

Instructions for the Regional Solid Waste Management Implementation Plan (Volume II)

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.

Use these instructions to properly present region planning data on the RSWMP Volume II Form (TCEQ-20880). The form conforms to plan requirements contained in 30 TAC §330.643, relating to Regional Solid Waste Management Implementation Plan Guideline Requirements.

The form contains set fields for data entry. To complete an entry, click on the area where the instructions are shown and begin typing. Rows can be added or deleted in the tables as needed. You may supplement the form with attachments that pertain to applicable content. Label attachments with the corresponding form subsection numbers and titles.

For your convenience, the form references well-documented information sources such as the U.S. Census Bureau, Texas State University Data Center, and the Texas Commission on Environmental Quality's *Municipal Solid Waste in Texas: A Year in Review, Data Summary and Analysis*, (AS-187/18). Additional sources for local planning data may include local and regional organizations such as Chambers of Commerce, industry associations and research groups, and local planning councils. You may also consider reviewing your existing regional plan which provide baseline data and continuing goals, objectives, and strategies that may assist with completion of your new RSWMP.

The RSWMP Volume II Form was developed by the Texas Commission on Environmental Quality (TCEQ) in coordination with the Texas Association of Regional Councils. Planning organizations with questions about the form can **contact the TCEQ Business and Program Services Section by calling 512-239-2335.**

Regional Organization Information

At the beginning of the form, provide the planning organization's legal name, mailing address, main office phone number, public website address, and general e-mail address for stakeholders to submit questions and comments. Example provided below.

Table 1. Organization Information

Name of Council of Government	Lonestar Council of Governments
Mailing Address	1234 Main Street Anywhere, Texas 12345
Website	LSCOG.org
Phone Number	555-555-1234
Email Address	info@lscog.org

Section I. Geographic Scope

The geographic scope of the planning process is the entire planning region and the plan is not intended to present site-specific information. The regional implementation plan should use four types of geographic planning units to present appropriate planning information: 1) small geographic areas; 2) aggregations of small geographic areas; 3) county boundaries; and 4) the entire planning region.

I.A. Names of Member Counties in the Entire Planning Region

[Ref. 30 TAC §330.643(a)(1)]

Enter names of counties in the planning region in alphabetical order. Example provided below.

Table I.I. Geographic Scope

I.A. Names of Member Counties in the Entire Planning Region [Ref. 30 TAC §330.643(a)(1)]	Alpha, Bravo, Charlie, Delta
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I.B. Geographic Planning Units Used in the Regional Implementation Plan

[Ref. 30 TAC §330.643(a)(1)]

The form provides the four types of planning units used in the regional implementation plan when presenting planning information. The planning organization may designate one or any combination of units that best serve the needs and planning of the region. Mark the appropriate box(es) for the unit(s) used in the form.

In the example below, the regional planning organization determined the planning unit used for the regional plan is the entire designated planning area.

Table I.I. Geographic Scope (Continued)

<p>I.B. Geographic Planning Units Used in the Regional Implementation Plan [Ref. 30 TAC §330.643(a)(1)]</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Small geographic areas such as census tracts or city boundaries for the most detailed data collection and manipulation; <input type="checkbox"/> Planning areas to be used for the assessment of concerns and the evaluation of alternatives. These planning areas shall be aggregations of small geographic areas; <input type="checkbox"/> County boundaries for the summarization and presentation of key information; or <input checked="" type="checkbox"/> The entire planning region
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Section II. Planning Periods

Development of the implementation plan is based on the results of a planning process that addresses solid waste management over a long-range period of at least 20 years. This long-range period starts on the year of anticipated plan adoption and encompasses four planning periods: 1) current and historical information; 2) short-range planning period; 3) intermediate planning period; and 4) long-range planning period.

The final calendar year of the long-range planning period should be displayed on the plan cover, title page, and other appropriate locations within the body of the plan.

II.A. Planning Periods

[Ref. 30 TAC §330.643(a)(2)]

The form contains a table of the four planning periods. Enter specific information on implementation activities for the current and short-range planning periods and enter general descriptions of planned activities for the intermediate and long-range planning periods. Enter appropriate calendar year(s) of each planning period. If needed, additional information for each planning period may be provided as **Attachment II.A**.

An example of calendar years is provided below. The dates assume that 2021 is the current baseline year. The long-range period begins in 2022 and ends in 2042.

Table II.I. Planning Periods

II.A.1. Current and Historical Information	2021
II.A.2. Short-range Planning Period	2022-2027
II.A.3. Intermediate Planning Period	2028-2032
II.A.4. Long-range Planning Period	2033-2042
<input type="checkbox"/> Check box if additional details provided in <i>Attachment II.A.</i>	

Section III. Plan Content

The regional implementation plan is developed from a planning process related to the proper management of solid waste in the planning region. The process identifies concerns and collects and evaluates data necessary to provide a written public statement of goals and objectives, and actions to achieve those goals and objectives. The content of a regional implementation plan is identified in 30 TAC §330.643.

