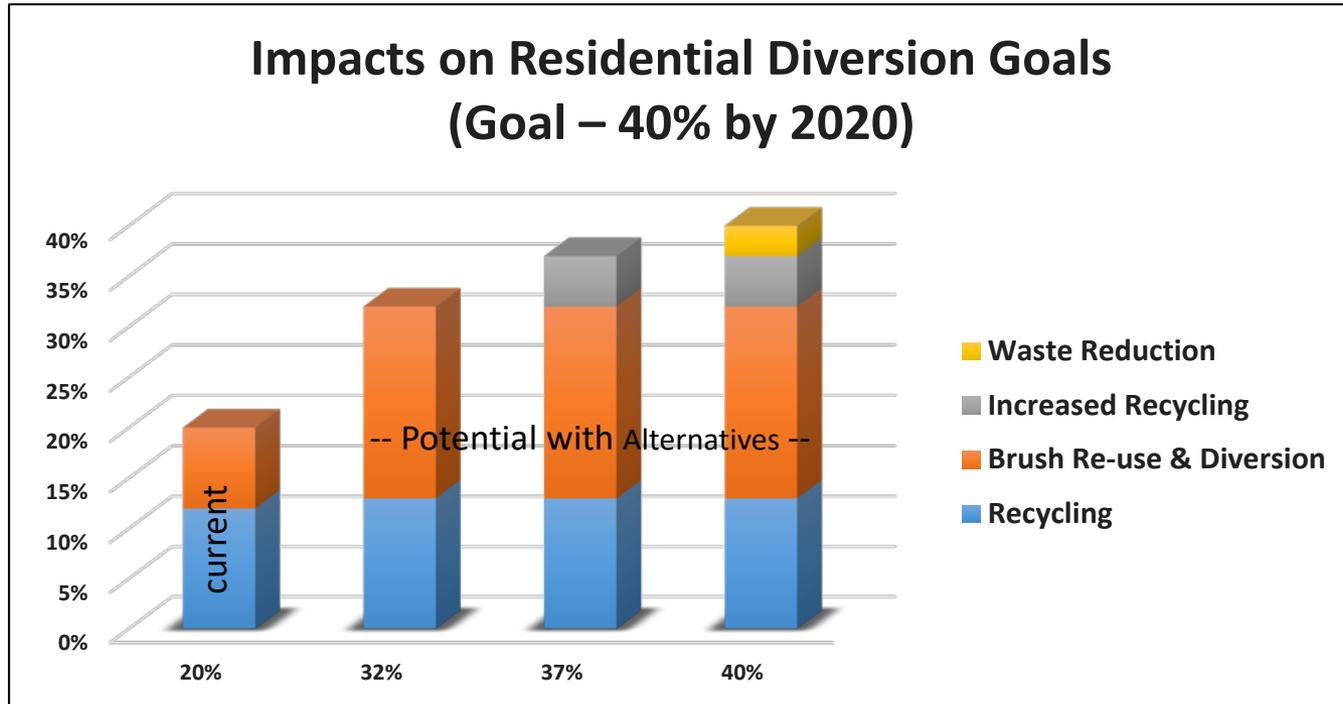
Bulk and Brush Collection Scenarios and Estimated Collection Tonnage

Material Type	Existing System	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Yard Trimmings		35,000	35,000	73,500	35,000
Large Brush		54,250	31,000		54,250
Bulky Items		31,000	31,000	46,500	38,750
Total	176,232	120,250	97,000	120,000	128,000
Annual Pounds per Household	1,469	1,002	808	1,000	1,067

Specific Program Options – Impacts (cont.)

