NORTEX REGIONAL PLANNING COMMISSION

REGIONAL SOLID WASTE MANAGEMENT PLAN

VOLUME I

2022 - 2042

Adopted by

Nortex Regional Planning Commission

January 2022

Prepared by
BIGGS & MATHEWS ENVIRONMENTAL

1700 Robert Road, Suite 100 ◆ Mansfield, Texas 76063 ◆ 817-563-1144

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222

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.

Regional Solid Waste Management Plan Volume I

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

Names of Member Counties in the	Archer, Baylor, Clay, Cottle, Foard, Hardeman, Jack,
Entire Planning Region	Montague, Wichita, Wilbarger, Young

Section II. Plan Content

II.A. Regional Goals and Objectives

Table II.A. Regional Goals and Objectives

Goal #1 Measure regional waste reduction efforts	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.
	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.
	Additional Objectives
	Objective 1.C. Encourage commercial and industrial private enterprise to provide information regarding waste reduction and recycling efforts.
	Objective 1.D. Research recyclables market to identify end use for recyclables.
	Objective 1.E. Establish attainable and realistic recycling goals for the region.
Goal #2 Promote waste minimization, waste reduction, recycling and composting programs	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.
	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.
	Additional Objectives
	Objective 2.C Encourage source-separated recycling efforts conducted throughout the region.
Goal 3: Maintain adequate levels of transportation and disposal capacities throughout the region	Objective 3.A. Encourage public/private partnerships for collections, transportation, and disposal throughout the region.

Objective 3.B. Evaluate remaining disposal capacity at existing municipal disposal facilities and confirm adequate remaining capacity available.

Additional Objectives

Objective 3.C. Encourage MSW disposal facilities to divert recyclable and re-usable materials from waste disposal. Consider implementing re-usable material plan for construction type wastes as applicable.

Objective 3.D. Encourage use of small community and rural citizens' convenience centers to control and stem illegal dumping.

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

Objective 4.A. Evaluate options that provide solutions to removing household hazardous waste from waste disposal stream.

Objective 4.B. Evaluate options that provide solutions to address improper tire disposal.

II.B. 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	Small community citizen's convenience centers for recyclable collection and to divert yard waste and wood waste
Reuse or Recycle Waste	Small community recycling events conducted periodically
	City of Wichita Falls source-separated recycling program and collection of recyclables at the landfill and transfer station
	City of Wichita Falls diverting waste materials to composting program including yard waste, wood wastes, sludge, and other acceptable waste materials to generate mulch and composted materials for re-use.
	Sheppard Air Force Base conducts on-base recyclable collection program.
	Public entities, including public schools and universities, conduct recycling and purchasing programs as applicable.
	Commercial and industrial facilities conduct recycling programs as applicable.
Recycling Rate Goal for the Region	The recycling rate goal for this Regional Solid Waste Management Plan is to attempt and maintain a 10% recycling goal by the year 2042.
	The population and geographic conditions of the Nortex planning area contribute to difficult conditions to achieve the stated recycling goal.
	Other than the Wichita Falls area, achieving consistent recycling programs is difficult.
	There is not a consistent system that allows an accurate accounting of recycling rate for local governments, commercial, or industrial concerns.
Recommendations for Encouraging and Achieving a Greater Degree of Waste	Smaller communities, public entities, commercial, and industrial enterprise should begin tracking and reporting waste reduction and recycling efforts.

Subject	Description	
Minimization and Waste Reuse or Recycling	Identify recycling markets to identify end use facilities for the small quantities generated across the region.	
	Provide continued support to smaller communities use of citizen's convenience centers and recycling events.	
Existing or Proposed Community Programs for the Collection of	There are no existing community programs for the collection of household hazardous waste.	
Household Hazardous Waste	Household hazardous waste is collected as part of normal municipal solid waste collections and disposed in the two existing Type I landfills consistent with TCEQ rules and regulations.	
	Consideration will be given to evaluate the need for providing a future solution to removing household hazardous waste from waste disposal.	
Composting Programs for Yard Waste	The recommended composting programs for yard waste and related organic wastes may include:	
	☑ (I) creation and use of community composting centers;	
	☑ (II) adoption of the "Don't Bag It" program for lawn clippings developed by the Texas Agricultural Extension Service; and	
	☑ (III) development and promotion of education programs on home composting, community composting, and the separation of yard waste for use as mulch.	
Public Education/Outreach	Nortex Regional Planning Commission is committed to including a public education / outreach component in the solid waste program directed at efforts to minimize, reuse, and recycle waste.	
	Nortex will use available materials prepared by TCEQ for distribution to member communities.	
	Nortex will include a public education / outreach component on the Nortex website and at conducted public meetings.	

II.C. Commitment Regarding the Management of MSW Facilities

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

- \boxtimes (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;
- \boxtimes (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;
- \boxtimes (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	January 13, 2022
Public Meeting Dates	May 12, 2022
Executive Committee	February 17, 2022

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

1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

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	☑ 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

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	
☐ 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	Growt h Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Disposal Rate (Ibs./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 for the region.	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 for the region.	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 for the region.	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 for the region.	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 for the region.	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 for the region.	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 for the region.	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 for the region.	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 for the region.	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 for the region.	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

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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

☑ 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 within Wichita Falls and by Waste Connections in counties and municipalities within the region as part of collections, processing, and disposal. Facilities handling MSW include: two landfills (both in Wichita County), 2 monofils (Cottle County and Hardeman County), four transfer stations (Baylor, Montague, Wichita and Wilbarger counties), and one liquid processing facility (Wichita County).
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

scription	Activity	
ne – continue current program activities	Generation	
one – continue current program activities	Source Separation	
one – continue current program activities	Collection	
one – continue current program activities	Handling	
one – continue current program activities	Storage	
one – continue current program activities	Transportation	
one – continue current program activities	Processing	
one – continue current program activities	Treatment	
plementation of new 2016 federal methane rules (40 CFR part 60, bparts XXX and Cf) may result in Landfill gas (LFG) collection and ntrol systems at Wichita Falls Landfill and Buffalo Creek Landfill.	Resource Recovery	
changes at Wichita Falls Landfill or Buffalo Creek Landfill cksboro Landfill permitted facility in Jack County aste Connections is planning to open in the future and is anticipated accept waste from outside area	Disposal of Solid Waste	
accept waste from outside area ation of solid waste management activities is pro	☑ Check box if additional info	

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
	□ Yes	□Yes
Resource Recovery	☑ No, description of facility inadequacy provided in Attachment III. D.	☑ No, description of practice inadequacy provided in Attachment III. D.
	⊠ Yes	⊠ Yes
Storage	☐ No, description of facility inadequacy provided in <i>Attachment III. D.</i>	☐ No, description of practice inadequacy provided in <i>Attachment III. D.</i>
	⊠ Yes	⊠ Yes
Transportation	☐ No, description of facility inadequacy provided in <i>Attachment III. D.</i>	☐ No, description of practice inadequacy provided in <i>Attachment III. D.</i>
	⊠ Yes	⊠ Yes
Treatment	☐ No, description of facility inadequacy provided in <i>Attachment III. D.</i>	☐ No, description of practice inadequacy provided in <i>Attachment III. D.</i>
	⊠ Yes	⊠ Yes
Disposal	☐ No, description of facility inadequacy provided in <i>Attachment III. D.</i>	☐ No, description of practice inadequacy provided in <i>Attachment III. D.</i>
	□ Yes	□ Yes
Household Hazardous Waste Collection	☑ No, description of facility inadequacy provided in Attachment III. D.	☑ No, description of practice inadequacy provided in Attachment III. D.
	□ Yes	□ Yes
Household Hazardous Waste Disposal	☑ No, description of facility inadequacy provided in Attachment III. D.	☑ 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		
☑ Check box if additional information of opportunities and source reduction and waste minimization, reuse and recycling of waste is provided in <i>Attachment III</i> . F.				

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.

☑ Check box if additional details are provided in *Attachment III.G.*

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.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

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 / Local Governments	
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				
Incentives for source reduction and waste minimization	 Longer 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. 			
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				
Incentives for resource recovery related to landfill gas	 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. 			
Barriers to resource recovery related to landfill gas	 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, roadway 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**

nal Goals and Objectives

	Table III.L.I Region
Goal #1 Measure regional waste reduction efforts (short-range)	Objective 1.A. Enco and increase where p and encourage tracki basis.
, G,	Objective 1.B. Enco Sheppard Air Force E quantities on an annu
	Additional Objective
	Objective 1.C. Enco
	Objective 1.D. Rese recyclables.
	Objective 1.E. Estab

Goal #2

Promote waste minimization, waste reduction, recycling and composting programs

(intermediate)

ourage smaller communities and rural areas to maintain possible efforts related to waste reduction and recycling ing waste reduction and recycling quantities on an annual

ourage public entities, including school districts and Base, to track and report waste reduction and recycling ual basis.

es

ourage commercial and industrial private enterprise to regarding waste reduction and recycling efforts.

earch recyclables market to identify end use for

Objective 1.E. Establish attainable and realistic recycling goals for the region.

