

NORTEX REGIONAL PLANNING COMMISSION

**REGIONAL SOLID WASTE MANAGEMENT
IMPLEMENTATION PLAN**

VOLUME II

2022 – 2042

Adopted by

Nortex Regional Planning Commission

January 2022

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

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TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION No. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION No. 50222

Regional Solid Waste Management Implementation Plan Volume II

REGIONAL ORGANIZATION INFORMATION

Table 1. Organization Information

Name of Council of Government	Nortex Regional Planning Commission
Mailing Address	P.O. Box 5144, Wichita Falls, TX 76307
Website	www.nortexrpc.org
Phone Number	940-322-5281
Email Address	nortex@nortexrpc.org

Section I. Geographic Scope

Table I.I. Geographic Scope

I.A. Names of Member Counties in the Entire Planning Region	Archer, Baylor, Clay, Cottle, Foard, Hardeman, Jack, Montague, Wichita, Wilbarger, Young
I.B. Geographic Planning Units Used in the Regional Implementation Plan	<input checked="" type="checkbox"/> Small geographic areas such as census tracts or city boundaries for the most detailed data collection and manipulation; <input type="checkbox"/> 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; <input type="checkbox"/> County boundaries for the summarization and presentation of key information; or <input checked="" type="checkbox"/> The entire planning region

Section II. Planning Periods

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	2028-2032
II.A.4. Long-range Planning Period	2033 - 2042
<input checked="" type="checkbox"/> Check box if additional details provided in <i>Attachment II.A.</i>	

Section III. Plan Content

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		231,190	318,465	7.548	22,525	0.534	340,990
2022	0.39%	233,015	320,979	7.548	22,702	0.534	343,682
2027	0.39%	237,642	327,353	7.548	23,153	0.534	350,506
2032	0.25%	241,507	332,896	7.553	23,545	0.534	356,441
2037	0.25%	244,541	337,078	7.553	23,841	0.534	360,919
2042	0.19%	247,258	340,904	7.555	24,174	0.536	365,078

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	City of Wichita Falls actively promotes the area for commercial/business growth. Not anticipated to result in significant waste generation and disposal.	None anticipated.
2027	City of Wichita Falls actively promotes the area for commercial/business growth. Not anticipated to result in significant waste generation and disposal.	None anticipated.
2032	City of Wichita Falls actively promotes the area for commercial/business growth. Not anticipated to result in significant waste generation and disposal.	None anticipated.
2037	City of Wichita Falls actively promotes the area for commercial/business growth. Not anticipated to result in significant waste generation and disposal.	None anticipated.
2042	City of Wichita Falls actively promotes the area for commercial/business growth. Not anticipated to result in significant waste generation and disposal.	None anticipated.

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	Recent industrial growth in the Wichita Falls area is not anticipated to affect industrial waste generation and/or disposal in the area.	None anticipated.
2027	Recent industrial growth in the Wichita Falls area is not anticipated to affect industrial waste generation and/or disposal in the area.	None anticipated.
2032	Recent industrial growth in the Wichita Falls area is not anticipated to affect industrial waste generation and/or disposal in the area.	None anticipated.
2037	Recent industrial growth in the Wichita Falls area is not anticipated to affect industrial waste generation and/or disposal in the area.	None anticipated.
2042	Recent industrial growth in the Wichita Falls area is not anticipated to affect industrial waste generation and/or disposal in the area.	None anticipated.

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	2	80.94%	257,763	264,960	269,446	272,831	275,928
Brush	-	-	-	-	-	-	-
Construction or Demolition	2	17.15%	54,613	56,141	57,092	57,809	58,465
Litter	-	-	-	-	-	-	-
Class 1 Non-hazardous	-	-	-	-	-	-	-
Classes 2 and 3 Non-hazardous	1	0.41%	1,320	1,342	1,365	1,382	1,398
Incinerator Ash	-	-	-	-	-	-	-
Treated Medical Waste	-	-	-	-	-	-	-
Municipal Hazardous Waste from CESQGs	-	-	-	-	-	-	-
Regulated Asbestos-containing Material (RACM)	1	0.03%	83	98	100	101	102
Non-RACM	1	0.04%	129	131	133	135	136

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)
Dead Animals	1	0.15%	463	491	499	506	511
Sludge	1	1.28%	4,089	4,190	4,261	4,315	4,364
Grease Trap Waste	-	-	-	-	-	-	-
Septage	-	-	-	-	-	-	-
Contaminated soil	1	0.00%	6	6	6	6	6
Tires (split, quartered, shredded)	-	-	-	-	-	-	-
Pesticides	-	-	-	-	-	-	-
Used Oil Filter	-	-	-	-	-	-	-
Other (identify other types reported as Attachment III.B.)	-	-	-	-	-	-	-
TOTAL	2	100%	318,468	327,359	332,902	337,085	340,910
<input checked="" type="checkbox"/> Check box if additional details provided in Attachment III.B.							

