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SOUTH PLAINS ASSOCIATION OF GOVERNMENTS

Regional Solid Waste Management Plan

2022 – 2042 Planning Period

DRAFT SUMBITTED TO SOUTH PLAINS ASSOCIATION OF GOVERNMENTS FOR BOARD APPROVAL.
REPORT DATE: 8/10/2021

August | 2021

Parkhill Project # 01801820

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ADOPTION RESOLUTION

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APPENDICES

EXECUTIVE SUMMARY

In accordance with Texas Health and Safety Code 363, Subchapter D and Texas Administrative Code Chapter 330, Subchapter O, the enclosed report serves as the South Plains Association of Governments' (SPAG) Regional Solid Waste Management Plan. The original plan, adopted by the SPAG Board of Directors in August 1992, has been updated and amended periodically since its inception. This plan is an update to the previously approved plan from July 2003.

This plan update details the region's current and planned municipal solid waste (MSW) management procedures, objectives and goals, recommendations, and strategies for achieving goals through the planning period of years 2022 to 2042. The plan update follows TCEQ guidance using the Regional Solid Waste Management Plan Volume I and Volume II forms, revised September 22, 2020, and the plan is divided into four sections;

- Geographic Scope,
- Planning Periods,
- Plan Content,
- and Required Approvals.

To aid in gaining accurate and current data for use in this plan, an MSW survey was prepared and submitted to all public and private solid waste generators, collection organizations, and landfills within the SPAG region. The survey aimed to gather MSW operations and practices, waste hauler and landfill information, and recycling and scrap operations data. Additional plan data and information were obtained through various sources, which included TCEQ's Municipal Solid Waste in Texas: A Year in Review 2019, Data Summary and Analysis, and recent TCEQ annual solid waste reports.

Following the receipt of MSW surveys and data collection, a SPAG Solid Waste Advisory Committee (SWAC) was formed to discuss the region's results, review plan drafts and revisions, and approve plan for distribution. The dates of SWAC Meetings during plan development were: December 2, 2019, October 5, 2020, February 11, 2021, February 25, 2021, April 7, 2021, June 10, 2021 and July 15, 2021. Two public hearings were conducted on March 25, 2021, and August 9, 2021, to present the plan to the general public and solicit any comments for inclusion in the report. The plan was formally adopted by the SPAG Board of Directors on [DATE].

Through plan development and review, the SWAC and the SPAG board developed a series of regional goals and objectives to present within the plan. Regional goals and objectives will be periodically evaluated for effectiveness and suitability over the planning periods. The following statements are the regions objectives for the full planning period between years 2022 and 2042.

- Achieve a 5% reduction of solid waste entering landfills by 2027 and a 10% reduction by 2032.
- Develop a regional plan to properly dispose of E-Waste.
- Encourage proper disposal of household hazardous waste (HHW).
- Decrease improperly disposed tires within the region.
- Assist joint education efforts on waste reduction and reuse, and proper disposal methods.

Volume I Section I outlines the geographic scope of the region, Section II details the regions goals, waste minimization and recycling efforts, and the commitment to the management of MSW facilities, and Section III demonstrates the plan's approval. Volume II Sections I and II of the plan outline the geographic scope of the region and establish the short, intermediate, and long-range planning period for the full plan between 2022 to 2042. Section III outlines various subsections detailing the status and adequacy of waste management activities as well as recommendations, incentives, and barriers to achieving waste minimization, and reuse, recycling, and resource recovery. Section IV demonstrates the plan's approval by the general public, SWAC, and the executive SPAG board.

ACKNOWLEDGEMENTS

This Regional Solid Waste Management Plan was funded through grant money provided by the Texas Commission on Environmental Quality (TCEQ), from distribution through the South Plains Association of Governments (SPAG).

Parkhill was chosen to develop this plan on behalf of the SPAG. Parkhill would like to acknowledge and thank all participating parties involved in the planning and development of this regional solid waste management plan. The following is a list of key organizations and participants involved in the development of this plan.

South Plains Association of Governments

Tim C. Pierce, Executive Director
Kelly Davila, Director of Regional Service
Chelsey Baldivia, Solid Waste Coordinator

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Robert H. (Holly) Holder, P.E.
Tyler S. Krueger, P.E.
Nash Crawley, E.I.T.

Solid Waste Advisory Council

Ramon Sanchez, Chairman, City of Muleshoe
Joe Cavazos, Vice Chairman, City of Levelland
Keeley Adams, City of Olton
Steve Butcher, City of Sudan
Ricky Caballero, City of Lubbock
Johnny Contreras, City of Brownfield
Tim Crosswhite, City of Plainview
Stan David, City of Denver City
Brenda Haney, P.E., City of Lubbock
Crystal Hunt, TCEQ Region 2
Mack LaDuke, South Plains Waste Service
Brocke Lively, City of Plainview (Member in 2020)
Patti Lowrance, City of Floydada
Lance Parker, City of Littlefield
Retha Pittman, City of Tahoka
Richard Salazar, City of Sudan (Member in 2020)
Aunie Sellers, City of Ralls
Sam Stewart, Jarvis Metals
Todd Stiggins, P.E., Parkhill
Trey Tow, Waste Connections

Solid Waste Advisory Council Subcommittee

10.1.2019 – 10.1.2020
Joe Cavazos, City of Levelland
Tim Crosswhite, City of Plainview
Brenda Haney, P.E., City of Lubbock
Mack LaDuke, South Plains Waste Service
Patti Lowrance, City of Floydada

10.1.2020 – 10.1.2021
Joe Cavazos, City of Levelland
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Richard Salazar, City of Sudan

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VOLUME I

Regional Solid Waste Management Plan Volume I

Regional Solid Waste Management Plans are required by Texas Health and Safety Code (THSC), §363.062, relating to Regional Solid Waste Management Plan (RSWMP). Contents of the RSWMP are described in THSC §363.064 and in 30 Texas Administrative Code (TAC), Chapter 330, Subchapter O.

This form contains set fields for data entry. To complete an entry, click on the area where the instructions are shown and begin typing. Rows can be added or deleted in the tables as needed. The RSWMP Volume I Form was developed by the Texas Commission on Environmental Quality (TCEQ) in coordination with the Texas Association of Regional Councils. Planning organizations with questions about the form can contact the **TCEQ Business and Program Services Section by calling 512-239-2335**.

Regional Solid Waste Management Plan Volume I

Regional Organization Information

Table 1. Organization Information

Name of Council of Government	South Plains Association
Mailing Address	P.O. Box 3730 Freedom Station Lubbock, TX 79452
Website	www.spag.org
Phone Number	(806) 762-8721
Email Address	regional@spag.org

Section I. Geographic Scope

[Ref. 30 TAC §330.645(a)(1)]

The geographic scope of the regional planning process shall be the entire planning region.

Table I.I. Geographic Scope

Names of Member Counties in the Entire Planning Region	Bailey, Cochran, Crosby, Dickens, Floyd, Garza. Hale, Hockley, King, Lamb, Lubbock, Lynn, Motley, Terry, Yoakum

Section II. Plan Content

[Ref. 30 TAC §330.635(a)(2)]

A regional plan shall be the result of a planning process related to the proper management of solid waste in the planning region. The process shall include identification of overriding concerns and collection and evaluation of the data necessary to provide a written public statement of goals and objectives and actions recommended to accomplish those goals and objectives.

II.A. Regional Goals and Objectives

[Ref. 30 TAC §330.635(a)(2)(A)]

In the table, list the long-range regional goals and corresponding objectives for the proper management of solid waste in the planning region. Add rows as needed.

Table II.A. Regional Goals and Objectives

Goal #1 Achieve a 5% reduction of solid waste entering landfills by 2027 and a reduction to 10% by 2032.	**Objective 1.A.** Increase diversion rate at landfills and look for local partners and ways to reuse or process waste locally. **Objective 1.B.** Incentivize and coordinate with contractors and new development within the region to push for C&D waste reduction, increased material reuse, or use of salvaged material. **Objective 1.C** Encourage composting, chipping, and/or grinding of yard waste for reuse as mulch and fertilizer.
Goal #2 Develop a regional plan to properly dispose of E-Waste.	**Objective 2.A.** Partner municipalities with local commercial electronic vendors to develop joint regional E-Waste disposal and recycling plan. **Objective 2.B.** Educate citizens on the hazards of disposing of electronics in their local dumpsters or collection stations. **Objective 2.C** Provide permanent containers designated for E-Waste collection within cities or increase number of community collection days in the region that accept E-Waste.
Goal #3 Encourage proper disposal of household hazardous waste (HHW).	**Objective 3.A.** Educate citizens on the potential hazards of disposing household hazardous waste and prescription drugs in their local dumpsters or collection stations. Spread awareness on what HHW is and where citizens can properly dispose. **Objective 3.B.** Provide permanent containers designated for HHW collection within cities or increase number of community collection days in the region that accept HHW.
Goal #4 Decrease improperly disposed tires within the region.	**Objective 4.A.** Develop scrap tire ordinances for municipalities or region to aid in incentivizing proper scrap tire disposal.

Goal #4 Cont.	**Objective 4.B.** Develop additional scrap tire processing facilities in the region capable of recycling for material reuse. Region currently has only one processing facility. **Objective 4.C** Educate citizens on the proper collection areas within or near local municipalities.
Goal #5 Assist joint education efforts on waste reduction and reuse, and proper disposal methods.	**Objective 5.A.** Encourage citizens to prioritize reuse and reduce. **Objective 5.B.** Coordinate with municipalities to provide literature, informational webinars, and brochures/inserts to directly reach citizens for recycling education. **Objective 5.C** Partner with local ISDs to perform educational projects within K-12 schools, utilize higher education facilities to attract speakers, utilize student volunteers for clean-up efforts or educating the community, and bring awareness to methods of waste reduction.

II.B. Efforts to Minimize, Reuse, and Recycle Waste

[Ref. 30 TAC §330.635(a)(2)(B)]

In the table, provide a description and assessment of efforts to minimize, reuse, and recycle waste.

Table II.B. Waste Minimization, Reuse, and Recycling

Subject	Description
Current Efforts to Minimize Municipal Solid Waste and to Reuse or Recycle Waste	Provide a brief description and an assessment of current efforts in the region to minimize municipal solid waste (MSW), including sludge, and efforts to reuse or recycle waste.
Recycling Rate Goal for the Region	The region established a goal to increase recycling by 5% by year 2027 and a goal to 10% by year 2032. The goal was established based on previous plan goals and a review on current recycling operations.
Recommendations for Encouraging and Achieving a Greater Degree of Waste Minimization and Waste Reuse or Recycling	Municipalities to partner with local education systems to increase awareness and further education on reuse and recycling. Provide additional drop off facilities and/or increase drop off days to collect material. Develop a region wide materials recovery facility. Develop additional tire processing facilities within the region. Seek partnerships or new ventures for waste energy plants to develop within the region.
Existing or Proposed Community Programs for the Collection of Household Hazardous Waste	Surveyed municipalities and institutions within the region did not indicate ongoing programs for household hazardous waste (HHW). Periodically cities operate special collection/drop off days for residents and some larger municipalities will accept HHW at permanent drop off facilities. The region plans to increase collection days for HHW pickup and increase the availability for the region's landfills to accept and process HHW. The region plans to develop additional permanent HHW collection facilities through the long-range period.
Composting Programs for Yard Waste	The region intends to increase composting amounts during the short-range planning period and continue the efforts through the long-range planning period. The region plans to accomplish this with educational items and informational material sent to residents to promote home composting, don't bag it lawn care procedures, and increase mulching and chipping at landfills.

Subject	Description
Public Education/Outreach	Provide educational flyers in utility bills and add information to city websites promoting waste reduction, reuse, and recycling during the short-term planning period. Print, web, radio, or TV advertisement to educate on proper disposal efforts for common HHW and E-Waste during the intermediate planning period. Partner with green organizations to bring public speakers to public school systems in the intermediate planning period.

II.C. Commitment Regarding the Management of MSW Facilities

[Ref. 30 TAC §330.635(a)(2)(C)]

By checking the boxes below, the Council of Government makes a commitment to the following, regarding the management of MSW facilities:

☒ (i) encouraging cooperative efforts between local governments in the siting of landfills for the disposal of solid waste;

☒ (ii) assessing the need for new waste disposal capacity;

☒ (iii) considering the need to transport waste between municipalities, from a municipality to an area in the jurisdiction of a county, or between counties, particularly if a technically suitable site for a landfill does not exist in a particular area;

☒ (iv) allowing a local government to justify the need for a landfill in its jurisdiction to dispose of the solid waste generated in the jurisdiction of another local government that does not have a technically suitable site for a landfill in its jurisdiction;

☒ (v) completing and maintaining an inventory of MSW landfill units in accordance with Texas Health and Safety Code, §363.064. One copy of the inventory shall be provided to the commission and to the chief planning official of each municipality and county in which a unit is located; and

☒ (vi) developing a guidance document to review MSW registration and permit applications to determine conformance with the goals and objectives outlined in *Volume II: Regional Solid Waste Management Plan Implementation Guidelines* as referenced in 30 TAC §330.643.

Section III. Required Approvals

Table III.I. Required Approvals

Solid Waste Advisory Committee	7/15/2021
Public Meeting Dates	3/25/2021, 8/9/2021
Executive Committee	Enter approval date by the Executive Committee.