III.A. Demographic Information

[Ref. 30 TAC §330.643(a)(3)(A)]

In the form tables for Residential Waste Generation, Commercial Waste Generation, and Industrial Waste Generation, provide population projections, significant commercial and industrial economic activity affecting waste generation and disposal in the area, and recycling activities from the base year to the end of the long-range period in 5-year increments.

For the Residential Waste Generation table, provide population projections from the base year to the end of the long-term planning period in 5-year increments using current governmental data, such as U.S. Census, Texas State Data Center, etc. These data sources may also provide estimated population growth rates for the planning area to determine a yearly growth factor. For example, population data from U.S. Census Bureau’s Annual Estimates of the *Resident Population for Counties*. Compare the current disposal/recycling rates to the regional area’s projected population growth to estimate future solid waste quantities.

For the Commercial Waste Generation and Industrial Waste Generation tables, provide summaries of projected significant commercial and industrial economic changes in the area from the base year to the end of the long-range planning period in 5-year increments.

An example of a Residential Waste Generation table and associated calculations are provided below.

Table III.A.I. Residential Waste Generation

Year	Growth Rate per Year	Current Population / Population Projection	Landfill Disposal (Tons)	Disposal Rate (lbs./Person /Day)	Recycling (Tons)	Recycling Rate (lbs./Person /Day)	Residential Waste Generation (Tons)
Current	N/A	100,000	120,000	6.7 Lbs/P/Day	60,000	3.3 Lbs/P/Day	60,000
2022	2%/yr	110,408	132,490	6.7 Lbs/P/Day	66,245	3.4 Lbs/P/Day	66,245
2027							
2032							
2037							
2042							

Projected Disposal Equation

- A. Amount Annual Landfill Disposal in Tons x 2,000 lbs. = Amount of Landfill Disposal in Pounds
- B. Amount of Landfill Disposal in Pounds divided by Population = Annual Pounds/person
- C. Annual Pounds/person divided by 365 Days = Pounds per person per day

Five-year Increment Projections

- A. Research the projected growth rate in area
- B. Multiply current year Population, Landfill Disposal/Year, Recycling/Year, Residential/Year by Growth Rate for each year in 5-year period
- C. Repeat steps A-C in Projected Disposal Equation

Repeat for the Commercial and Industrial Waste Generation Tables.

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

[Ref. 30 TAC §330.643(a)(3)(B)]

In the Form table, provide information and estimates for the current year to the end of the long-range period in 5-year increments. Base line information, including solid waste amounts by type, may be obtained from the *Municipal Solid Waste in Texas: A Year in Review, Data Summary and Analysis*. Waste types included in the “Other” waste types may be identified individually in **Attachment III.B.**

Summarize the current and projected solid waste amounts by type that will be generated and managed within the regional area. The table lists all pertinent waste types as found in the *Municipal Solid Waste in Texas: A Year in Review, 2017 Data Summary and Analysis*, (AS-187/18). Note, it is understood that not all wastes listed in the table may be disposed in

landfills in your area. “Not Reported” or the number zero (0) may be used for categories of waste not reported in your area.

Use the TCEQ’s *RSWMP Helpful Links Guidance Page* to review raw data reports submitted by landfills in your regional planning area. Information and estimates should be populated in the table for the current year to the end of the long-range period in 5-year increments. You may use the estimated population growth rate per year factor in the Demographics Information Table in Section III.A., to calculate the projected increase/decrease of waste amounts by multiplying the baseline waste amounts by the growth factor.

Planning organizations may include the total waste amounts for additional wastes reported by landfills in their region in the *Other* category and provide appropriate research or data to validate these additional waste types and amounts in **Attachment III.B.**

In the example table below, raw data from Claude Armstrong County Landfill and the City of Wellington Municipal Solid Waste Landfill were used to develop the future solid waste projections 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	10-year Projection	15-year Projection	20-year Projection
Municipal	2	82%	4,906.88	5,417.6	5981.4	6,604.0	7,291.4
Brush	2	14%	861.6	951.2	1,050.2	1,159.6	1,280.2
Construction or Demolition	1	3.9%	233	257.2	284.0	313.5	346.2
Litter	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Class 1 Non-hazardous	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Classes 2 and 3 Non-hazardous	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Incinerator Ash	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Treated Medical Waste	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Municipal Hazardous Waste from CESQGs	-0-	-0-	-0-	-0-	-0-	-0-	-0-