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.

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.

Additional Objective

Objective 2.C Encourage source-separated recycling efforts conducted throughout the region.

Goal #3

Maintain adequate levels of transportation and disposal capacities throughout the region

(intermediate)

Objective 3.A. Encourage public/private partnerships for collections, transportation, and disposal throughout the region.

Objective 3.B. Evaluate remaining disposal capacity at existing municipal disposal facilities and confirm adequate remaining capacity available.

Additional Objectives

Objective 3.C. Encourage MSW disposal facilities to divert recyclable and reusable materials from waste disposal. Consider implementing re-useable material plan for construction type wastes as applicable.

Objective 3.D. Encourage use of small community and rural citizens' convenience centers to control and stem illegal dumping.

	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	Objective 4.A. Evaluate options that provide solutions to removing household hazardous waste from waste disposal stream.		
new municipal solid waste programs to address ongoing municipal solid waste regional systems improvement (long-range)	Objective 4.B. Evaluate options that provide solutions to address improper tire disposal.		

III.M. Advantages and Disadvantages of Alternative Actions

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

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	Evaluate need for expansion of disposal facilities	Long Term			
Expanded Facilities and Practices	Evaluate need for expanded collection of recyclables	Short Term			
☐ 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

☑ The process 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**.

NORTEX REGIONAL PLANNING COMMISSION

REGIONAL SOLID WASTE MANAGEMENT IMPLEMENTATION PLAN

VOLUME II

ADDITIONAL INFORMATION

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Attachment II.A Planning Periods

Attachment II.A - Planning Periods

Specific information on implementation activities for the current and short-range planning periods and general descriptions of planned activities for the intermediate and long-range planning periods are described in Attachment III.N – Recommendation Plan of Action and Timetable for Achieving Specific Goals and Objectives, and in Attachment III.L – Regional Goals and Objectives.

Table II.I Planning Periods

II.A.1. Current and Historical Information	2020 / 2021 Establish system to determine waste reduction rate for region
II.A.2. Short-range Planning Period	 2022 – 2027 Identify regional recyclable markets Determine reasonable regional waste diversion rate goal
II.A.3. Intermediate Planning Period	 Increase waste diversion and recycling rate Increase composting efforts Increase source-separated recycling Evaluate remaining disposal capacity Establish re-use of recyclable and re-usable materials from construction and demolition waste
II.A.4. Long-range Planning Period	2033 – 2042 Evaluate and establish system to manage HHW

Notes:

1. The current and historical information was obtained from demographic and waste generation records from 2020.

Attachment III.A Demographic Information

Attachment III.A - Demographic Information

Population projections for the 11-county Nortex region were obtained from the Texas Water Development Board at www.twdb.texas.gov and the Texas Demographic Center at https://demographics.texas.gov. These two sources of information were reviewed and evaluated to determine which population projection for the 11-county region were most appropriate to be used for the Nortex Regional Solid Waste Management Plan. Based on review of these two sources, the Texas Water Development Board population projections prepared for the 2022 State Water Plan, adopted by the Texas Water Development Board in July 2021, was selected.

The population projections for each county for 2020 through 2050 are included as Table A. As shown, the population increases slightly for the overall 11-county region. Based on this data, total population and growth rate for each year from 2020 through 2050 was determined to serve as the basis for a growth rate to project waste and recycling quantities for the 20-year planning period for the RSWMP. These waste and recycling projections are included as Table B. From this table, the population projections from the base year to the end of the long-term planning period in 5-year increments is determined.

The current disposal and recycling quantities were obtained from the FY 2020 MSW Annual Reports available on the TCEQ website for the active municipal solid waste facilities within the Nortex planning area. The quantity of waste disposed of within the region for each active municipal solid waste disposal facility are included as Table C. Based on additional information obtained from the City of Wichita Falls, the quantity of municipal solid waste and construction and demolition waste disposed were adjusted from the FY 2020 MSW Annual Report documentation. The quantities represent the amount of municipal solid waste disposed at the Wichita Falls Landfill and Buffalo Creek Landfill that was generated within the state of Texas. Waste from out of state is not included in these quantities. The waste quantities diverted from landfill disposal included in Table D are based on the FY 2020 MSW Annual Reports for the active waste disposal facilities, transfer stations, and processing facilities. A listing of the municipal solid waste facilities located within the Nortex planning area is included as Table E.

Based on the above evaluations, the Residential Waste Generation table was completed. A copy of Table III.A.1 Residential Waste Generation is included in this attachment. In addition, a copy of Table III.A.II Commercial Waste Generation and Table III.A.III Industrial Waste Generation is included in this attachment. Footnotes have been added to Table III.A.II and Table III.A.III which provide background information used in the development of these tables.

Table A Population Projections 2020 to 2050

Texas Water Development Board

County	2020	2030	2040	2050	
Archer	9,409	9,845	9,960	9,960	
Baylor	3,726	3,726	3,726	3,726	
Clay	11,154	11,503	11,503	11,503	
Cottle	1,552	1,552	1,552	1,552	
Foard	1,389	1,401	1,401	1,401	
Hardeman	4,274	4,383	4,420	4,507	
Jack	9,751	10,409	10,817	11,033	
Montague	20,507	21,260	21,600	21,979	
Wichita	135,627	140,573	144,448	147,171	
Wilbarger	14,465	15,252	15,728	16,208	
Young	3,904	4,119	4,274	4,437	
TOTAL	215,758	224,023	229,429	233,477	

Notes:

1. Source: TWDB website at https://www.twdb.texas.gov.

Table B Disposal/Recycling Projections 2020 to 2050

Year	Total	Growth Rate Per Year	Growth Rate Per Period	Waste Generated (Tons)	Disposal Rate (lbs/person/ day)	Recycling Diverted (Tons)	Recycling Rate (lbs/person/ day)	Residential Waste Generation (Tons)
2020	231,190	0.0394%	-	318,465	7.5480	22,525	0.534	340,990
2021	232,101	0.0394%	-	319,720	7.5480	22,613	0.534	342,333
2022	233,015	0.0394%	0.3940%	320,979	7.5480	22,702	0.534	343,682
2023	233,933	0.0394%	-	322,244	7.5480	22,792	0.534	345,036
2024	234,855	0.0394%	-	323,514	7.5480	22,882	0.534	346,395
2025	235,780	0.0394%	-	324,788	7.5480	22,972	0.534	347,760
2026	236,709	0.0394%	-	326,068	7.5480	23,062	0.534	349,130
2027	237,642	0.0394%	0.3940%	327,353	7.5480	23,153	0.534	350,506
2028	238,578	0.0394%	-	328,643	7.5480	23,244	0.534	351,887
2029	239,518	0.0394%	-	329,937	7.5480	23,336	0.534	353,273
2030	240,304	0.0394%	-	331,237	7.5529	23,428	0.534	354,665
2031	240,905	0.0025%	-	332,065	7.5529	23,486	0.534	355,552
2032	241,507	0.0025%	0.2500%	332,896	7.5529	23,545	0.534	356,441
2033	242,111	0.0025%	-	333,728	7.5529	23,604	0.534	357,332
2034	242,716	0.0025%	-	334,562	7.5529	23,663	0.534	358,225
2035	243,323	0.0025%	-	335,399	7.5529	23,722	0.534	359,121
2036	243,931	0.0025%	-	336,237	7.5529	23,781	0.534	360,019
2037	244,541	0.0025%	0.2500%	337,078	7.5529	23,841	0.534	360,919
2038	245,152	0.0025%	-	337,920	7.5529	23,901	0.534	361,821
2039	245,765	0.0025%	-	338,765	7.5529	23,960	0.534	362,725
2040	246,321	0.0025%	-	339,612	7.5547	24,020	0.534	363,632
2041	246,789	0.0019%	-	340,257	7.5547	24,097	0.535	364,354
2042	247,258	0.0019%	0.1900%	340,904	7.5547	24,174	0.536	365,078
2043	251,518	0.0019%	-	346,778	7.5547	24,877	0.542	371,654
2044	251,996	0.0019%	-	347,437	7.5547	24,956	0.543	372,393
2045	252,475	0.0019%	-	348,097	7.5547	25,036	0.543	373,132
2046	252,955	0.0019%	-	348,758	7.5547	25,115	0.544	373,874
2047	253,435	0.0019%	-	349,421	7.5547	25,196	0.545	374,616
2048	253,917	0.0019%	-	350,085	7.5547	25,276	0.545	375,361
2049	254,399	0.0019%	-	350,750	7.5547	25,357	0.546	376,106
2050	254,883	0.0019%	-	351,416	7.5547	25,437	0.547	376,854