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VOLUME II

Regional Solid Waste Management Implementation Plan Volume II

Regional Organization Information

Table 1. Organization Information

Name of Council of Government	South Plains Association of Governments
Mailing Address	P.O. Box 3730 Freedom Station Lubbock, TX 79452
Website	www.spag.org
Phone Number	(806) 762-8721
Email Address	regional@spag.org

Section I. Geographic Scope

Table I.I. Geographic Scope

I.A. Names of Member Counties in the Entire Planning Region **[Ref. 30 TAC §330.643(a)(1)]**	Bailey, Cochran, Crosby, Dickens, Floyd, Garza. Hale, Hockley, King, Lamb, Lubbock, Lynn, Motley, Terry, Yoakum
I.B. Geographic Planning Units Used in the Regional Implementation Plan **[Ref. 30 TAC §330.643(a)(1)]**	☐ Small geographic areas such as census tracts or city boundaries for the most detailed data collection and manipulation; ☐ Planning areas to be used for the assessment of concerns and the evaluation of alternatives. These planning areas shall be aggregations of small geographic areas; ☐ County boundaries for the summarization and presentation of key information; or ☒ The entire planning region

Section II. Planning Periods

[Ref. 30 TAC §330.643(a)(2)]

Table II.I. Planning Periods

II.A.1. Current and Historical Information	2020
II.A.2. Short-range Planning Period	2022-2027
II.A.3. Intermediate Planning Period	2027-2032
II.A.4. Long-range Planning Period	2032-2042
☐ **Check box if additional details provided in *Attachment II.A*.**	

Section III. Plan Content

III.A. Demographic Information

[Ref. 30 TAC §330.643(a)(3)(A)]

In the table, provide population projections, significant commercial and industrial economic activity affecting waste generation and disposal in the area, and recycling activities. Use five-year increments beginning from the base year to the end of the long-range planning period. Refer to Regional Plan Instructions for more information on III.A. Demographic Information.

Table III.A.I. Residential Waste Generation

Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Disposal Rate (lbs./Person /Day)	Recycling (Tons)	Recycling Rate (lbs./Person /Day	Residential Waste Generation (Tons)
Current	0.91%	452,277	599,987	7.27	28,776	0.35	571,211
2022	0.91%	460,524	611,491	7.28	29,319	0.35	576,664
2027	0.91%	481,859	641,280	7.29	30,724	0.35	610,555
2032	0.78%	502,928	671,016	7.31	32,124	0.35	638,892
2037	0.78%	522,945	699,759	7.33	33,471	0.35	666,288
2042	0.72%	543,144	729,118	7.36	34,838	0.35	694,279
☒ **Check box if additional details provided in *Attachment III.A.***							

Table III.A.II. Commercial Waste Generation

Year	Description of significant commercial activities affecting waste generation and disposal in the area.	Expected increase or decrease to Commercial Waste Generation
2022	No individual significant commercial activity was indicated through survey responses from municipalities and private institutions within the region. The City of Lubbock's response indicated a recent increase in commercial waste growth by 5-7% annually, with an average of 60% of total tonnage from commercial sources. As population growth and the growth of smaller commercial ventures within the region continues, anticipated annual growth in commercial waste generation is expected.	1.5-2.5% Annually
2027	No individual significant commercial activity was indicated through survey responses from municipalities and private institutions for the short-range planning period. As population growth continues in the region, an anticipated annual growth in commercial waste generation is expected.	1.5-2.5% Annually
2032	No individual significant commercial activity was indicated through survey responses from municipalities and private institutions for the intermediate planning period. As population growth continues in the region, an anticipated annual growth in commercial waste generation is expected.	1.5-2.5% Annually
2037	No individual significant commercial activity was indicated through survey responses from municipalities and private institutions for the intermediate planning period. As population growth continues in the region, an anticipated annual growth in commercial waste generation is expected.	1.5-2.5% Annually
2042	No individual significant commercial activity was indicated through survey responses from municipalities and private institutions for the long-range planning period. As population growth continues in the region, an anticipated annual growth in commercial waste generation is expected.	1.5-2.5% Annually

Table III.A.III. Industrial Waste Generation

Year	Description of significant industrial waste activities affecting waste generation and disposal in the area.	Expected increase or decrease to Industrial Waste Generation
2022	No individual significant industrial activity was indicated through survey responses from municipalities and private institutions. As economic growth continues in the region, an anticipated annual growth in industrial waste generation is expected.	1%
2027	No individual significant industrial activity was indicated through survey responses from municipalities and private institutions for the short-range planning period. As economic growth continues in the region, an anticipated annual growth in industrial waste generation is expected.	1%
2032	No individual significant industrial activity was indicated through survey responses from municipalities and private institutions for the intermediate planning period. As economic growth continues in the region, an anticipated annual growth in industrial waste generation is expected.	1%
2037	No individual significant industrial activity was indicated through survey responses from municipalities and private institutions for the intermediate planning period. As economic growth continues in the region, an anticipated annual growth in industrial waste generation is expected.	1%
2042	No individual significant industrial activity was indicated through survey responses from municipalities and private institutions for the long-range planning period. As economic growth continues in the region, an anticipated annual growth in industrial waste generation is expected.	1%

III.B. Estimates of Current and Future Solid Waste Amounts by Type

[Ref. 30 TAC §330.643(a)(3)(B)]

In the table, provide the current and project solid waste amounts by type that will be generated and managed within the region. Use five-year increments beginning from the base year to the end of the long-range planning period. Refer to Regional Plan Instructions for more information on III.B. Estimates of Current and Future Solid Waste Amounts by Type.

Table III.B.1. Current and Future Solid Waste Amounts by Type

Waste Type	Number of Landfills Accepting Waste Type	Percent of Total Tons Disposed	Current Year	5-year Projection (tons)	10-year Projection (tons)	15-year Projection (tons)	20-year Projection (tons)
Municipal	15	61.02%	366,142	383,111	400,866	416,830	433,430
Brush	2	0.03%	201	211	220	229	238
Construction or Demolition	16	32.74%	196,453	205,557	215,084	223,649	232,556
Litter	2	0.01%	64	67	70	73	76
Class 1 Non-hazardous	0	0%	0	0	0	0	0
Classes 2 and 3 Non-hazardous	1	0.88%	5,257	5,501	5,756	5,985	6,224
Incinerator Ash	0	0%	0	0	0	0	0
Treated Medical Waste	0	0%	0	0	0	0	0
Municipal Hazardous Waste from CESQGs	0	0%	0	0	0	0	0
Regulated Asbestos-containing Material (RACM)	0	0%	0	0	0	0	0
Non-RACM	0	0%	0	0	0	0	0
Dead Animals	5	0.02%	133	139	146	152	158

Waste Type	Number of Landfills Accepting Waste Type	Percent of Total Tons Disposed	Current Year	5-year Projection (tons)	10-year Projection (tons)	15-year Projection (tons)	20-year Projection (tons)
Sludge	3	2.80%	16,799	17,577	18,392	19,124	19,886
Grease Trap Waste	0	0%	0	0	0	0	0
Septage	0	0%	0	0	0	0	0
Contaminated soil	0	0%	0	0	0	0	0
Tires (split, quartered, shredded)	4	0.40%	2,394	2,505	2,621	2,726	2,834
Pesticides	0	0%	0	0	0	0	0
Used Oil Filter	0	0%	0	0	0	0	0
Other (identify other types reported as ***Attachment III.B.***)	1	2.09%	12,544	13,125	13,733	14,280	14,849
Total	49	100%	599,987	627,794	656,889	683,049	710,251
☒ Check box if additional details provided in *Attachment III.B.*							

III.C. Description of Current and Planned Solid Waste Management Activities

[Ref. 30 TAC §330.643(a)(3)(C)]

In the tables, provide the current and planned solid waste management activities in the region with a description. Solid waste management activities should focus on data, activities, and resources within the planning area. Refer to Regional Plan Instructions for more information on III.C. Description of Current and Planned Solid Waste Management Activities in the Region.

Table III.C.I. Current Solid Waste Management Activities in the Region

Activity	Description
Generation	Municipal solid waste (MSW) is managed within the region by individual cities and/or counties through local ordinances and guidelines. Waste is generated at the source, which is predominately municipal, based on region surveys, TCEQ Fiscal Year 2020 Annual Solid Waste reports, and the Municipal Solid Waste in Texas: A Year in Review 2019 Data Summary and Analysis. MSW makes up approximately 61% of the generated waste type in the region followed by construction and demolition waste at approximately 33%. The remaining waste types generated in the region individually account for 2% or less.
Source Separation	City-wide or county-wide source separation does not currently exist, and surveyed municipalities and private institutions within the region did not indicate any programs or ordinances in place to develop large-scale source separation. Municipalities that operate recycling and/or material diversion programs rely on individual residential and/or commercial volunteer source separation and disposal at proper locations within the city and/or county. The City of Lubbock operates a collection service for source-separated recyclable materials at select locations within the city equipped with individual waste-specific dumpsters. The City of Plainview allows commercial vendors to request recycle carts for volunteer source separation which will be collected by city staff. Additionally, the City of Plainview operates drop-off areas around the city for volunteer residential source separation of paper, plastic, aluminum cans, and cardboard.
Collection	MSW is managed within the region by individual cities and/or counties through local ordinances and guidelines. Collection of waste predominately begins at residential or commercial collection containers ranging in sizes from standard dumpsters to roll-off trailers. Surveyed municipalities and private institutions indicated various frequencies for collection depending on waste unit type and container size. The majority of survey responses indicated single-family homes and apartments and/or living communities have waste collected from containers weekly. Collection of commercial, industrial, construction, and bulky wastes depended more on the source

Activity	Description
Collection (cont.)	and container size, and surveys indicated collection rates anywhere from weekly, bi-weekly, or more as needed. In many of the cities within the region, both city and private collection activities operate concurrently. Generally, smaller municipalities have elected to cancel solid waste collection and disposal operations, and have contracted with one of several private collection companies operating within the region. Cities and private companies generally work on multi-year contracts for waste collection on an agreed renewal frequency. Private collection companies collect and dispose MSW in the nearest permitted facility. Cities that operate their own MSW facility generally pick up their respective city's MSW. Surveyed response from the region suggested the majority of collection from private haulers is handled by Republic services, but other private haulers utilized in the region were South Plains Waste Service, Waste Connections, SOS Waste, and Triple C Waste.
Handling	Surveyed municipalities and private institutions within the region did not indicated any MSW handling facilities.
Storage	Surveyed municipalities and private institutions within the region did not indicated any MSW storage facilities.
Transportation	Two transfer stations operate in the region, the Caliche Canyon Transfer Station (Registration No. 40176) and the City of Levelland Transfer Station (Registration No. 40051). Waste is transferred to the City of Lubbock's West Texas Region Disposal Facility or City of Levelland landfill for disposal. The facilities operate at low tonnage and serve to assist disposal efforts and lower traffic at the nearest permitted landfills. The SPAG region is predominately made up of sparsely populated regions and communities. Smaller municipalities that do not operate a landfill, or only operate type IV landfills, will transfer the waste outside the city to the nearest permitted facility. Collection and transport from smaller municipalities is carried out mostly by private haulers, but city staff may operate transport in other cases. A couple of smaller municipalities indicated in the region survey that their MSW waste is transferred outside of the source city to the nearest permitted landfill. Additional information on waste transport is contained in Attachment III.C

Activity	Description
Processing	The region has five processing facilities. The two transfer stations that were mentioned previously. One medical waste transfer station, Stericycle Lubbock Medical Waste Transfer Station (Registration No. 40279), one liquid waste processing facility, Southwaste Disposal South Plains Liquid Waste Processing Facility (Registration No. 2231), and one scrap tire processing facility, State Rubber and Environmental Solutions (Registration No. 6200195). Stericycle specializes in the collection of biohazardous medical waste, pharmaceutical wastes, and sharps for syringes and needles. Medical waste collected is stored at the facility but ultimately is transferred out of the region for further processing and treatment of materials. Southwaste Disposal specializes in liquid-solid separation for grease trap and grit trap wastes. The facility can also handle chemical toilets, non-hazardous industrial wash water, and domestic sewage. The facility dewaters and separates entering wastes, and the resulting solids or sludge is transferred to West Texas Region Disposal Facility (MSW Permit No. 2252) for disposal while the resulting liquid is transferred outside of the region for further processing and treatment. State Rubber is a complete tire recycling facility that accepts tires of all sizes for processing. Used and scrap tires are processed on-site by grounding tires into fine mesh crumb rubber while removing the steel and fiber. The facility ships out steel and fiber for further processing or re-use in other industries. The various sizes of mesh crumb rubber are sold for re-use in asphalt modification, molded rubber products, athletic surfacing, playground surfacing, landscaping, and for use in the oil and gas industry.
Treatment	Surveyed municipalities and private institutions within the region did not indicate any solid or liquid waste treatment operations.
Resource Recovery	Surveyed municipalities and private institutions within the region did not indicate any resource recovery operations. Current recycling operations collect material and transfer recyclable material outside of the region for resource recovery.
Disposal of Solid Waste	MSW is managed within the region by individual cities and/or counties through local ordinances and guidelines. Collection of waste predominately begins at residential or commercial collection containers. In many of the cities within the region, both city and private collection activities operate concurrently. Municipalities that operate their own landfill generally collect the majority of the waste in the city and dispose of waste within the city's landfill. Private haulers operate on contracts with the municipalities and will collect and dispose of waste in the nearest permitted facility. The region has 20 available landfills for disposal that range in size from the West Texas Region Disposal Facility, largest in the region, to the City of Amherst

Activity	Description
Disposal of Solid Waste (cont.)	landfill, smallest in the region. The region's waste disposal amounts are controlled heavily by City of Lubbock, the most heavily populated municipality within the region. From the surveyed municipalities, a majority of landfills within the region indicated 20 years or more of remaining life. Two landfills indicated less than ten years of remaining life, the Caliche Canyon Landfill (MSW Permit No. 69) with seven years remaining, and the City of Post landfill (MSW Permit No. 2227) with four years remaining. The overall region has adequate disposal storage through the long-term planning period. Additional information on individual municipality annual tonnage and remaining landfill life is contained in Attachment III.C.

