

**North Central Texas  
Council of Governments**

# Western Region Solid Waste Capacity Study

ALTERNATIVES FOR ADDRESSING WASTE CAPACITY  
CHALLENGES WORKSHOP



*Providing Solutions - Improving Community  
Serving Texas Since 1981*

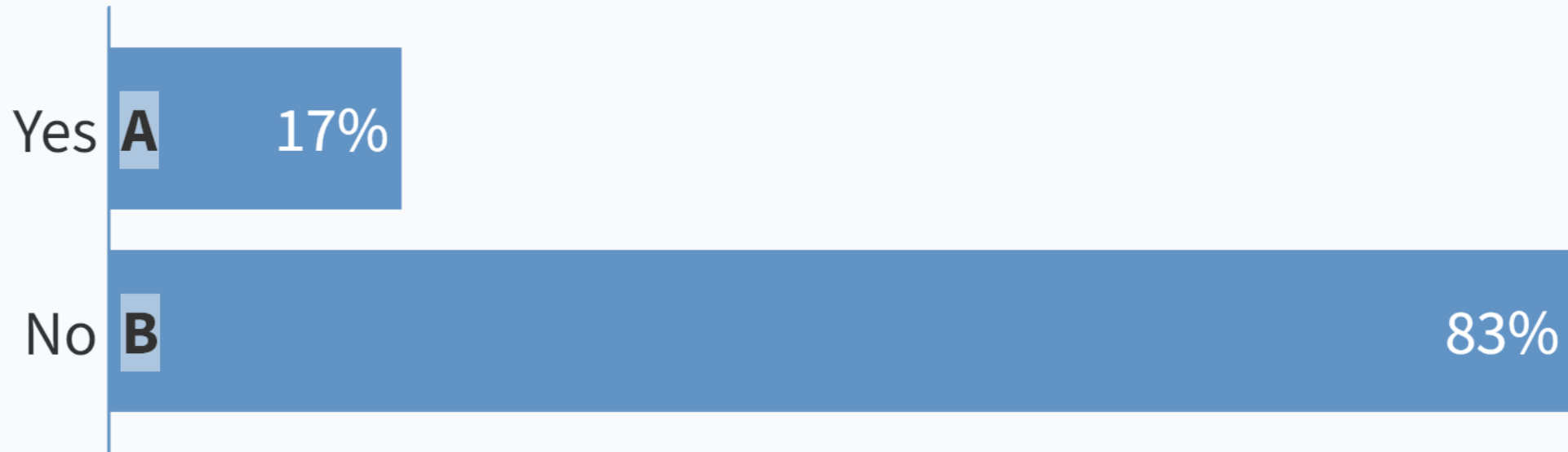


**What entity are you representing today?**



A word cloud featuring various city and organization names. The most prominent word is "City" in a large, bold, green font. Other words include "denton" in a large, bold, purple font, "nctcog" in a large, bold, green font, "weatherford" in a medium-sized, brown font, "cleburne" in a medium-sized, teal font, "weinberger" in a medium-sized, green font, "mansfield" in a medium-sized, purple font, "texas" in a medium-sized, blue font, "management" in a medium-sized, green font, "waste" in a medium-sized, brown font, "prairie" in a medium-sized, green font, "risa" in a medium-sized, purple font, "grand" in a medium-sized, green font, "assoc" in a medium-sized, green font, "tceq" in a medium-sized, purple font, "rcc" in a medium-sized, purple font, and "weatherford" in a medium-sized, brown font.

**Is this your first time attending a meeting about solid waste disposal capacity issues in the western counties of the NCTCOG region?**

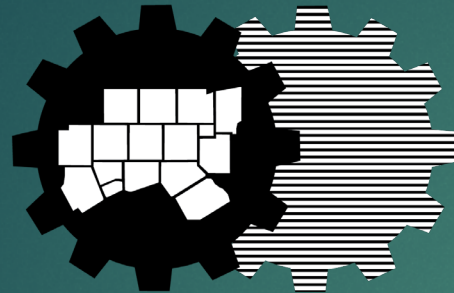


# Agenda

- Introductions
- Background
- Policy Advisory Group
- Organics and Composting
- Landfill
- Citizen Convenience Stations
- Next Steps

▶ *This study was funded through a solid waste management grant provided by TCEQ through NCTCOG. This funding does not necessarily indicate endorsement of the study's findings or recommendations.*