- The financial impacts of the each scenario are estimated based on long-term cumulative cost reductions
 - Decreased labor and overtime costs
 - Lower equipment maintenance costs
 - Lower costs for disposal or diversion
- Most scenarios are short-term neutral due to:
 - Up front capital costs for new collection equipment and/or new equipment for landfill diversion operations (mulching/composting)
 - Increased outreach and education costs for new program implementation
 - Uncertainty of volume reductions and compliance during implementation
 - Increased cost for Code Compliance’s resources (overtime)

Program Review – Bulk and Brush Study



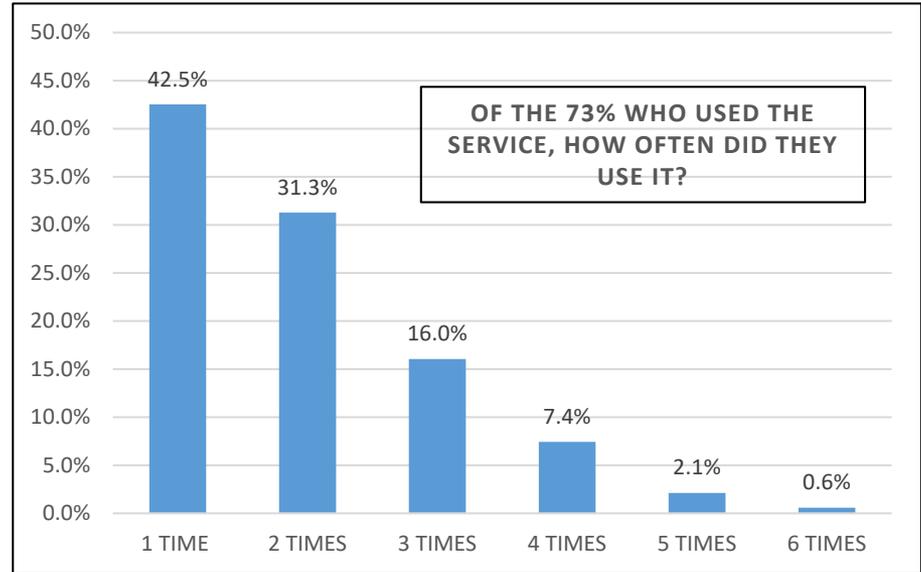
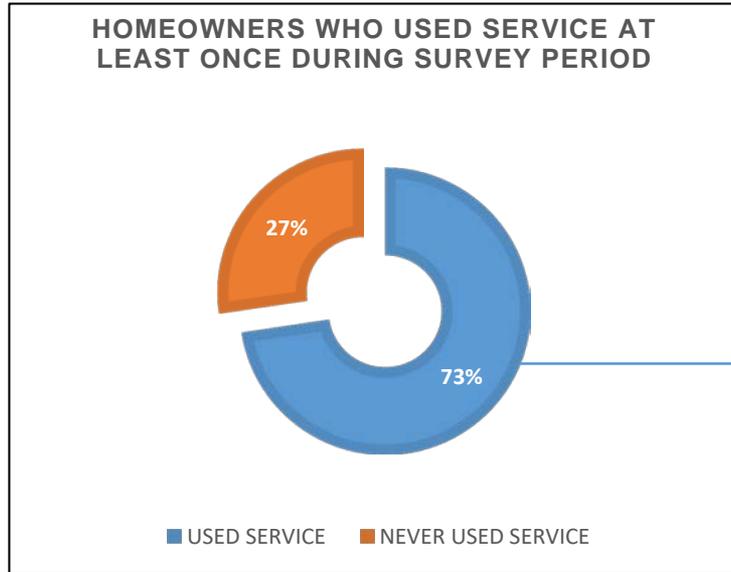
Appendix - Recent Field Survey Detail