Table III.C.II. Planned Solid Waste Management Activities in the Region

Activity	Description
Generation	Based on responses from municipalities and private institutions surveyed in the region, no significant change is expected in waste generation.
Source Separation	Based on responses from municipalities and private institutions surveyed in the region, no significant change is expected in current source separation methods. Volunteer source separation and recycling may increase at the residential level, but no planned region or city source separation method is expected. There has been discussion about a possible materials recovery facility (MRF), but no plans are in place.
Collection	Based on responses from municipalities and private institutions surveyed in the region, no significant change to waste collection is expected. Private hauler contracts may expire for individual municipalities within the region and minor changes in the waste collection could be expected.
Handling	Based on responses from municipalities and private institutions surveyed in the region, waste handling is not expected to begin for any municipality or landfill within the region during the planning periods.
Storage	Based on responses from municipalities and private institutions surveyed in the region, waste storage is not expected to begin for any municipality or landfill within the region during the planning periods.
Transportation	Based on responses from municipalities and private institutions surveyed in the region, an additional MSW transfer station is expected to be permitted and constructed during the planning periods. The City of Lubbock currently has plans to contract out work to design and permit a new transfer station inside Lubbock County. Expected start and completion date of facility is not available.
Processing	Based on responses from municipalities and private institutions surveyed in the region, no significant change is expected in waste processing. There has been discussion to develop a MRF to aid in processing recyclable material within the region, but no plans are in place.
Treatment	Based on responses from municipalities and private institutions surveyed in the region, waste treatment is not expected to begin for any municipality or landfill within the region during the planning periods.

Activity	Description
Resource Recovery	Based on responses from municipalities and private institutions surveyed in the region, no significant change is expected in waste processing. The City of Lubbock would like to develop a materials recovery facility, but no plans are in place.
Disposal of Solid Waste	Based on responses from municipalities and private institutions surveyed in the region, MSW disposal will continue similar to current methods. A few municipalities expressed interest in expanding operations or developing new institutions. From the survey, the City of Matador expressed interest in purchasing additional land for disposal and recycling operations. The City of Plainview expressed the need to line a new cell in the short-term planning period and the desire to expand recycling operations. The City of Post has permitted an additional MSW landfill (MSW Permit No. 2397) adjacent to the currently active landfill. The facility has an estimated life of 11 years and will go into use once current landfill approaches capacity. The City of Meadow and City of Olton expressed desire in survey responses to expand current facilities, but no timeframe or additional capacity was indicated.
☒ **Check box if additional information of solid waste management activities is provided as *Attachment III.C.***	

III.D. Description and Assessment of the Adequacy of Existing Solid Waste Management Facilities & Practices, and Household Hazardous Waste Programs

[Ref. 30 TAC §330.643(a)(3)(D)]

In the table, identify if specific waste management facilities, practices, and programs are adequate in the region. Provide an assessment and description of activities that are inadequate in Attachment III.D. Refer to Regional Plan Instructions for more information on III.D. Description and Assessment of the Adequacy of Existing Solid Waste Management Facilities and Practice, and Household Hazardous Waste Programs.

Table III.D.I. Adequacy of Existing Facilities and Practices

Program	Facility Adequacy	Practices Adequacy
Resource Recovery	☐ Yes ☒ No, description of facility inadequacy provided in ***Attachment III. D.***	☐ Yes ☒ No, description of practice inadequacy provided in ***Attachment III. D.***
Storage	☒ Yes ☐ No, description of facility inadequacy provided in ***Attachment III. D.***	☒ Yes ☐ No, description of practice inadequacy provided in ***Attachment III. D.***
Transportation	☒ Yes ☐ No, description of facility inadequacy provided in ***Attachment III. D.***	☒ Yes ☐ No, description of practice inadequacy provided in ***Attachment III. D.***
Treatment	☒ Yes ☐ No, description of facility inadequacy provided in ***Attachment III. D.***	☒ Yes ☐ No, description of practice inadequacy provided in ***Attachment III. D.***
Disposal	☒ Yes ☐ No, description of facility inadequacy provided in ***Attachment III. D.***	☒ Yes ☐ No, description of practice inadequacy provided in ***Attachment III. D.***
Household Hazardous Waste Collection	☐ Yes ☒ No, description of facility inadequacy provided in ***Attachment III. D.***	☐ Yes ☒ No, description of practice inadequacy provided in ***Attachment III. D.***
Household Hazardous Waste	☐ Yes ☒ No, description of facility	☐ Yes ☒ No, description of practice

Program	Facility Adequacy	Practices Adequacy
Disposal	inadequacy provided in ***Attachment III. D.***	inadequacy provided in ***Attachment III. D.***

III.E. Assessment of Current Source Reduction and Waste Minimization Efforts, Including Sludge, and Efforts to Reuse or Recycle Waste

[Ref. 30 TAC §330.643(a)(3)(E)]

Refer to Regional Plan Instructions for more information on III.E. Assessment of Current Source Reduction and Waste Minimization Efforts, Including Sludge, and Efforts to Reuse or Recycle Waste.

☐ Assessment of current source reduction and minimization efforts, including activities to reduce sludge, and efforts to reuse or recycle waste is provided as ***Attachment III.E.***

III.F. Identification of Additional Opportunities for Source Reduction and Waste Minimization, and Reuse or Recycling of Waste

[Ref. 30 TAC §330.643(a)(3)(F)]

In the table, identify new and additional opportunities for source reduction and waste minimization, including waste reuse or recycling programs. Add or remove rows as needed. Refer to Regional Plan Instructions for more information on III.F. Identification of Additional Opportunities for Source Reduction and Waste Minimization, and Reuse or Recycling of Waste.

Table III.F.I Additional Opportunities for Source Reduction and Waste Minimization, Reuse and Recycling of Waste

Category of Activity (Source Reduction and Waste Minimization, Reuse or Recycling of Waste)	Opportunity Name	Brief Description
Waste Diversion / Recycling	Waste Diversion – Construct New Lubbock Transfer Station	Provide additional collection facility for Lubbock residents to dispose of common diverted goods. Increase amount of diverted waste to make transportation more feasible.
Waste minimization / Material Reuse	C&D Waste reduction	Incentivize and/or coordinate with construction contractors within region to push LEED certification and reduce C&D waste coming into landfills and encourage material reuse or use of salvaged materials when possible.
Waste Minimization / Reuse / Recycle	Reduce, process, and reuse yard waste	Encourage citizens and aid municipalities to compost and chip/grind yard waste into reusable mulch or fertilizer.
Reuse / Recycle	Increase diversion of E-Waste	Partner with commercial vendors to develop regional E-Waste collection, transportation, and disposal plan.
☐ **Check box if additional information of opportunities and source reduction and waste minimization, reuse and recycling of waste is provided in *Attachment III. F.***		

III.G. Recommendations for Encouraging and Achieving a Greater Degree of Source Reduction and Waste Minimization, and Reuse or Recycling of Waste

[Ref. 30 TAC §330.643(a)(3)(G)]

In the table, provide a list of recommendations for encouraging and achieving a great degree or source reduction and waste minimization, and reuse and recycling of waste in the planning region. Add or remove rows as needed.

Table III.G.I. Recommendations for Greater Source Reduction and Waste Minimization, and Reuse or Recycling of Waste

1. Municipalities to partner with local ISDs and higher education facilities to increase awareness, provide further education on reuse and recycling, and develop shared recycling methods or material collection and storage.
2. Provide additional drop off facilities and/or containers throughout the region and provide operation costs to collect materials.
3. Develop a region-wide materials recovery facility to aid in collection, separation, and processing for transfer to end-users for resource recovery.
4. Develop additional tire processing facilities within the region that can process tires material reuse and waste reduction. Increase number of municipality clients to accept tires and avoid improper disposal.
5. Seek partnerships or new ventures for waste energy plants to develop facility within region.
☐ **Check box if additional details are provided in *Attachment III.G.***

III.H. Identification of Public and Private Management Agencies and Responsibilities

[Ref. 30 TAC §330.643(a)(3)(H)]

☒ A list of public and private solid waste management agencies and their responsibilities that affect and impact solid waste management in the planning region is provided as ***Attachment III.H***.

III.I. Identification of Solid Waste Management Concerns and Establishment of Priorities for Addressing Those Concerns

[Ref. 30 TAC §330.643(a)(3)(I)]

In the table, list solid waste management concerns for the planning area and the priorities to address those concerns. Add or remove rows as needed.

Table III.I.I Solid Waste Management Concerns and Priorities

Solid Waste Management Concern	Priorities to Address the Concern
Lack of regional and city level plan to properly dispose and/or recycle E-Waste.	Provide more region-wide education to residents and commercial operations on the hazards and dangers of improperly disposing E-Waste. Municipalities to partner and aid in commercial vendors E-Waste recycling and disposal methods. Provide drop off locations and/or specialized containers accepting E-Waste to aid in residents properly disposing of electronics.
Continued improper disposal of tires in the region.	Provide added facilities to handle scrap tire processing. Develop facilities to process and recycle material from tires. Provide funding to assist cities in collecting and transporting illegally dumped tires around the city and surrounding countryside.
Continued improper disposal of household hazardous waste.	Provide more region-wide education to residents and commercial operations on the hazards and dangers of improperly disposing HHW. Provide more facilities with the capabilities to store, process, or transfer HHW and offer more clean-up days or community days to drop off materials.
Increase diversion of recyclable material.	Work with municipalities and schools to provide literature, informational webinars, brochures/inserts to reach a broader range of citizens.
☐ **Check box if additional details are provided in *Attachment III.I***	

III.J. Planning Areas and Agencies with Common Solid Waste Management Concerns that Could be Addressed Through Joint Action

[Ref. 30 TAC §330.643(a)(3)(J)]

In the table below, list planning areas and agencies that may provide solutions and support to the established priorities for the concerns identified in III. I. Add or remove rows as needed.

Table III.J.I Planning Areas and Agencies with Common Solid Waste Management Concerns

Solid Waste Management Concern	Names of Planning Areas and Agencies that Could Address the Concern via Joint Action(s)
Lack of recycling within the region.	Based on annual distribution of funds from TCEQ, assist funding for cities to provide PSAs, mail information, TV commercials, etc. to educate on the need to recycle and advertise locations of easy drop-off. SPAG to provide grants for cities to add recycling facilities, additional drop-off locations. Possible funding in the long-term to develop a region-wide materials recovery facility.
Continued improper disposal of tires in the region.	Based on annual distribution of funds from TCEQ, assist funding for additional facilities to accept and process disposal of tires. Cities and counties to provide education and awareness on the proper disposal of tires and offer incentives to avoid illegal dumping.
Continued improper disposal of household hazardous waste.	Based on annual distribution of funds from TCEQ, assist funding for cities to provide PSAs, mail information, TV commercials, etc. to educate on the dangers of improper disposal of HHW. SPAG to provide funds for cities to introduce additional community clean up days or provide standing facilities for easy HHW drop off.

III.K. Identification of Incentives and Barriers for Source Reduction and Waste Minimization, and Resource Recovery, Including Identification of Potential Markets

[Ref. 30 TAC §330.643(a)(3)(K)]

In the table, identify incentives and barriers for source reduction and waste minimization and resource recovery including potential markets and strategies. Describe incentives and barriers impacting source reduction and waste minimization, and resource recovery. Identify public and private incentives and markets available to assist in meeting goals and objectives. Add or remove rows as needed for each section. Refer to Regional Plan Instructions for more information on III.K. Identification of Incentives and Barriers for Source Reduction and Waste Minimization, and Resource Recovery, Including Identification of Potential Markets.

Table III.K.I Incentives and Barriers for Source Reduction and Waste Minimization, and Resource Recovery

Source Reduction and Waste Minimization	
Spare Tire Ordinance	State, region, or city-wide spare tire ordinance to mitigate illegal disposal and provide governing body the ability to seek financial compensation for illegal dumping to aid in cleanup or provide future funds for additional processing facilities.
Financial incentive for waste minimization and reuse for contractors	Region and municipalities partner to provide financial inventive to winning contractors on city owned projects through verifiable material reuse, use of salvaged construction material, or increased recycling. Increase disposal charge for C&D waste to promote better waste minimization, material reuse, and more efficient material use.
Resource Recovery	
Provide funding aid for material recover facility	Funding is needed to aid in construction of region-wide material recover facility. Lack of recycling in area is attributed to required diversion and transportation of recyclable material. Facility would increase recycling and provide opportunity for resource recovery that does not exist.
Identify barriers to resource recovery.	No downstream market exists for resource recovery. The region does not have a MRF. The lack of a facility in proximity to municipalities recycling creates additional transportation costs that lead to higher disposal rates of material in landfills rather than ship recyclable material to MRF or downstream processing facility.
Potential Markets	
Tire processing and recycling facilities to move to region	Potential to attract tire processing companies and new ventures to the region. Large quantity of tire generators and improper disposal makes area a prime target for additional processing companies to benefit while decreasing spare tire waste and providing recyclable material.