# Introductions



**North Central Texas  
Council of Governments**

NCTCOG

Cassidy Campbell  
Tamara Cook  
Elena Berg



Arredondo, Zepeda & Brunz LLC

Michael Carleton



Keep Texas Recycling

Rachel Hering

# Background

01

The region is running out of available landfill capacity

02

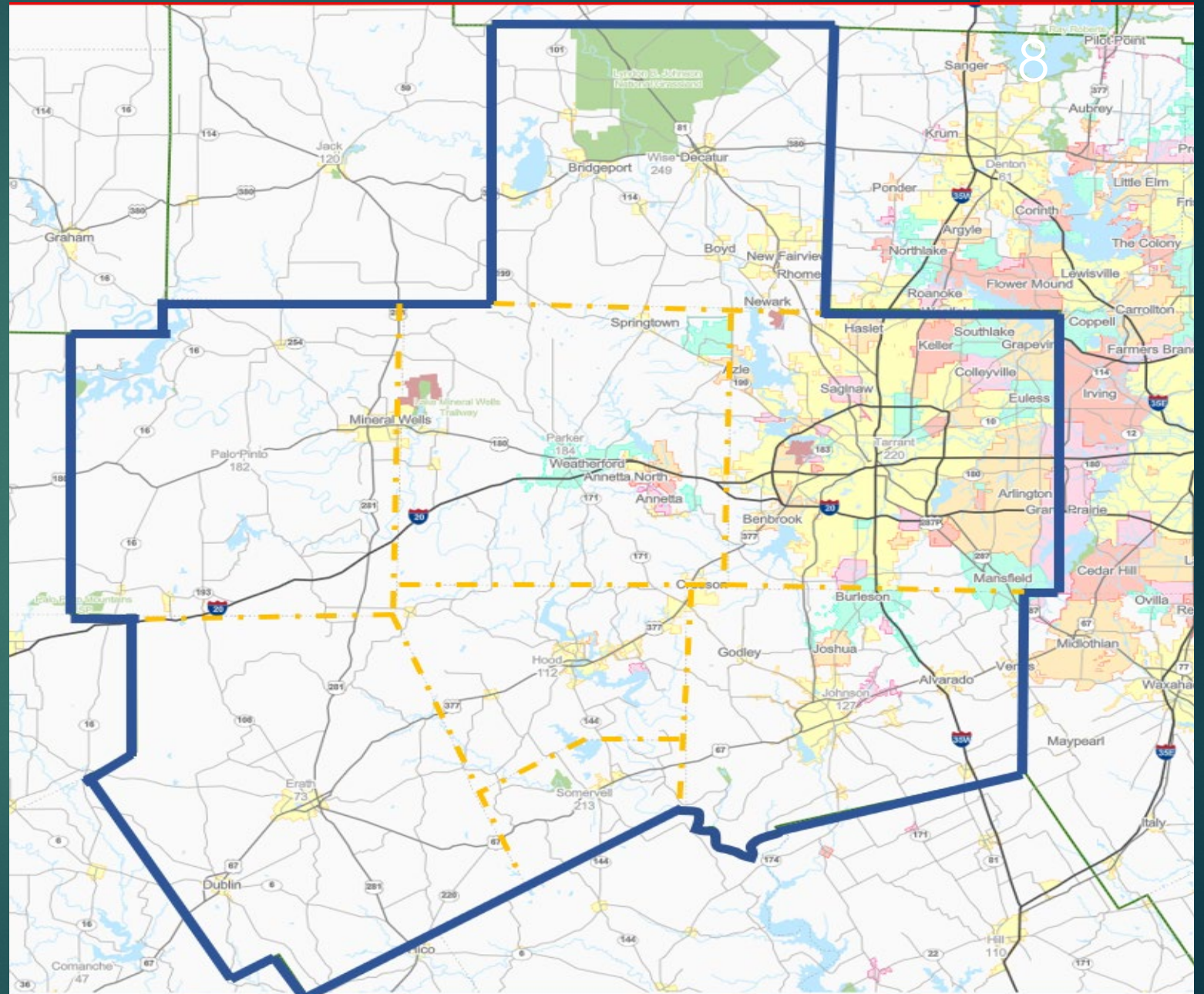
There are opportunities to improve the region's environment

03

There are opportunities to provide more efficient service to residents and businesses

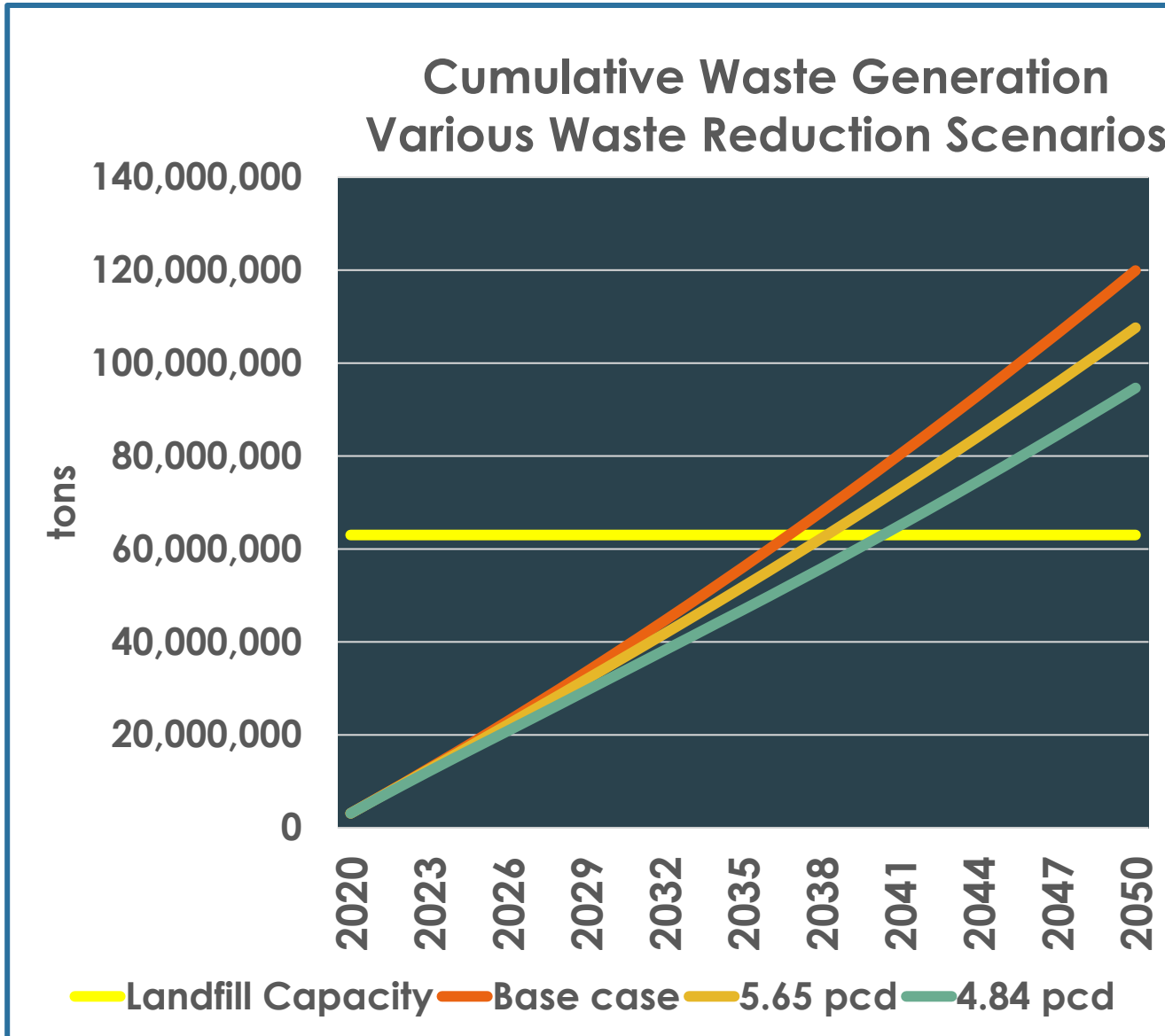
# Background

- The western region is 8 counties with 34 cities with over 5000 population.
- Covers 7000 square miles
- Population is 2.65 million
- 70% of land is undeveloped





The region needs an additional 57 million tons of disposal capacity to meet 2050 needs