Table C Nortex Landfills - 2020 Tons Disposed - State

Waste Type	Wichita Falls LF 1428A	Buffalo Creek LF 1571A	City of Quanah LF 9003A	Jacksboro LF 2332	Total	Percent of Total
Municipal	134,249.00	123,506.81	7.00	-	257,762.81	80.94%
Brush	-	-	-	-	-	-
Construction or Demolition	22,142.00	32,471.28	-	-	54,613.28	17.15%
Litter	-	-	-	-	-	-
Class 1 Non- hazardous	-	-	-	-	-	-
Classes 2 and 3 Non- hazardous	-	1,319.68	-	-	1,319.68	0.41%
Incinerator Ash	-	-	-	-	-	-
Treated Medical Waste	-	-	-	-	-	-
Municipal Hazardous Waste from CESQGs	-	-	-	-	-	-
Regulated Asbestos- containing Material (RACM)	-	83.02	-	-	83.02	0.03%
Non-RACM	-	129.15	-	-	129.15	0.04%
Dead Animals	-	462.54	-	-	462.54	0.15%
Sludge	-	4,088.76	-	-	4,088.76	1.28%
Grease Trap Waste	-	-	-	-	-	-
Septage	-	-	-	-	-	-
Contaminated soil	-	6.20	-	-	6.20	-
Tires (split, quartered, shredded)	-	-	-	-	-	-

Pesticides	-	-	-	-	-	-
Used Oil Filter	-	-	-	-	-	-
TOTAL	156,391.00	162,067.44	7.00	-	318,465.44	100.00%

Table D Nortex Landfill / Transfer Stations / Processing Facilities 2020 Tons Diverted

Waste Type	Wichita Falls LF 1428A	Buffalo Creek LF 1571A	Seymour TS 40144	Wichita Falls TS 1429	Vernon TS 40059	IMC Liquid Waste 2229A	Total
Diverted Materials - Landfills							
Yard Waste or Brush	7,810.00	-	-	-	-	-	7,810.00
Metal	53.20	63.60	-	-	-	-	116.80
Tires	41.40	12.40	-	-	-	-	53.80
Other	14,000.00	•	-	-	•	-	14,000.00
Total Diverted - Landfills	21,904.60	76.00	-	-	-	-	21,980.60
Diverted Materials - Transfer	Stations						
Yard Waste or Brush	-	-	100.00	-	-	-	100.00
Metal	-	-	-	373.40	-	-	373.40
Glass	-	ı	1	39.10	ı	-	39.10
Paper/Cardboard	-	-	-	31.20	-	-	31.20
Tires	-	-	-	0.20	8.00	-	8.20
Total Diverted - Transfer Stations	-	-	100.00	443.90	8.00	-	551.90
TOTAL DIVERTED							22,532.50
Chipping/Grinding	-	•	100.00	-	-	-	100.00
Liquid Waste	-	-	-	-	-	27,528.00	27,528.00
Composting	13,925.00	-	-	-	-	-	13,925.00

Table E Nortex MSW Facilities

N	ISW Disposal Facilities	
Facility	Permit	Status
Wichita Falls Landfill	MSW Permit No. 1428A	Active
Buffalo Creek Landfill	MSW Permit No. 1571A	Active
Quanah Landfill	MSW Permit No. 9003A	Active
Jacksboro Landfill	MSW Permit No. 2332	New Not Operated
MSW Transf	er Stations / Processing Facilities	
Facility	Permit	Status
Seymour Transfer Station	MSW Registration No. 40/44	Active
Bowie Transfer Station	MSW Permit No. 2295	Active
Wichita Falls Transfer Station	MSW Permit No. 1429	Active
Vernon Transfer Station	MSW Permit No. 40059	Active
IMC Liquid Waste Processing Facility	MSW Permit No. 2229A	Active

Table III.A.I Residential Waste Generation

Year	Growth Rate per Year	Current Populatio n/ Populatio n Projectio n	Landfill Disposa I (Tons)	Disposal Rate (lbs./Person / Day)	Recyclin g (Tons)	Recycling Rate (Ibs./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

Notes:

- The current population, population projection, and growth rate per year was developed from the county population projection for 2021 - 2070 as presented in the 2021 Regional Water Plan, published by the Texas Water Development Board. Reference provided on the TWDB website at https://www.twdb.texas.gov.
- 2. The landfill disposal quantity, recycling quantity, and total residential waste generation (all in tons) was determined from existing available information for MSW FY 2020 included in the MSW Annual Report for each disposal, transfer, or processing facility.

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 for the region.	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 for the region.	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 for the region.	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 for the region.	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 for the region.	None anticipated.

Notes:

- 1. Commercial solid waste includes solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing or industrial activities.
- 2. The overall Nortex region is anticipated to remain constant in terms of additional or significant commercial activities that would affect waste generation and disposal.
- 3. The City of Wichita Falls and the Wichita Falls Metropolitan Statistical Area (MSA) continues to actively promote the area and pursue diverse economic growth. This includes promoting the low cost of living and business friendly environment for various business support services and the health care community. The Wichita Falls Chamber of Commerce is actively recruiting new commercial and business activities for the area.
- 4. There is opportunity for commercial development in the Wichita Falls area to result in some commercial waste generation; however, it would not result in a significant increase across the Nortex planning area.

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 for the region.	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 for the region.	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 for the region.	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 for the region.	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 for the region.	None anticipated.

Notes:

- 1. Industrial solid waste includes solid waste generated from or incidental to any process of industry or manufacturing, or mining, or agricultural operations.
- 2. The City of Wichita Falls and the Wichita Falls Metropolitan Statistical Area (MSA) actively promotes the area for industry and manufacturing growth. In addition, the state of Texas promotes this area of Texas for potential relocation of industries.
- 3. Industrial/manufacturing areas that are currently being promoted include aerospace and aviation, and diverse manufacturing plants. Recent new industries in the Wichita Falls MSA include Pamlico Air, Panda Biotech, and Vexus Fiber.
- 4. There has been recent new industries that have established location in the Wichita Falls area, but these are not anticipated to result in a significant change to industrial waste generation and disposal in the area.

Attachment III.B

Estimates Of Current And Future Solid Waste Amounts By Type

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

The estimate of current municipal solid waste amounts by type was developed from the FY 2020 MSW Annual Reports available on the TCEQ website. There are two primary municipal solid waste disposal facilities located in the Nortex region; the Wichita Falls Landfill, TCEQ MSW Permit No. 1428A and the Buffalo Creek Landfill, TCEQ MSW Permit No. 1571A. The City of Quanah Landfill, TCEQ MSW Permit No. 9003A is a limited facility that accepts only waste generated within the City of Quanah from abandoned building demolition and removal projects. There is one landfill that is permitted but at this time has not opened to accept waste, the Jacksboro Landfill TCEQ MSW Permit No. 2332.

Refer to Table A for the current (FY 2020) municipal solid waste amounts by type that were generated and disposed of in the two existing landfill disposal facilities. The Buffalo Creek Landfill accepts waste imported from Oklahoma, which amounts are not included in the estimate of current municipal solid waste amounts.

The municipal solid waste amounts by type were then projected to the end of the long-range period in 5-year increments using the estimated population growth rate per year factor included in Attachment IIIA Demographics Information.

Based on the above evaluations, the Estimates of Current and Future Solid Waste Amounts table was completed. A copy of Table III.B.1 – Current and Future Solid Waste Amounts by Type is included in this attachment.

Biggs & Mathews Environmental III.B-1 NORTEX

Table A 2020 Tons Disposed - State

Waste Type	Wichita Falls LF 1428A	Buffalo Creek LF 1571A	City of Quanah LF 9003A	Jacksboro LF 2332	Total	Percent of Total
Municipal	134,249.00	123,506.81	7.00	-	257,762.81	80.94%
Brush	-	-	-	-	-	-
Construction or Demolition	22,142.00	32,471.28	-	-	54,613.28	17.15%
Litter	-	-	-	-	-	-
Class 1 Non- hazardous	-	-	-	-	-	-
Classes 2 and 3 Non- hazardous	-	1,319.68	-	-	1,319.68	0.41%
Incinerator Ash	-	-	-	-	-	-
Treated Medical Waste	-	-	-	-	-	-
Municipal Hazardous Waste from CESQGs	-	-	-	-	-	-
Regulated Asbestos- containing Material (RACM)	-	83.02	-	-	83.02	0.03%
Non-RACM	-	129.15	-	-	129.15	0.04%
Dead Animals	-	462.54	-	-	462.54	0.15%
Sludge	-	4,088.76	-	-	4,088.76	1.28%
Grease Trap Waste	-	-	-	-	-	-
Septage	-	-	-	-	-	-
Contaminated soil	-	6.20	-	-	6.20	-
Tires (split, quartered, shredded)	-	-	-	-	-	-
Pesticides	-	-	-	-	-	-