Field Survey Details

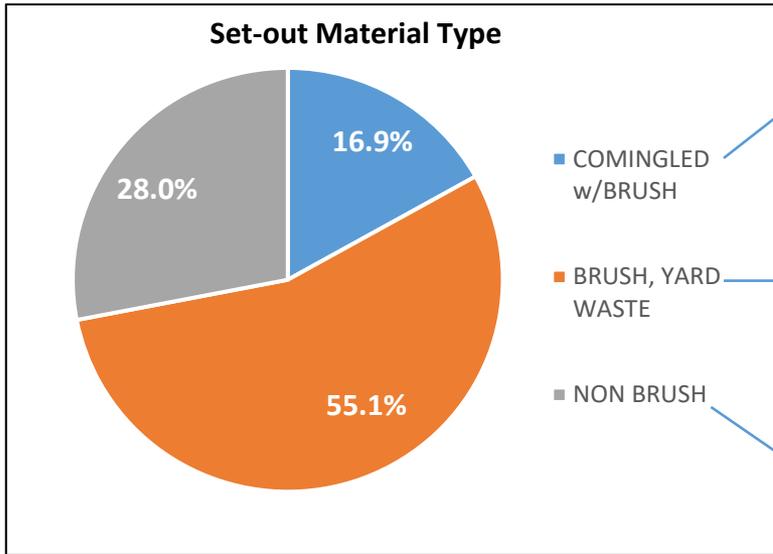
- In 2017, staff conducted field surveys to:
 - Determine how customers utilized the current program
 - Frequency of use (participation levels)
 - Type of material set out (brush, non-brush, bagged leaves)
 - Set-out sizes (cubic yards)
- Two survey components:
 - A primary 6 month survey
 - 21 geographically identified areas Citywide
 - ~250 homes in each area (same 5,250 surveyed each month)
 - Odd side addresses for odd brush weeks and even side addresses for even brush weeks
 - March, April, May, June, November and December
 - At least one area in each Council District and four areas in each Sanitation District (one per brush week)
 - A secondary “support” survey was conducted in July only (2,500 separate homes)

Primary Survey Results - Participation



Note: Of the total number of opportunities available during the 6 months, only 24% of the opportunities utilized.

Primary Survey Results - Material Type



Primary Survey Results - Sizes

- The survey indicated the following regarding the sizes of individual set outs:

Set Out Size	Percentage
Less than 5 cubic yards	85%
5 – 10 cubic yards	11%
11 – 15 cubic yards	2%
Over 15 cubic yards	2%

Note:

- *1 Cubic Yard ~ Two 96-gallon roll carts.*
- *10 Cubic Yards ~ 16 full sized clothes dryers or 6 full sized refrigerators*
- *16-18 Cubic Yards ~ Minivan*
- *35 Cubic Yards ~ One full brush trailer*

