



**City of Dallas**

# **Brush & Bulky Trash Collection Program Performance and Service Delivery Alternatives**

**Dallas City Council Briefing  
June 2, 2021**

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# Presentation Overview



- Background
- Purpose
- Current program challenges
- 2017 Operational Survey
- Service delivery scenarios
- Requested Council feedback
- Next steps



# Background – Current Collection Program



- Sanitation Services provides monthly brush and bulk collections service
  - Serves approximately 250,000 residential households
  - Collects monthly during designated collection weeks
    - First Monday through Fourth Monday
  - Allows comingled bulk and brush set-outs
  - 10 cubic yard limit (~10 washing machines)
- The program is budgeted at over \$22M annually
  - 125 truck drivers/equipment operators
  - 35 grapple trucks and 52 tractor trailers



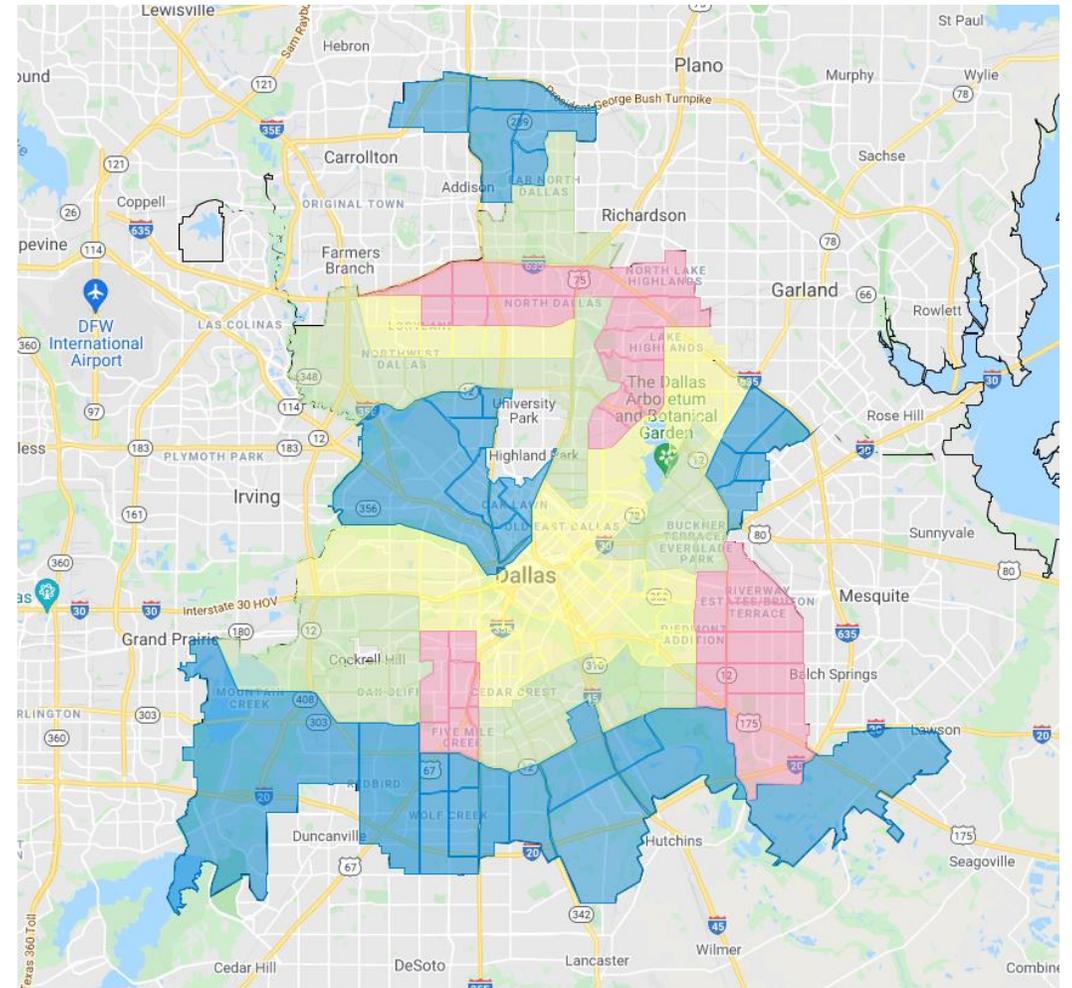
# Background – Current Collection Program



# Background – Current Collection Program



- Collections are performed by each of 5 Sanitation Collection Districts
  - District 1 – Southeast
  - District 2 – Southwest
  - District 3 – West/Northwest
  - District 4 – North
  - District 5 - Central/Northeast



# Background – Current Collection Program



- After considering several alternative service models, the City initiated an incremental approach in 2019
  - 04/2015 Quality of Life and Environmental
  - 10/2015 Quality of Life and Environmental
  - 11/2016 Quality of Life and Environmental
  - 02/2017 Quality of Life and Environmental
  - 02/2018 Quality of Life, Arts and Culture
  - 05/2018 Quality of Life, Arts and Culture
  - 06/2018 City Council Briefing - *Remanded back to committee*
  - 01/2019 Quality of Life, Arts and Culture - *Incremental Approach Phase I*
  - 02/2019 City Council Briefing – *Incremental Approach Phase I*
  - 06/2019 City Council Meeting – *Ordinance Adoption*
  - 07/2020 10 cubic yard volume limit took effect
  - 08/2020 Environment and Sustainability – *Incremental Approach --Phase II*