Used Oil Filt		162 067 44	7.00	-	219 465 44	100.00%
TOTAL	156,391.00	162,067.44	7.00	-	318,465.44	100.00%

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

Waste Type	# Accepting Waste Type	% Total Tons Disposed	Current Year	2021	2022	5-year Projection (tons)	10-year Projection (tons)	15-year Projection (tons)	20-year Projection (tons)
Municipal	2	80.94%	257,763	258,781	259,800	264,960	269,446	272,831	275,928
Brush	-	-	-	-	-	-	-	-	-
Construction or Demolition	2	17.15%	54,613	54,832	55,048	56,141	57,092	57,809	58,465
Litter	-	-	-	-	-	-	-	-	-
Class 1 Non- hazardous	-	-	-	-	-	-	-	-	-
Classes 2 and 3 Non- hazardous	1	0.41%	1,320	1,311	1,316	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	96	96	98	100	101	102
Non-RACM	1	0.04%	129	128	128	131	133	135	136
Dead Animals	1	0.15%	463	480	481	491	499	506	511
Sludge	1	1.28%	4,089	4,092	4,109	4,190	4,261	4,315	4,364
Grease Trap Waste	-	-	-	-	-	-	-	-	-
Septage	-	-	-	-	-	-	-	-	-
Contaminated soil	1	-	6	6	6	6	6	6	6
Tires (split, quartered, shredded)	-	-	-	-	-	-	-	-	-

TOTAL	2	100%	318,465	319,726	320,985	327,359	332,902	337,084	340,910	
Used Oil Filter	-	-	-	-	-	-	-	-	-	
Pesticides	-	-	-	-	-	-	-	-	-	

Attachment III.C

Description of Current and Planned Solid Waste Management Activities

Attachment III.C.I - Description of Current Solid Waste Management Activities in the Region

Generation

The types of waste generated and disposed in the region include municipal solid waste, special waste, and Class 2 and 3 industrial wastes. Included in these are wastes resulting from or incidental to municipal, community, commercial, institutional, and recreational activities, including putrescible wastes, rubbish, ashes, brush, construction-demolition debris, and inert materials. However, the amount of waste disposed of in the region by category is estimated; residential and commercial waste is included as municipal solid waste in estimating the amount of waste disposed in the region.

The major classifications of solid waste disposed of in the region include municipal solid waste, Class 2 and 3 industrial wastes, construction and demolition wastes, and special wastes. Special wastes disposed in the region include regulated asbestos containing material (RACM), non-regulated asbestos containing material (non-RACM), dead animals, sludge, and contaminated soil. The Buffalo Creek Landfill included a breakdown by type of waste disposed in its FY 2020 MSW Annual Report which included wastes generated outside of Texas in Oklahoma. The Wichita Falls Landfill included only the category of municipal waste in its FY 2020 MSW Annual Report and also accepted construction and demolition wastes which were included in the municipal solid waste category. In addition, liquid wastes are processed at a liquid waste processing facility located in the region.

The waste disposal rate as reported in the Municipal Solid Waste in Texas: A Year in Review – 2020 Data Summary and Analysis reported a statewide total disposal rate of 6.82 pounds per person per day. The 2020 waste disposal rate determined for the Nortex region is 7.55 pounds per person per day.

Source Separation

Source separation activities within the region include the following:

City of Wichita Falls

The City of Wichita Falls conducts a "Choose to Reuse" program that diverts source separated materials including grass clippings, tree trimmings, food waste, and paper goods to its Compost Facility located at the City of Wichita Falls Landfill.

The City of Wichita Falls conducts a "Choose To Drop It" program that accepts glass, newspaper, and aluminum at multiple drop-off locations across the City. Currently the City does not accept plastics. Materials collected are sold and transported to a private material recovery facility based on market conditions. In addition, metals and appliances are accepted at the Transfer Station and Landfill for recycling and re-use when the market allows.

Sheppard Air Force Base

Sheppard Air Force Base conducts the Sheppard Recycling Program for collection of source-separated recyclable materials and sale to private material recovery facilities based on market conditions. Source-separated materials accepted include paper, cardboard, plastic containers (No. 1 & 2 only), tin, aluminum, glass, brushy waste, yard waste, scrap wood, and scrap metals.

Community Recycling Events

A number of municipalities conduct community recycling events based on receiving Nortex RPC grants for conducting these programs.

Collection

The City of Wichita Falls provides for municipal solid waste collection for the City of Wichita Falls and some areas within Wichita County.

Waste Connections provides for municipal solid waste collection for the remaining counties and municipalities across the Nortex region.

Liquid waste is collected by private haulers for transport to the IMC Liquid Waste Processing Facility.

Handling

Handling of municipal solid waste is limited to the City of Wichita Falls Sanitation Department through its waste collections operations, operation of the Wichita Falls Landfill, and the Wichita Falls Transfer Station. Waste Connections conducts operations that include handling of municipal solid waste through its waste collections operations, operation of several transfer stations in the region, and at its Buffalo Creek Landfill. Transfer Stations in the region include the Seymour Transfer Station, Bowie Transfer Station, and Vernon Transfer Station.

Handling of liquid waste is limited to the IMC Liquid Waste Processing Facility and private liquid waste haulers.

Storage

There is limited storage of municipal solid waste required across the region. Storage of municipal solid is limited to the four transfer stations, and the various citizen's collection stations located across the region.

Transportation

Transportation of municipal solid waste is provided by the City of Wichita Falls Sanitation Department through its collection operations and transfer operations between the Transfer Station and the Landfill. Transportation of municipal solid waste is also provided by Waste Connections with its collection and hauling operations and transportation of waste from the three other transfer stations to the Buffalo Creek Landfill.

Processing

There is one processing facility in the Nortex region, the IMC Liquid Processing Facility.

Resource Recovery

There are no resource recovery activities within the Nortex region.

Disposal of Solid Waste

Disposal of municipal solid waste is provided by two Type I landfill facilities.

Wichita Falls Landfill, TCEQ MSW Permit No.1428A, with a remaining waste disposal capacity of approximately 200 years.

Buffalo Creek Landfill, TCEQ MSW Permit No.1571A, with a remaining waste disposal capacity of approximately 86 years.

Attachment III.C.II - Description of Planned Solid Waste Management Activities in the Region

Generation

There are no planned changes related to municipal solid waste generation in the region.

Source Separation

There are no planned changes to the source separation activities in the region. As markets for recyclables change, there may be opportunity to expand the existing source separated activities currently conducted across the region with the City of Wichita Falls, Sheppard Air Force Base, or other municipalities in the region.

Community Recycling Events

There may be opportunity to expand on conducting community recycling events based on receiving Nortex RPC grants for conducting these programs.

Collection

There are no planned changes in the collection activities across the region.

Handling

There are no planned changes related to handling of municipal solid waste across the region.

Storage

There are no planned changes in storage of municipal solid waste across the region.

Transportation

There are no planned changes in the transportation of municipal solid waste across the region.

Processing

There are no planned changes to the processing of municipal solid waste (liquid waste processing facility) in the region.

Resource Recovery

There are no known planned resource recovery activities within the Nortex region.

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Disposal of Solid Waste

There are no planned changes in disposal of municipal solid waste currently conducted at the Wichita Falls Landfill or the Buffalo Creek Landfill.

There is one Type I municipal solid waste disposal, the Jacksboro Landfill, TCEQ MSW Permit No. 2232 that has not opened. This facility may open in the future increasing the disposal capacity available. At that time, waste may be imported into the Nortex region for disposal at this facility.

Attachment III.D

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

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

The various programs identified in Section III.D were evaluated to assess the adequacy of existing solid waste management facilities and practices, and the region's household hazardous waste programs. The following programs were evaluated and their facility and practices were determined to be adequate.

- Storage
- **Transportation**
- Treatment
- Disposal

The following provides a description of the municipal solid waste programs that are found to be inadequate across the Nortex region.

Resource Recovery

Facility Adequacy

There are no resource recovery facilities located within the Nortex region. There are two Type I municipal solid waste disposal facilities located in the region, the Wichita Falls Landfill and the Buffalo Creek Landfill that may either be required or choose to implement an active landfill gas collection and control system in the future. At that time, either facility may consider seeking an opportunity to recover landfill gas for electric plant generation or other resource recovery option.

Practices Adequacy

As noted above there are no resource recovery facilities with the Nortex region. The Wichita Falls Landfill and Buffalo Creek Landfill are both conducting operations and practices as related to the potential for resource recovery in accordance with TCEQ rules and regulations. Should either facility implement an active landfill gas collection and control facility and seek and opportunity to recover landfill gas, future facility practices would be implemented.

Household Hazardous Waste Collection

Facility Adequacy

There are no permanent household hazardous waste collection programs available in the Nortex region. Past activities have included participation in annual state of Texas household hazardous waste collection events. The Nortex counties and municipalities have not initiated a household hazardous waste collection program due to its cost to conduct individual programs.