Material recovery facility	Potential to attract new business ventures to area or region to provide operation. Potential to increase region recycling numbers while increasing chance for profitable recycling in the region.

III.L. Regional Goals and Objectives, Including Waste Reduction Goals

[Ref. 30 TAC §330.643(a)(3)(L)]

In the table, list the regional goals and corresponding objectives for the proper management of solid waste in the planning region. Identify the timetable for achieving each goal and objective using the established planning periods. Add rows as needed. The regional goals and objectives listed should match the goals and objectives provided in Volume I, per 30 TAC §330.635(A)(2)(A).

Table III.L.I Regional Goals and Objectives

Goal #1 Achieve a 5% reduction of solid waste entering landfills by 2027 and a reduction to 10% by 2032.	**Objective 1.A.** Increase diversion rate at landfills and look for local partners and ways to reuse or process waste locally. **Objective 1.B.** Incentivize and coordinate with contractors and new development within the region to push for C&D waste reduction, increased material reuse, or use of salvaged material. **Objective 1.C** Encourage composting, chipping, and/or grinding of yard waste for reuse as mulch and fertilizer.
Goal #2 Develop a regional plan to properly dispose of E-Waste.	**Objective 2.A.** Partner municipalities with local commercial electronic vendors to develop joint regional E-Waste disposal and recycling plan. **Objective 2.B.** Educate citizens on the hazards of disposing of electronics in their local dumpsters or collection stations. **Objective 2.C** Provide permanent containers designated for E-Waste collection within cities or increase number of community collection days in the region that accept E-Waste.

Goal #3 Encourage proper disposal of household hazardous waste (HHW).	**Objective 3.A.** Educate citizens on the potential hazards of disposing household hazardous waste and prescription drugs in their local dumpsters or collection stations. Spread awareness on what HHW is and where citizens can properly dispose. **Objective 3.B.** Provide permanent containers designated for HHW collection within cities or increase number of community collection days in the region that accept HHW.
Goal #4 Decrease improperly disposed tires within the region.	**Objective 4.A.** Develop scrap tire ordinances for municipalities or region to aid in incentivizing proper scrap tire disposal. **Objective 4.B.** Develop additional scrap tire processing facilities in the region capable of recycling for material reuse. Region currently has only one processing facility. **Objective 4.C** Educate citizens on the proper collection areas within or near local municipalities.
Goal #5 Assist joint education efforts on waste reduction and reuse, and proper disposal methods.	**Objective 5.A.** Encourage citizens to prioritize reuse and reduce. **Objective 5.B.** Coordinate with municipalities to provide literature, informational webinars, and brochures/inserts to directly reach citizens for recycling education. **Objective 5.C** Partner with local ISDs to perform educational projects within K-12 schools, utilize higher education facilities to attract speakers, utilize student volunteers for clean-up efforts or educating the community, and bring awareness to methods of waste reduction.

III.M. Advantages and Disadvantages of Alternative Actions

[Ref. 30 TAC §330.643(a)(3)(M)]

Are alternative actions being considered in this plan for the regional area?	☐ **Yes.** Provide details in ***Attachment III.M.*** ☒ **No.** No further action required.

III.N. Recommended Plan of Action and Associated Timetable for Achieving Specific Goals and Objectives

[Ref. 30 TAC §330.643(a)(3)(N)]

In the table, provide the plan of action and anticipated timetable for achieving the goals and objectives identified in Section III.L. Identify and describe action plans, the corresponding timetables and, where available, implementation milestones. Include brief descriptions of action plans, timetables, and milestones. Milestone dates may include specific years or planning periods; short-term planning period (1-5 years), intermediate planning period (6-10 years), and/or long-range planning period (11-20 years or longer). Refer to Regional Plan Instructions for more information on III.N. Recommended Plan of Action and Timetable for Achieving Regional Goals and Objectives, Including Specified Goals and Objectives.

Table III.N.I Plan of Action and Timetable for Achieving Specific Goals and Objectives

Goal/Objective	Plan of Action	Milestone Dates
Waste Reduction	Reduce waste landfilled by 5% by the end of the short-range planning period. Further reduction of waste to 10% by the end of the intermediate planning period. Increase landfill diversion amounts, decrease C&D waste, educate municipalities on reducing waste footprint.	5% by 2027 10% by 2032
Composting Programs for Yard Wastes and Related Organic Wastes	Increase composting amounts in region's landfills during the short-range planning period and continue throughout planning period. Promote educational items to residents to increase desire to home compost and avoid placing yard waste in dumpsters.	Long-range planning period. (11-20 years)
Household Hazardous Waste Collection and Disposal Programs	Increase city collection days for HHW pickup during the short-term planning period. Increase availability for region's landfills to accept and process HHW by the intermediate planning period. Develop permanent HHW collection bins throughout municipalities by the long-term planning period.	Intermediate planning period. (6-10 years)

Goal/Objective	Plan of Action	Milestone Dates
Public Education Programs	Provide educational flyers in utility bills and add information to city websites promoting waste reduction, reuse, and recycling during the short-term planning period. Print, web, radio, or TV advertisement to educate on proper disposal efforts for common HHW and E-Waste during the intermediate planning period. Partner with green organizations to bring public speakers to public school systems in the intermediate planning period.	Short-term planning period. (Immediate, 1-5 years) On-going through long-term planning period. (20 years and longer)
The Need for New or Expanded Facilities and Practices	Municipalities to become more active in SPAG related events and communication to understand the regions and municipality's needs. Expand current facilities or seek new development through the long-term planning period as needed.	As needed, based on updated landfill life projections.
☐ **Check box if additional details are provided in *Attachment III.N.***		

III.O. Identification of the Process that Will be Used to Evaluate Whether a Proposed Municipal Solid Waste Facility Application Will be in Conformance with the Regional Plan

[Ref. 30 TAC §330.643(a)(3)(O)]

☒ The process that will be used to evaluate whether a proposed municipal solid waste facility application will be in conformance with the regional plan is identified in ***Attachment III.O***.

Section IV. Required Approvals

Table IV.I Required Approvals

Solid Waste Advisory Committee	7/15/2021
Public Meeting Dates	3/25/2021, 8/9/2021
Executive Committee	Enter approval date by the Executive Committee.

☐ Check box if local government and jurisdiction resolutions, and letters of support are included in **Attachment IV.A**.

☐ Public notice, agenda, public comments, and the transcript of the required public meeting are included as **Attachment IV.B**.

☐ Public notice, agenda, public comments, and the transcript of the required public meeting are included as **Attachment IV.B**.

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APPENDIX II.A: PLANNING PERIODS

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APPENDIX III.A: DEMOGRAPHIC INFORMATION

DEMOGRAPHIC INFORMATION

Table III.A.I

Current population and projections were sourced from the Texas Water Development Board's (TWDB) 2021 Regional and 2022 State Water Plan Projections Data. County projections for each county making up SPAG were used. The summation of individual counties' populations in the years 2020, 2030, 2040, and 2050 were used to develop the region's population growth rate. The growth rate was calculated using the Law of Growth equation, $P(t)=P(o)*\exp(r*t)$. The population at time t is equal to initial population multiplied by product of the growth rate and time between initial and final population years.

The base year landfill tonnage and recycling data were determined from surveyed municipality responses and totals listed on TCEQ's fiscal year 2020 annual report. Waste disposal and recycling amounts were assumed to follow similar population growth rates for the SPAG area. Table III.A.I contains the cumulative SPAG region population, waste, and recycling projections based on the sum of individual county projections for planning years 2021, 2022, 2027, 2032, 2037, and 2042. Individual county tables were created displaying projected population, projected waste tonnage, and projected recycling amounts using each county's specific growth rate based on TWDB projections.

Table III.A.II

Region populations and waste projections remain identical to calculated values in Table III.A.I. The region's waste reduction goals are to achieve 5% reduction in waste by year 2027 and an increase by 10% reduction in year 2032. An increase of similar percent is intended for recycling in years 2027 and 2032. The waste reduction and the recycling increase percentage was compared to the project tons based on population growth (i.e., projected tonnage for 2027 is 641,280 tons and a 5% reduction is 609,216 tons). A separate waste reduction rate and a recycling increase rate were calculated between the two goal periods, 2020-2027 and 2027-2032. The percent rate calculated between the 2027-2032 period was extrapolated out to the end of the long-term planning period ending in year 2042. The per person disposal and recycling rate were adjusted to reflect the goal values for comparison.

Table III.A.I									
Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
2020	0.00906	452,277	599,987	1,199,974,000	7.27	28,776	57,551,400	0.35	571,211
2021		456,380	605,710	1,211,419,841	7.27	29,046	58,091,710	0.35	576,664
2022		460,524	611,491	1,222,981,047	7.28	29,319	58,637,423	0.35	582,172
2023		464,708	617,329	1,234,658,812	7.28	29,594	59,188,594	0.35	587,735
2024		468,933	623,227	1,246,454,341	7.28	29,873	59,745,279	0.35	593,355
2025		473,200	629,184	1,258,368,852	7.29	30,154	60,307,535	0.35	599,031
2026		477,508	635,202	1,270,403,575	7.29	30,438	60,875,420	0.35	604,764
2027		481,859	641,280	1,282,559,755	7.29	30,724	61,448,990	0.35	610,555
2028		486,253	647,419	1,294,838,648	7.30	31,014	62,028,306	0.35	616,405
2029		490,690	653,621	1,307,241,525	7.30	31,307	62,613,425	0.35	622,314
2030		495,170	659,885	1,319,769,668	7.30	31,602	63,204,409	0.35	628,283
2031	0.00781	499,032	665,425	1,330,849,925	7.31	31,862	63,723,758	0.35	633,563
2032		502,928	671,016	1,342,032,704	7.31	32,124	64,247,910	0.35	638,892
2033		506,860	676,659	1,353,318,974	7.32	32,388	64,776,910	0.35	644,271
2034		510,827	682,355	1,364,709,713	7.32	32,655	65,310,806	0.35	649,699
2035		514,830	688,103	1,376,205,909	7.32	32,925	65,849,642	0.35	655,178
2036		518,869	693,904	1,387,808,560	7.33	33,197	66,393,466	0.35	660,708
2037		522,945	699,759	1,399,518,671	7.33	33,471	66,942,325	0.35	666,288
2038		527,058	705,669	1,411,337,258	7.34	33,748	67,496,268	0.35	671,920
2039		531,208	711,633	1,423,265,348	7.34	34,028	68,055,341	0.35	677,605
2040		535,395	717,652	1,435,303,975	7.34	34,310	68,619,595	0.35	683,342
2041	0.00724	539,252	723,359	1,446,717,323	7.35	34,573	69,145,742	0.35	688,786
2042		543,144	729,118	1,458,235,634	7.36	34,838	69,676,825	0.35	694,279

Note: The growth rate per year was calculated using the law of growth equation, based on cumulative population projections for all counties that make up the SPAG region from TWDB 10-year population projections. Waste Tonnage and recycling data is the summation of county by county projections. Tonnage amounts rounded to the nearest whole number.

Table III.A.II - Goal Waste Reduction and Recycling Increase										
Year	Population Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Goal, Landfill Disposal (Tons)	Disposal Rate (lbs./Person/Day)	Goal, Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Goal, Recycling (Tons)	Recycling Rate (lbs./Person/Day)	Goal, Recycling Rate (lbs./Person/Day)
2020	0.00906	452,277	599,987	599,987	7.27	7.27	28,776	28,776	0.35	0.35
2021		456,380	605,710	601,305	7.27	7.22	29,046	29,278	0.35	0.35
2022		460,524	611,491	602,627	7.28	7.17	29,319	29,789	0.35	0.35
2023		464,708	617,329	603,951	7.28	7.12	29,594	30,309	0.35	0.36
2024		468,933	623,227	605,278	7.28	7.07	29,873	30,838	0.35	0.36
2025		473,200	629,184	606,608	7.29	7.02	30,154	31,376	0.35	0.36
2026		477,508	635,202	607,941	7.29	6.98	30,438	31,923	0.35	0.37
2027		481,859	641,280	609,216	7.29	6.93	30,724	32,261	0.35	0.37
2028		486,253	647,419	608,156	7.30	6.85	31,014	32,876	0.35	0.37
2029		490,690	653,621	607,097	7.30	6.78	31,307	33,503	0.35	0.37
2030		495,170	659,885	606,041	7.30	6.71	31,602	34,142	0.35	0.38
2031	0.00781	499,032	665,425	604,986	7.31	6.64	31,862	34,792	0.35	0.38
2032		502,928	671,016	603,915	7.31	6.58	32,124	35,336	0.35	0.38
2033		506,860	676,659	602,864	7.32	6.52	32,388	36,010	0.35	0.39
2034		510,827	682,355	601,815	7.32	6.46	32,655	36,697	0.35	0.39
2035		514,830	688,103	600,767	7.32	6.39	32,925	37,396	0.35	0.40
2036		518,869	693,904	599,722	7.33	6.33	33,197	38,109	0.35	0.40
2037		522,945	699,759	598,678	7.33	6.27	33,471	38,836	0.35	0.41
2038		527,058	705,669	597,636	7.34	6.21	33,748	39,577	0.35	0.41
2039		531,208	711,633	596,596	7.34	6.15	34,028	40,331	0.35	0.42
2040		535,395	717,652	595,558	7.34	6.10	34,310	41,100	0.35	0.42
2041	0.00724	539,252	723,359	594,521	7.35	6.04	34,573	41,884	0.35	0.43
2042		543,144	729,118	593,487	7.36	5.99	34,838	42,683	0.35	0.43

Note: The population growth rate per year was calculated using the law of growth equation, based on cumulative population projections for all counties in SPAG region from TWDB 10-year population projections. Landfill tonnage and recycling amounts were projected out assuming similar growth trend as population. The region's waste reduction goals are to acheive 5% reduction by 2027 and 10% reduction by 2032 with increasing in recycling by similar percents. Waste reduction and recycling increase rates were calculated for the periods 2020-2027 and 2027-2032. Rate at year 2032 was extrapolated out for remainder of planning period. Blue cells indicate goal years.