# Purpose



- Discuss the current program, performance, and its challenges
- Provide a comparison of Dallas' program to others
- Present service delivery alternatives
- Receive feedback and direction for implementation



# Current Program Challenges



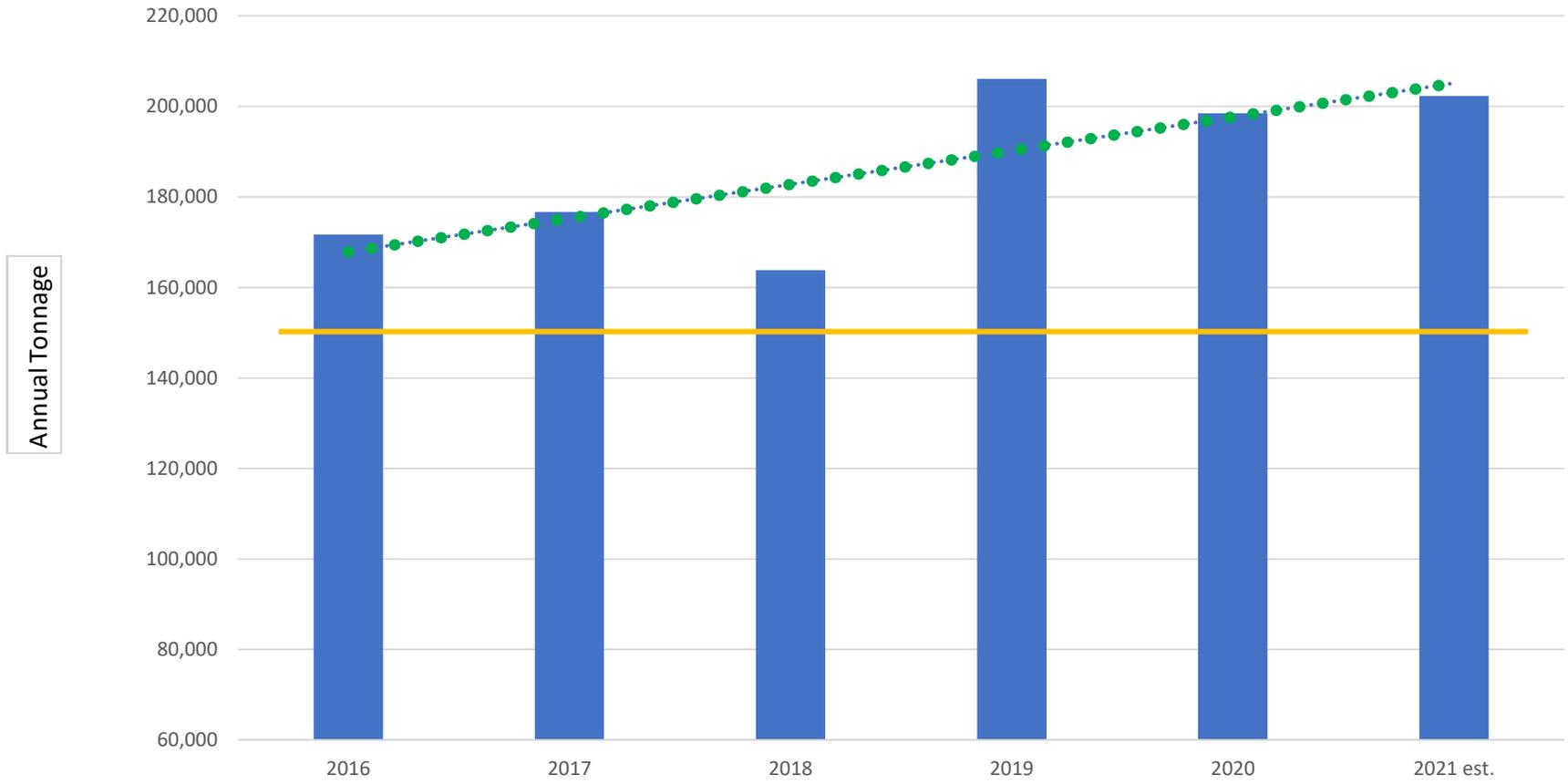
- Lack of Predictability
- Volume Spikes = delayed collections
- Length of time at the curb for collection
- Misuse and abuse (compliance)
- Lack of ability to divert green waste material
- Department wide labor shortage
  - Starting City truck driver pay is \$16.50/hour versus local industry (\$18-20/hour starting pay)
  - A tenured, private sector garbage/recycling truck driver pay can be as high as \$30/hour



# Current Program Challenges



Annual Tons Collected



Annual Increases	
FY-13	168,666
FY-14	173,285
FY-15	162,640
FY-18	163,801
FY-19	206,043
FY-20	198,458
FY-21 est.	202,283

Programmed Capacity  
 Actual Trendline



# Current Program Challenges



Monthly Volume Matrix

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>2016</b>	12,892	10,020	19,662	17,341	15,652	17,754	13,501	10,011	15,351	11,881	14,204	12,564
<b>2017</b>	13,122	14,378	19,041	21,512	13,532	17,322	12,352	14,637	12,084	10,797	17,859	10,810
<b>2018</b>	7,611	13,638	17,533	15,797	20,785	11,054	9,672	15,167	9,918	11,266	18,020	13,341
<b>2019</b>	13,351	8,846	14,196	17,343	26,119	41,623	9,010	21,105	9,822	19,070	13,106	12,452
<b>2020</b>	16,406	8,706	14,738	31,157	28,460	9,422	20,328	10,883	16,593	12,240	11,261	18,262
<b>2021</b>	9,281	5,760	16,094	31,269	32,000	25,523	14,669	15,994	13,208	15,655	12,184	15,357

