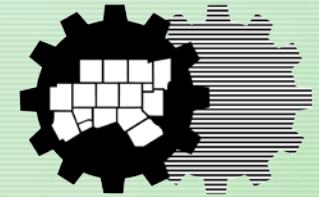


This study is funded through a solid waste management grant provided by TCEQ through NCTCOG. This funding does not necessarily indicate endorsement of the study findings and recommendations.

Promoting Regional Approaches to Future Solid
Waste Management Needs

▶

NCTCOG Western Region Solid Waste Capacity Study



North Central Texas
Council of Governments

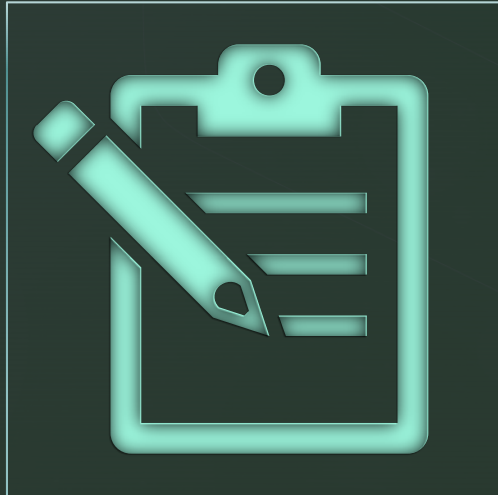




Part I The Project



Background



- Disposal capacity analysis presentation in August 2017 to the NCTCOG Resource Conservation Council (RCC)
- Establishment of a Western Region Working Group
 - Series of presentations on needs and options
 - Discussions of various organizational structures
 - Updates on capacity in the region
- Formal Study approved by the NCTCOG RCC

Where to find previous studies:

<https://www.nctcog.org/envir/materials-management/resources>

Introduction & Project Team



- NCTCOG
 - Tamara Cook
 - Cassidy Campbell
 - Elena Berg
- Arredondo, Zepeda & Brunz LLC
 - Michael Carleton
- Keep Texas Recycling
 - Rachel Hering

Michael Carleton – Project Manager

- 35+ years experience in solid waste management planning
- Landfill site selection and permitting experience
- Solid Waste Management Plans include: Fort Worth, Arlington, Houston, Burleson & NTMWD

Purpose of the Project

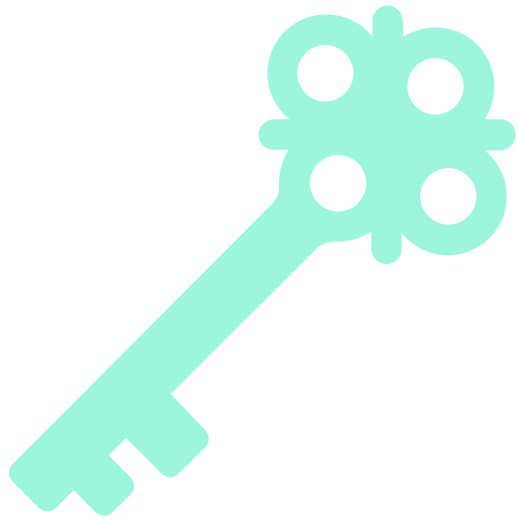
- Identify waste management needs for the Western Region
- Identify and recommend facilities and programs to meet needs and identify organizational options that promote regional approaches where practical
- Enhance local government cooperation in the region

-
- NOT a landfill or facility site selection study
 - NOT a study to result in mandates for local governments in the region

The Western Region Includes:

- | | |
|------------------|-------------------|
| Erath County | Hood County |
| Johnson County | Palo Pinto County |
| Somervell County | Parker County |
| Wise County | Tarrant County |





Key issues to be studied

- Long-term disposal capacity
- Diversion opportunities through source reduction, recycling, organics
- Impact of private sector contracts
- Haul Analysis
- Cooperative facility development
- Landfill closure and market impacts
- Organizational structures
- Cooperative disaster debris management

Western Region Needs Assessment Technical Report

- **Background of the Western Region**
 - Demographics
 - Land Use & Transportation
 - Geography, Climate & Natural Resources
- **Waste Generation & Projections**
- **Waste Management Facility Inventory**
- **Capacity Analysis**
- **Haul Analysis**

Western Region Options Report Facilities, Programs & Organizational Structures

Facilities and Program Options

Facility Needs

- Landfills
- Transfer Stations
- Other Facilities

Programs

- Regional Recycling
- Regional Organics Management
- Regional Public Education
- Regional Disaster Management
- Regional HHW

Organizational Options

- Inter-local Agreements
- Regional Agency
- Public Utility Participation
- Public / Private Partnerships

**Report will have Final
Recommendations for
Western Region**

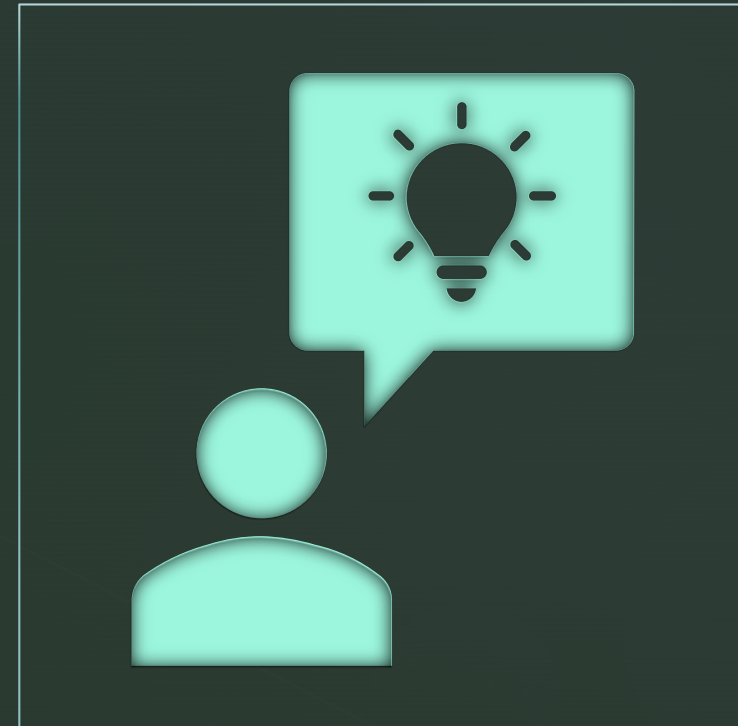


Limitations of the Study

- Not a facility site selection study (there will be significant regional background information that will provide a perspective on siting issues)
- No mandates
- Need responses to surveys and other request for information
- In person meetings are going to be a challenge in the time of COVID - 19

Project Outcomes

- Better understanding of waste management needs in the Western Region
- Better understanding of future disposal capacity
- Clearer understanding of how waste is managed in the Western Region
- Recommendations for joint actions to reduce waste and assure long-term disposal capacity



Project Organization



Policy Advisory Group


- Role of the Project Advisory Group (PAG)
- Provide QA/QC
- Input on specific recommendations
- Assist with communications