# Recommended Alternatives

- ▶ Establish an On-going Policy Advisory Group (“PAG”) and Explore the Potential of Creating a Western Region Solid Waste Management Agency Inc. (“WRSWMA”)

- ▶ Cooperative Public Information Programs

- ▶ Cooperative Material Marketing

- ▶ Increase Citizen Collection Stations Availability

- ▶ Increase Composting Capacity

- ▶ Cooperative Collection Programs

- ▶ Cooperative Disaster Debris Management

- ▶ Increase Transfer Station Capacity

- ▶ Increase Landfill Capacity

# Policy Advisory Group (PAG)

# Potential PAG Activities

- ▶ Implement regional public information program
- ▶ Implement regional communications program
- ▶ Identify opportunities for future project sharing and collaboration
- ▶ Establish regional training program
- ▶ Evaluate the potential Western Region Solid Waste Management Agency, Inc. (WRSWMA)



# Next Steps for the PAG

- ▶ Provide any comments on the latest draft of the Alternatives Analysis Report
- ▶ Prepare bylaws or some formal structure to assure continuity (memorandum of understanding)
- ▶ City and County approvals
- ▶ Establish meeting schedule
- ▶ Identify near-term regional opportunities
- ▶ Evaluate WRSWMA
- ▶ Identify training opportunities

# PAG Bylaws

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**Purpose of the PAG**

**Membership & Leadership**

**Authority & Responsibilities of the PAG**

**PAG funding sources**

# Discussion

- ▶ What are the best next steps for keeping the PAG functional?
- ▶ What pitfalls do cities or counties see in the approach?
- ▶ What are low hanging fruit for other types of projects?
- ▶ Would a PAG help in making these types of projects more feasible?

## Would either you or a representative attend meetings of the Western Region Policy Advisory Group after this workshop?

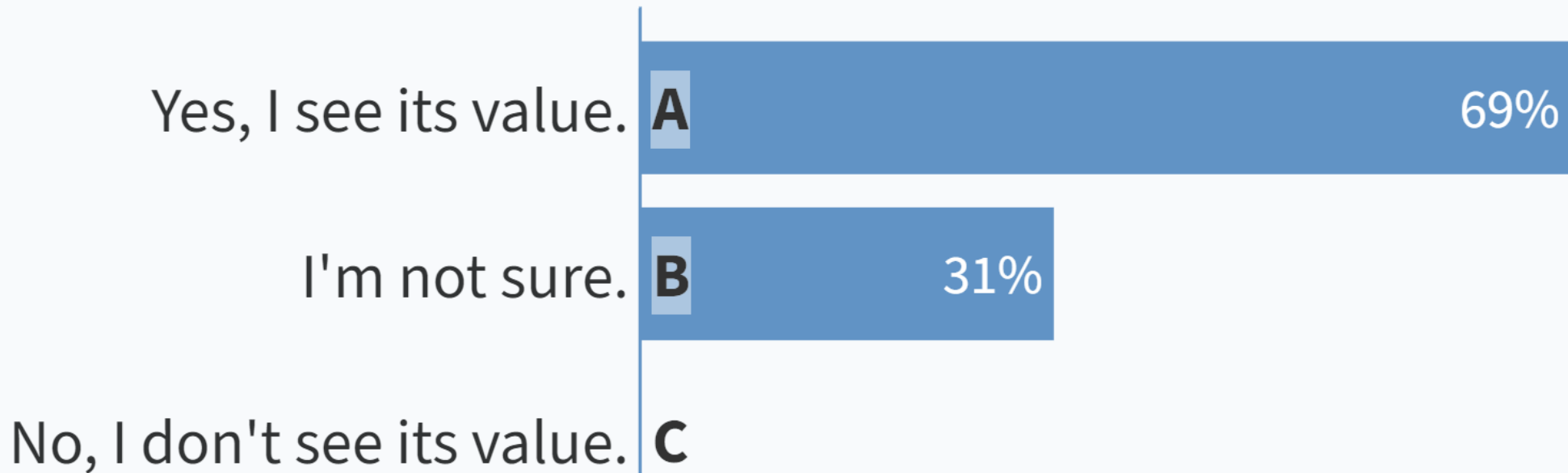




**What concerns do you have , if any, about continuing meetings of the Western Region Policy Advisory Group after this workshop?**



## Do you see value in establishing the Western Region Solid Waste Management Agency?



# What do you think is the immediate next step for the Western Region Policy Advisory Group?

Top

- 6  ☆ We see the need, we need focus.
- 5  identifying opportunities for increasing capacity (new landfills)
- 5  Entity buy-in on the direction
- 4  establishing the committee
- 4  ☆ Get engagement from the western governments, not just the eastern governments.
- 3  Framework for continued action
- 3  capacity
- 3  Education
- 0  ☆ establish a meeting schedule

# Increase Organics Management Capacity

# Weatherford Story

AN EXAMPLE OF HOW IT CAN WORK

# The Weatherford Story

- ▶ Once upon a time, the City of Weatherford owned a landfill. Later, the City sold the landfill. Some years later, the landfill is about to close.
- ▶ The City uses the Weatherford Landfill for disposal of biosolids (sludge).
- ▶ Several other cities in the western regional also rely on the Weatherford Landfill for biosolids disposal.
- ▶ Now alternatives must be identified and implemented.