Practices Adequacy

Current practice is to encourage Nortex region residents to buy and consume their household hazardous waste products. Some household hazardous waste products could be donated to charitable organizations for reuse.

Household Hazardous Waste Disposal

Facility Adequacy

There are no designated household hazardous waste disposal facilities in the Nortex region. Current practice is to dispose of these products in the existing Type I municipal solid waste disposal facilities, the Wichita Falls Landfill or the Buffalo Creek Landfill. There is no commercial management facility for hazardous and nonhazardous industrial waste in the Nortex region.

Practices Adequacy

Household hazardous waste disposal is currently provided by the Wichita Falls Landfill and the Buffalo Creek Landfill in accordance with TCEQ rules and regulations. There are no separate household hazardous waste disposal facilities with the region.

Attachment III.E

Assessment of Current Source Reduction and Waste Minimization Efforts

Attachment III.E - Assessment of Current Source Reduction and Waste Minimization Efforts

Source reduction and waste minimization efforts in the Nortex region include source separated recycling efforts the City of Wichita Falls ("Choose to Drop It") program and the Sheppard Air Force Base program. In addition, some of the smaller communities have conducted source separated recycling activities at drop-off locations within their communities and at citizen's convenience stations located throughout the region. Several communities have also conducted annual recycling events sponsored by Nortex through the TCEQ Grants program. Recyclable materials diverted through these programs include paper, glass, aluminum, and metals.

The City of Wichita Falls also conducts a "Choose to Reuse" program which encourages diversion of grass clippings, tree trimmings, food waste, and paper goods to its compost facility located at the Wichita Falls Landfill. Wastewater treatment plant sludge is also accepted at the compost facility. Many of the smaller communities have yard waste and wood waste diversion programs at their citizen's convenience station, many of which have chippers that are used to generate landscaping mulch for re-use. These chippers are also used to mulch storm debris to divert this material from landfill disposal.

The City of Wichita Falls quantifies and tracks the materials diverted for recycling or composting from disposal. Sheppard Air Force Base also tracks the materials diverted through their recycling program however, it does not appear these quantities are reported for inclusion in a regional recycling effort. There does not appear to be a requirement for the smaller communities to report the quantity of diverted materials through the citizen's convenience centers

Public entities, including school districts are required to develop and conduct recycling programs within their facilities, however, quantities of these recycling programs are not available to include in evaluating an overall regional effort to reuse or recycle.

Most of the private enterprise recycling collection and processing are limited to Wichita County, where population density, commercial/industrial density, and transportation infrastructure make recycling efforts more feasible. There are several private companies that collect scrap metal, cans, aluminum, copper, brass, insulated wire, stainless, alloy, and wrecked cars for recycling and diverting these materials from disposal.

The current source reduction and waste minimization efforts for the Nortex region appear to be consistent with the overall population density and geography of the region. An overall assessment of the regional impact these activities have on source reduction or waste minimization is difficult due to the lack of available information, both from private entities and the region's local governments.

Table III.E Current Efforts and Recycling Goals

Small community citizen's convenience centers for recyclable collection and to divert yard waste and wood waste				
Small community recycling events conducted periodically				
City of Wichita Falls source-separated recycling program and collection of recyclables at the landfill and transfer station				
City of Wichita Falls diverting waste materials to composting program including yard waste, wood wastes, sludge, and other acceptable waste materials to generate mulch and composted materials for re-use				
Sheppard Air Force Base conducts on-base recyclable collection program				
Public entities, including public schools and universities, conduct recycling and purchasing programs as applicable				
Commercial and industrial facilities conduct recycling programs as applicable				
The recycling rate goal for this Regional Solid Waste Management Plan is to attempt and maintain a 10% recycling goal by the year 2042				
The population and geographic conditions of the Nortex planning area contribute to difficult conditions to achieve the stated recycling goal.				
Other than the Wichita Falls area, achieving consistent recycling programs is difficult.				
There is not a consistent system that allows an accurate accounting of recycling rate for local governments, commercial, or industrial concerns.				

Attachment III.F

Additional Opportunities for Source Reduction, Waste Minimization, and Reuse or Recycling Waste

Attachment III.F - Additional Opportunities for Source Reduction, Waste Minimization, and Reuse or Recycling Waste

The demographic and geographic makeup of the Nortex region make it difficult to identify new or additional opportunities for source reduction and waste minimization, and reuse or recycling of waste. The City of Wichita Falls, surrounding urban areas in the Wichita Falls MSA, including Sheppard Air Force Base have established urban area recycling and have the most opportunity to increase waste diversion quantities. Several of the smaller rural communities have existing citizen's convenience centers that potentially could be developed to provide as a recyclables collection location. In addition, existing transfer stations in Seymour, Vernon, and Bowie could also serve as a recyclables collection location. A primary obstacle is the cost for transportation of recyclable materials collected and a reliable market to purchase these materials. A basic need for the area is a program that provides for understanding the quantities of the materials diverted from disposal and a regional program to provide a more accurate percentage of recycling within the Nortex region.

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

Attachment III.G

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

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

The regional area's previous goals in general were developed to ensure adequate disposal capacity, establish attainable recycling goals, and to address solutions related to household hazardous waste, illegal dumping, and disposal of tires. The following provides a review and assessment of the regional area's previous goals.

Goal 1: Identify solid waste management needs for the region and develop a cohesive solid waste management organization.

This was achieved through the organization of a Solid Waste Advisory Committee and development of a Grant's Funding Plan that directed grant funding to member cities over the past 20 years to assist with programs directed at reducing illegal dumping and waste minimization.

Goal 2: Promote Source Reduction and Waste Minimization

The Nortex region implemented its Grant's Funding Program to assist member cities with funds to purchase wood chippers for Landscape mulch and diverting wood waste to the City of Wichita Falls composting program and development of citizen's convenience centers to provide access to rural area and smaller communities to also reduce illegal dumping. In addition, grant funding was also made available for community wide recycling events.

Goal 3: Market Development

This goal was not achieved at the regional level and is more appropriate to be addressed at the state level.

Goal 4: Establish Attainable Recycling Goals for Nortex Region and Develop programs for the effective use of existing and proposed solid waste facilities.

This goal included an objective to encourage entities to conduct waste stream sampling to determine recyclable components. This objective was not realistic as it relates to member cities conducting waste stream sampling which is not cost effective. A recycling goal for the Nortex region was established to achieve a 40% reduction rate by 2015. This was not achieved. The actual waste reduction rate is difficult to determine based on limited waste reduction activities and lack of adequate information from member cities, commercial and industrial facilities. The goal also included establishing public education programs with the region to promote the purchase of recycled goods for office use, information on this suggested program is not known.

Goal 5: Develop programs for the effective use of existing and proposed solid waste facilities.

The Nortex region effectively uses the existing solid waste facilities for collection, transfer, and disposal of municipal solid waste. Several smaller communities established citizen's convenience station for the collection of municipal solid waste and were used for diversion of wood waste from disposal. The Nortex RPC is supportive of the existing approach to regional solid waste management facilities.

Goal 6: Develop a Household Hazardous Waste Management Program.

This goal was not achieved.

Goal 7: Develop programs to provide solutions to other solid waste problems, such as illegal dumping.

The support to smaller communities through the Nortex Grant Funding program provided opportunities for establishment of citizen's convenience centers which have reduced illegal dumping across the region.

Goal 8: Provide tire recycling center for region in strategic locations.

This goal was not achieved.

The following provides recommendations for encouraging and achieving a greater degree of source reduction and waste minimization, and reuse or recycling of waste across the region.

Table IIII.G.I

Recommendations for Greater Source Reduction and Waste Minimizations, 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.

Attachment III.H

Identification of Public and Private Management Agencies and Responsibilities

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

The Texas Solid Waste Disposal Act authorizes the regional Council of Governments to serve as the regional planning agency for development and implementation of regional solid waste management plans. Further, the Texas Solid Waste Disposal Act states that all cities and county governments have the responsibility of providing solid waste removal or having a contract with an outside or private entity.

There are two existing municipal solid waste disposal facilities within the Nortex planning area, the City of Wichita Falls Landfill which is owned and operated by the City of Wichita Falls and the Buffalo Creek Landfill which is owned and operated by Waste Connections. In addition, there is one permitted municipal solid waste disposal facility, the Jacksboro Landfill which is owned by Waste Connections which has not opened. There are several municipal solid waste transfer stations and one processing facility within the Nortex planning area. The majority of the smaller communities within the area contract with Waste Connections for collection and transportation of waste to a municipal solid waste disposal facility within the area. Some of these smaller rural communities have existing citizen's convenience centers for public drop-off of waste.