Role of all Western Region local governments

- Review information
- Assist in responding to survey
- Communicate to City and County management and elected officials

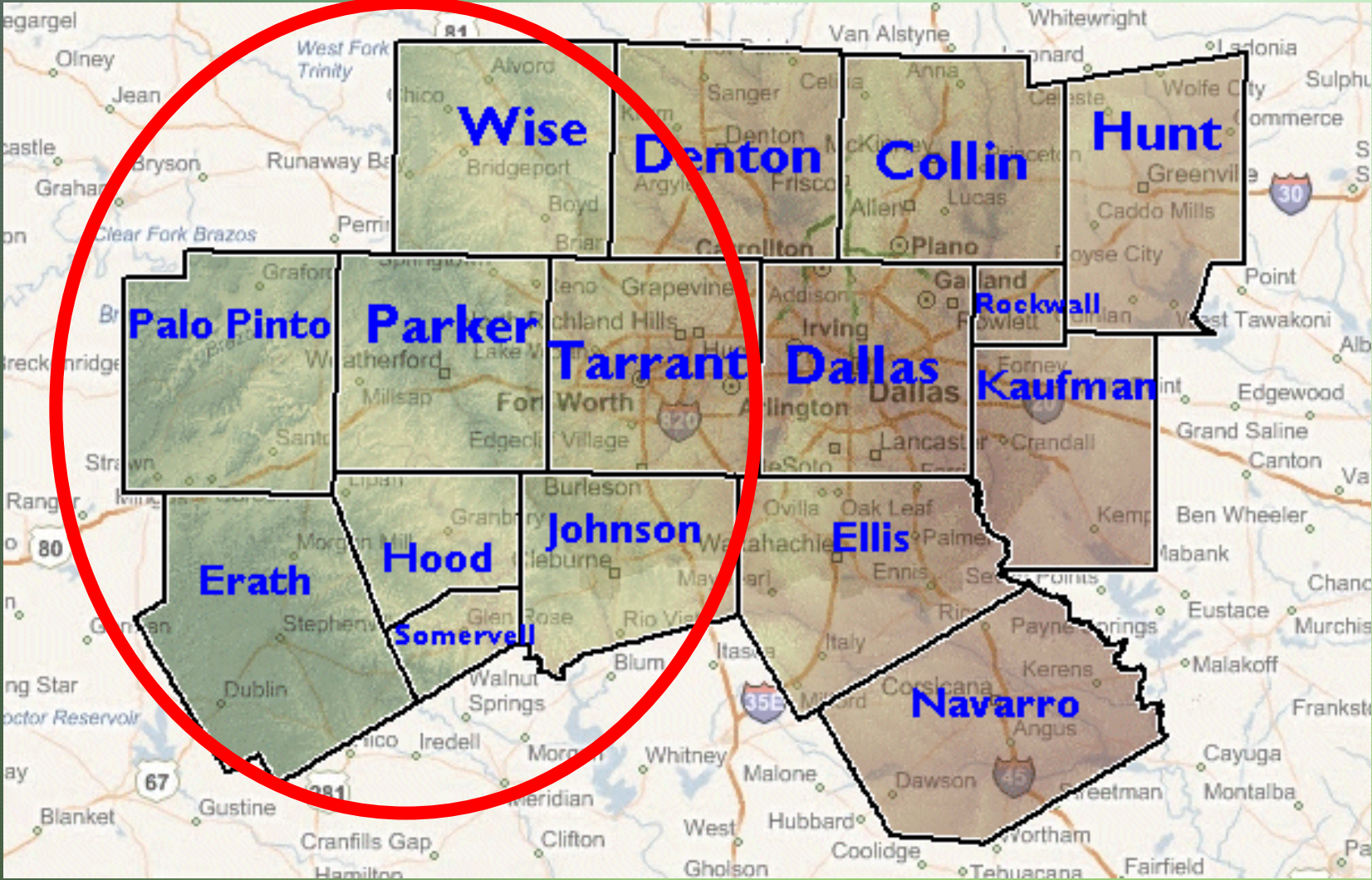
Questions on Project Goal & Scope



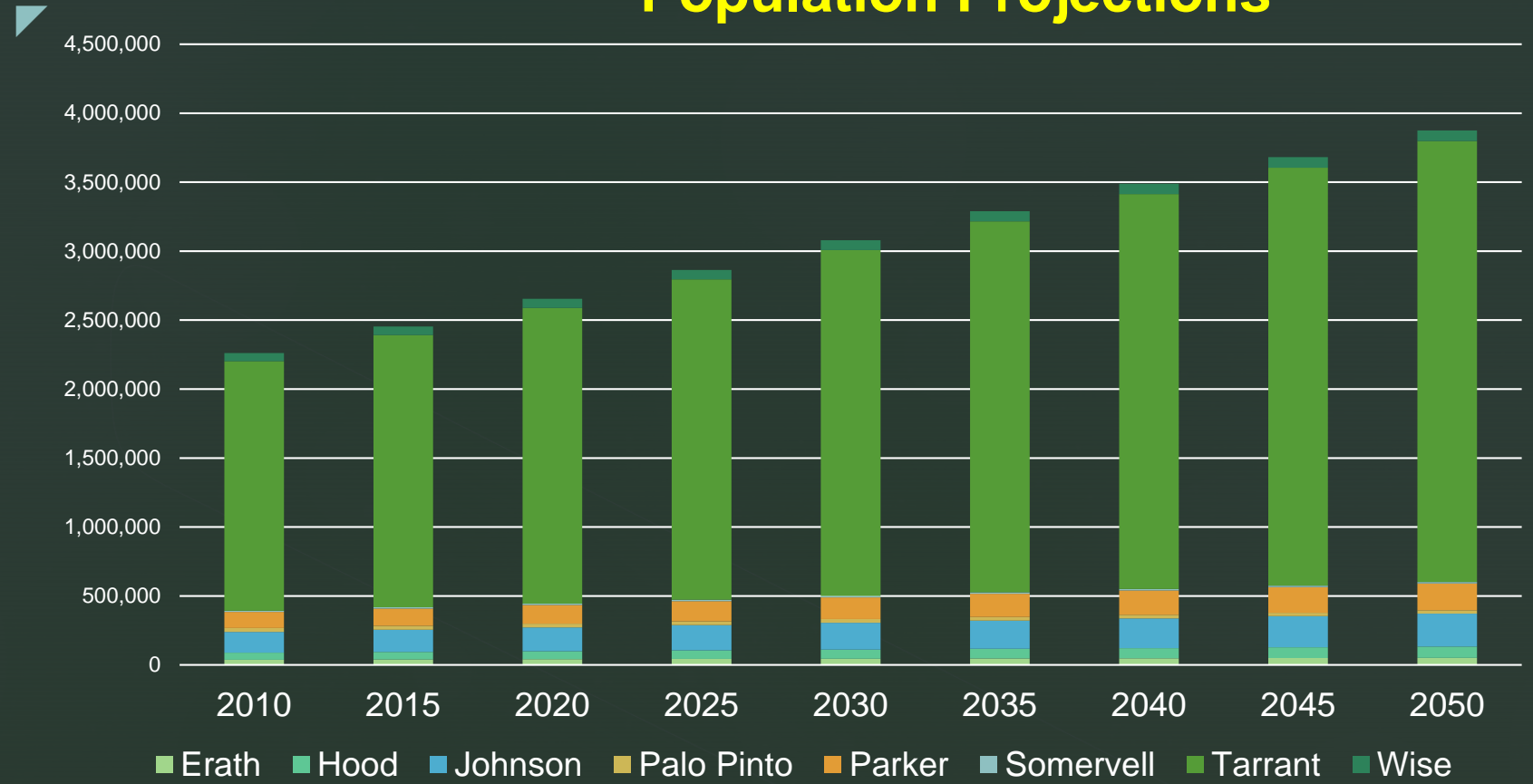
Part II Background Information



Western Region



Population Projections



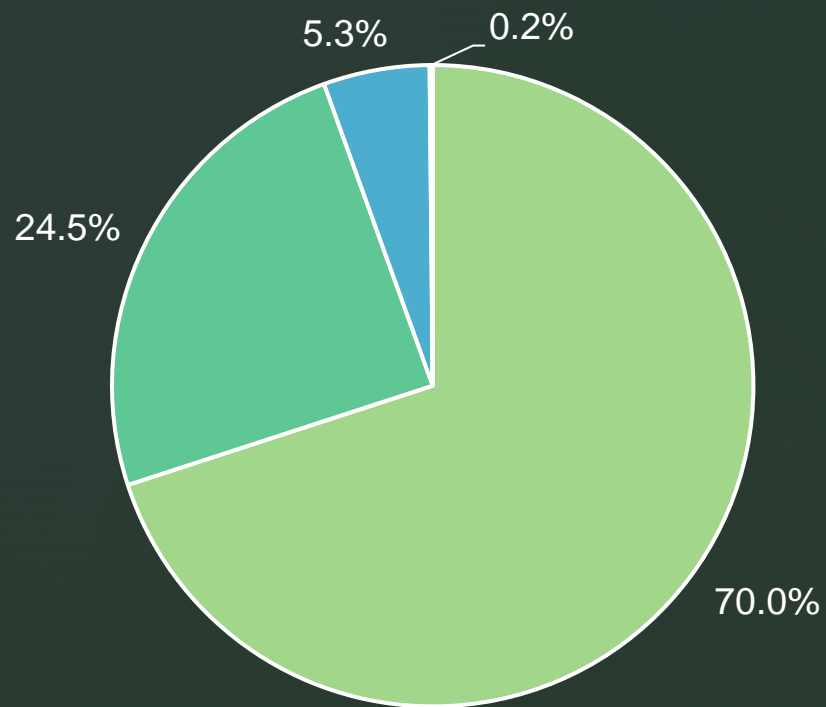
2020 Western Region Population

Erath	Hood	Johnson	Palo Pinto	Parker	Somervell	Tarrant	Wise	Western Total	NCTCOG
41,526	58,643	171,701	27,859	135,621	9,294	2,143,755	65,807	2,654,206	7,874,046

Source for current and projected population is Texas Demographic Center