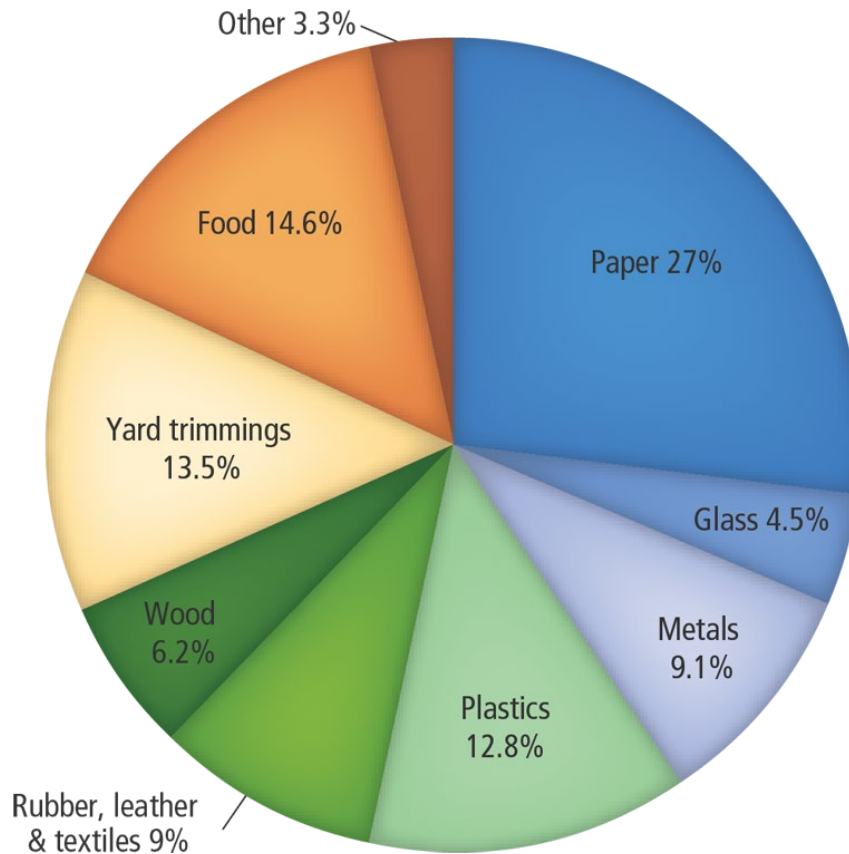


# Compost Project Requirements

- ▶ Long-term supply of materials (biosolids and other organics)
- ▶ Long-term market for products
- ▶ Acceptable site
- ▶ Authorization from TCEQ and other permits (i.e. stormwater)
- ▶ Equipment and labor
- ▶ Financing
- ▶ Commitment to quality and marketing
- ▶ Political will

# What are potential feedstocks for the Weatherford Project?

- ▶ Brush
- ▶ Wood
- ▶ Yard waste
- ▶ Food waste
- ▶ Organic commercial wastes
- ▶ Agricultural waste
- ▶ Biosolids



US MSW composition  
Source: US EPA

Organics represents approximately 35% of the waste stream (not including paper).

In 2019, 74,700 tons of biosolids were landfilled

There is a significant effort to recover brush in the region





# Project Implementation

Task / Years	1	2	3	4	5	6	7
Feasibility Study	Active	Completed	Completed	Completed	Completed	Completed	Completed
Market Analysis (feedstocks & products)	Active	Completed	Completed	Completed	Completed	Completed	Completed
Institutional Issues (ownership/operations)	Active	Completed	Completed	Completed	Completed	Completed	Completed
Site selection	Active	Active	Completed	Completed	Completed	Completed	Completed
Permitting (Registration)	Completed	Active	Completed	Completed	Completed	Completed	Completed
Construction Procurement	Completed	Active	Active	Completed	Completed	Completed	Completed
Construction	Completed	Completed	Active	Active	Active	Active	Active
Operations	Completed	Completed	Completed	Active	Active	Active	Active

# Key Issues for a regional composting program and Inter-local Agreements

- ▶ Commitment to the Project
- ▶ Supply of Materials & Material Specifications
- ▶ Fee Structures
- ▶ Revenue Sharing (or not)
- ▶ Risk Sharing
- ▶ Indemnification



# Role of the PAG in the Compost Project

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Training for cities interested in project

**Coordinating potential project participants –  
using the network**

Potentially bringing in private sector participants who may be ad-hoc members

# DISCUSSION

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What are potential concerns about participating in a regional compost project?

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How could the PAG be of assistance in making the project work more effectively?

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What other cities are interested in participating in this project?

**Do you think there is value in exploring how local governments in the Western Region can participate in a regional compost program?**



**What roadblocks do you think are hindering the development of a regional compost program for the Western Region?**

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“ Funding and engagement ”

“ engagement ”

“ lack of finances ”

“ The unknown of abilities that are actually available for the project. ”

“ Ability to move product ”

“ Cost and marketing - ability to move product ”

“ Start-up costs ”

“ Communication and structure ”

“ Location/ Haul Distance ”

“ marketing ”

“ Broader participation in study ”

“ Uncertainty ”

“ Funding and engagement ”

“ Buy in and cooperation ”

“ location ”

**What information do you think we need about organics management in the Western Region that we currently do not have?**





# BREAK

# LANDFILL CAPACITY

ONE OF BIGGEST ENVIRONMENTAL ISSUES CONFRONTING  
WESTERN REGION

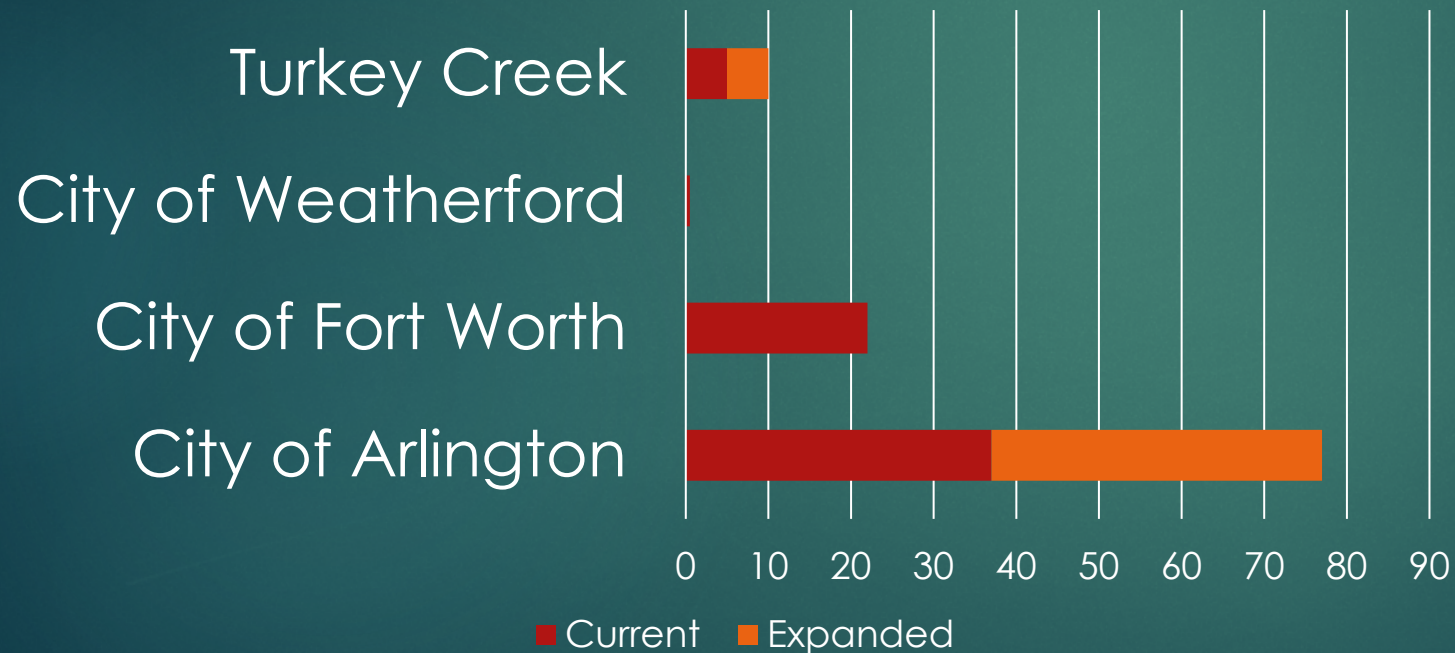
### Type I Landfill Ownership & Capacity