	At or Below Program Capacity
	Slightly Above Capacity
	Extremely High



# Current Program Challenges



## Matrix of Monthly Volumes

TONS	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	AVG	TOTAL
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	172,234
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	157,319
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
4 yr Avg	13,818	13,687	14,779	13,685	9,711	12,177	17,225	18,083	14,886	13,497	12,465	10,257	13,689	164,270

Extremely High
Slightly Above
Within or Below

- 2015 Briefing Matrix



# Current Program Challenges



Days Required to Complete Collection Cycle

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>2016</b>	17	17	22	17	19	24	18	17	24	18	22	17
<b>2017</b>	19	24	20	24	19	24	18	24	19	19	25	18
<b>2018</b>	16	21	24	21	29	19	21	25	18	20	27	21
<b>2019</b>	23	17	22	23	31	42	11	26	19	27	17	22
<b>2020</b>	25	17	23	36	29	16	32	19	31	25	22	32
<b>2021</b>	19	16	27	40								

	Each week of service and month completed on time
	Overall month completed on time but required overtime and/or contractor assistance
	Delayed



# Current Program Challenges



- Over the past 3 years, Sanitation Services has used over \$16M of fund balance and capital transfer to offset expenses related to extraordinary events
- Avoided a \$5.68/mo. impact to sanitation fee

Sanitation Services Rate and Recent Fund Balance Impact							
	SAN Rate	Operating and Captial Funds Use	Fund Balance	Reserve Days	Fund Balance without use of Capital Transfer	Reserve Days	Events
FY 2019	\$27.29	\$5,700,000.00	\$22,336,560.00	74.5	\$16,836,560.00	50.08	June 2019 wind storm
FY 2020	\$28.64	\$6,000,000.00	\$15,821,324.00	45.5	\$10,836,560.00	32.24	October 2019 tornado
FY 2021	\$30.52	\$4,500,000.00	\$13,861,189.00	38.4	\$6,335,560.00	18.85	October 2019 tornado TI lease payment, Blue Star
FY 2022 (proposed)	\$31.50						
Total		<b>\$16,200,000.00</b>					
Potential Rate Impact		<b>\$5.68</b>					