Primary Survey Results – Size Examples



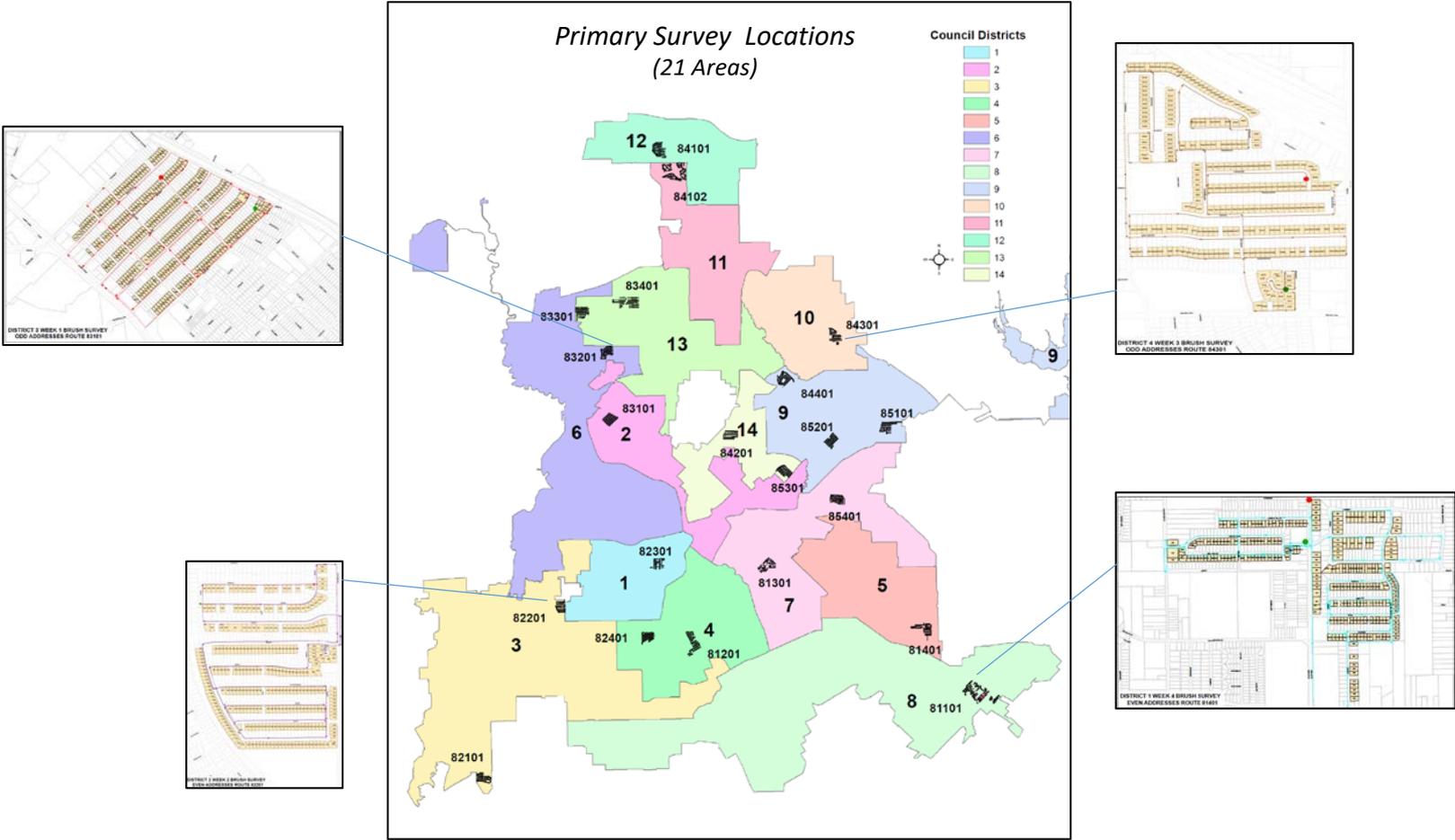
Recent Survey Results - Variations

- There were some slight differences among the 21 areas surveyed related to:
 - Composition of materials and use of bagged material
 - Brush/yard waste only ranging from 30% - 77%
 - Non-brush ranging from 8% - 53%
 - Volumes of material set out for collection
 - Over 10 cubic yards ranging from 0 – 11.9%
 - Participation and utilization rates
 - Participation ranging from 38% - 88%