Landfill	Owner	Operators	Permitted Acres	Fill Acres	Remaining Capacity (million tons)	Years Remaining*	Amendment Pending (million tons/capacity)
<b>City of Arlington</b>	City of Arlington	Republic Services	774	391	38.3	42	No
<b>City of Cleburne</b>	City of Cleburne	City of Cleburne	84.7	24.7	7.7	13	No
<b>City of Fort Worth</b>	City of Fort Worth	Republic Services	300.0	128.6	14.9	18	No
<b>Turkey Creek Landfill</b>	Waste Connections	Progressive Waste	219.0	69.0	4.8	7	Yes, would add 3.6 million tons of capacity
<b>Weatherford Landfill</b>	Progressive Waste	Progressive Waste	112.0	35.0	0.4	1.5	No
<b>Total Western Region</b>			1,490.0	668.0	58.5	24	3.6
<b>Total NCTCOG Region (includes Western Region)</b>			6,804.0	2,399.0	405.4	38	N/A
<b>Western % of NCTCOG Region</b>			22%	28%	14%		

Source: TCEQ Annual Landfill Reports (2019) \* Assumes TCEQ method of assuming no increase in waste disposal quantities in future years.

# Landfill Capacity

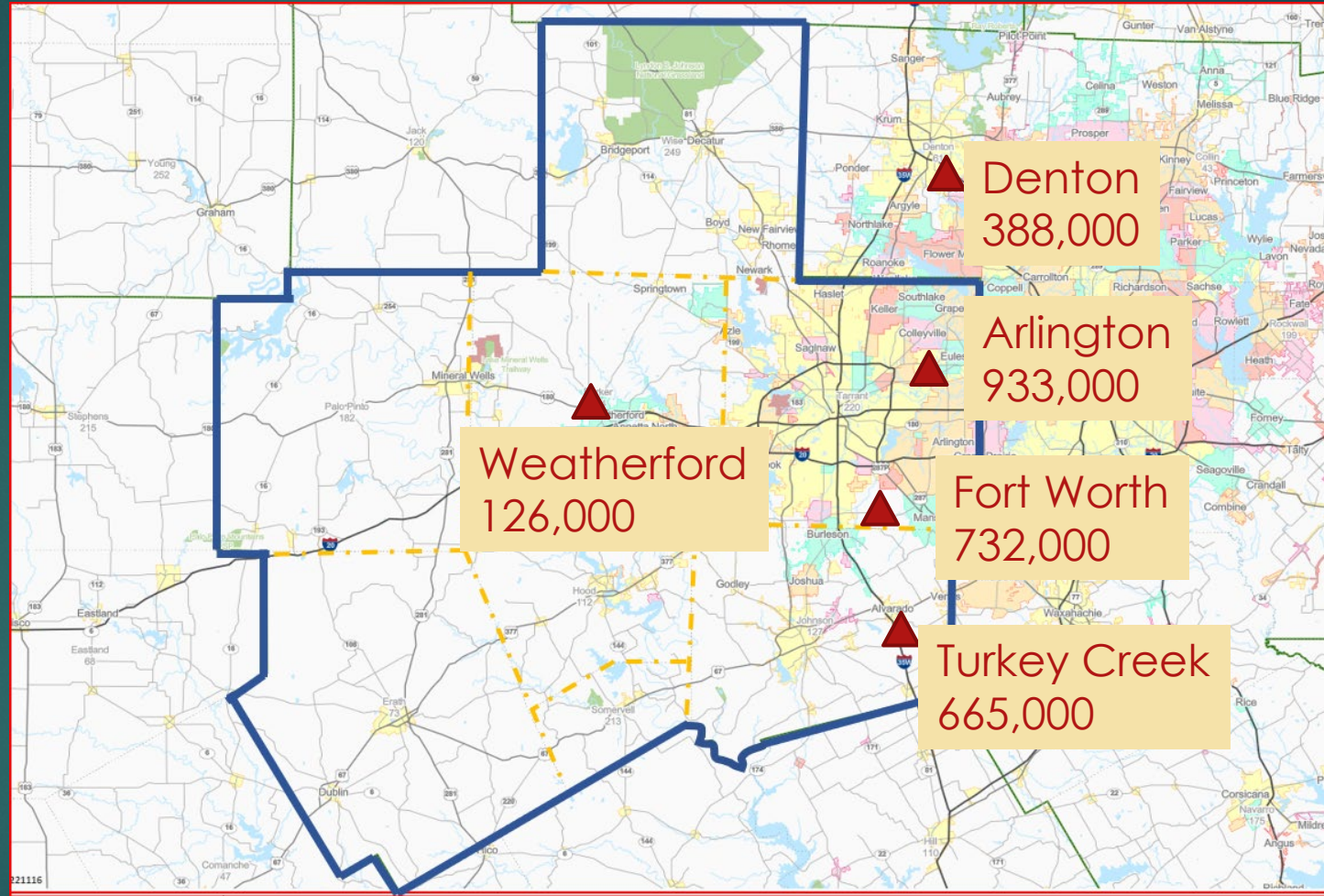
Landfill Capacity  
(years at current rates)



The closure of the Weatherford Landfill will accelerate closure date of the Turkey Creek Landfill.