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

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

Activity	Description
Generation	Current waste disposal rate for waste generated within the state: 7.548 tons/person/day. Current recycling rate: 0.534 tons/person/day. Total waste generation rate is: 8.082 tons/person/day
Source Separation	Wichita Falls has source separated recyclable including organics. Smaller rural counties have limited recyclables / collection at citizen's collection stations. Primarily yard waste/brush waste.
Collection	City of Wichita Falls provides collection within the City. Waste Connections provides collection in counties and municipalities within the region. Liquid waste collected by private haulers.
Handling	Handling of solid waste is provided by City of Wichita Falls Sanitation Department and Waste Connections as part of collections, processing, and disposal. Facilities handling MSW include: 2 landfills / 4 transfer stations / 1 liquid processing facility
Storage	Limited storage of MSW in the region. Includes overnight storage at 4 transfer stations, 1 liquid waste processing facility; and limited storage at citizen's collection stations.
Transportation	City of Wichita Falls – municipal solid waste Waste Connections– municipal solid waste Private haulers – liquid waste
Processing	Liquid waste processing at IMC Waste Disposal City of Wichita Falls – composting facility – produces compost/mulch
Treatment	Liquid waste Compost
Resource Recovery	None
Disposal of Solid Waste	Wichita Falls Landfill 200 years remaining waste disposal capacity Buffalo Creek Landfill 86 years remaining waste disposal capacity

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

Activity	Description
Generation	None – continue current program activities
Source Separation	None – continue current program activities
Collection	None – continue current program activities
Handling	None – continue current program activities
Storage	None – continue current program activities
Transportation	None – continue current program activities
Processing	None – continue current program activities
Treatment	None – continue current program activities
Resource Recovery	Implementation of new methane rules may result in Landfill gas (LFG) collection and control systems at Wichita Falls Landfill and Buffalo Creek Landfill.
Disposal of Solid Waste	No changes at Wichita Falls Landfill or Buffalo Creek Landfill Jacksboro Landfill permitted facility in Jack County Waste Connections is planning to open in the future and is anticipated to accept waste from outside area
<input checked="" type="checkbox"/> 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

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

Program	Facility Adequacy	Practices Adequacy
Resource Recovery	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, description of facility inadequacy provided in Attachment III. D.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, description of practice inadequacy provided in Attachment III. D.
Storage	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, description of facility inadequacy provided in Attachment III. D.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, description of practice inadequacy provided in Attachment III. D.
Transportation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, description of facility inadequacy provided in Attachment III. D.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, description of practice inadequacy provided in Attachment III. D.
Treatment	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, description of facility inadequacy provided in Attachment III. D.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, description of practice inadequacy provided in Attachment III. D.
Disposal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, description of facility inadequacy provided in Attachment III. D.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, description of practice inadequacy provided in Attachment III. D.
Household Hazardous Waste Collection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, description of facility inadequacy provided in Attachment III. D.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, description of practice inadequacy provided in Attachment III. D.
Household Hazardous Waste Disposal	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, description of facility inadequacy provided in Attachment III. D.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, description of practice 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

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

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

Category of Activity	Opportunity Name	Brief Description
Reuse or Recycling of Waste	Urban Area Recycling	Continued source separation of recyclables at City of Wichita Falls/Wichita Falls MSA/Sheppard AFB. Add recyclable materials as applicable.
Reuse or Recycling of Waste	Small Rural Community Recycling	Small rural community source separated recycling programs to collect recyclables at existing citizen’s convenience centers.
Reuse or Recycling of Waste	Public Entity Recycling	Expand public entity (governments/public school districts) recycling and recyclable material purchase programs
Reuse or Recycling of Waste	Private Entity Recycling	Expand private entity (commercial businesses/offices/industry) participation in recycling and recyclable material purchase programs.
Source Reduction and Waste Minimization	Small Rural community wood waste chipping	Expand use of wood chippers for landscaping mulch and compost programs.
Source Reduction / Recycling of Waste	Regional Recycling Goal	Develop a program to quantify waste diversion / recycling rate for region.
Reuse or Recycling of Waste	Reusable Materials Plan	Expand public and private entities to develop a reusable materials plan for reuse of C&D waste and inert materials.
Source Reduction / Recycling of Waste	Public Education	Assist with developing public education programs to support increasing waste diversion / recycling rate for region.