Housing Characteristics

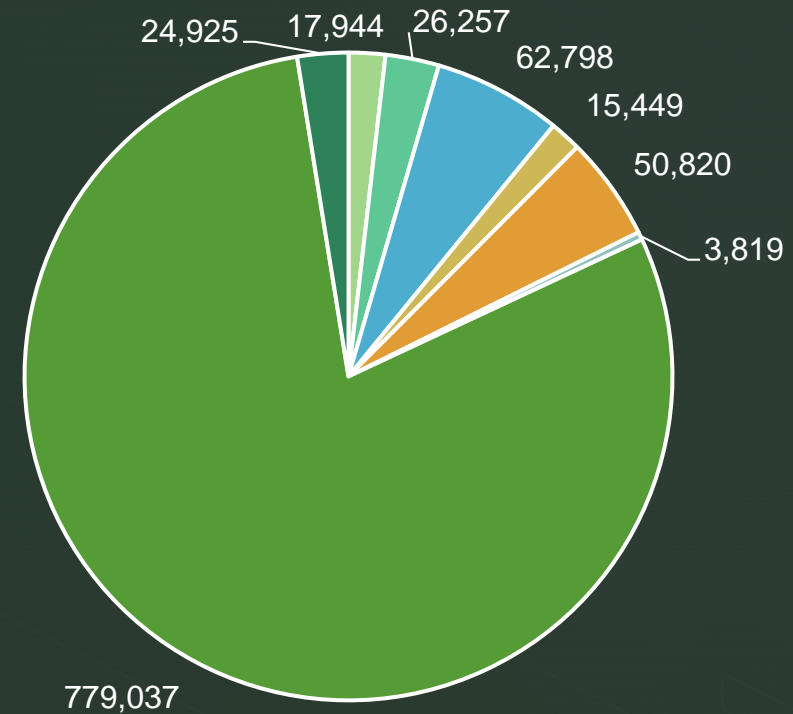
Housing Characteristics - 981,000 Households



■ Single
 ■ Multi-Family
 ■ Mobile
 ■ Boat/RV

Source: US Census Data Center

Households by County (all types)



■ Erath
 ■ Hood
 ■ Johnson
 ■ Palo Pinto
■ Parker
 ■ Somevell
 ■ Tarrant
 ■ Wise

Source: US Census Data Center

Employment

Total Employment

Erath	16,906
Hood	16,906
Johnson	48,726
Palo Pinto	8,715
Parker	34,924
Somervell	3,692
Tarrant	923,263
Wise	10,450
Total Western Region	1,063,582
Total NCTCOG	3,670,443

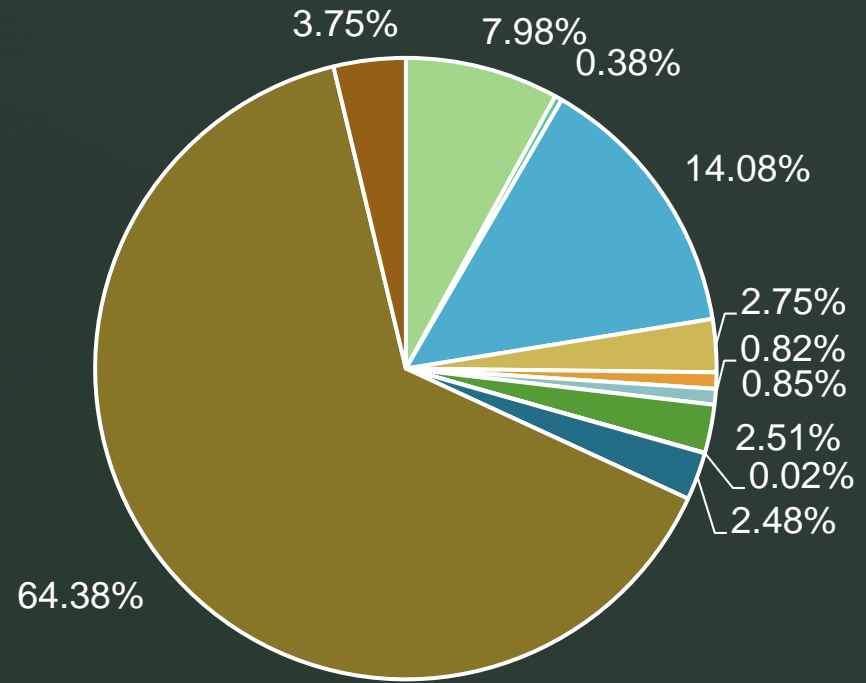
Source: Bureau of Labor Statistics for September 2019