Secondary July Field Survey Results

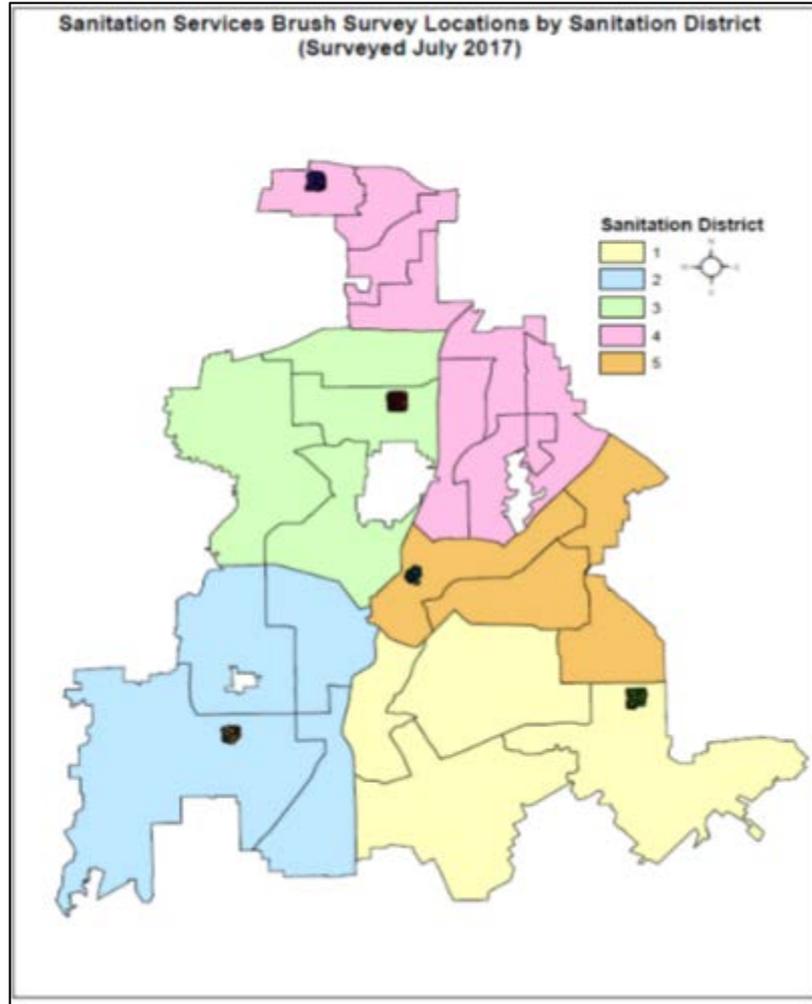
- The July survey data correlated fairly well to primary survey
 - Differences appear mainly seasonal
- There were some slight differences among areas related to:
 - Utilization rates (16% vs. 27%)
 - Brush and yard waste percentage lower (48% vs. 55%)
 - Non-brush percentage higher (23% vs. 17%)

Primary Survey Map



Note: All Council districts, Sanitation districts and Bulk/Brush weeks represented

Secondary Survey (July)



Appendix – Diversion Considerations



Bagged Yard Waste - Bag Considerations

- “Kraft” paper yard bags
 - Reasonable cost
 - No confusion related to compostable, biodegradable or plastic bags
 - Due to lack of opacity, “hidden” trash not easily identified
- Compostable bags
 - Typically allows for better visual inspection of material inside
 - Slightly higher cost than paper yard bags
 - Can be confused with other plastic bags or non-compliant bags
 - Need to meet standards for commercial or municipal composting use (US ASTM D6400 or European EN13432)
- Staff reviewed the need to provide free bags to residents, but a program does not appear warranted at this time