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COUNTY SPECIFIC POPULATION AND WASTE PROJECTION

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Bailey	2020	0.01121	8,012	9,094	18,188,000	6.22	-	-	-	9,094
	2021		8,102	9,196	18,392,948	6.22	-	-	-	9,196
	2022		8,194	9,300	18,600,206	6.22	-	-	-	9,300
	2023		8,286	9,405	18,809,799	6.22	-	-	-	9,405
	2024		8,379	9,511	19,021,753	6.22	-	-	-	9,511
	2025		8,474	9,618	19,236,096	6.22	-	-	-	9,618
	2026		8,569	9,726	19,452,855	6.22	-	-	-	9,726
	2027		8,666	9,836	19,672,056	6.22	-	-	-	9,836
	2028		8,763	9,947	19,893,727	6.22	-	-	-	9,947
	2029		8,862	10,059	20,117,895	6.22	-	-	-	10,059
	2030		8,962	10,172	20,344,590	6.22	-	-	-	10,172
	2031	0.01001	9,052	10,275	20,549,359	6.22	-	-	-	10,275
	2032		9,143	10,378	20,756,189	6.22	-	-	-	10,378
	2033		9,235	10,483	20,965,101	6.22	-	-	-	10,483
	2034		9,328	10,588	21,176,116	6.22	-	-	-	10,588
	2035		9,422	10,695	21,389,254	6.22	-	-	-	10,695
	2036		9,517	10,802	21,604,538	6.22	-	-	-	10,802
	2037		9,613	10,911	21,821,988	6.22	-	-	-	10,911
	2038		9,710	11,021	22,041,627	6.22	-	-	-	11,021
	2039		9,807	11,132	22,263,477	6.22	-	-	-	11,132
	2040		9,906	11,244	22,487,560	6.22	-	-	-	11,244
	2041	0.00938	9,999	11,350	22,699,453	6.22	-	-	-	11,350
	2042		10,094	11,457	22,913,342	6.22	-	-	-	11,457
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation. No recycling data for 2020.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Cochran	2020	0.00546	3,491	41	82,000	0.06	-	-	-	41
	2021		3,510	41	82,449	0.06	-	-	-	41
	2022		3,529	41	82,901	0.06	-	-	-	41
	2023		3,549	42	83,355	0.06	-	-	-	42
	2024		3,568	42	83,811	0.06	-	-	-	42
	2025		3,588	42	84,270	0.06	-	-	-	42
	2026		3,607	42	84,732	0.06	-	-	-	42
	2027		3,627	43	85,196	0.06	-	-	-	43
	2028		3,647	43	85,663	0.06	-	-	-	43
	2029		3,667	43	86,132	0.06	-	-	-	43
	2030		3,687	43	86,604	0.06	-	-	-	43
	2031	0.0008104	3,690	43	86,674	0.06	-	-	-	43
	2032		3,693	43	86,744	0.06	-	-	-	43
	2033		3,696	43	86,815	0.06	-	-	-	43
	2034		3,699	43	86,885	0.06	-	-	-	43
	2035		3,702	43	86,955	0.06	-	-	-	43
	2036		3,705	44	87,026	0.06	-	-	-	44
	2037		3,708	44	87,097	0.06	-	-	-	44
	2038		3,711	44	87,167	0.06	-	-	-	44
	2039		3,714	44	87,238	0.06	-	-	-	44
	2040		3,717	44	87,309	0.06	-	-	-	44
	2041	-0.001354	3,712	44	87,190	0.06	-	-	-	44
	2042		3,707	44	87,072	0.06	-	-	-	44
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation. No recycling data for 2020.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Crosby	2020	0.0073396	6,526	-	-	-	-	-	-	-
	2021		6,574	-	-	-	-	-	-	-
	2022		6,623	-	-	-	-	-	-	-
	2023		6,671	-	-	-	-	-	-	-
	2024		6,720	-	-	-	-	-	-	-
	2025		6,770	-	-	-	-	-	-	-
	2026		6,820	-	-	-	-	-	-	-
	2027		6,870	-	-	-	-	-	-	-
	2028		6,921	-	-	-	-	-	-	-
	2029		6,972	-	-	-	-	-	-	-
	2030		7,023	-	-	-	-	-	-	-
	2031	0.00567	7,063	-	-	-	-	-	-	-
	2032		7,103	-	-	-	-	-	-	-
	2033		7,144	-	-	-	-	-	-	-
	2034		7,184	-	-	-	-	-	-	-
	2035		7,225	-	-	-	-	-	-	-
	2036		7,266	-	-	-	-	-	-	-
	2037		7,308	-	-	-	-	-	-	-
	2038		7,349	-	-	-	-	-	-	-
	2039		7,391	-	-	-	-	-	-	-
	2040		7,433	-	-	-	-	-	-	-
	2041	0.00546	7,474	-	-	-	-	-	-	-
	2042		7,515	-	-	-	-	-	-	-
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population projected out using law of growth, but no landfill tonnage available in Crosby County.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Dickens	2020	0	2,164	-	-	-	-	-	-	-
	2021		2,164	-	-	-	-	-	-	-
	2022		2,164	-	-	-	-	-	-	-
	2023		2,164	-	-	-	-	-	-	-
	2024		2,164	-	-	-	-	-	-	-
	2025		2,164	-	-	-	-	-	-	-
	2026		2,164	-	-	-	-	-	-	-
	2027		2,164	-	-	-	-	-	-	-
	2028		2,164	-	-	-	-	-	-	-
	2029		2,164	-	-	-	-	-	-	-
	2030		2,164	-	-	-	-	-	-	-
	2031	0	2,164	-	-	-	-	-	-	-
	2032		2,164	-	-	-	-	-	-	-
	2033		2,164	-	-	-	-	-	-	-
	2034		2,164	-	-	-	-	-	-	-
	2035		2,164	-	-	-	-	-	-	-
	2036		2,164	-	-	-	-	-	-	-
	2037		2,164	-	-	-	-	-	-	-
	2038		2,164	-	-	-	-	-	-	-
	2039		2,164	-	-	-	-	-	-	-
	2040		2,164	-	-	-	-	-	-	-
	2041	0	2,164	-	-	-	-	-	-	-
	2042		2,164	-	-	-	-	-	-	-
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population projected out using law of growth, but no landfill tonnage available in Dickens County.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Floyd	2020	0.00600	6,869	5,806	11,612,000	4.63	18	36,000	0.01	5,788
	2021		6,910	5,841	11,681,921	4.63	18	36,217	0.01	5,823
	2022		6,952	5,876	11,752,262	4.63	18	36,435	0.01	5,858
	2023		6,994	5,912	11,823,028	4.63	18	36,654	0.01	5,893
	2024		7,036	5,947	11,894,219	4.63	18	36,875	0.01	5,929
	2025		7,078	5,983	11,965,839	4.63	19	37,097	0.01	5,964
	2026		7,121	6,019	12,037,890	4.63	19	37,320	0.01	6,000
	2027		7,164	6,055	12,110,375	4.63	19	37,545	0.01	6,036
	2028		7,207	6,092	12,183,297	4.63	19	37,771	0.01	6,073
	2029		7,250	6,128	12,256,657	4.63	19	37,999	0.01	6,109
	2030		7,294	6,165	12,330,460	4.63	19	38,227	0.01	6,146
	2031	0.00362	7,320	6,188	12,375,197	4.63	19	38,366	0.01	6,168
	2032		7,347	6,210	12,420,096	4.63	19	38,505	0.01	6,191
	2033		7,374	6,233	12,465,158	4.63	19	38,645	0.01	6,213
	2034		7,400	6,255	12,510,383	4.63	19	38,785	0.01	6,236
	2035		7,427	6,278	12,555,773	4.63	19	38,926	0.01	6,258
	2036		7,454	6,301	12,601,327	4.63	20	39,067	0.01	6,281
	2037		7,481	6,324	12,647,046	4.63	20	39,209	0.01	6,304
	2038		7,508	6,346	12,692,932	4.63	20	39,351	0.01	6,327
	2039		7,536	6,369	12,738,984	4.63	20	39,494	0.01	6,350
	2040		7,563	6,393	12,785,203	4.63	20	39,637	0.01	6,373
	2041	0.00378	7,592	6,417	12,833,564	4.63	20	39,787	0.01	6,397
	2042		7,620	6,441	12,882,109	4.63	20	39,938	0.01	6,421
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Garza	2020	0.00594	7,077	3,602	7,204,000	2.79	7	14,200	0.01	3,595
	2021		7,119	3,623	7,246,909	2.79	7	14,285	0.01	3,616
	2022		7,162	3,645	7,290,073	2.79	7	14,370	0.01	3,638
	2023		7,204	3,667	7,333,494	2.79	7	14,455	0.01	3,660
	2024		7,247	3,689	7,377,174	2.79	7	14,541	0.01	3,681
	2025		7,290	3,711	7,421,114	2.79	7	14,628	0.01	3,703
	2026		7,334	3,733	7,465,315	2.79	7	14,715	0.01	3,725
	2027		7,377	3,755	7,509,780	2.79	7	14,803	0.01	3,747
	2028		7,421	3,777	7,554,510	2.79	7	14,891	0.01	3,770
	2029		7,466	3,800	7,599,506	2.79	7	14,980	0.01	3,792
	2030		7,510	3,822	7,644,770	2.79	8	15,069	0.01	3,815
	2031	0.0050501	7,548	3,842	7,683,475	2.79	8	15,145	0.01	3,834
	2032		7,586	3,861	7,722,375	2.79	8	15,222	0.01	3,854
	2033		7,625	3,881	7,761,472	2.79	8	15,299	0.01	3,873
	2034		7,663	3,900	7,800,767	2.79	8	15,376	0.01	3,893
	2035		7,702	3,920	7,840,261	2.79	8	15,454	0.01	3,912
	2036		7,741	3,940	7,879,955	2.79	8	15,532	0.01	3,932
	2037		7,780	3,960	7,919,850	2.79	8	15,611	0.01	3,952
	2038		7,820	3,980	7,959,947	2.79	8	15,690	0.01	3,972
	2039		7,859	4,000	8,000,247	2.79	8	15,770	0.01	3,992
	2040		7,899	4,020	8,040,751	2.79	8	15,849	0.01	4,012
	2041	0.00332	7,925	4,034	8,067,526	2.79	8	15,902	0.01	4,026
	2042		7,952	4,047	8,094,389	2.79	8	15,955	0.01	4,039
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Hale	2020	0.00422	38,314	32,507	65,014,000	4.65	3,920	7,840,200	0.56	28,587
	2021		38,476	32,644	65,288,865	4.65	3,937	7,873,347	0.56	28,708
	2022		38,639	32,782	65,564,892	4.65	3,953	7,906,633	0.56	28,829
	2023		38,802	32,921	65,842,086	4.65	3,970	7,940,061	0.56	28,951
	2024		38,966	33,060	66,120,452	4.65	3,987	7,973,630	0.56	29,073
	2025		39,131	33,200	66,399,995	4.65	4,004	8,007,341	0.56	29,196
	2026		39,296	33,340	66,680,720	4.65	4,021	8,041,194	0.56	29,320
	2027		39,462	33,481	66,962,632	4.65	4,038	8,075,190	0.56	29,444
	2028		39,629	33,623	67,245,735	4.65	4,055	8,109,330	0.56	29,568
	2029		39,797	33,765	67,530,035	4.65	4,072	8,143,615	0.56	29,693
	2030		39,965	33,908	67,815,538	4.65	4,089	8,178,044	0.56	29,819
	2031	0.00169	40,033	33,965	67,930,385	4.65	4,096	8,191,894	0.56	29,869
	2032		40,100	34,023	68,045,427	4.65	4,103	8,205,767	0.56	29,920
	2033		40,168	34,080	68,160,664	4.65	4,110	8,219,664	0.56	29,971
	2034		40,236	34,138	68,276,096	4.65	4,117	8,233,584	0.56	30,021
	2035		40,305	34,196	68,391,724	4.65	4,124	8,247,528	0.56	30,072
	2036		40,373	34,254	68,507,547	4.65	4,131	8,261,496	0.56	30,123
	2037		40,441	34,312	68,623,567	4.65	4,138	8,275,487	0.56	30,174
	2038		40,510	34,370	68,739,782	4.65	4,145	8,289,501	0.56	30,225
	2039		40,578	34,428	68,856,195	4.65	4,152	8,303,540	0.56	30,276
	2040		40,647	34,486	68,972,805	4.65	4,159	8,317,602	0.56	30,328
	2041	-0.00084	40,613	34,457	68,914,893	4.65	4,155	8,310,618	0.56	30,302
	2042		40,579	34,429	68,857,030	4.65	4,152	8,303,641	0.56	30,277
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Hockley	2020	0.00619	25,130	11,129	22,258,000	2.43	529	1,057,000	0.12	10,601
	2021		25,286	11,198	22,396,146	2.43	532	1,063,560	0.12	10,666
	2022		25,443	11,268	22,535,149	2.43	535	1,070,161	0.12	10,732
	2023		25,601	11,338	22,675,015	2.43	538	1,076,803	0.12	10,799
	2024		25,760	11,408	22,815,748	2.43	542	1,083,487	0.12	10,866
	2025		25,920	11,479	22,957,356	2.43	545	1,090,211	0.12	10,934
	2026		26,080	11,550	23,099,842	2.43	548	1,096,978	0.12	11,001
	2027		26,242	11,622	23,243,213	2.43	552	1,103,786	0.12	11,070
	2028		26,405	11,694	23,387,473	2.43	555	1,110,637	0.12	11,138
	2029		26,569	11,766	23,532,629	2.43	559	1,117,530	0.12	11,208
	2030		26,734	11,839	23,678,686	2.43	562	1,124,466	0.12	11,277
	2031	0.00357	26,830	11,882	23,763,486	2.43	564	1,128,493	0.12	11,317