And yes, according to BLS, Erath and Hood numbers are identical

Western Region Land Use



Photo source: Google Earth



- Residential single family
- Residential Other
- Institutional
- Park & Flood Plain
- Water
- Residential Multi-family
- Commercial
- Infrastructure
- Under Construction
- Vacant

Source: <http://data-nctcogis.opendata.arcgis.com/datasets/2015-nctcog-land-use-county/data>

Western Region Waste Management Characteristics

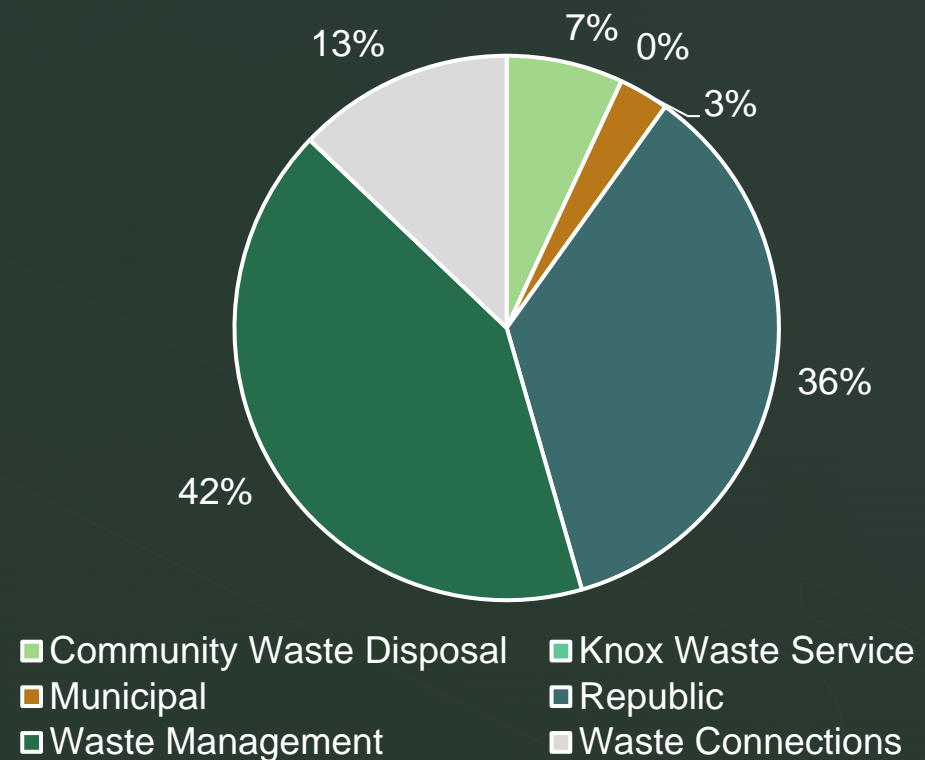
- Highly dependent on the private sector for collection and disposal services
- Key landfill ownership is mix of public ownership / private operations
- Each community has its own recycling and public education programs

Landfill	Ownership	Operation
City of Arlington	Public	Private
City of Fort Worth	Public	Private
City of Weatherford	Private	Private
City of Cleburne	Public	Public
City of Stephenville	Public	Public
Turkey Creek	Private	Private
Fort Worth C&D Landfill	Private	Private

Solid Waste Collection Services

- Private Sector provides majority of solid waste collection services in the region
- Contracts will have an impact on potential changes in service and facilities
- Limited to only a few service providers – 91% is from 3 providers
- Commercial & Institutional is generally open competition with franchise agreements