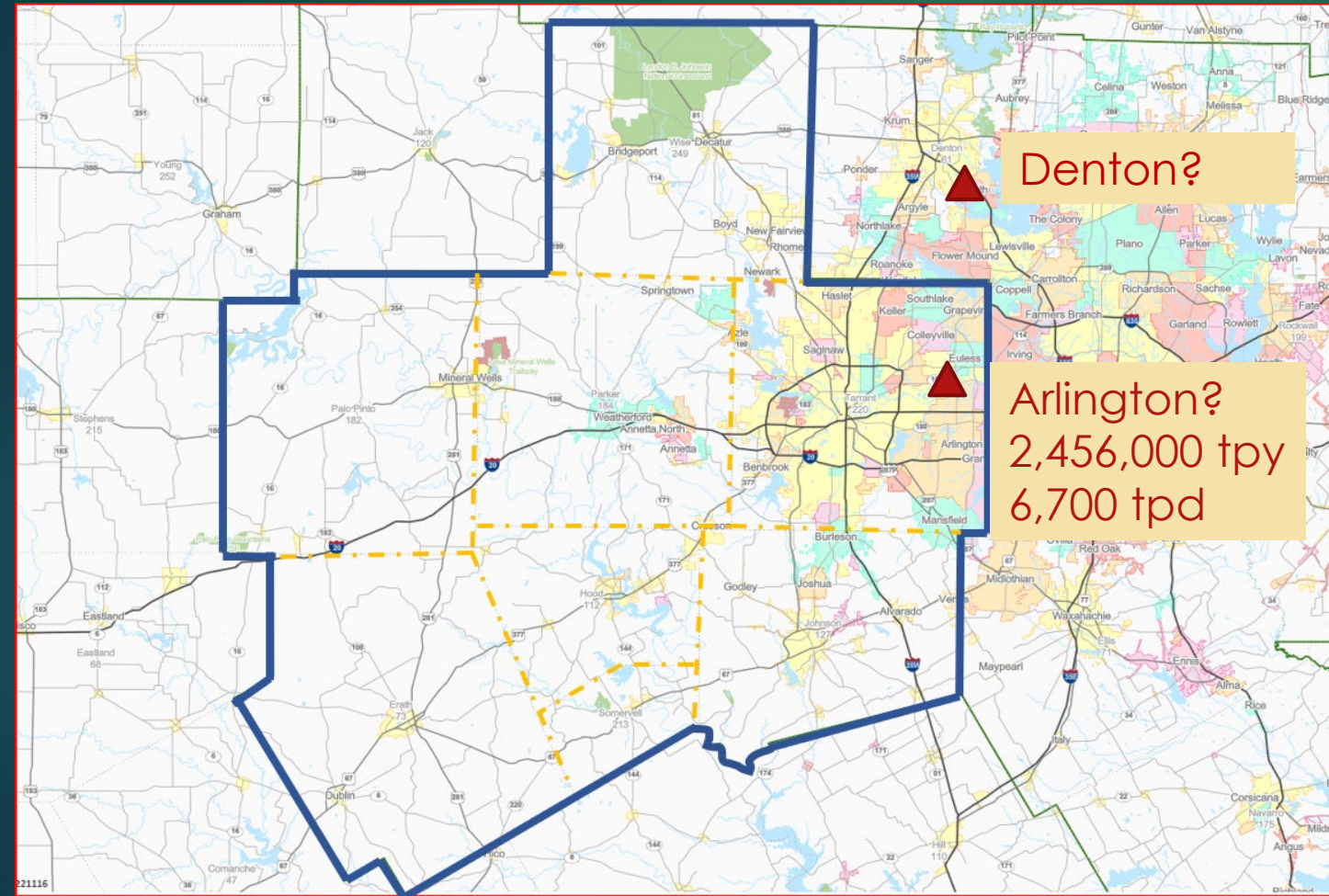
Closure of FW, without a replacement, will significantly accelerate closure of the Arlington Landfill

# Current



Landfills and annual throughput (tons per year)  
Source: TCEQ 2020 MSW Annual Reports

In approximately 20 years, only the Arlington Landfill and Denton Landfill will have capacity if nothing is done



▲ For reference, McCommas Bluff accepts 4500 tons per day

# Landfill Site Selection, Design, Operation & Closure

## Key Principles

**NO ONE** wants a landfill in their city, county or region.

**In the future**, there may be technologies that will eliminate the need for landfills, but these are on the cutting edge and reliability is key factor.

The Region must have a **RELIABLE** waste management system.

# Timeframe for implementation

Task/Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Site selection	█	█													
Land Procurement		█	█												
Permitting				█	█	█	█								
Construction							█	█	█	█	█				
Operations												█	█	█	█



# Securing New Landfill Capacity

## Options

- ▶ A city or group of cities develop a new landfill.
- ▶ The region relies on the private sector to identify and develop new landfill capacity.
- ▶ The region establishes an Agency to build new capacity.
- ▶ The region does nothing and relies on landfills outside the region to meet its long-term needs.

# Issues Related to Public Ownership

- ▶ Control site selection.
- ▶ Control how waste is managed.
- ▶ Control of disposal costs.
- ▶ Control facility design.
- ▶ Control and preserve site life.