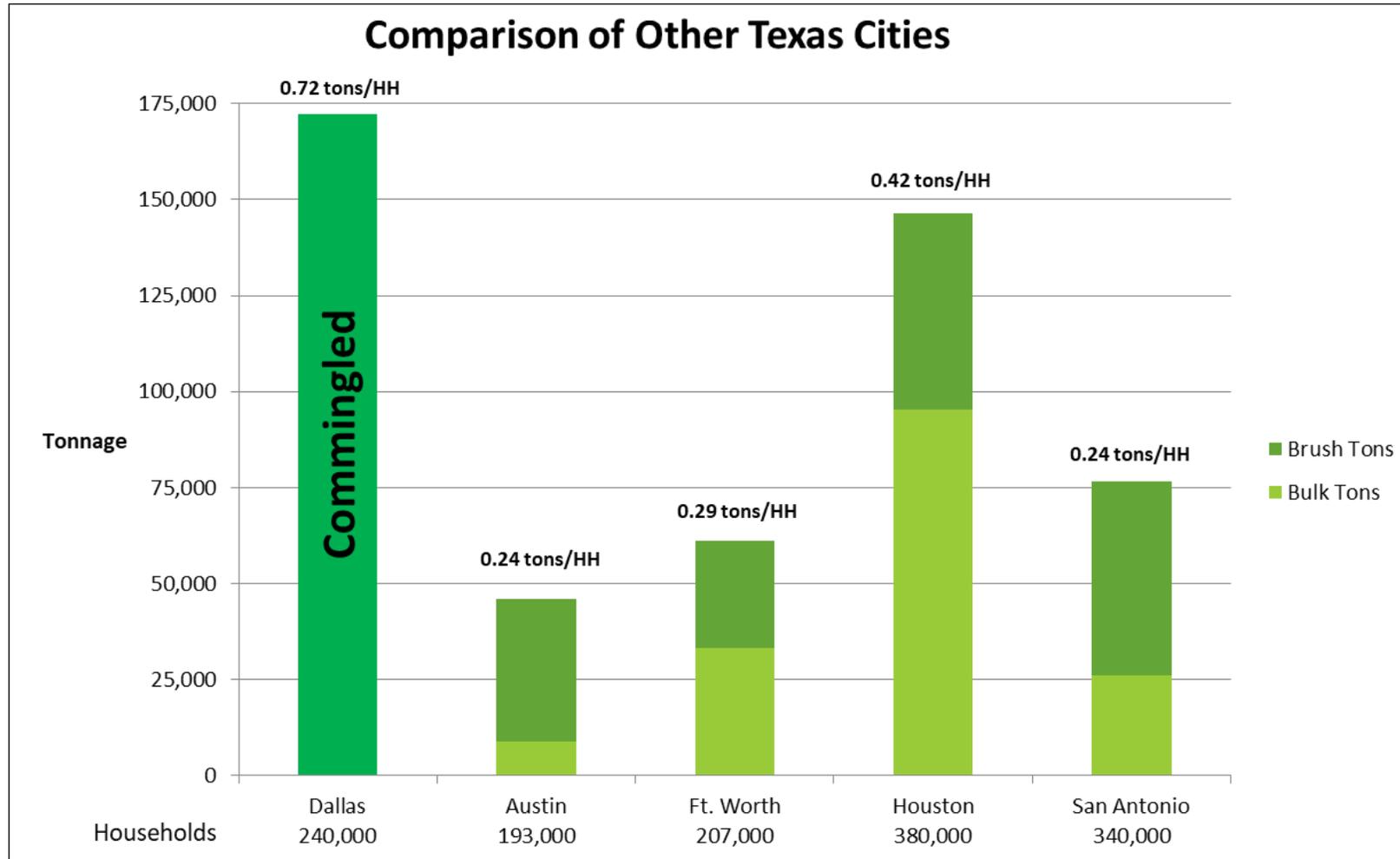
# Comparison to Other Texas Cities



Bulk, Brush and Yard Waste Collection					
City and Rate	Bulk Waste	Brush/Tree Waste	Yard Waste	Bulk, Brush and Yard Waste (comingled)	Bulk and Brush Collection Limits
Dallas - \$30.52	-	-	-	Monthly	10 Cubic Yards
Austin* - \$21.15 - \$48.00	Twice per Year	Twice per Year	Weekly	-	8 Cubic Yards
Fort Worth - \$12.50 - \$22.75	Monthly	-	Weekly	-	10 Cubic Yards
Houston – GF \$18.97	Even Months	Odd Months	Weekly	-	8 Cubic Yards
San Antonio** \$18.00 – \$30.00	Twice per Year	Twice per Year	Collection of leaves 2X 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>					



# Comparison to Other Texas Cities



Based on 2016/17 data

Current Annual Tonnage exceeds 200,000 tons and 0.8 tons/household



# 2017 Window Survey



- A 2017 window survey of 5,250 homes over 6 months found that:
  - Most residents used the program at least once
  - 73% of residents used the program only once or twice
  - Over 55% of the material placed for collection was brush alone, 17% was commingled brush and bulk trash, and 28% was bulk trash only
  - About 85% of setouts were less than 5 cubic yards
  - About 96% of setouts were 10 cubic yards or less
  - 2020 program update was forecasted to only eliminate 25,000 – 35,000 tons



# Service Delivery Alternatives



- In FY 2016-17 Sanitation Services, with assistance of a solid waste consultant, conducted a review of the current collection program
- 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 3-4 collection alternatives to consider
  - Diversion, financial impacts, and implementation considerations of collection alternatives



# Service Delivery Alternatives



- Program Alternative Definitions
  - Yard Trimmings – Grass trimmings, leaves, small branches and similar items resulting from yard maintenance
  - Brush – Large piles of tree limbs, typically no more than 50 lbs. per cut nor greater than 10' in length
  - Bulky Waste – Large items such as furniture and appliances that do not fit in the residential refuse cart; does not include excess refuse



# Service Delivery Alternatives



**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***
<b>Estimated Long-term Savings</b>		<b>(\$2.9M)</b>	<b>(\$4.0M)</b>	<b>(\$2.2M)</b>	<b>(\$1.1M)</b>

\*\* 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
<b>Total</b>	<b>176,232</b>	<b>120,250</b>	<b>97,000</b>	<b>120,000</b>	<b>128,000</b>
<b>Annual Pounds per Household</b>	<b>1,469</b>	<b>1,002</b>	<b>808</b>	<b>1,000</b>	<b>1,067</b>



# Service Delivery Alternatives



- Scenario 1 includes:
  - Monthly Combined Yard Trimmings and Large Brush (10 cubic yard limit)
  - On-Call bulk collection 2 times per year
    - Enforce “bulk” definition as large item that doesn’t fit into trash roll cart, not additional quantities of refuse
- Pro/Con
  - ✓ Retains monthly brush
  - ✓ On-demand bulk service only
  - ✗ Most difficult program to manage and maintain
  - ✗ Piloted but not implemented in Austin and Phoenix in 2018
  - ✗ Set-outs not “called in” potentially left at curb



# Service Delivery Alternatives



- Scenario 2 includes:
  - Monthly Yard Trimmings
  - Twice per Year Large Brush
  - Twice per Year Bulky Items
    - Enforce “bulk” definition as large item that doesn’t fit into trash roll cart, not additional quantities of refuse
- Pro/Con
  - ✓ Largest volume reduction and annual cost savings
  - ✗ Short term cost savings neutral due to equipment need and material diversion operations development



# Service Delivery Alternatives



- Scenario 3 includes: *Staff Recommendation B*
- Alternating Brush and Bulky Item months
  - Brush -- 8-10 cubic yard limit
  - Bulky Waste
    - Enforce “bulk” definition as large item that doesn’t fit into trash roll cart, not additional quantities of refuse
    - 8-10 cubic yard limit *or* limited number of items
- Pro/Con
  - ✓ Easiest and quickest to implement
  - ✓ Would allow for diversion of organic material
  - ✗ Could allow for brush set-out in bulky trash month, but would not be diverted and could impact timely collections



# Service Delivery Alternatives



- Scenario 4 includes: – *Staff Recommendation A*
- Monthly Brush (10 cubic yards)
- Quarterly or Semi-Annual Bulky Trash Pickup
  - Enforce “bulk” definition as large item that doesn’t fit into trash roll cart, not additional quantities of refuse
  - 8-10 cubic yard limit or limited number of items
  - Bulk would be collected during same week as brush
- Pro/Con
  - ✓ Would allow for green waste separation
  - ✓ 2018 QOL Committee recommendation
  - ✗ Would require substantial outreach and education