	2032		26,926	11,924	23,848,590	2.43	566	1,132,535	0.12	11,358
	2033		27,022	11,967	23,933,999	2.43	568	1,136,591	0.12	11,399
	2034		27,119	12,010	24,019,713	2.43	570	1,140,661	0.12	11,440
	2035		27,216	12,053	24,105,735	2.43	572	1,144,746	0.12	11,480
	2036		27,314	12,096	24,192,064	2.43	574	1,148,846	0.12	11,522
	2037		27,411	12,139	24,278,703	2.43	576	1,152,960	0.12	11,563
	2038		27,510	12,183	24,365,652	2.43	579	1,157,089	0.12	11,604
	2039		27,608	12,226	24,452,913	2.43	581	1,161,233	0.12	11,646
	2040		27,707	12,270	24,540,486	2.43	583	1,165,392	0.12	11,688
	2041	0.00065	27,725	12,278	24,556,470	2.43	583	1,166,151	0.12	11,695
	2042		27,743	12,286	24,572,465	2.43	583	1,166,911	0.12	11,703
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
King	2020	0.00520	300	-	-	-	-	-	-	-
	2021		302	-	-	-	-	-	-	-
	2022		303	-	-	-	-	-	-	-
	2023		305	-	-	-	-	-	-	-
	2024		306	-	-	-	-	-	-	-
	2025		308	-	-	-	-	-	-	-
	2026		310	-	-	-	-	-	-	-
	2027		311	-	-	-	-	-	-	-
	2028		313	-	-	-	-	-	-	-
	2029		314	-	-	-	-	-	-	-
	2030		316	-	-	-	-	-	-	-
	2031	0	316	-	-	-	-	-	-	-
	2032		316	-	-	-	-	-	-	-
	2033		316	-	-	-	-	-	-	-
	2034		316	-	-	-	-	-	-	-
	2035		316	-	-	-	-	-	-	-
	2036		316	-	-	-	-	-	-	-
	2037		316	-	-	-	-	-	-	-
	2038		316	-	-	-	-	-	-	-
	2039		316	-	-	-	-	-	-	-
	2040		316	-	-	-	-	-	-	-
	2041	0	316	-	-	-	-	-	-	-
	2042		316	-	-	-	-	-	-	-
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population projected out using law of growth, but no landfill tonnage available in King County.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Lamb	2020	0.0037601	14,615	17,616	35,232,000	6.60	568	1,136,200	0.21	17,048
	2021		14,670	17,682	35,364,725	6.60	570	1,140,480	0.21	17,112
	2022		14,725	17,749	35,497,950	6.60	572	1,144,777	0.21	17,177
	2023		14,781	17,816	35,631,677	6.60	575	1,149,089	0.21	17,241
	2024		14,836	17,883	35,765,908	6.60	577	1,153,418	0.21	17,306
	2025		14,892	17,950	35,900,644	6.60	579	1,157,763	0.21	17,371
	2026		14,948	18,018	36,035,888	6.60	581	1,162,125	0.21	17,437
	2027		15,005	18,086	36,171,641	6.60	583	1,166,503	0.21	17,503
	2028		15,061	18,154	36,307,906	6.60	585	1,170,897	0.21	17,569
	2029		15,118	18,222	36,444,684	6.60	588	1,175,308	0.21	17,635
	2030		15,175	18,291	36,581,977	6.60	590	1,179,736	0.21	17,701
	2031	0.00172	15,201	18,322	36,644,889	6.60	591	1,181,764	0.21	17,732
	2032		15,227	18,354	36,707,909	6.60	592	1,183,797	0.21	17,762
	2033		15,253	18,386	36,771,037	6.60	593	1,185,833	0.21	17,793
	2034		15,280	18,417	36,834,274	6.60	594	1,187,872	0.21	17,823
	2035		15,306	18,449	36,897,619	6.60	595	1,189,915	0.21	17,854
	2036		15,332	18,481	36,961,074	6.60	596	1,191,961	0.21	17,885
	2037		15,359	18,512	37,024,637	6.60	597	1,194,011	0.21	17,915
	2038		15,385	18,544	37,088,310	6.60	598	1,196,064	0.21	17,946
	2039		15,411	18,576	37,152,093	6.60	599	1,198,121	0.21	17,977
	2040		15,438	18,608	37,215,985	6.60	600	1,200,182	0.21	18,008
	2041	-0.000123	15,436	18,606	37,211,402	6.60	600	1,200,034	0.21	18,006
	2042		15,434	18,603	37,206,820	6.60	600	1,199,886	0.21	18,003
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Lubbock	2020	0.01047	309,769	470,016	940,032,000	8.31	23,345	46,689,600	0.41	446,671
	2021		313,031	474,965	949,930,393	8.31	23,591	47,181,234	0.41	451,375
	2022		316,327	479,967	959,933,014	8.31	23,839	47,678,045	0.41	456,127
	2023		319,658	485,020	970,040,961	8.31	24,090	48,180,088	0.41	460,930
	2024		323,024	490,128	980,255,343	8.31	24,344	48,687,417	0.41	465,784
	2025		326,425	495,289	990,577,281	8.31	24,600	49,200,088	0.41	470,689
	2026		329,862	500,504	1,001,007,908	8.31	24,859	49,718,157	0.41	475,645
	2027		333,336	505,774	1,011,548,367	8.31	25,121	50,241,682	0.41	480,653
	2028		336,846	511,100	1,022,199,816	8.31	25,385	50,770,719	0.41	485,715
	2029		340,393	516,482	1,032,963,423	8.31	25,653	51,305,327	0.41	490,829
	2030		343,977	521,920	1,043,840,369	8.31	25,923	51,845,564	0.41	495,997
	2031	0.00952	347,266	526,911	1,053,821,557	8.31	26,171	52,341,311	0.41	500,740
	2032		350,587	531,949	1,063,898,185	8.31	26,421	52,841,798	0.41	505,528
	2033		353,939	537,036	1,074,071,165	8.31	26,674	53,347,070	0.41	510,362
	2034		357,323	542,171	1,084,341,419	8.31	26,929	53,857,174	0.41	515,242
	2035		360,740	547,355	1,094,709,878	8.31	27,186	54,372,156	0.41	520,169
	2036		364,189	552,589	1,105,177,479	8.31	27,446	54,892,062	0.41	525,143
	2037		367,672	557,873	1,115,745,172	8.31	27,708	55,416,939	0.41	530,164
	2038		371,187	563,207	1,126,413,912	8.31	27,973	55,946,835	0.41	535,234
	2039		374,737	568,592	1,137,184,667	8.31	28,241	56,481,798	0.41	540,351
	2040		378,320	574,029	1,148,058,412	8.31	28,511	57,021,876	0.41	545,518
	2041	0.00924	381,831	579,357	1,158,714,324	8.31	28,776	57,551,135	0.41	550,582
	2042		385,375	584,735	1,169,469,142	8.31	29,043	58,085,306	0.41	555,692
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Lynn	2020	0.00506	6,279	11,809	23,618,000	10.31	96	192,400	0.08	11,713
	2021		6,311	11,869	23,737,848	10.31	97	193,376	0.08	11,772
	2022		6,343	11,929	23,858,305	10.31	97	194,358	0.08	11,832
	2023		6,375	11,990	23,979,373	10.31	98	195,344	0.08	11,892
	2024		6,407	12,051	24,101,055	10.31	98	196,335	0.08	11,952
	2025		6,440	12,112	24,223,355	10.31	99	197,331	0.08	12,013
	2026		6,473	12,173	24,346,275	10.31	99	198,333	0.08	12,074
	2027		6,505	12,235	24,469,819	10.31	100	199,339	0.08	12,135
	2028		6,538	12,297	24,593,990	10.31	100	200,351	0.08	12,197
	2029		6,572	12,359	24,718,791	10.31	101	201,367	0.08	12,259
	2030		6,605	12,422	24,844,225	10.31	101	202,389	0.08	12,321
	2031	0.00029	6,607	12,426	24,851,363	10.31	101	202,447	0.08	12,324
	2032		6,609	12,429	24,858,502	10.31	101	202,506	0.08	12,328
	2033		6,611	12,433	24,865,644	10.31	101	202,564	0.08	12,332
	2034		6,613	12,436	24,872,787	10.31	101	202,622	0.08	12,335
	2035		6,614	12,440	24,879,933	10.31	101	202,680	0.08	12,339
	2036		6,616	12,444	24,887,081	10.31	101	202,738	0.08	12,342
	2037		6,618	12,447	24,894,231	10.31	101	202,797	0.08	12,346
	2038		6,620	12,451	24,901,382	10.31	101	202,855	0.08	12,349
	2039		6,622	12,454	24,908,536	10.31	101	202,913	0.08	12,353
	2040		6,624	12,458	24,915,692	10.31	101	202,971	0.08	12,356
	2041	-0.000454	6,621	12,452	24,904,385	10.31	101	202,879	0.08	12,351
	2042		6,618	12,447	24,893,083	10.31	101	202,787	0.08	12,345
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Motley	2020	0	1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2021		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2022		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2023		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2024		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2025		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2026		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2027		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2028		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2029		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2030		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2031	0	1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2032		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2033		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2034		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2035		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2036		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2037		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2038		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2039		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2040		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2041	0	1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	2042		1,212	2,714	5,428,000	12.27	21	42,200	0.10	2,693
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Terry	2020	0.00612	13,599	25,577	51,154,000	10.31	266	531,600	0.11	25,311
	2021		13,682	25,734	51,467,932	10.31	267	534,862	0.11	25,467
	2022		13,766	25,892	51,783,791	10.31	269	538,145	0.11	25,623
	2023		13,851	26,051	52,101,588	10.31	271	541,447	0.11	25,780
	2024		13,936	26,211	52,421,336	10.31	272	544,770	0.11	25,938
	2025		14,021	26,372	52,743,045	10.31	274	548,114	0.11	26,097
	2026		14,107	26,533	53,066,730	10.31	276	551,477	0.11	26,258
	2027		14,194	26,696	53,392,400	10.31	277	554,862	0.11	26,419
	2028		14,281	26,860	53,720,069	10.31	279	558,267	0.11	26,581
	2029		14,369	27,025	54,049,750	10.31	281	561,693	0.11	26,744
	2030		14,457	27,191	54,381,453	10.31	283	565,140	0.11	26,908
	2031	0.00580	14,541	27,349	54,698,032	10.31	284	568,430	0.11	27,065
	2032		14,626	27,508	55,016,454	10.31	286	571,739	0.11	27,222
	2033		14,711	27,668	55,336,729	10.31	288	575,068	0.11	27,381
	2034		14,797	27,829	55,658,869	10.31	289	578,415	0.11	27,540
	2035		14,883	27,991	55,982,885	10.31	291	581,782	0.11	27,701
	2036		14,969	28,154	56,308,786	10.31	293	585,169	0.11	27,862
	2037		15,057	28,318	56,636,585	10.31	294	588,576	0.11	28,024
	2038		15,144	28,483	56,966,292	10.31	296	592,002	0.11	28,187
	2039		15,232	28,649	57,297,918	10.31	298	595,449	0.11	28,351
	2040		15,321	28,816	57,631,475	10.31	299	598,915	0.11	28,516
	2041	0.00501	15,398	28,960	57,920,885	10.31	301	601,922	0.11	28,659
	2042		15,475	29,106	58,211,748	10.31	302	604,945	0.11	28,803
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

	Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Landfill Disposal (lbs.)	Disposal Rate (lbs./Person/Day)	Recycling (Tons)	Recycling (lbs.)	Recycling Rate (lbs./Person/Day)	Residential Waste Generation (Tons)
Yoakum	2020	0.01231	8,920	10,076	20,152,000	6.19	6	12,000	0.004	10,070
	2021		9,031	10,201	20,401,706	6.19	6	12,149	0.004	10,195
	2022		9,142	10,327	20,654,506	6.19	6	12,299	0.004	10,321
	2023		9,256	10,455	20,910,438	6.19	6	12,452	0.004	10,449
	2024		9,370	10,585	21,169,542	6.19	6	12,606	0.004	10,578
	2025		9,487	10,716	21,431,856	6.19	6	12,762	0.004	10,710
	2026		9,604	10,849	21,697,421	6.19	6	12,920	0.004	10,842
	2027		9,723	10,983	21,966,276	6.19	7	13,080	0.004	10,977
	2028		9,844	11,119	22,238,463	6.19	7	13,242	0.004	11,113
	2029		9,966	11,257	22,514,022	6.19	7	13,407	0.004	11,250
	2030		10,089	11,396	22,792,996	6.19	7	13,573	0.004	11,390
	2031	0.00980	10,188	11,509	23,017,509	6.19	7	13,706	0.004	11,502
	2032		10,289	11,622	23,244,233	6.19	7	13,841	0.004	11,615
	2033		10,390	11,737	23,473,190	6.19	7	13,978	0.004	11,730
	2034		10,492	11,852	23,704,403	6.19	7	14,115	0.004	11,845
	2035		10,596	11,969	23,937,893	6.19	7	14,254	0.004	11,962
	2036		10,700	12,087	24,173,683	6.19	7	14,395	0.004	12,080
	2037		10,806	12,206	24,411,795	6.19	7	14,537	0.004	12,199
	2038		10,912	12,326	24,652,253	6.19	7	14,680	0.004	12,319
	2039		11,019	12,448	24,895,080	6.19	7	14,824	0.004	12,440
	2040		11,128	12,570	25,140,298	6.19	7	14,970	0.004	12,563
	2041	0.00946	11,234	12,690	25,379,231	6.19	8	15,113	0.004	12,682
	2042		11,341	12,810	25,620,434	6.19	8	15,256	0.004	12,803
	Note: Growth rate calculated using law of growth equation, based on county specific projections from TWDB 10-year population projections. Population, disposal, and recycling projected out using the county specific growth rates and calculated using the law of growth equation.									

2021 Texas Water Development Board Population

Bailey County				
Year	2020	2030	2040	2050
Population	8,012	8,962	9,906	10,880

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.011205	1.12053
2030 to 2040	0.010015	1.001472
2040 to 2050	0.009379	0.937856

2021 Texas Water Development Board Population

Cochran County				
Year	2020	2030	2040	2050
Population	3,491	3,687	3,717	3,667

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.005462	0.546249
2030 to 2040	0.00081	0.081038
2040 to 2050	-0.00135	-0.13543

2021 Texas Water Development Board Population

Crosby County				
Year	2020	2030	2040	2050
Population	6,526	7,023	7,433	7,850

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.00734	0.733963
2030 to 2040	0.005674	0.567391
2040 to 2050	0.005458	0.54584

2021 Texas Water Development Board Population

Dickens County				
Year	2020	2030	2040	2050
Population	2,164	2,164	2,164	2,164

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0	0
2030 to 2040	0	0
2040 to 2050	0	0

2021 Texas Water Development Board Population

Floyd County

Year	2020	2030	2040	2050
Population	6,869	7,294	7,563	7,854

Population Growth Rate

Period	Rate/yr	%/yr
2020 to 2030	0.006003	0.600336
2030 to 2040	0.003622	0.362158
2040 to 2050	0.003776	0.37755

2021 Texas Water Development Board Population

Garza County

Year	2020	2030	2040	2050
Population	7,077	7,510	7,899	8,166

Population Growth Rate

Period	Rate/yr	%/yr
2020 to 2030	0.005939	0.593854
2030 to 2040	0.00505	0.505007
2040 to 2050	0.003324	0.33243

2021 Texas Water Development Board Population

Hale County				
Year	2020	2030	2040	2050
Population	38,314	39,965	40,647	40,307

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.004219	0.421887
2030 to 2040	0.001692	0.16921
2040 to 2050	-0.00084	-0.084

2021 Texas Water Development Board Population

Hockley County				
Year	2020	2030	2040	2050
Population	25,130	26,734	27,707	27,888

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.006187	0.618738
2030 to 2040	0.003575	0.357489
2040 to 2050	0.000651	0.065114

2021 Texas Water Development Board Population

King County

Year	2020	2030	2040	2050
Population	300	316	316	316

Population Growth Rate

Period	Rate/yr	%/yr
2020 to 2030	0.005196	0.519597
2030 to 2040	0	0
2040 to 2050	0	0

2021 Texas Water Development Board Population

Lamb County

Year	2020	2030	2040	2050
Population	14,615	15,175	15,438	15,419

Population Growth Rate

Period	Rate/yr	%/yr
2020 to 2030	0.00376	0.376009
2030 to 2040	0.001718	0.171827
2040 to 2050	-0.00012	-0.01231

2021 Texas Water Development Board Population

Lubbock County				
Year	2020	2030	2040	2050
Population	309,769	343,977	378,320	414,938

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.010475	1.047479
2030 to 2040	0.009517	0.951656
2040 to 2050	0.009239	0.923887

2021 Texas Water Development Board Population

Lynn County				
Year	2020	2030	2040	2050
Population	6,279	6,605	6,624	6,594

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.005062	0.506162
2030 to 2040	0.000287	0.028725
2040 to 2050	-0.00045	-0.04539

2021 Texas Water Development Board Population

Motley County				
Year	2020	2030	2040	2050
Population	1,212	1,212	1,212	1,212

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0	0
2030 to 2040	0	0
2040 to 2050	0	0

2021 Texas Water Development Board Population

Terry County				
Year	2020	2030	2040	2050
Population	13,599	14,457	15,321	16,108

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.006118	0.611825
2030 to 2040	0.005805	0.580457
2040 to 2050	0.005009	0.500916

2021 Texas Water Development Board Population

Yoakum County

Year	2020	2030	2040	2050
Population	8,920	10,089	11,128	12,232

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.012315	1.231498
2030 to 2040	0.009802	0.980187
2040 to 2050	0.009459	0.94591

Parkhill

APPENDIX III.B: CURRENT AND FUTURE SOLID WASTE AMOUNTS BY TYPE

ESTIMATES OF CURRENT AND FUTURE SOLID WASTE AMOUNTS BY TYPE

Table III.B.I

The number of landfills accepting individual waste types was determined from surveyed municipality responses and totals listed on TCEQ's fiscal year 2020 annual report. Current tons disposed was calculated from the summation of each landfill tonnage within the region accepting the corresponding waste. The base year or current year is designated 2020 based on availability of data and projected out in five-year increments (i.e., five-year projection is 2025, ten-year projection is 2030. etc.). If no data was found for a corresponding waste, the value of zero was selected for the table and calculations.

Table III.B.I							
Waste Type	**Number of Landfills Accepting Waste Type**	**Percent of Total Tons Disposed**	**Current Year Disposed Tons (2020)**	**5-Year Projection**	**10-Year Projection**	**15-Year Projection**	**20-Year Projection**
Municipal	15	61.02%	366,142	383,111	400,866	416,830	433,430
Brush	2	0.03%	201	211	220	229	238
C&D	16	32.74%	196,453	205,557	215,084	223,649	232,556
Litter	2	0.01%	64	67	70	73	76
Class 1 (Non-Hazardous	0	0.00%	0	0	0	0	0
Class 2 and 3 (Non-Hazardous)	1	0.88%	5,257	5,501	5,756	5,985	6,224
Incinerator Ash	0	0.00%	0	0	0	0	0
Treated Medical Waste	0	0.00%	0	0	0	0	0
Municipal Hazardous Waste from CESQGs	0	0.00%	0	0	0	0	0
RACM	0	0.00%	0	0	0	0	0
Non-RACM	0	0.00%	0	0	0	0	0
Dead Animals	5	0.02%	133	139	146	152	158
Sludge	3	2.80%	16,799	17,577	18,392	19,124	19,886
Grease Trap Waste	0	0.00%	0	0	0	0	0
Septage	0	0.00%	0	0	0	0	0
Contaminated Soil	0	0.00%	0	0	0	0	0
Tires (split, quartered, shred)	4	0.40%	2,394	2,505	2,621	2,726	2,834
Pesticides	0	0.00%	0	0	0	0	0
Used Oil Filters	0	0.00%	0	0	0	0	0
Other (identify type reported as Attachment III.B)	1	2.09%	12,544	13,125	13,733	14,280	14,849
Total	49	100.00%	599,987	627,794	656,889	683,049	710,251

Note: Survey responses and TCEQ 2020 annual report were used to determine tonnage information for each corresponding waste type. Waste disposal projected out in five-year increments using the law of growth equation with region cumulative growth rate as used in Table III.A.I.

2021 Texas Water Development Board Population
Combination of all counties within SPAG

Note: Each individual county TWDB population projections that makes up SPAG region were used to determine estimate for entire SPAG region growth rate for use in Table III.A.I and Table III.B.I.

County	2020	2030	2040	2050
BAILEY Total	8,012	8,962	9,906	10,880
COCHRAN Total	3,491	3,687	3,717	3,667
CROSBY Total	6,526	7,023	7,433	7,850
DICKENS Total	2,164	2,164	2,164	2,164
FLOYD Total	6,869	7,294	7,563	7,854
GARZA Total	7,077	7,510	7,899	8,166
HALE Total	38,314	39,965	40,647	40,307
HOCKLEY Total	25,130	26,734	27,707	27,888
KING Total	300	316	316	316
LAMB Total	14,615	15,175	15,438	15,419
LUBBOCK Total	309,769	343,977	378,320	414,938
LYNN Total	6,279	6,605	6,624	6,594
MOTLEY Total	1,212	1,212	1,212	1,212
TERRY Total	13,599	14,457	15,321	16,108
YOAKUM Total	8,920	10,089	11,128	12,232
	452,277	495,170	535,395	575,595

Population Growth Rate		
Period	Rate/yr	%/yr
2020 to 2030	0.00906	0.906063
2030 to 2040	0.00781	0.781037
2040 to 2050	0.00724	0.723995

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APPENDIX III.C: DESCRIPTION OF CURRENT AND PLANNED SOLID WASTE MANAGEMENT ACTIVITIES

PLAN CONTENT: DESCRIPTION OF CURRENT AND PLANNED SOLID WASTE MANGEMENT ACTIVITIES IN THE REGION

Table III.C.I

Transportation

Based on the large open area and sparsely populated region, transportation of waste is required to dispose of MSW into permitted landfills. Many small municipalities within the region do not operate their own solid waste collection and disposal, or only operate a type IV landfill or citizen collection/drop-off site. Surveyed municipalities in the region did indicate instances of waste transport operations within the region, but due to the lack of survey responses may not cover all waste transport operations.

Table III.C.I (a)

Generation Source (Municipality)	**Disposal Location (Landfill Location)**
City of Amherst	City of Littlefield Landfill
City of Denver City	Yoakum County Landfill
City of Hale Center	West Texas Region Disposal Facility City of Plainview Landfill City of Olton Landfill
City of Lockney	City of Floydada Landfill City of Plainview Landfill
City of New Home	City of Tahoka Landfill
City of Plains	Yoakum County Landfill
City of Sundown	City of Meadow Landfill
City of Wellman	City of Meadow Landfill

Disposal of Solid Waste

Surveyed municipalities and private haulers within the region provided landfill waste and tonnage information. The provided data coupled with the most recent fiscal year 2020 TCEQ Annual Report data, was used to construct the following tables. Table III.C.I demonstrates the annual tonnage at each MSW landfill within the region. Tonnage information was obtained from municipality surveys and verified by TCEQ Annual Reports. Table III.C.II demonstrates the remaining life at each MSW landfill within the region. West Texas Region Disposal Facility is the largest facility in the region and aside from the low tonnage facility in the City of Amherst, is the facility with the longest remaining life.

Table III.C.I (b)	
Municipality / Facility Name	**Annual Tonnage (tons)**
WTRDF	303453
Plainview	32507
Caliche Canyon	18281
Brownfield	15930
Meadow	11016
Levelland	10860
Olton	9847
Yoakum County	8925
Littlefield	8076
Muleshoe	7254
Floydada	5806
Post	3602
Matador	2714
Sundown	310
Morton	41
Amherst	24

Table III.C.II (c)	
Municipality / Facility Name	**Remaining Life (Years)**
Amherst	408
WTRDF	222
Plainview	177
Sundown	141
Muleshoe	125
Levelland	108
Brownfield	104
Morton	91
Littlefield	74
Yoakum County	72
Matador	69
Floydada	66
Olton	29
Meadow	20
Caliche Canyon	7
Post	4

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APPENDIX III.D: DESCRIPTION AND ASSESSMENT OF THE ADEQUACY OF EXISTING SOLID WASTE MANAGEMENT FACILITIES AND PRACTICES

PLAN CONTENT: DESCRIPTION AND ASSESSMENT OF THE ADEQUACY OF EXISTING SOLID WASTE MANAGEMENT FACILITIES AND PRACTICES, AND HOUSEHOLD HAZARDOUS WASTE PROGRAMS

Table III.D.I

Resource Recovery

Surveyed municipalities and private haulers within the region did not indicate any resource recovery operations. Current recycling operations collect material and transfer recyclable material outside of the region for resource recovery. Recycling operations in the region lag behind anticipated goals without a resource recovery facility. Many municipalities operate some form of recycling operations, but predominately act to collect, sort, and transfer materials outside of the region. With transportation costs, most recycling operations in the region operate in a deficit situation. Municipalities would push for additional recycling if a resource recovery facility existed within the region to lower transportation costs and aid in creating a profitable recycling operation. The lack of a resource recovery facility, but no plans during the long-term planning period are expected.