# Keys to Implementation

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## Key Elements

- ▶ Shared needs
- ▶ Economic interest
- ▶ Economies of scale
- ▶ Political will

## Examples

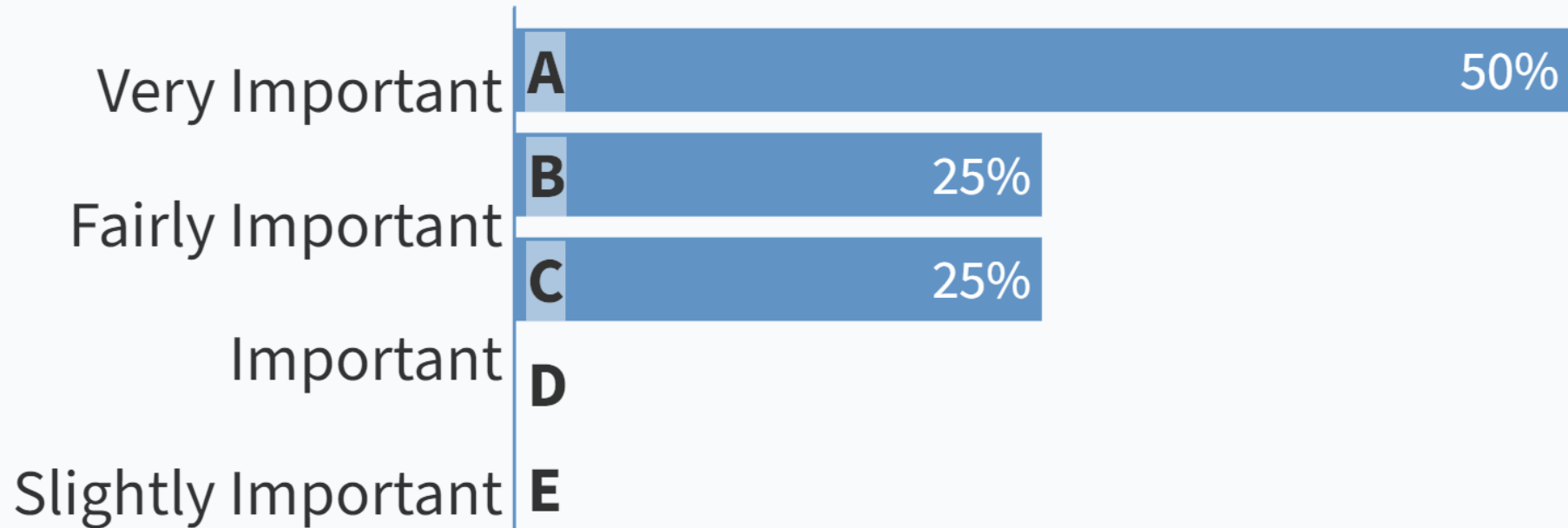
- ▶ Brazos Valley Solid Waste Management Agency
- ▶ North Texas Municipal Water District
- ▶ Upper Sabine Valley Solid Waste Management Agency

# Discussion

- ▶ There is interest in establishing a Western Region Solid Waste Management Agency. What are the thoughts about strategic steps to establish one?
- ▶ What would get a city or county to join?
- ▶ What would keep a city or county from joining?

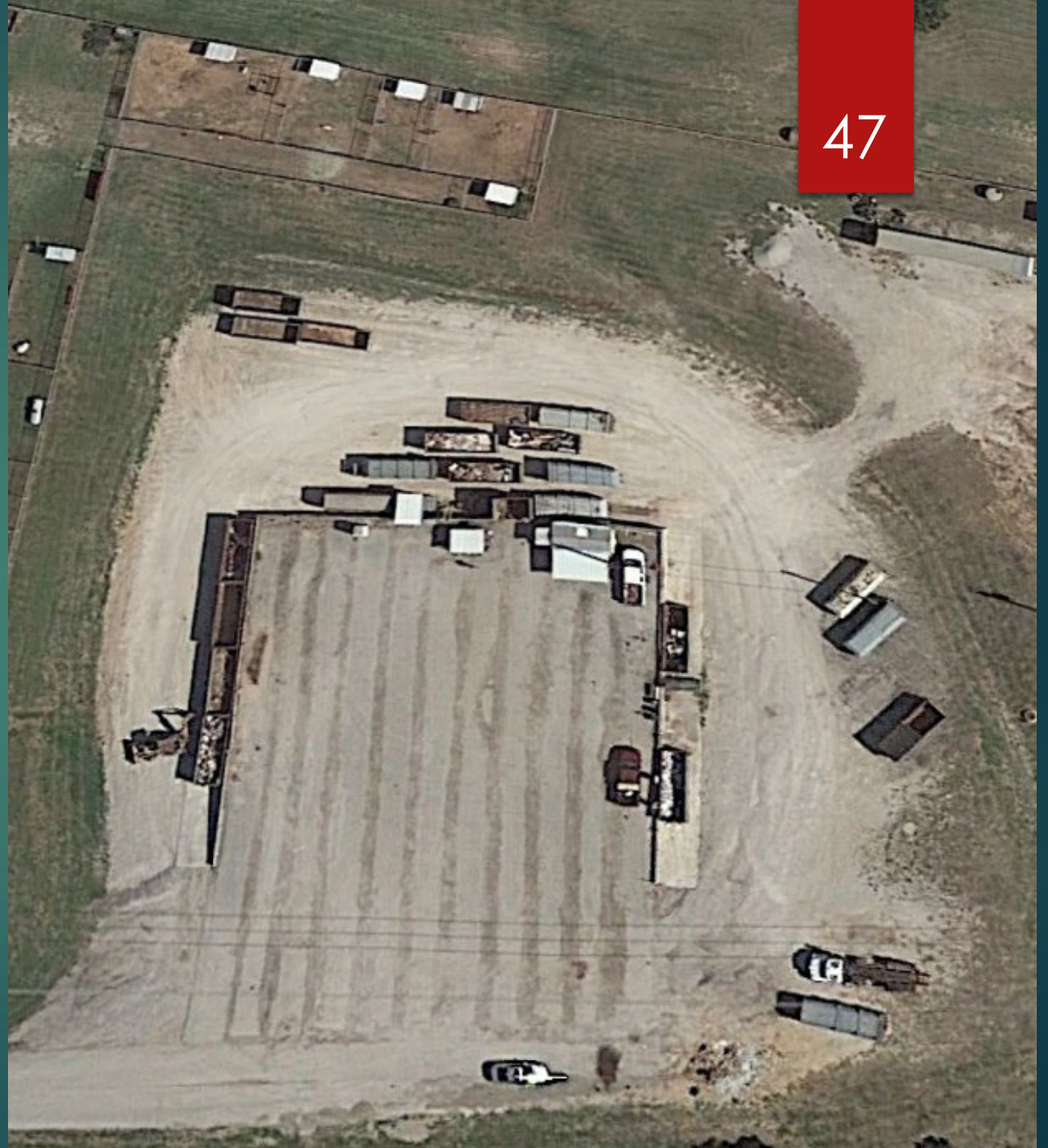


## How important is the construction of a new landfill in the Western Region to you?



# Citizen Drop-offs & Recycling Centers

# Wise County Citizen Convenience Stations



# Fort Worth Citizen Convenience Station





Citizen Convenience Stations		
County	City	Facility
Erath	Stephenville	NIX Manufacturing Citizens Collection Station
Hood	Granbury	Hood County Citizens Collection Station
Parker	Springtown	City of Springtown Citizens Collection Center
Somervell	Glen Rose	Glen Rose Citizen Convenience Station
Tarrant	Fort Worth	City of Fort Worth Hillshire Drop Off Station
Tarrant	Fort Worth	City of Fort Worth Old Hemphill Drop Off Station
Tarrant	Fort Worth	City of Fort Worth Brennan Ave Drop Off Station
Tarrant	Fort Worth	City of Fort Worth MLK Drop Off Station
Tarrant	Town of Westover Hills	Westover Hills Citizens Collection Station
Wise	Decatur	Wise County Decatur Citizens Collection Station
Wise	Paradise	Wise County Cottondale Citizen Collection Station
Wise	Boyd	Wise County Boyd Citizen Collection Station
Wise	Chico	Wise County Chico Citizen Collection Station
Wise	Decatur	Wise County Slidell Citizen Collection Station