# Service Delivery Alternatives



- Scenario 5 –
- Program status quo with pre-arranged contractor assistance and surcharge to recover vendor cost
  - Combined Brush and Bulky Trash Collection – (10 cubic yard limit)
  - Contractor assistance on historically high-volume months.
- Surcharge costs would be calculated in arrears and user rate adjusted to cover the expense
- Pro/Con
  - ✓ Least amount of change
  - ✓ Limits impact to monthly sanitation fee to customers
  - ✗ Does not move towards diversion goals
  - ✗ May still result in delays and relies on contractor availability



# Requested Guidance



- Request City Council feedback on service delivery alternatives for implementation



# Next Steps



- With City Council feedback on service delivery alternatives, staff will prepare program changes and public education for implementation





# Brush and Bulky Trash Collection Program, Performance and Service Delivery Alternatives

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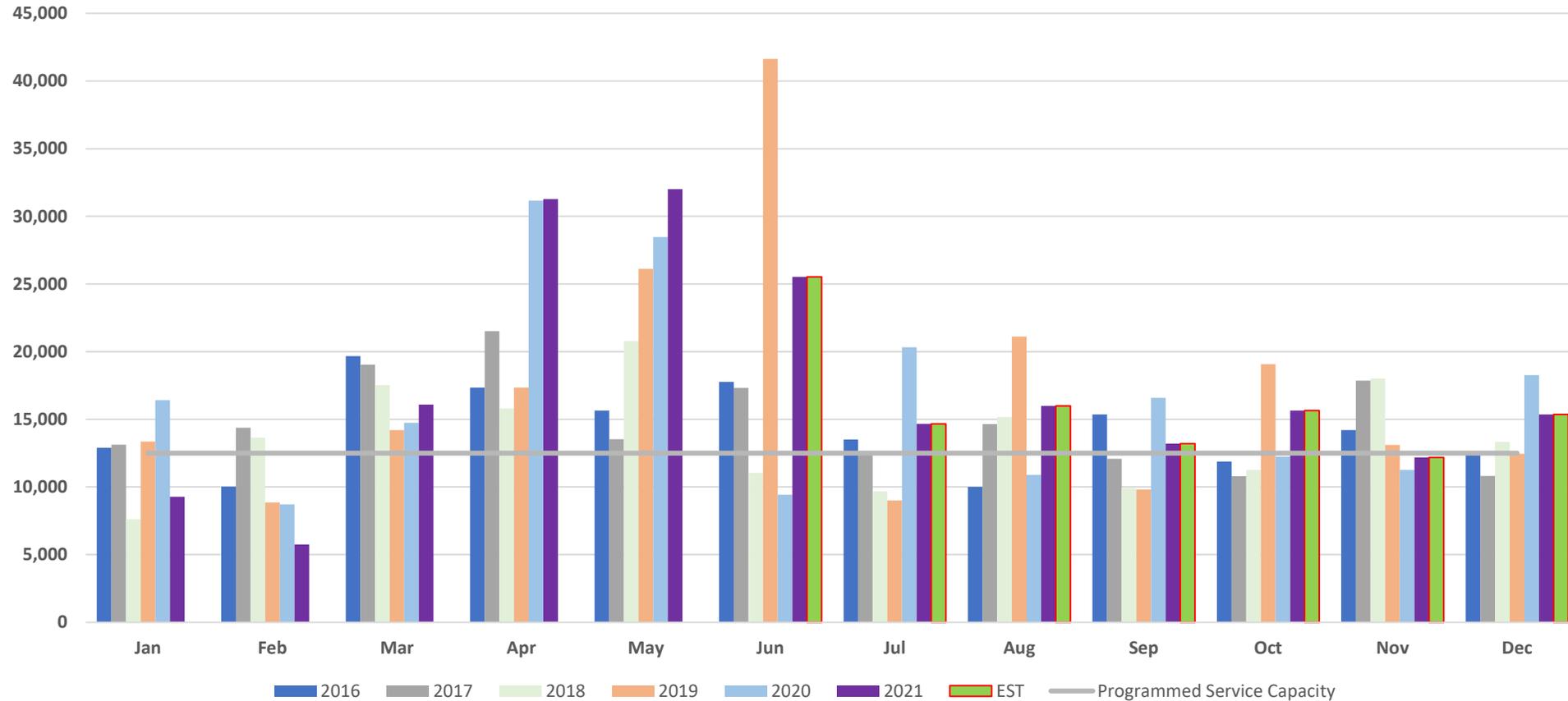
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# Current Program Challenges