Bagged Yard Waste – Bag Considerations

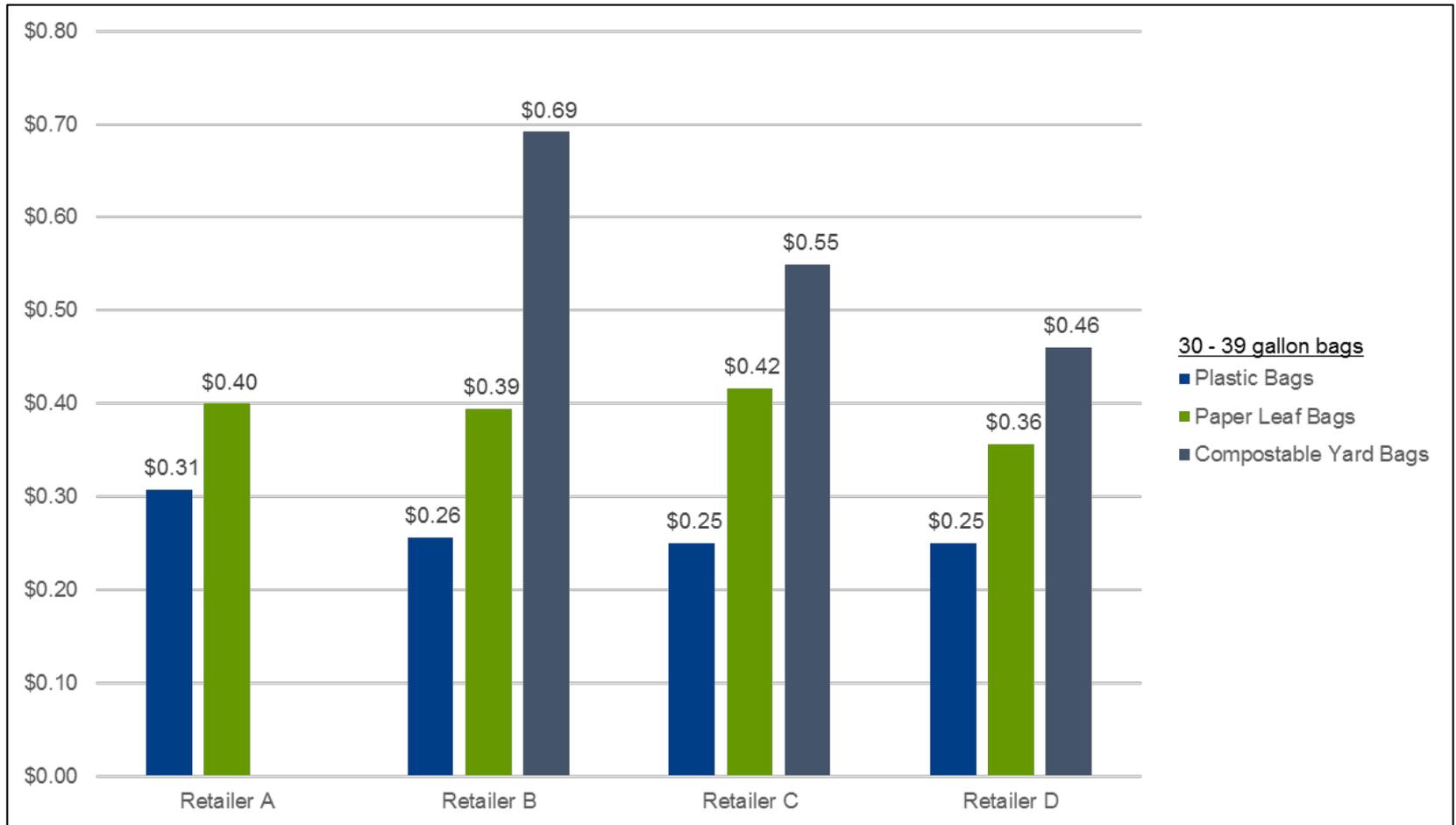


Paper Yard Bags



Compostable Bags

Bagged Yard Waste - Bag Cost Comparison



Brush and Yard Waste Diversion

- Brush and Yard Waste Diversion Program Development
 - Over the next year, staff will review options and best practices, including in-house, contracted and/or a public/private partnership for operation of a mulching or composting facility
 - Look at options for free citizen mulch and potential to provide mulch for other City departments (e.g., Parks)
 - Until a new collection program is established and the actual composition of the green waste stream is determined, a long-term diversion solution cannot be fully developed