Private Sector Role in Waste Collection Preliminary



Source: Local government web sites and Texas Demographic Center

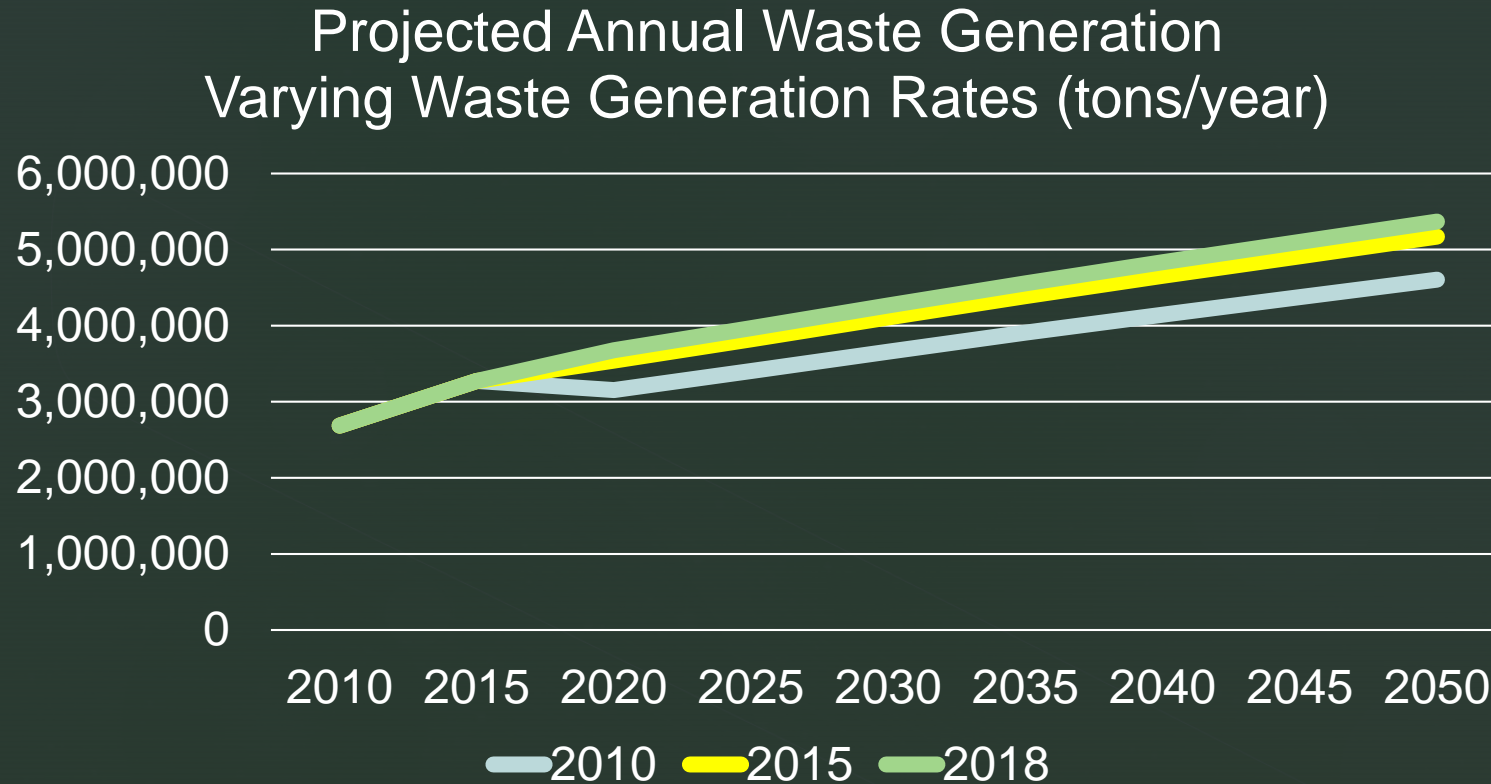
Waste Generation



- Estimated 2.3 million tons generated in Western Region
- Factors influencing future generation
 - Population and economic growth (+)
 - Increased recycling & source reduction (-)
 - Future storm events (+)
 - Urbanization of Western Region (+)
 - COVID-19 (-)
 - Waste imports / exports (?)

Based on historic data, approximately 2/3 of waste is generated from commercial and institutional sources

Waste Generation Projections

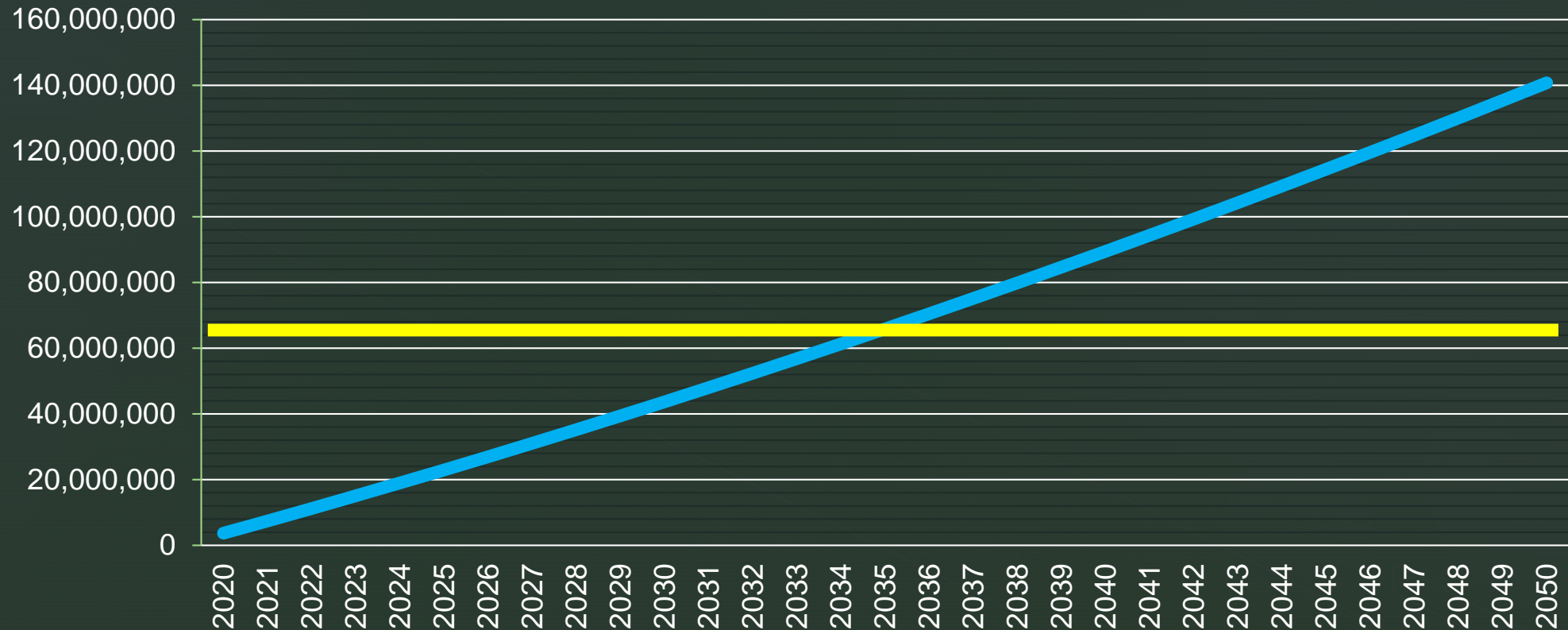


Waste Generation Rates forecast based on historic rates for NCTCOG Region and projected population growth. NCTCOG 2010 per capita disposal – 6.51 pcd; 2015 was 7.31 and 2018 was 7.59

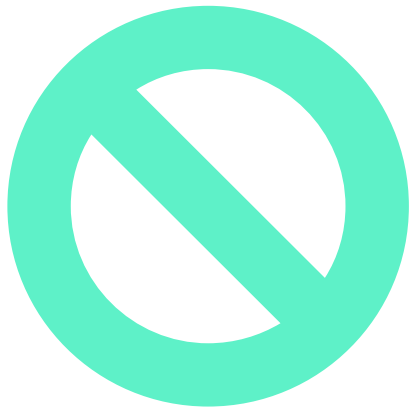
Source: TCEQ MSW Annual Summary Reports & Texas Demographic Center

Cumulative Waste Generation (tons)

Cumulative Projected Waste Generation



Current Western Region Capacity is approximately 63 million tons
Source: TCEQ Annual Reports for 2019