Brush/Bulk Collection Tonnage



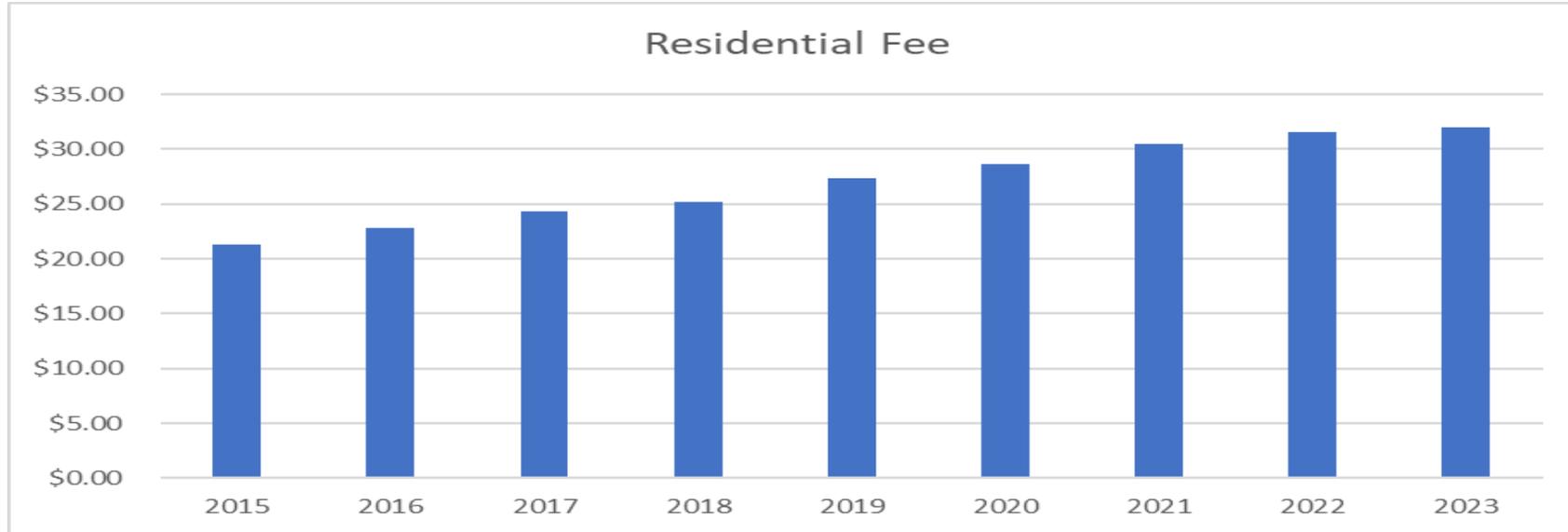
## Collection Challenges – Large Set Outs



## Collection Challenges – Mixed Set Outs



# Residential Fee History & Projection



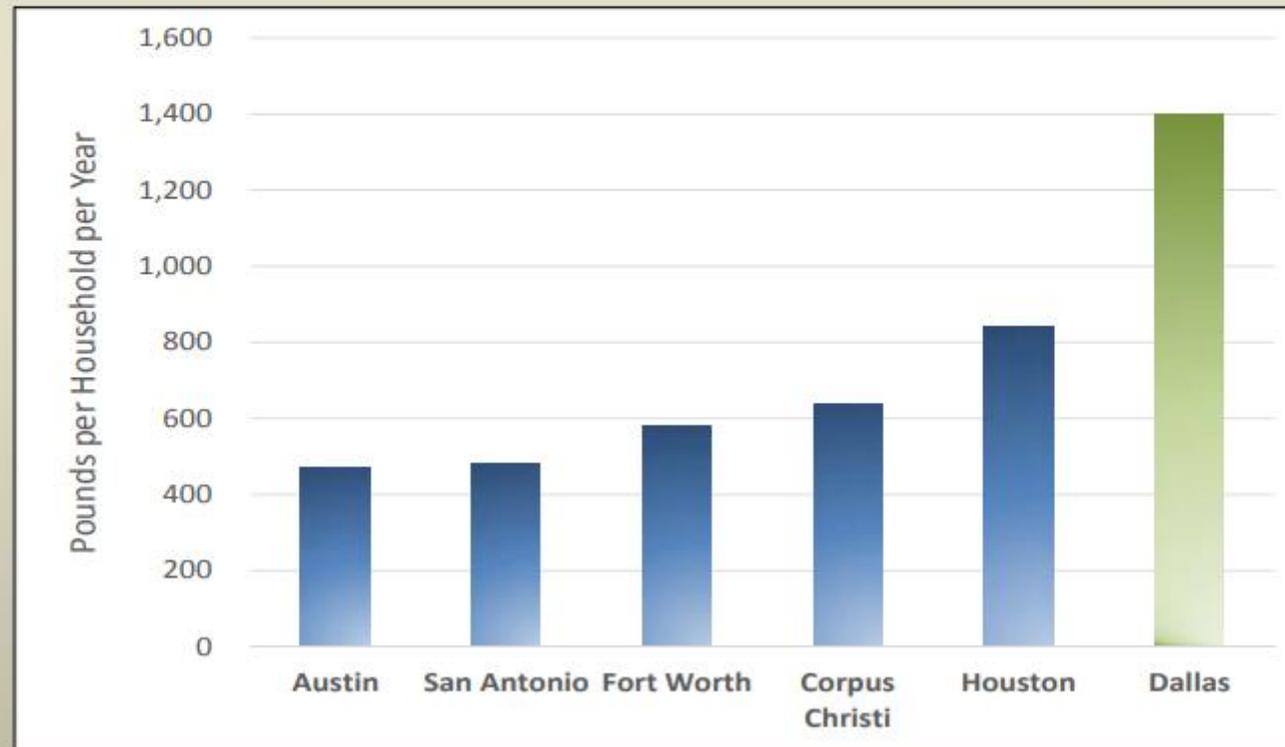
FY	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>Residential Fee</b>	<b>\$21.31</b>	<b>\$22.79</b>	<b>\$24.32</b>	<b>\$ 25.18</b>	<b>\$ 27.29</b>	<b>\$ 28.64</b>	<b>\$ 30.52</b>	<b>\$ 31.50</b>	<b>\$ 31.95</b>
<b>Change</b>	<b>\$0.67</b>	<b>\$1.48</b>	<b>\$1.53</b>	<b>\$0.86</b>	<b>\$ 2.11</b>	<b>\$ 1.35</b>	<b>\$ 1.88</b>	<b>\$ 0.98</b>	<b>\$ 0.45</b>
<b>% fee change</b>	<b>3.2%</b>	<b>6.9%</b>	<b>6.7%</b>	<b>3.5%</b>	<b>8.4%</b>	<b>4.9%</b>	<b>6.6%</b>	<b>3.2%</b>	<b>1.4%</b>