The Federal and State agencies with responsibilities related to solid waste management include the following:

Federal Agencies

Environmental Protection Agency Regulation development and enforcement

Texas State Agencies

Texas Commission on Environmental Quality Solid waste regulatory agency responsible for solid waste management, water and air quality including permitting, enforcement, plan development, grant funding, and policy

Regional Agencies

Nortex Regional Planning Commission Development and Implementation of Regional Solid Waste Plans and distribution of Solid Waste Grants

Local Governments and Agencies

City Governments

Responsibility of providing solid waste removal or having a contract with private entity

County Governments Responsibility of providing solid waste removal or having a contract with private

Private Entities

- Waste Connections Waste collection, transportation and disposal
- IMC Liquid Waste Processing Processing of liquid waste

Sheppard Air Force Base

Sheppard Air Force Base Environmental Division Provides solid waste removal or having a contract with private entity

Attachment III.I

Identification of Solid Waste Management Concerns and Establishment of Priorities for Addressing those Concerns

Attachment III.I - Identification of Solid Waste Management Concerns and Establishment of Priorities for Addressing those Concerns

The following is a summary of the concerns and priorities for the Nortex region.

Waste Minimization / Diversion Rate

The region does not appear to be achieving the 40% waste reduction goal. Nortex's local governments and private sector waste generators should, whenever economically feasible, consider increasing their efforts to minimize waste through recycling, composting and source reduction.

Priorities for addressing this problem or need:

- The region should establish a system for local governments and for the private sector that will quantify the amount of waste that is diverted from landfill disposal. There is no system currently in place, evaluating a current waste reduction rate is not feasible.
- The region should continue to support local and shared programs designed to reduce waste through recycling or composting.
- The region should use an educational approach to encourage local governments and residents to employ source reduction options.
- The region should attempt to achieve and maintain a 40% waste reduction rate.

Recycling Programs – Public and Private Businesses

Many of the Nortex region's local units of government (counties, cities, schools, and universities) and private business maintain in-house recycling programs where feasible. Many of these governmental entities should also give preference to products made of recycled materials when making routine purchases where feasible. More efforts should be made to encourage and facilitate the region's local governments and private businesses active participation with in-house recycling programs and preference purchasing.

Priorities for addressing this problem or need:

- The region should use an educational approach to remind and encourage local governments and residents to employ recycling programs.
- The region should encourage public / private partnerships to identify and develop recyclables markets.
- The region should encourage more governmental entities to implement in-house recycling programs.

- The region should continue to encourage use of citizen's convenience centers and expand to include recyclable material drop-offs.
- The region should consider the possibility of implementing a cooperative purchasing program as a means of promoting the purchase of recycled content products.

Marketing and Transportation of Recyclables

Continued consolidation and marketing of recyclables will help to overcome the distance barriers in the region and increase the feasibility of recycling in the region.

Priorities for addressing this problem or need:

- The region should develop a Regional Marketing & Transportation System to market and transport the recyclable commodities being generated by the region's local governments.
- The region should continue to encourage local governments to work together to support shared recycling endeavors.
- The region should evaluate and participate in the Recycling Market Development Plan recently issued by TCEQ to identify recyclable markets.

Scrap Tire Management

Illegal disposal of tires continues to be an issue in the region. Recycling opportunities and cost-effective and safe opportunities to shred, split or quarter tires, as well as educational initiatives, are needed to increase the proper disposal, or ideally, recycling of scrap tires.

Priorities for addressing this problem or need:

- The region should increase its efforts to educate the public on the illegality of improperly disposing of scrap tires.
- The region should consider undertaking a shared program that will facilitate the proper disposal of scrap tires.
- The region should consider additional enforcement on illegal dumping of tires.

Waste Handling

Local governments need to ensure there is reasonable access to collection services within their jurisdictions (either publicly or privately provided) as a means of controlling unauthorized burning and improper disposal. The majority of smaller rural communities contract with Waste Connections for waste collection and disposal.

Priorities for addressing this problem or need:

Local governments should continue to encourage their residents to take advantage
of private sector collection services when those services are not being provided by
the local government.

 Local governments should continue the use of citizens' convenience centers as a means of making waste collection more accessible to their residents.

Illegal Dumping and Littering

Illegal dumping and littering continue to be of concern across the region. Efforts should continue to be made to control the problem.

Priorities for addressing the problem or need:

- Public education should be used to make residents aware of the social and environmental consequences associated with illegal dumping and littering.
- Local governments should consider undertaking law enforcement measures to control illegal dumping and littering within their jurisdictions.
- Citizen's convenience centers should continue to be used and enhanced to provide waste drop-off locations for rural areas.

HHW Management

Currently, there are no programs or facilities in place to ensure the proper disposal of the household hazardous wastes being generated in the region.

Priorities for addressing this problem or need:

- The region should educate the public on the proper personal management of HHW so that the waste can be reduced at its source.
- When economically feasible, local governments should consider the possibility of working together to cooperatively implement periodic or permanent programs for the proper management of HHW Wastes.
- When economically feasible, individual local governments should consider the possibility of implementing a periodic or permanent program for the proper management of HHW wastes.

Disposal

Continued long-term disposal capacity needs to be ensured for all waste generators in the region.

Priorities for addressing this problem or need:

- Landfill operators in the region should monitor their annual disposal rates to determine when the state permitting process should be initiated.
- To the extent possible, landfill operators in the region should use an integrated waste management system to extend the life of their facility.

Refer to Table III.I.I Solid Waste Management Concerns and Priorities for a summary of the regional concerns and priorities.

Table III.I.ISolid 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		

Attachment III.J

Planning Areas and Agencies with Common Solid Waste Management Concerns that could be addressed through Joint Action

Attachment III.J - Planning Areas and Agencies with Common Solid Waste Management Concerns that could be addressed through Joint Action

The following table identifies the planning areas and agencies with common solid waste management concerns. The solid waste management concerns are identified in Attachment III.I. The planning areas and agencies that could address these concerns through joint action are also identified. It should be noted that these public and private entities currently work together across the region.

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 / Local Governments	
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)	

Attachment III.K

Identification of Incentives and Barriers for Source Reduction and Waste Minimization and Source Recovery

Attachment III.K - Identification of Incentives and Barriers for Source Reduction and Waste Minimization and Source Recovery

The following table identifies the incentives and barriers for source reduction and waste minimizations, and resource recovery. Also identified are potential markets that support source reduction and waste minimization, and resource recovery.

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 related to landfill gas	Reducing quantity of landfill gas released to atmosphere, reducing the NMOC 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 related to landfill gas	Significant cost associated with installation of an activant landfill gas collection and control facility. Private public enterprise to use energy generated from a landfigas 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.

Attachment III.L

Regional Goals and Objectives

Attachment III.L - Regional Goals and Objectives

The Nortex Regional Goals and Objectives are included in the table below. These goals and objectives match the goals and objectives provided in Volume I. In addition, a timetable for achieving each goal and objective is identified using the established planning periods:

Goal #1 Measure regional waste reduction efforts (short-range)		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.
	,	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.
		Additional Objectives
		Objective 1.C. Encourage commercial and industrial private enterprise to provide information regarding waste reduction and recycling efforts.
		Objective 1.D. Research recyclables market to identify end use for recyclables.
		Objective 1.E. Establish attainable and realistic recycling goals for the region.
Goal #2 Promote waste minimization, waste reduction, recycling and composting programs (intermediate)	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.	
	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.	
		Additional Objective
	Objective 2.C Encourage source-separated recycling efforts conducted throughout the region.	
	Maintain adequate	Objective 3.A. Encourage public/private partnerships for collections, transportation, and disposal throughout the region.
levels of transportation and disposal capacities throughout the region		Objective 3.B. Evaluate remaining disposal capacity at existing municipal disposal facilities and confirm adequate remaining capacity available.
	(intermediate)	Additional Objectives

	Objective 3.C. Encourage MSW disposal facilities to divert recyclable and reusable materials from waste disposal. Consider implementing re-useable material plan for construction type wastes as applicable.		
	Objective 3.D. Encourage use of small community and rural citizen convenience centers to control and stem illegal dumping.		
	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	Objective 4.A. Evaluate options that provide solutions to removing household hazardous waste from waste disposal stream.		
	Objective 4.B. Evaluate options that provide solutions to address improper tire disposal.		
(long-range)			

Attachment M

Advantages and Disadvantages of Alternative Actions

Attachment III.M - Advantages and Disadvantages of Alternative Actions

There are no alternative actions proposed for the Nortex Regional Solid Waste Implementation Plan.

Attachment III.N

Recommendation Plan of Action and Timetable for Achieving Specific Goals and Objectives

Attachment III.N - Recommendation Plan of Action and Timetable for Achieving Specific Goals and Objectives

The following table identifies the plan of action and milestone dates for the goals and objectives as identified in Section III.N. It is anticipated that the items identified as a "plan of action" may be pursued as individual projects through the Nortex RPC Solid Waste Grands Funding Program funded through the TCEQ disposal fee program. Attached is the Nortex RPC Grants Funding Plan which identifies its project selection process and describes the grant agreements and requirements between the Nortex RPC and recipients.