Landfill Capacity

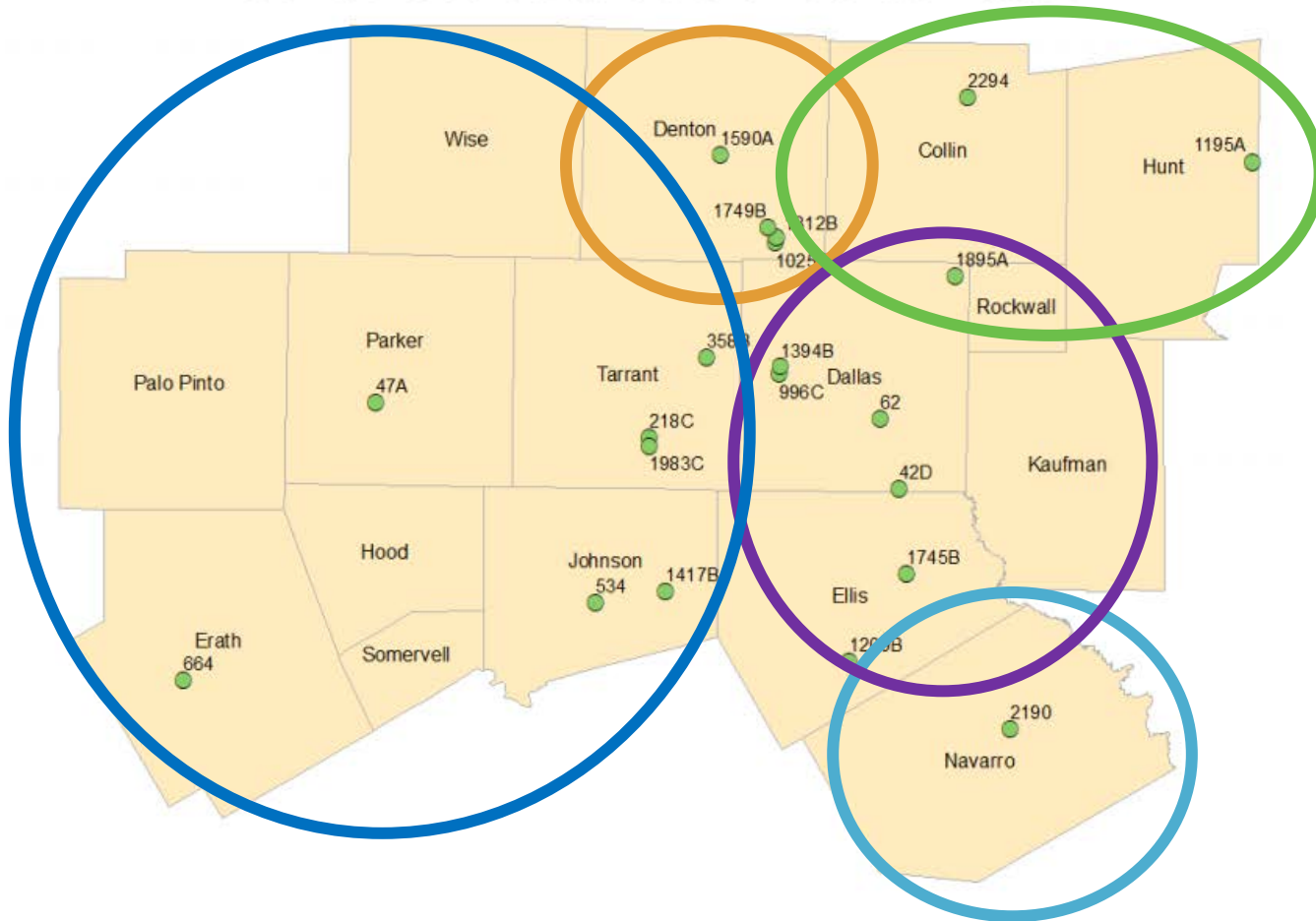
- Available landfill capacity is a driver for the project
- Current capacity of landfills in the region is approximately 15 to 20 years when population growth is considered
- Time required to secure new capacity is between 10 to 15 years
- Significant landfill changes coming in the NCTCOG Region

What are the Significant Changes

- Weatherford has approximately 1-2 years remaining capacity
- DFW landfill has approximately 3 years capacity (1 of 10 tons disposed in the NCTCOG Region goes to this landfill)
- Denton expansion is on the way to providing additional capacity
- Turkey Creek is seeking an expansion to their landfill
- Fort Worth C&D Expansion is proposed for private landfill in Fort Worth
- Maloy Landfill Major Amendment was submitted in 2019

5 Waste Disposal Subregions

COG 4: North Central Texas Council of Governments—Landfill Locations



Waste Subregions

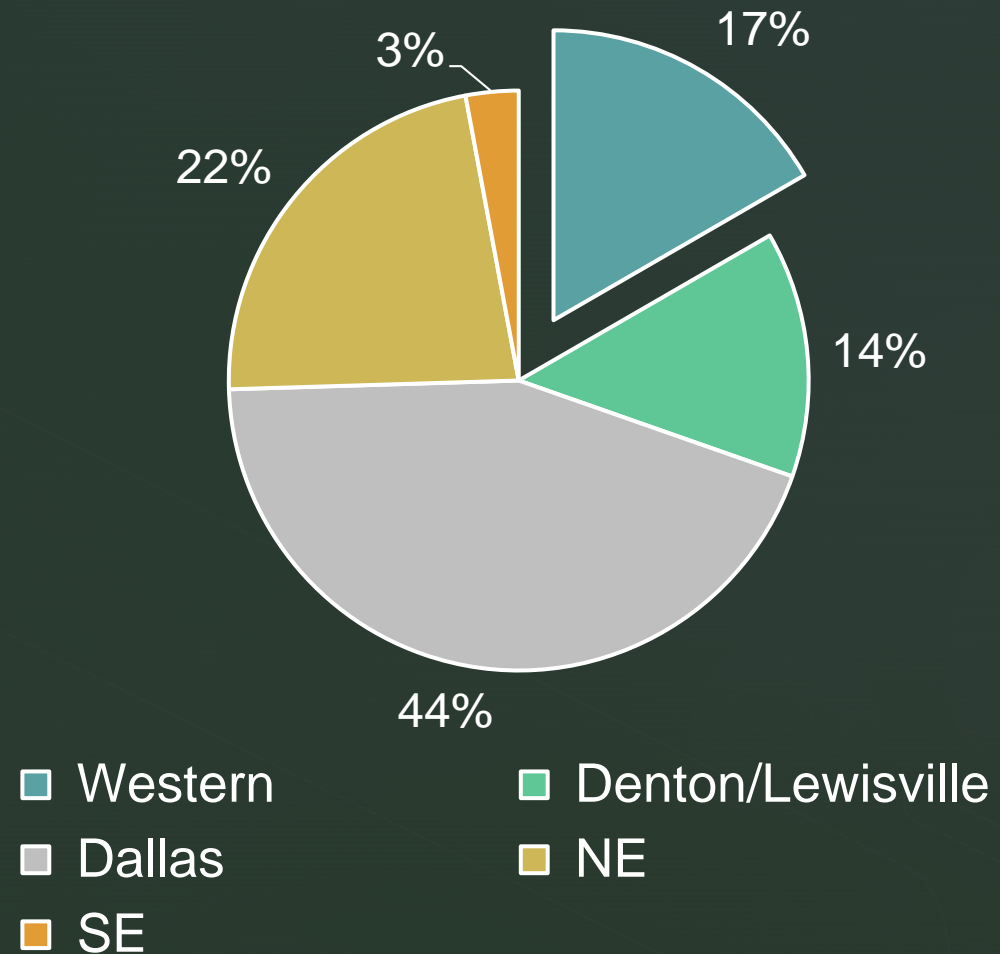
1. Western Region
2. Denton/Lewisville
3. Dallas/Central
4. Northeast
5. Southeast

In reality, waste travels across all waste sheds

NCTCOG 16 – County Region Landfill Capacity

Region	Capacity (million tons)
Western	63.6
Denton/Lewisville	52.3
Dallas/Central	168.6
Northeast	86.0
Southeast	11.2
Total	381.7