# Comparison – Other Texas Cities



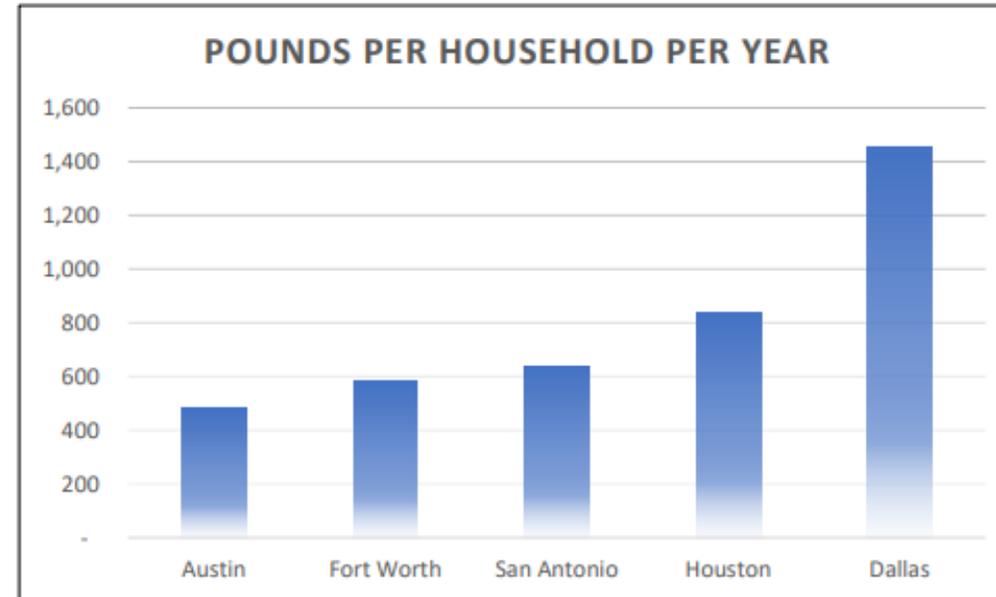
## Comparison – Other Texas Cities



# 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)
  - Early set-out: Friday 6pm
- Houston (380,000 households)
  - Alternating bulk and brush months (8 CY limit)
  - Weekly yard waste (restrictions)
  - Early set-out: Friday 6pm
- San Antonio (340,000 households)
  - 2X per year bulk and 2x per year brush (8 CY limit)
  - Notified a week before collection is scheduled



# Appendix – Field Survey



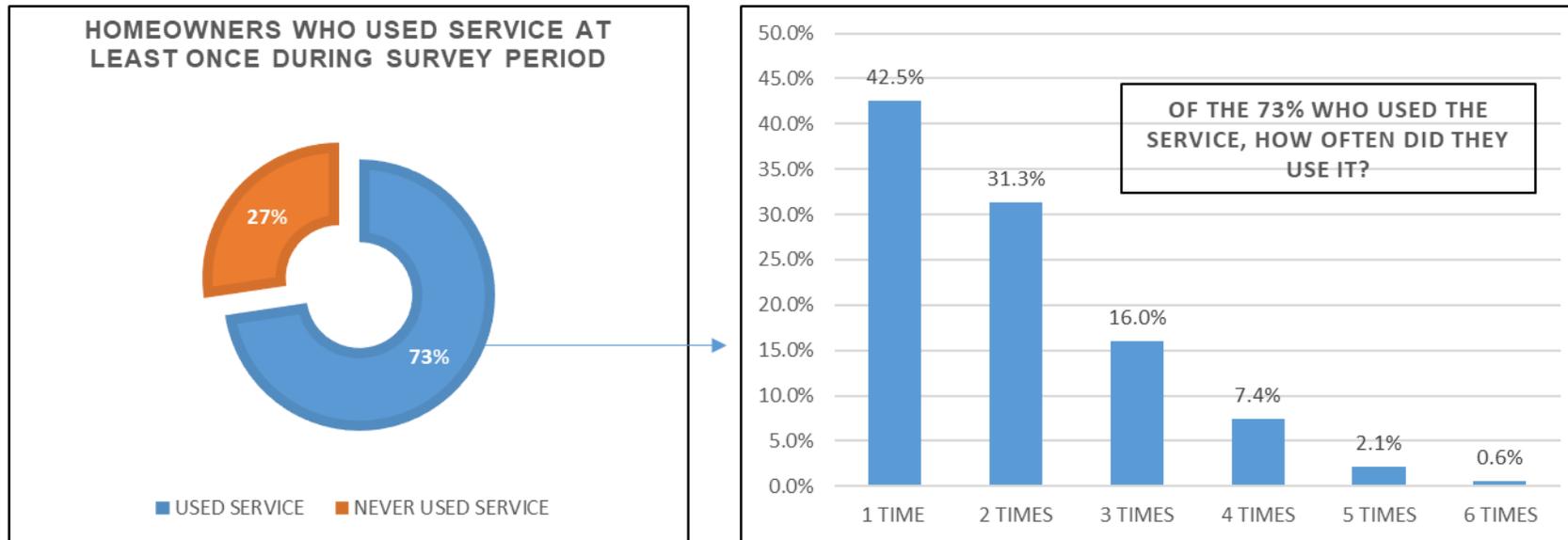
- In 2017, staff conducted field surveys to:
  - Determine how customers utilized the current program
    - Frequency of use (participation levels)
    - Type of material set out (brush, non-brush, bagged leaves)
    - Set-out sizes (cubic yards)
- Two survey components:
  - A primary 6 month survey
    - 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)