Table III.N.IPlan of Action 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	Support expansion of the City of Wichita Falls composting program	Short Term
Related Organic Wastes	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
Household Hazardous	Determine need for HHW collection programs	Mid Term
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
	Evaluate need for expansion of disposal facilities	Long Term

The Need for New or	Evaluate need for expanded collection of	Short Term
Expanded Facilities	recyclables	
and Practices		

GRANTS FUNDING PLAN

The following information will dictate how these grant funds will be allocated for the Nortex RPC region. It is important to note that in accordance with Section 361.014(b) of the Texas Health & Safety Code, a project or service funded under this program must promote cooperation between public and private entities and may not be otherwise readily available or create a competitive advantage over a private industry that provides recycling or solid waste services.

In accordance with Section 361.014(b) of the Texas Health & Safety Code, the grant funds are authorized for use by local governments and regional planning commissions. These guidelines and criteria are subject to change at the direction and agreement of the SWAC. Accordingly, the following types of entities located in Texas are eligible to receive grant funding:

- Cities
- Counties
- Public schools and school districts (not including universities or post-secondary education institutions)
- Other general and special law districts with the authority and responsibility for water quality protection or MSW management, to include river authorities; and
- Councils of Governments

Project Selection Process

How Proposals Will Be Considered

Proposals will be reviewed by the Solid Waste Advisory Committee of the Nortex RPC, using screening and selection criteria developed in cooperation with the TCEQ. The committee consists of representatives of various interests involved in solid waste management in the region, according to TCEQ guidelines.

Screening Criteria. In order for any proposed project to be considered, the following screening criteria must be met. If these screening criteria are not met, the proposed project will receive no further consideration for grant funding.

- The application must be complete and all application requirements and procedures followed, including requirements to notify private service providers of the proposed project, when applicable.
- 2. The proposed project must conform to eligible category standards, eligible recipient standards, and allowable expense and funding standards, as established by the TCEQ and the Nortex RPC and under all applicable laws and regulations.
- 3. The applicant must agree to document the results of the project as required by Nortex.

- 4. The proposed project must be technically feasible, and there must be a reasonable expectation that the project can be satisfactorily completed within the required time frames.
- 5. The proposed project activities and expenses must be reasonable and necessary to accomplish the goals and objectives of the project. One factor in determining reasonableness of expenses shall be whether comparable costs are proposed for comparable goods and services.
- 6. The proposed project must be consistent with applicable goals, objectives, and recommendations of the adopted regional solid waste management plan.

Selection Criteria. If a proposed project meets all of the applicable screening criteria, it will be evaluated by the Solid Waste Advisory Committee of the Nortex RPC, using the following selection criteria. There are four sets of selection criteria, each worth up to 25 points, for a possible total score of 100 points.

A. PROJECT DESCRIPTION (25 Points)

- Is there an adequate explanation as to why the proposed project is needed?
- Is the overall goal or objective of the proposed project clearly stated?
- Is there an estimate of the number of people who would be served or benefited by the proposed project?
- Is the geographic area affected by the proposed project clearly described?
- Is the specific waste stream targeted by the project identified?
- Does the project include adequate levels of customer incentives, public education, or public input, as appropriate to the particular project?
- Are all aspects of the proposed project described in sufficient detail to ensure its overall feasibility or workability? If the proposed project includes equipment, has the applicant shown that the specified equipment is appropriate for the work to be performed?
- Are the expected benefits of the proposed project adequately described?

B. WORK PROGRAM (25 Points)

- Are all of the major steps or tasks involved in the proposed project clearly presented and adequately described?
- Are responsible entities for accomplishing each step or task identified?
- Is each step or task described in terms of its effect on the total project budget?
- Is a specific timeframe for completing each step or task provided?

C. PROJECT COST EVALUATION (25 Points)

- Are the total related costs of the proposed project (not just grant expenditures) adequately considered?
- Are the costs of the proposed project presented in unit terms, such as cost per ton, cost per customer, or cost per capita, as applicable?
- Are the costs of the proposed project compared to any established averages, or to normal costs for similar projects?

 Will the proposed project result in a measurable cost savings, or are the costs of the proposed project otherwise reasonably justified?

D. LEVEL OF COMMITMENT OF THE APPLICANT (25 Points)

- Is the applicant providing any level of matching funds or in-kind services?
- To what extent is the applicant requesting funding for salaries or operational expenses?
- If an ongoing service is proposed, to what extent has the applicant demonstrated ability to sustain the program beyond the term of the grant?
- To what extent do the appropriate governing bodies support the proposed project? Are formal resolutions of support attached?
- Has the applicant previously demonstrated a commitment to preferred solid waste management practices, such as implementing other solid waste management projects, being involved in a local or subregional solid waste management plan or study?
- If the proposed project has received previous grant funding under this program, to what extent does the proposal involve expansion of current services or operations? Has the applicant presented quantifiable documentation of the success of the project in order to warrant further funding? Does the applicant have a good record of past grant contractual performance?

Grant Agreements

Grant recipients will be required to enter into standard legal agreements with the Nortex RPC, to ensure that the approved work program of the project is followed. Among other provisions, the legal agreements will include the following:

- Grant funding will be provided on a reimbursement basis only, and all requests for reimbursement must be handled through the Nortex RPC.
- Grant recipients must agree to provide data related to the results of the project to the Nortex COG and/or TCEQ. As appropriate to the project, the grant recipient will also be asked to commit to monitoring the results of the project beyond the grant term, and periodically provide the Nortex RPC and/or TCEQ additional reports on the status of the project.
- Grant recipients must agree to allow staff of the Nortex RPC and/or TCEQ to perform on-site visits to monitor the progress of projects.

Attachment III.O

Identification of Process to Evaluate if a Proposed Municipal Solid Waste Facility Application will be in Conformance with The Regional Plan

Attachment III.O - Identification of Process to Evaluate if a Proposed Municipal Solid Waste Facility Application will be in Conformance with The Regional Plan

The process to evaluate if a proposed municipal solid waste facility will be in conformance with the Nortex Regional Solid Waste Management Plan will be consistent with 30 TAC §330.643(a)(3)(O) which requires the identification process used to evaluate whether a proposed municipal solid waste facility will be in conformance with the plan and is consistent with 30 TAC §330.61(p), which states that the owner or operator shall document that Parts I and II of the application were submitted for review to the applicable council of governments for compliance with regional solid waste plans. This process is not a regulatory technical review of the application, Nortex Regional Planning Commission does not approve or deny permits, and approving MSW permit applications is the responsibility of TCEQ. A review letter is not a prerequisite to final determination on a permit or registration application.

Evaluation Process

- The Solid Waste Advisory Committee (SWAC) shall receive Parts I and II of a permit
 or registration application as submitted by an owner or operator (applicant) on a
 proposed municipal solid waste facility in the Nortex planning area.
- The applicant shall notify the SWAC of the proposed permit or registration application and request a conformance review of the proposed permit or registration application. The owner or operator shall include the following information with the conformance review request:
 - a. Applicant's contact information
 - b. Facility location
 - c. Permit or registration proposed as a new facility or amendment
 - d. Type of facility
 - e. Types of waste to be accepted
 - f. Summary of information included as required in 30 TAC §330.59, Part I Site and Applicant Information and 30 TAC §330.61, Part II Existing Conditions and Character of the Site and Surrounding Area
 - g. Conformance with the Nortex Regional Solid Waste Management Plan and its Goals and Objectives
- 3. The SWAC will review the submitted information and schedule a presentation by the applicant of the proposed permit or registration application.

- 4. The SWAC will discuss the application and provide the applicant an opportunity to respond to any questions the SWAC may have on the application.
- 5. The SWAC will vote and make recommendations to the Nortex Executive Board on the proposed facility's conformance to the Nortex Regional Solid Waste Management Plan.
- The Executive Committee will vote to approve the SWAC recommendation. A letter stating the Nortex Executive Committee's final conformance determination will be submitted to the Texas Commission on Environmental Quality and a copy will be sent to the applicant.