Reuse or Recycling of Waste	Recycling Market Development Plan	Support and participate at regional level with statewide RMDP
<input checked="" type="checkbox"/> Check box if additional information of opportunities and source reduction and waste minimization, reuse and recycling of waste is provided in <i>Attachment III. F.</i>		

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

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

Identify recyclable materials markets to provide for cost effective delivery and purchase of recyclables collected in the Nortex region.
Develop a regional program to collect and maintain the quantities of recyclable materials and other wastes diverted from landfill disposal to allow a more accurate determination of the Nortex regions waste diversion percentage.
Develop a public education program to re-emphasize to the public the importance of source reduction and waste minimization, and waste reuse or recycling.
Provide continued support to smaller communities use of citizen’s convenience centers and recycling events.
Establish an attainable and realistic waste reduction / recycling goal for the region.
Expand reusable materials plan for reuse of construction and demolition debris and inert materials in local public works and private facility construction.
<input checked="" type="checkbox"/> Check box if additional details are provided in <i>Attachment III.G.</i>

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

- 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

Table III.I Solid Waste Management Concerns and Priorities

Solid Waste Management Concern	Priorities to Address the Concern
Waste Minimization – Diversion Rate	Establish a system to account for current waste minimization / diversion / recycling rate at public and private facilities / entities
Recycling Programs	Increase waste diversion / recycling efforts across region
Markets & Transportation of Recyclables	Identify recyclables markets and support a shared approach
Scrap Tire Management	Identify scrap tire management facilities and develop regional collection transportation program
Waste Handling	Continue to support the use of citizen’s convenience stations across the region to provide accessible waste collection options
Illegal Dumping and Littering	Continue to support the use of citizen’s convenience stations across the region and develop and implement public education program on illegal dumping and littering
HMW Management	Develop and implement public education program on proper management of household hazardous waste
Adequate Disposal Capacity	Evaluate waste disposal capacity in 5-year increments to determine need for additional facilities
<input checked="" type="checkbox"/> Check box if additional details are provided in <i>Attachment III.I</i>	

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

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)
Waste Minimization / Diversion Rate	Nortex RPC / Local Governments / Private Business
Recycling Programs	Nortex RPC / Local Governments / School Districts / Private Business
Marketing and Transportation of Recyclables	Nortex RPC / TCEQ / Public and Private Haulers
Scrap Tire Management	Nortex RPC / TCEQ
Waste Handling	Local Governments / Public and Private Haulers / Public and Private Facilities
Illegal Dumping and Littering	Nortex RPC / Local Governments
HHW Management	Nortex RPC / TCEQ / Local Governments
Adequate Disposal Capacity	Public and Private disposal facilities (Wichita Falls Landfill / Buffalo Creek Landfill)

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	
Identify incentives for source reduction and waste minimization	Reduce quantity and types of waste disposed, extending landfill site life. Financial savings may be achieved by Local Government with reusable material programs for inert materials. Generate landscaping mulch or compost for local use / sale.
Identify barriers to source reduction and waste minimization	Significant landfill disposal capacity available in the region. Significant costs associated with collection and transportation of recyclable materials to end use market. Lack of recyclable markets in proximity to region.
Resource Recovery	
Identify incentives for resource recovery	Reducing quantity of landfill gas released to atmosphere, reducing the NMOC (non-methane organic compound) emission rates for the disposal facilities. Potential revenue generation for landfill disposal facilities operating a resource recovery facility to convert landfill gas to electric or gas generation.
Identify barriers to resource recovery	Significant cost associated with installation of an active landfill gas collection and control facility. Private or public enterprise to use energy generated from a landfill gas to energy facility.
Potential Markets	
Energy Market	Landfill gas to energy market.
Reuse of Materials	Reusable materials market for local streets, roadways, drainage facilities.
Recycling Materials	Marketing of recyclable materials.
Reuse of Materials	Landscaping mulch and compost for use by landscape contractors and the public.