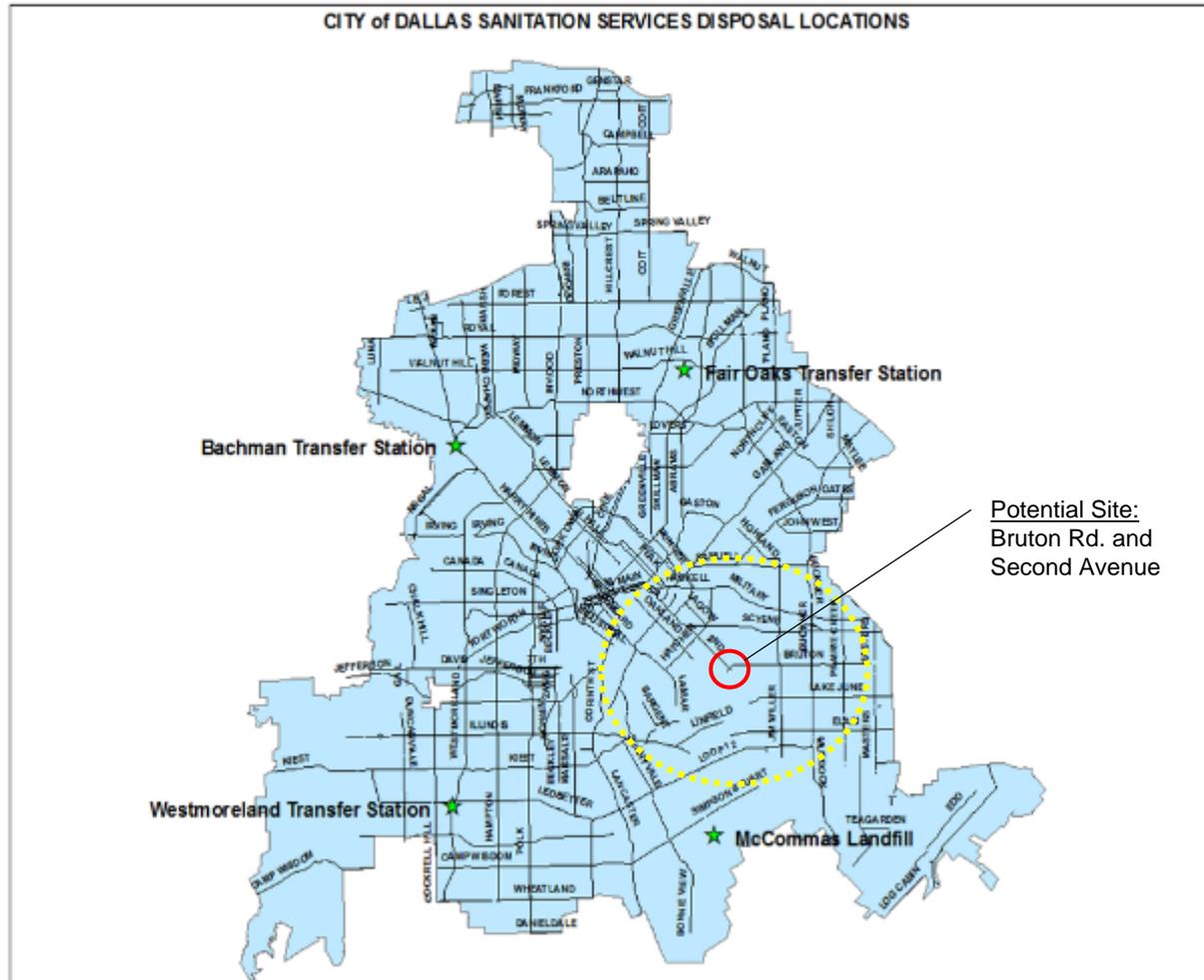
Appendix – Drop-off Site Detail



Potential Citizen Drop-Off Site

- A site near Bruton Road and Second Avenue has been identified as a potential citizen drop-off site
 - Site has good highway and major thoroughfare access
 - The City owns several parcels of land in this area
 - Site is situated in a geographic area that could benefit from a convenient citizen drop-off location
- Additional review and research would be needed
 - Site is in the floodplain which may restrict such site
 - TCEQ requirements would have to be met, which requires further review
 - Site zoning would have to be reviewed
 - Unintended consequences would have to be considered
- If the Committee would like to consider this further, staff will proceed with a more detailed review of this site's viability or another site