Source: TCEQ 2020

24 communities stated that they participate in FW HHW Program - A model for cooperative Citizen Convenience Stations

# Key Issues for Cooperative Use of Citizen Convenience Stations

## Single Owner & Operator

- ▶ Facility Design and Costs
- ▶ Materials that are acceptable
- ▶ Hours of operation
- ▶ Quantities of materials that can be delivered
- ▶ Charges for use of the site (by local government or by individual customer)
- ▶ Term of the contract

## Joint Ownership & Operation

- ▶ Facility Design & Costs
- ▶ Control over who can use the site
- ▶ In-house operations or contract operations
- ▶ Haul and disposal contracts
- ▶ Management of unacceptable or hazardous wastes
- ▶ Annual budget, fees and charges

# There is interest in cooperative drop-off centers or CCS

Source: Western Region Survey

City/Town/County	Drop-off centers
Azle	Yes
Annetta	Yes
Glen Rose	Yes
Dalworthington Gardens	Yes
Arlington	Yes
Granbury	Yes
Colleyville	Yes
Stephenville	Yes
North Richland Hills	Yes
Decatur/Wise	Yes
Mansfield	Yes
Granbury/ Hood County	Yes
Aurora	Yes
Stephenville	Yes
Annetta South/Parker	Yes
Benbrook	Yes
De Cordova	Yes

City/Town/County	Drop-off centers
Weatherford	Maybe
Burleson	Maybe
Watauga	Maybe
Decatur/Wise	Maybe
Grapevine	Maybe
New Fairview	Maybe
Westworth Village	Maybe
Haltom City	Maybe
Annetta North	Maybe

# Discussion

- ▶ What are constraints to cooperative citizen convenience station agreements?
- ▶ How challenging has it been for those who have them to site and gain TCEQ approvals?
- ▶ What are ideas for expanding this concept to reality?



**Do you think your city/county/entity would be willing to work jointly to increase the availability of citizen convenience stations and recycling centers to residents?**

Yes

**A**

No

**B**

Maybe

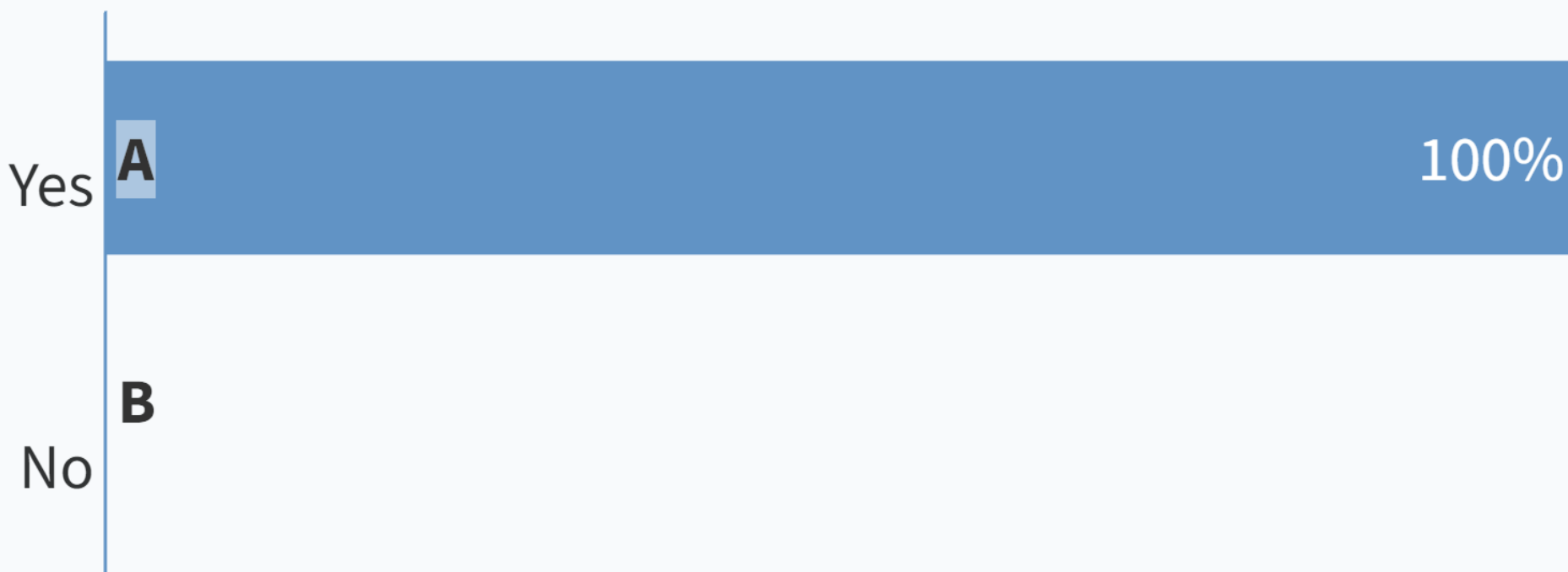
**C**

Total Results:

Attendees were not given this poll because citizen convenience stations and recycling centers were not discussed during the workshop.

Recap on  
What's  
Next?

**Did this workshop help you gain a better understanding of solid waste disposal capacity issues in the Western Region?**



# Thank You

## Questions

Cassidy Campbell

[CCampbell@nctcog.org](mailto:CCampbell@nctcog.org)

(817) 608-2368

Michael Carleton

[mcarleton@azb-engrs.com](mailto:mcarleton@azb-engrs.com)

214 797 6450

Rachel Hering

[rachel@ktr.org](mailto:rachel@ktr.org)

512.872.6630