Section IV

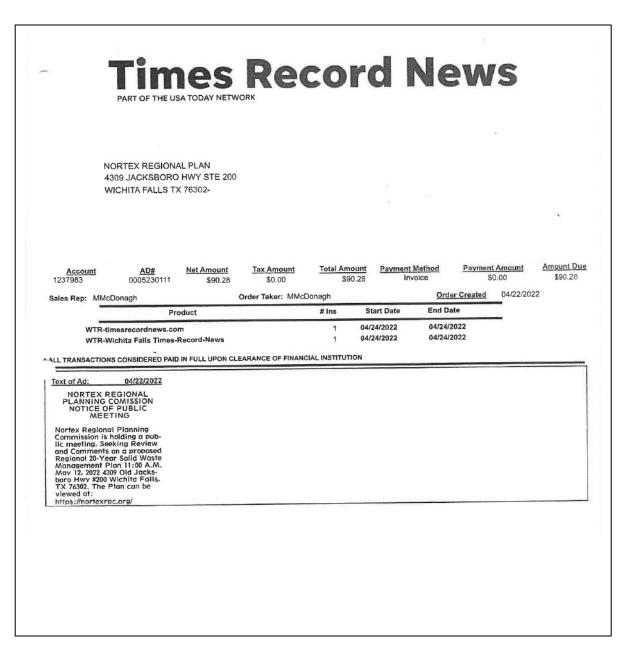
Required Approvals

Attachment IV.B

Public Notice, Agenda, Public Comments, and Transcript of the Required Public Meeting

No public comments were received at the 2/17/2022 meeting.

Attachment IV.B - Public Notice, Agenda, Public Comments, and Transcript of the Required Public Meeting





P.O. Box 5144 Wichita Falls, Texas 76307 Area 940-322-5281 Fax 940-322-6743

June 10, 2022

Texas Commission on Environmental Quality 12100 Park 35 Circle Austin, Texas 78753

Attn: Nortex 20 Year Municipal Solid Waste Plan

Dear Ms. Uramkin:

Attached are the executed minutes that highlight action taken on our 20 Year Municipal Solid Waste Plan for this region. The Executive Committee approved submission of this plan to TCEQ on February 17, 2022

If you need anything else please let me know.

Sincerely,

Dennis Wilde Executive Director

Encl: Minutes

Archer, Baylor, Clay, Cottle, Foard, Hardeman, Jack, Montague, Wichita, Wilbarger and Young Counties

Executive Committee Minutes

Thursday, February 17, 2022 at Noon

4309 Jacksboro Highway, Suite 200, Large Conference Room Wichita Falls, Texas

MEMBERS:

Judge Rusty Stafford, Baylor County, Chair

Judge Randy Jackson, Archer County

Judge Mike Campbell, Clay County

Judge Mark Christopher, Foard County

Judge Ronald Ingram, Hardeman County

Judge Keith Umphress, Jack County

Judge Kevin Benton, Montague County

County Commissioner Barry Mahler, Representing Wichita County

Judge Greg Tyra, Wilbarger County

Judge John Bullock, Young County

Ms. Michelle Stovall, Representing City of Chillicothe

Mayor Pro-Tem Gayle Simpson, City of Crowell

Mayor Rodger Brannen, City of Paducah

Councilor Bobby Whiteley, Representing City of Wichita Falls

Mayor Greg Vieth, City of Windthorst

Mr. Randy Whiteman, Red River Authority of Texas

Ms. Synthia Kirby, Wichita Falls ISD

Mr. Billy Don Clark, Electra Memorial Hospital

Ms. Carlye Bindel, Office of Representative James Frank

GUESTS:

Mr. Jim Johnson, Office of Representative James Frank

Ms. Jennifer Foster, Office of Senator Charles Perry

Mr. Kirk Higgins, Emergency Management Coordinator, City of Bowie

Ms. Lisa McDaniel, Workforce Solutions of North Texas

Ms. Sharon Hulcy, Workforce Solutions of North Texas

STAFF:

Mr. Dennis Wilde, Executive Director

Ms. Tina Johnson, Director of Emergency Planning

Ms. Renee Williams, Director of Area Agency on Aging

Ms. Lillian Lafaele, Director of Criminal Justice

Ms. Diane Morgan, Director of Housing Services

Ms. Jasmine Amo, Director of Economic Development

Mr. Tim Bryant, Director of 911 Emergency Services

Ms. Jan Bowerman, Administrative Assistant

Executive Committee Minutes February 17, 2022 Page 2

Judge Rusty Stafford called the meeting to order at 12:23 p.m. He asked Judge John Bullock to give the invocation. Members of the Executive Committee cited the Pledge of Allegiance. Chair Stafford asked for self-introductions from the assembled group.

Chair Stafford addressed the next item on the agenda which was the approval of the consent agenda. The consent agenda items were as follows: approval of the minutes of the General Membership Committee meeting held on January 20, 2022. Chair Stafford asked if anyone wished to remove any item from the consent agenda for further discussion. There being none, a motion was made by Judge Greg Tyra and seconded by Judge Ronald Ingram to approve the consent agenda as presented. Motion carried.

Chair Stafford went to agenda item six which was a report from the Solid Waste Advisory Committee. He asked Ms. Jasmine Amo to discuss these two items. Ms. Amo stated the first item to discuss was the review and approval to submit the Solid Waste COG grant application for Fiscal Year 2022/2023 to Texas Commission on Environmental Quality (TCEQ) in the amount of \$115,000.00. She stated this grant will be used to cover solid waste grant activities within our region. A motion was made by Judge Ronald Ingram and seconded by Judge Mark Christopher to submit the Solid Waste COG application. Motion carried. Ms. Amo went to the next item on the agenda which was review and approval to submit Nortex Regional Planning Commission's 20 Year Regional Solid Waste Plan to Texas Commission on Environmental Quality (TCEQ). She stated on January 13, 2022 a working subcommittee of the Solid Waste Advisory Committee met to review and approve Nortex Regional Planning Commission's 20 Year Solid Waste Plan. She stated Texas Commission on Environmental Quality (TCEQ) requires every COG region to update the solid waste plan for their respective region. She stated the subcommittee approved the plan from Biggs and Mathews and are requesting final approval of the Executive Committee. A motion was made by Judge John Bullock and seconded by Judge Kevin Benton to approve the submission of the 20 Year Solid Waste Plan for Nortex Regional Planning Commission. Motion carried.

Chair Stafford went to the next item on the agenda which review and approval to submit a Homeland Security grant application to the Office of the Governor/Public Safety Office in the amount of \$134,523.56 for FY2022/2023. He asked Ms. Tina Johnson to discuss this item. Ms. Johnson stated she is asking approval from the Executive Committee to allow the Executive Director to submit a Homeland Security grant application to the Office of the Governor/Public Safety Office in the amount of \$134,535 for a two year period. She stated this will allow her department to continue operating with two people. A motion was made by Judge Ronald Ingram and seconded by Judge Greg Tyra to allow the Executive Director to submit a Homeland Security grant application in the amount of \$134,523.56 for FY2022/2032. Motion carried.

Executive Committee Minutes February 17, 2022 Page 3

Chair Stafford addressed the next item on the agenda which was the Executive Director's report. He asked Mr. Wilde to give his report. Mr. Wilde thanked the County Judges for submitting the resolutions for the reappointment of Mr. Paul Wylie and Ms. Tammy Martinez to the Nortex Housing Finance Corporation. He stated Edgin, Parkman, Fleming & Fleming will be conducting the annual audit. He stated the Aging Department is working with HHSC on a monitoring visit Desk Review. Mr. Wilde stated his 9-1-1 staff was continuing to audit/monitor the region's 9-1-1 systems with no issues arising. He stated his staff is working with Homeland Security Committee to plan for a scoring and ranking meeting of grant applications to be held on March 2, 2022. He stated the Housing Services Department still has special funds for assistance to people in danger of evictions and loss of utility services that are COVID or non-COVID related. Mr. Wilde stated the Brazos Valley Council of Government will be conducting a virtual monitoring in March for the Ryan White programs. He stated the Economic Development Department is continuing outreach under EDA Cares grant. He stated the Criminal Justice Department hosted a Shooting Reconstruction class on January 17-21, 2022 with 17 officers in attendance. Mr. Wilde stated Ms. Lafaele has ordered supplies and equipment for all of our counties in the Nortex region and once the materials are received she will contact you to make arrangements for delivery or pickup. He stated the Criminal Justice Department will have their local scoring and ranking of projects on March 23, 2022 at Nortex Regional Planning Commission.

Chair Stafford asked if there were any other business or announcements. Chair Stafford stated there would be a local SAT multi-agency meeting immediately after this meeting. There being no other business, the meeting was adjourned at 12:49 p.m.

Judge Keith Umphress, Vice-Chair

PASSED AND APPROVED THIS 17TH DAY OF MARCH 2022.

ATTEST:

Bully Dun Clark, Secretary

Nortex RSWMP Public Comment Meeting Thursday, May 12, 2022 at 11:00 A.M.

Galaxy Center #2 North 4309 Jacksboro Highway, Suite 200, Wichita Falls, Texas

AGENDA

- 1. Call to Order
- 2. Introductions and Welcome
- 3. Public Comments Discussion
- 4. Adjourn

NORTEX REGIONAL PLANNING COMMISSION RSWMP Public Comment Meeting Thursday, May 12, 2022 at 11:00 A.M. 4309 Jacksboro Highway, Suite 200 Wichita Falls, Texas