Capacity by Region (tons) 2019

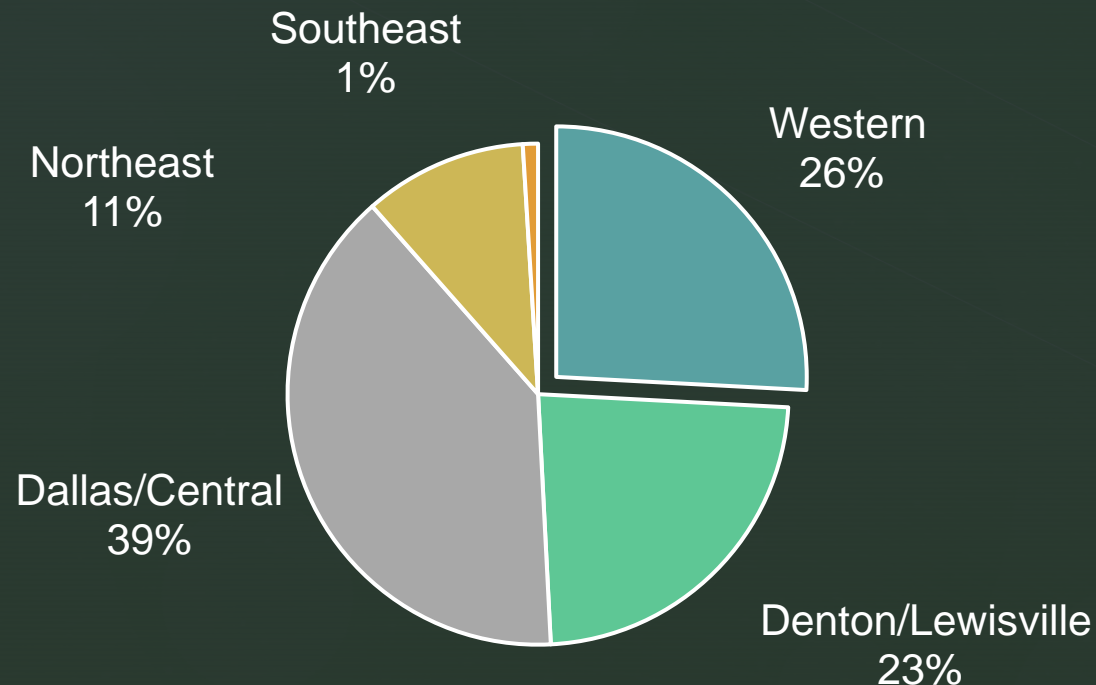


Source: TCEQ MSW Annual Reports -2019

Annual Disposal Quantities (2019 tons)

In 2019, the Western Region disposed 2.8 million tons or 26% of the total 10.9 million tons disposed in the NCTCOG Region

2019 Annual Disposal (% of NCTCOG Region)



Region	Annual Tons (000)
Western Region	2,817
Denton/Lewisville	2,548
Dallas Central	4,286
Northeast	1,148
Southeast	106
Total	10,905

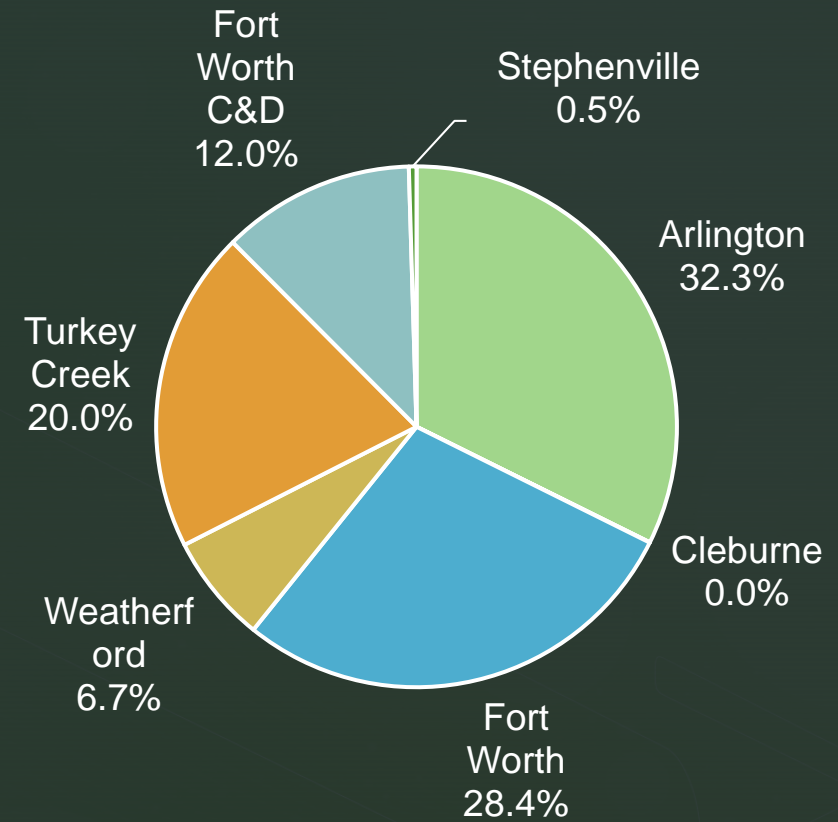
Source: TCEQ MSW Annual Reports -2019

Disposal & Capacity

Landfill	2019 Disposal tons	2019 Capacity Tons
Arlington (1)	910,524	38,383,940
Fort Worth (1)	801,185	14,942,929
Weatherford (1)	189,659	433,582
Turkey Creek (1)	564,091	4,769,311
Cleburne (1)	575	7,668
Fort Worth C&D (4)	337,973	4,623,723
Stephenville (4)	13,329	460,192
Total	2,817,336	63,621,345