# Appendix – Field Survey



## Primary Survey Results - Participation



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



# Appendix – Field Survey



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



# Appendix – Field Survey



## 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%



# Appendix – Field Survey



## Secondary July Field Survey Results

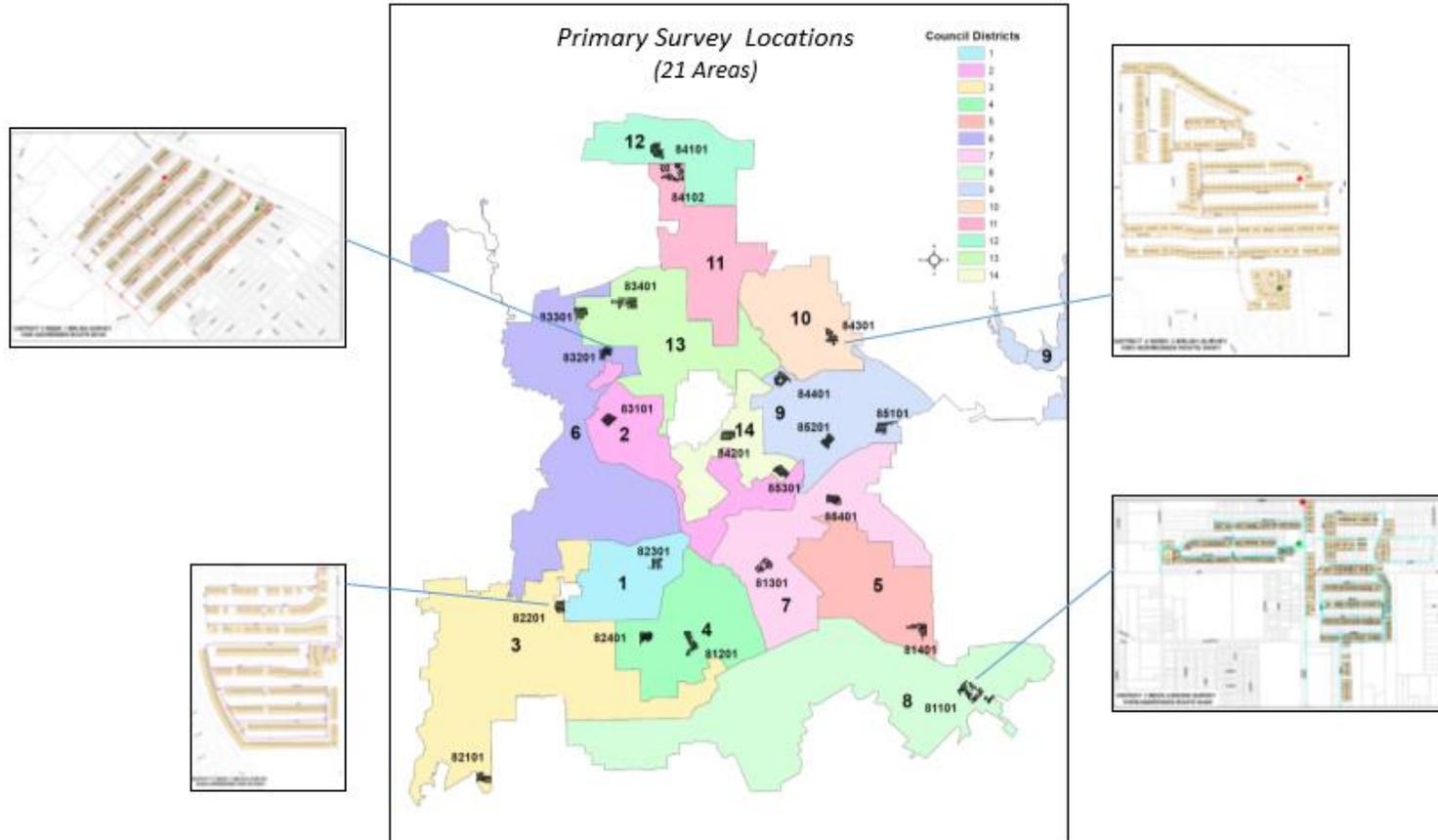
- The July survey data correlated fairly well to primary survey
  - Differences appear mainly seasonal
- There were some slight differences among areas related to:
  - Utilization rates (16% vs. 27%)
  - Brush and yard waste percentage lower (48% vs. 55%)
  - Non-brush percentage higher (23% vs. 17%)



# Appendix – Field Survey



## Primary Survey Map



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



# Appendix – Field Survey

## Secondary Survey (July)