Storage

Surveyed municipalities and private institutions within the region did not indicate any MSW storage procedures. Current waste generation, collection, and disposal methods employed do not lead to the need for MSW storage. MSW storage is not employed in the region but is not considered an inadequacy.

Transportation

Waste transportation outside of collection and disposal exists in the regions active transfer station, Caliche Canyon Transfer Station (Registration No. 40176) and City of Levelland Transfer Station (Registration No. 40051), the regions medical waste transfer station, Stericycle Lubbock Medical Waste Transfer Station (Registration No. 40279), and the region's liquid waste processing facility, Southwaste Disposal South Plains Liquid Waste Processing Facility (Registration No. 2231). The City of Lubbock has plans in short-range planning period to permit and construct an additional transfer station within Lubbock County.

Treatment

Surveyed municipalities and private institutions within the region did not indicate any MSW treatment procedures. Current waste generation, collection, and disposal methods employed do not lead to the need for MSW treatment. MSW treatment is not employed in the region but is not considered an inadequacy.

Disposal

Surveyed municipalities and private institutions within the region did not indicate any inadequacy for disposal operations. Current remaining tonnage and life for the region's landfills are adequate well past the long-range planning period. Based on surveys and TCEQ annual reports, only four landfills indicated remining life less than 50 years. The following table from Attachment III.C, indicated the remaining life for landfills within the region.

Table III.C.II (c)	
Municipality / Facility Name	**Remaining Life (Years)**
Amherst	408
WTRDF	222
Plainview	177
Sundown	141
Muleshoe	125
Levelland	108
Brownfield	104
Morton	91
Littlefield	74
Yoakum County	72
Matador	69
Floydada	66
Olton	29
Meadow	20
Caliche Canyon	7
Post	4

The City of Post has a permitted facility (MSW Permit No. 2397) adjacent to the current landfill, which plans to open as the current facility reaches capacity, possibly in 2022. Additional municipalities that expressed desire to expand facilities were the City of Meadow and the City of Olton, but a timeframe was not indicated. Based on the adequate landfill storage available, the region has no inadequate facilities and current practices are adequate.

Household Hazard Waste Collection

Surveyed municipalities and private institutions within the region did not indicate any ongoing collection program for household hazardous waste (HHW) or electronic waste (E-waste). Periodically cities may conduct special collection days to allow residents to drop off HHW. The lack of accessible long-term drop-off locations throughout the region and the inability to collect HHW at the source poses a risk to increased improper disposal of HHW. The region does not have an adequate number of facilities and/or practices for handling HHW collection. The region requires long-term drop-off facilities, designated permanent HHW collection containers, or an increase of private haulers to collect HHW to address the inadequacy.

Household Hazard Waste Disposal

Surveyed municipalities and private institutions within the region indicated only two landfills accepting household hazardous waste, City of Lubbock's West Texas Region Disposal Facility (MSW Permit No. 2252) and City of Plainview (MSW Permit No. 2157). Few smaller municipalities indicated accepting vehicle oil at city drop off locations or designated HHW pick up events during the year, but the lack of permanent disposal or processing available increases the rate of disposal within landfills. To address the inadequacy the region requires additional disposal and/or processing facilities within the region to aid in transportation cost required to divert HHW away from landfill operations. Additional facilities capable of processing HHW materials for reuse would be beneficial for the region.

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APPENDIX III.E: ASSESSMENT OF CURRENT SOURCE REDUCTION AND WASTE MINIMIZATION EFFORTS, INCLUDING SLUDGE, AND EFFORTS TO REUSE OR RECYCLE WASTE

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APPENDIX III.F: ADDITIONAL OPPORTUNITIES FOR SOURCE REDUCTION AND WASTE MINIMIZATION, REUSE AND RECYCLING OF WASTE

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APPENDIX III.G: RECOMMENDATIONS FOR GREATER SOURCE REDUCTION AND WASTE MINIMIZATION, AND REUSE OR RECYCLING OF WASTE

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APPENDIX III.H: IDENTIFICATION OF PUBLIC AND PRIVATE MANAGEMENT AGENCIES AND RESPONSIBILITIES

IDENTIFICATION OF PUBLIC AND PRIVATE MANAGEMENT AGENCIES AND RESPONSIBILITIES

Waste Collection and Disposal

The region utilizes a combination of city-owned solid waste crews and private entities for MSW collection and disposal. In many instances, cities and private entities operate concurrently without interruptions. Due to large land area and sparsely populated region, smaller municipalities' MSW operations are predominately controlled by private haulers. Based on surveyed municipalities and private MSW entities within the region, the following table indicates MSW collection and disposal responsibilities for municipalities within the region.

Table III.D.I (a)

Management Agency	Collection/Disposal Entities	Responsibility	Management Agency	Collection/Disposal Entities	Responsibility
City of Amherst	City of Amherst	Waste collection and disposal for city limits and surrounding areas.	City of Matador	City of Turkey; City of Quitque; SOS Waste; Republic Services	Waste collection and disposal for city limits and surrounding areas.
City of Anton	Triple C Waste	Waste collection and disposal for city limits and surrounding areas	City of Meadow	A&L Disposal; Llano Waste; Republic Services; Waste Connections of Texas	Waste collection and disposal for city limits and surrounding areas.
City of Brownfield	City of Brownfield; J'S Disposal; Lake Alan Henry Disposal; Llano Waste; Republic Services; SOS Disposal; Texas Roll Off; Tomahawk Disposal	Waste collection and disposal for city limits and surrounding areas.	City of Morton	South Plains Waste	Waste collection and disposal for city limits and surrounding areas.
City of Denver City	City of Denver City	Waste collection and disposal for city limits and surrounding areas.	City of Muleshoe	South Plains Waste	Waste collection and disposal for city limits and surrounding areas.
City of Floydada	City of Crosbyton; City of Floydada; City of Lockney; South Plains Waste; Triple C Waste; Waste Connections of Texas	Waste collection and disposal for city limits and surrounding areas.	City of New Deal	South Plains Waste	Waste collection and disposal for city limits and surrounding areas.
City of Idalou	Republic Services	Waste collection and disposal for city limits and surrounding areas.	City of New Home	Republic Services	Waste collection and disposal for city limits and surrounding areas.
City of Hale Center	Triple C Waste	Waste collection and disposal for city limits and surrounding areas.	City of O'Donnell	Republic Services	Waste collection and disposal for city limits and surrounding areas.

City of Levelland	Republic Services	Waste collection and disposal for city limits and surrounding areas.	City of Olton	City of Amherst; South Plains Waste; Thoshanowasti	Waste collection and disposal for city limits and surrounding areas.
City of Littlefield	City of Amherst; City of Littlefield; Llano Waste; Republic Services; Waste Removers	Waste collection and disposal for city limits and surrounding areas	City of Plains	City of Plains	Waste collection and disposal for city limits and surrounding areas.
City of Lockney	City of Plainview	Waste collection and disposal for city limits and surrounding areas.	City of Plainview	City of Lockney; City of Plainview; Llano Waste; South Plains Waste; SOS Waste; Republic Services; Waste Connections of Texas	Waste collection and disposal for city limits and surrounding areas.
City of Lorenzo	Triple C Waste	Waste collection and disposal for city limits and surrounding areas.	City of Post	Lake Allen Henry; Republic Services	Waste collection and disposal for city limits and surrounding areas.
City of Lubbock	City of Lubbock; Republic Services; SOS Waste; South Plains Waste; Waste Connections of Texas	Waste collection and disposal for city limits and surrounding areas.	City of Ralls	Triple C Waste	Waste collection and disposal for city limits and surrounding areas.
City of Ransom Canyon	Waste Connections of Texas	Waste collection and disposal for city limits and surrounding areas.	City of Wellman	Republic Services	Waste collection and disposal for city limits and surrounding areas.
City of Ropesville	Republic Services	Waste collection and disposal for city limits and surrounding areas.	City of Whiteface	Republic services	Waste collection and disposal for city limits and surrounding areas.
City of Spur	SOS Waste	Waste collection and disposal for city limits and surrounding areas.	Yoakum County	City of Denver City; City of Plains	Waste collection and disposal for city limits and surrounding areas.
City of Sundown	Republic Services	Waste collection and disposal for city limits and surrounding areas.			

Recycling Summary

Based on surveyed municipalities, the following table lists the municipalities sponsoring recycling operations within the City.

Table II.D.I (b)	
Municipality	**Scope of Activities**
City of Amherst	Promote to public, Collect Material from households or business.
City of Brownfield	Promote to public, Collect Material from households or businesses, Operate drop-off center.
City of Hale Center	Promote to public, Collect material from households or businesses, Operate drop-off center.
City of Levelland	Promote to public, Collect material from households or businesses, Operate drop-off center.
City of Lubbock	Promote to public, Collect material from households or businesses, Operate drop-off center.
City of Matador	Promote to public, Operate drop-off center
City of Meadow	Promote to general public, Collect material from households or businesses, Operate drop-off center.
City of New Deal	Promote to public, Collect material from households or businesses, Operate drop-off center
City of Planview	Promote to public, Collect material from households or businesses, Operate drop-off center.
City of Post	Collect material from households or businesses
Dickens County	Operate drop-off center.
Town of Ransom Canyon	Operate drop-off center.

Private Entities

Based on survey results, the following table contains the list of private entities and their main responsibility within the region.

Table III.D.I (c)	
Private Entities	**Responsibility**
Henderson Scrap Metal	Scrap metal recycling services.
Jarvis Metal	Scrap metal recycling services. Scrap paper and cardboard recycling services.
J's Disposal	Residential waste collection.
Lake Allen Henry Disposal	Waste collection and management for Lake property.
Llano Waste	Commercial waste collection. Commercial roll-off management.
Republic Services	Residential and commercial waste collection. Commercial roll-off management. Recycling services and collection.
SOS Disposal	Residential and commercial waste collection. Commercial roll-off management.
South Plains Waste	Residential and commercial waste collection.
State Rubber	Scrap tire recycling services.
Texas Roll Off	Commercial waste collection. Commercial roll-off management.
Texas Tech University	Residential and commercial waste collection. Operate recycling center for drop-off and processing
Tomahawk Disposal	Residential waste collection.
Triple C Waste	Residential waste collection.
Waste Connections of Texas (Caprock Waste)	Residential and commercial waste collection. Commercial roll-off management. Old corrugated cardboard recycling.

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APPENDIX III.I: SOLID WASTE MANAGEMENT CONCERNS AND PRIORITIES

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APPENDIX III.J: PLANNING AREAS AND AGENCIES WITH COMMON SOLID WASTE MANAGEMENT CONCERNS

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APPENDIX III.K: INCENTIVES AND BARRIERS FOR SOURCE REDUCTION AND WASTE MINIMIZATION, AND RESOURCE RECOVERY

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APPENDIX III.L: REGIONAL GOALS AND OBJECTIVES, INCLUDING WASTE REDUCTION GOALS

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APPENDIX III.M: ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE ACTIONS

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APPENDIX III.N: PLAN OF ACTION AND TIMETABLE FOR ACHIEVING SPECIFIC GOALS AND OBJECTIVES

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APPENDIX III.O: IDENTIFICATION OF THE PROCESS THAT WILL BE USED TO EVALUATE WHETHER A PROPOSED MUNICIPAL SOLID WASTE FACILITY APPLICATION WILL BE IN CONFORMANCE WITH THE REGIONAL PLAN

PLAN CONFORMANCE

Information presented in this attachment will outline the process through which SPAG will review MSW permits for conformance with the Regional Solid Waste Management Plan. Permittees are required to submit MSW Permit applications, Part I and Part II, to the regional council of governments. SPAG will review applications to determine conformance with the Regional Solid Waste Management Plan. SPAG will not approve or deny any MSW permit and will not determine if the application meets TCEQ regulations. All final issuance of MSW permits will be determined by TCEQ. Applicants requesting a letter from SPAG indicating their permit complies with the Regional Plan must submit the following information with the request:

- Current population growth and waste generation rate for the local region or municipality proposing the permitted facility.
- The total population and waste disposal for the local region or municipality proposing the permitted facility.
- Where the applicant is currently disposing of solid waste and the current distance to the nearest MSW facility.
- What is the current monthly disposal fee, and what is the anticipated fee for the proposed permitted facility?
- What is the anticipated tipping fee of the proposed permitted facility?
- Describe the financial burden of the applicant and how there is no practicable waste management alternative available.
- Will the applicant be operating the proposed facility with owned or leased equipment?
- Does the applicant currently have this equipment available?
- What are the applicant's current source reduction programs and goals?

Following an MSW permit review that provides the requested information and conforms to the practices indicated in the Regional Plan, SPAG will provide the applicant a letter indicating support for the proposed permitted facility.

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APPENDIX IV.A: LOCAL GOVERNMENT AND JURISDICTION RESOLUTIONS, AND LETTERS OF SUPPORT

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APPENDIX IV.B: PUBLIC NOTICE, AGENDA, PUBLIC COMMETNS, AND PUBLIC MEETING TRANSCRIPT

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