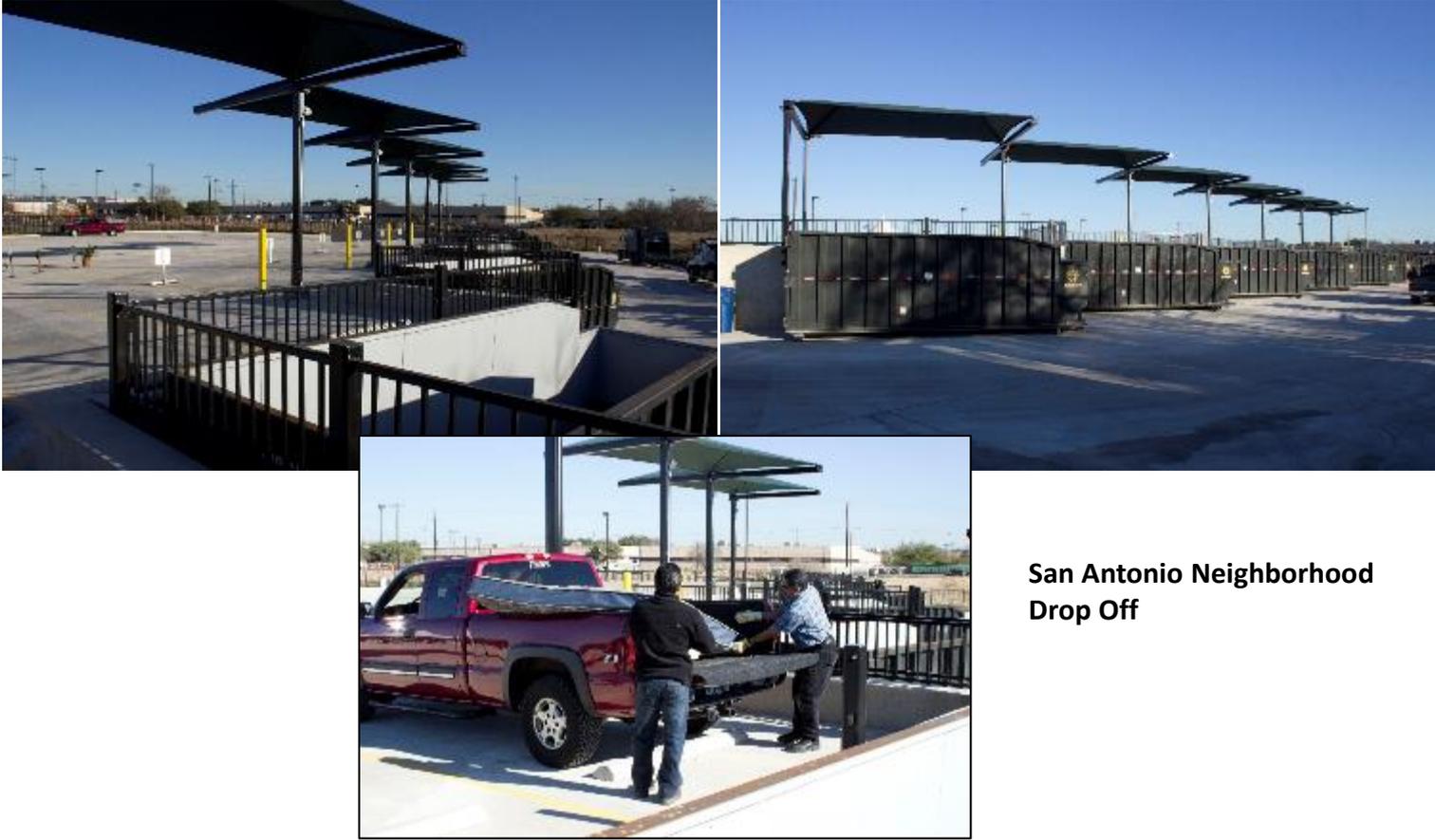
Potential Temporary Drop-Off Site



Temporary Drop-off Site – Site Ideas



Fully Developed Drop-off Site (example)



San Antonio Neighborhood Drop Off

Fully Developed Drop-off Site (example)

Houston Neighborhood Drop Off