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

Table III.L.I Regional Goals and Objectives

<p>Goal #1 Measure regional waste reduction efforts (short-range)</p>	<p>Objective 1.A. Encourage smaller communities and rural areas to maintain and increase where possible efforts related to waste reduction and recycling and encourage tracking waste reduction and recycling quantities on an annual basis.</p> <p>Objective 1.B. Encourage public entities, including school districts and Sheppard Air Force Base, to track and report waste reduction and recycling quantities on an annual basis.</p> <p>Additional Objectives</p> <p>Objective 1.C. Encourage commercial and industrial private enterprise to provide information regarding waste reduction and recycling efforts.</p> <p>Objective 1.D. Research recyclables market to identify end use for recyclables.</p> <p>Objective 1.E. Establish attainable and realistic recycling goals for the region.</p>
<p>Goal #2 Promote waste minimization, waste reduction, recycling and composting programs (intermediate)</p>	<p>Objective 2.A. Encourage smaller communities and rural areas to participate in waste reduction and recycling efforts through the use of existing citizens' convenience centers and recycling drop-off events.</p> <p>Objective 2.B Encourage smaller communities and rural areas to divert yard waste, brushy waste, and other wood waste to citizens' convenience centers for chipping/mulching. Encourage re-use of wood chips/mulch within communities or divert material to composting programs within the area, including the Wichita Falls Landfill.</p> <p>Additional Objective</p> <p>Objective 2.C Encourage source-separated recycling efforts conducted by City of Wichita Falls.</p>
<p>Goal #3 Maintain adequate levels of transportation and disposal capacities throughout the region (intermediate)</p>	<p>Objective 3.A. Encourage public/private partnerships for collections, transportation, and disposal throughout the region.</p> <p>Objective 3.B. Evaluate remaining disposal capacity at existing municipal disposal facilities and confirm adequate remaining capacity available.</p> <p>Additional Objectives</p> <p>Objective 3.C. Encourage MSW disposal facilities to divert recyclable and re-usable materials from waste disposal. Consider implementing re-useable material plan for construction type wastes as applicable.</p> <p>Objective 3.D. Encourage use of small community and rural citizens' convenience centers to control and stem illegal dumping.</p>

	Objective 3.E. Maintain process to evaluate if proposed MSW applications will be in compliance with the regional solid waste plan.
Goal #4: Support and encourage new municipal solid waste programs to address ongoing municipal solid waste regional systems improvement (long-range)	<p>Objective 4.A. Evaluate options that provide solutions to removing household hazardous waste from waste disposal stream.</p> <p>Objective 4.B. Evaluate options that provide solutions to address improper tire disposal.</p>

III.M. Advantages and Disadvantages of Alternative Actions

Are alternative actions being considered in this plan for the regional area?	<input type="checkbox"/> Yes. Provide details in <i>Attachment III.M.</i> <input checked="" type="checkbox"/> No. No further action required.
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III.N. Recommended Plan of Action and Associated Timetable for Achieving Specific 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	Establish system to determine waste reduction rate at public and private facilities	Short Term
	Identify regional recyclable markets	Short Term
	Identify additional recyclable materials that could be collected through citizen’s convenience centers	Short Term
	Identify construction/demolition materials that could be re-used	Short Term
Composting Programs for Yard Wastes and Related Organic Wastes	Support expansion of the City of Wichita Falls composting program	Short Term
	Support collection of wood waste and other wastes from citizen’s convenience centers for transport to City of Wichita Falls composting program	Short Term
	Adopt Don’t Bag It Program for entire region	Short Term
	Determine need for HHW collection programs	Mid Term

Household Hazardous Waste Collection and Disposal Programs	Develop HHW collection and disposal public education program	Short Term
Public Education Programs	Importance of determining materials and amounts of materials diverted from landfill disposal	Short Term
	Identification of recyclable materials for public	Short Term
	Waste reduction efforts / buying recyclable materials	Short Term
	HHW collection and disposal program	Mid Term
The Need for New or Expanded Facilities and Practices	Evaluate need for expansion of disposal facilities	Long Term
	Evaluate need for expanded collection of recyclables	Short Term
<input checked="" type="checkbox"/> Check box if additional details are provided in <i>Attachment III.N.</i>		

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

- 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	January 13, 2022
Public Meeting Dates	May 12, 2022
Executive Committee	February 17, 2022

- 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.**