Source: TCEQ Landfill Annual Reports

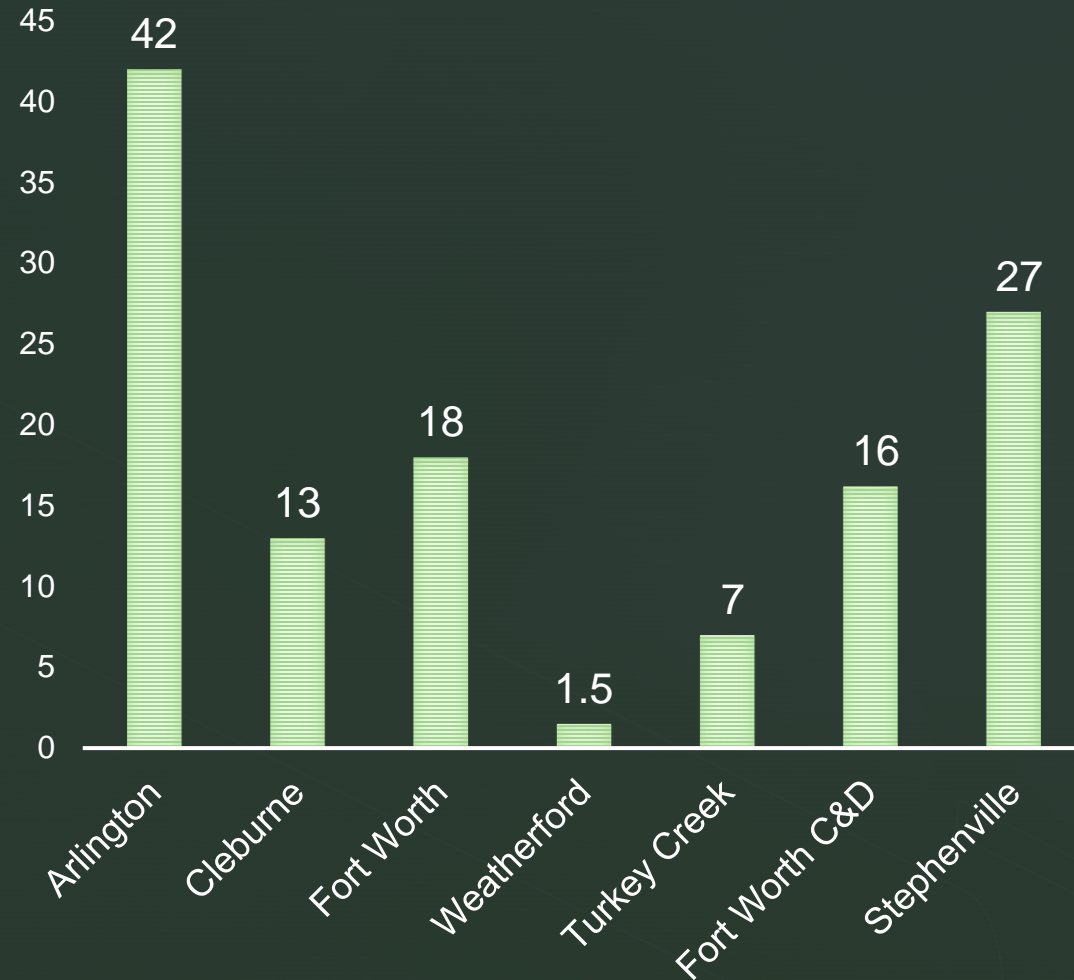
**Western Region Landfills
2019 Disposal Quantities
(% of Region)**



Landfill Capacity (years at current rates of disposal)

When growth rates are factored, capacity is 15 to 20 years

REMAINING YEARS OF CAPACITY
ON AVERAGE, THE REGION HAS **20-25**
YEARS AT CURRENT DISPOSAL RATES



Source: TCEQ Landfill Annual Reports for 2019

Transfer Stations

County	City	Facility	Tons / Year in 2019
ERATH	STEPHENVILLE	CITY OF STEPHENVILLE	Authorized but not operational
JOHNSON	CLEBURNE	CITY OF CLEBURNE TRANSFER STATION FACILITY	76,733
PARKER		BRAZOS TRANSFER STATION	Inactive
PARKER	WEATHERFORD	WC WEATHERFORD TRANSFER STATION	Not Constructed
SOMERVELL	GLEN ROSE	SOMERVILLE COUNTY TRANSFER STATION	8,193
TARRANT	ARLINGTON	ARLINGTON DISPOSAL TRANSFER STATION FACILITY	Inactive
TARRANT	FORT WORTH	NORTH TEXAS RECYCLING COMPLEX	0
TARRANT	HALTOM CITY	IESI MINNIS DRIVE TRANSFER STATION	140,777
TARRANT	FORT WORTH	SOUTHWEST PAPER STOCK TRANSFER STATION	25,134
TARRANT	ALEDO	WESTSIDE TRANSFER STATION	221,532
TARRANT	EULESS	WASTE CONVERSION INDUSTRIES INC	NA

Source: TCEQ

https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw-data#datafiles

Recycling Facilities

County	City	Facility
JOHNSON	GODLEY	DC ORGANICS INC
JOHNSON	BURLESON	BURLESON TRUCKING I LP
PARKER	WEATHERFORD	HD RECYCLING LLC
PARKER	SPRINGTOWN	HERITAGE-CRYSTAL CLEAN
TARRANT	FORT WORTH	LIDLAW FORT WORTH TRANSFER STATION
TARRANT	FORT WORTH	EVERGREEN PAPER RECYCLING INC
TARRANT	ARLINGTON	CORRUGATED SERVICES LP
TARRANT	FORT WORTH	HANKS RECYCLING
TARRANT	ARLINGTON	ABITIBI CONSOLIDATED RECYCLING DIVISION ARLINGTON
TARRANT	EULESS	EARTH HAULERS INC
TARRANT	AZLE	D&D CONSTRUCTION MATERIALS LLC
TARRANT	MANSFIELD	MANSFIELD PLANT
TARRANT	FORT WORTH	ALL COMPUTER RECYCLING
TARRANT		FORT WORTH SHINGLE RECYCLING
TARRANT	ARLINGTON	R2R RECYCLING LLC
TARRANT	GRAPEVINE	WISTRON GREENTECH TEXAS CORPORATION
TARRANT	FORT WORTH	FORT WORTH NE 23RD ST FACILITY
TARRANT	GRAND PRAIRIE	MEXTEK LLC
TARRANT	FORT WORTH	UNIVERSAL RECYCLING TECHNOLOGIES FACILITY
TARRANT	FORT WORTH	COMMODITY RECYCLING SOLUTIONS
TARRANT	GRAND PRAIRIE	CINCO ELECTRONICS RECYCLING
TARRANT	GRAND PRAIRIE	RE TECK
TARRANT	FORT WORTH	ONE OAK SUS
TARRANT	FORT WORTH	COMMODITY RECYCLING SOLUTIONS

Source: TCEQ

https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw-data#datafiles

Organic Facilities

County	City	Facility
JOHNSON	JOSHUA	HARRINGTON ORGANIC PRODUCE
JOHNSON		HARRINGTON ENVIRONMENTAL
PARKER	ALEDO	LIVING EARTH
TARRANT	FORT WORTH	SILVER CREEK MATERIALS RECOVERY FACILITY
TARRANT	FORT WORTH	THELIN RECYCLING
TARRANT	EULESS	EARTH MATERIALS RECYCLED
TARRANT	SOUTHLAKE	ALPINE MATERIALS LLC
TARRANT	FOREST HILL	THE ORGANIC RECYCLER OF TEXAS
TARRANT	LAKESIDE	LIVING EARTH
TARRANT	FORT WORTH	GREEN GROUND COMPOST
TARRANT	AZLE	D & D CONSTRUCTION MATERIALS COMPANY
TARRANT	MANSFIELD	GREEN GROUN COMPOST
TARRANT	FORT WORTH	SILVER CREEK MATERIALS

Source: TCEQ

https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw-data#datafiles

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		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

Citizen Convenience Stations

Source: TCEQ

https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw-data#datafiles

Facility Site Selection Issues

Federal

- Airports
- Floodplains
- Waters of the US
- Faults
- Seismic
- Unstable Areas

Other Criteria

- Parks
- Sensitive Land Uses (schools, hospitals and churches)
- Environmental Justice
- Oil & Gas
- Transportation

Background maps to be provided in Needs Assessment Report

Questions / Comments on Data



Next Steps

- Present Communications Plan to NCTCOG and PAG
- Meeting of the PAG to discuss project direction, survey and Needs Assessment Technical Report
- Presentation of Needs Assessment Technical Report
- Preparation of Options Report

Contact Us

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