Waste Type	Number of Landfills Accepting Waste Type	Percent of Total Tons Disposed	Current Year	5-year Projection	10-year Projection	15-year Projection	20-year Projection
Regulated Asbestos-containing Material (RACM)	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Non-RACM	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Dead Animals	1	0.1%	3.5 (slaughter house)	3.8	4.2	4.7	5.2
Sludge	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Grease Trap Waste	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Septage	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Contaminated soil	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Tires (split, quartered, shredded)	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Pesticides	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Used Oil Filter	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Other (identify other types reported as <i>Attachment III.B.</i>)	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Total	2	100%	6,004	6,629.8	7,319.8	8,081.8	8,923.0

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

[Ref. 30 TAC §330.643(a)(3)(C)]

In the form table, list the current and planned solid waste management activities in the region and the corresponding descriptions. Solid waste management activities should focus on data, activities, and resources within the regional planning area's jurisdiction and boundaries. The descriptions of activities may be specific for activities that are ongoing and general for activities that are planned but have not yet occurred. The raw data submitted by landfills and processors includes information related to treatment, diversion, and landfilling and is available from the Texas Association of Regional Councils (TARC).

Additional information of solid waste management activities can be submitted as *Attachment III.C.*

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

[Ref. 30 TAC §330.643(a)(3)(D)]

In the form table, identify if specific waste management facilities, practices, and programs are adequate in the region. Provide an assessment and description of those activities found to be inadequate as *Attachment III.D.*

Use data collected and assessed for Table III.B. to evaluate the adequacy of existing waste management resources in supporting population and economic activities in the area through the long-term planning period. Adequacy may be determined if an existing resource, service, or activity provides the necessary coverage and/or support for the area to meet the current plan objectives and anticipated goals and objectives of the new plan. Consider adequacy timeframes in terms of planning periods; short-term planning period (1-5 years), intermediate planning period (6-10 years), and/or long-range planning period (11-20 years or longer).

If the facility and practices are determined to be adequate, answer "Yes" and continue to the next program item. If a facility or practices are determined to be inadequate, answer "No" and provide a description as *Attachment III.D.* Where available, provide facility information such as tipping fee and service area, future facility expansion, and new facilities.

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

[Ref. 30 TAC §330.643(a)(3)(E)]

In *Attachment III.E.*, provide a brief assessment of current source reduction and waste minimization efforts, including any efforts to reduce sludge, and efforts to reuse or recycle waste. Community and governmental programs engaged in source reduction and waste minimization may be included.

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

[Ref. 30 TAC §330.643(a)(3)(F)]

In the form table, identify additional opportunities for source reduction and waste minimization, and waste reuse or recycling programs that offer opportunities for additional or greater waste reduction efforts. Enter the category, opportunity name and a brief description of the activity. Examples of opportunity names may include, but are not limited to, acute recycling source separation (green glass bottles only), community used oil collection centers, local/private incentives such as plastic bag returns, and new technologies for plastic recycling. Include, where available, quantifiable reductions or brief descriptions of the activity.

If needed, additional information may be provided as *Attachment III.F*.

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

[Ref. 30 TAC §330.643(a)(3)(G)]

In the form table, list recommendations for encouraging and achieving a greater degree of source reduction and waste minimization, and reuse and recycling of waste in the planning region. Consider assessing the regional area's previous goals and identify issues that prevented the region from meeting such goals. These may provide opportunities for improvement.

If needed, additional information may be provided as *Attachment III.G*.

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

[Ref. 30 TAC §330.643(a)(3)(H)]

In *Attachment III.H*, identify and list public and private entities such as government agencies and privately-owned businesses that perform waste management and recycling activities in the region. Examples of government agencies may include, but are not limited to, city and county governments, municipal utility districts, and river authorities. Examples of private entities may include, but are not limited to, environmental stakeholders and businesses involved in waste management, financing, or urban planning.

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

[Ref. 30 TAC §330.643(a)(3)(I)]

In the form table, list solid waste management concerns for the planning area and the establishment of priorities to address those concerns.

If needed, additional information regarding the concerns and priorities may be included as *Attachment III.I*.

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

[Ref. 30 TAC §330.643(a)(3)(J)]

In the form table, list planning areas and/or agencies that have similar solid waste management concern(s) with your area and provide a potential partner to work together in addressing those shared concerns. Use the concerns listed in III.I. as a basis for consideration.

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

[Ref. 30 TAC §330.643(a)(3)(K)]

In the form table, describe incentives and barriers for source reduction and waste minimization and resource recovery. Also, identify potential markets that use solid waste in a beneficial manner, thereby supporting source reduction and waste minimization and resource recovery. Incentives and barriers should be specific to the geographic scope of the planning area and related to planning area goals and objectives. Examples of incentives may include, but are not limited to, reuse and recycling markets and financial savings on reuse of materials such as scrap tire pieces in asphalt base for repair of city streets. Examples of barriers may include, but are not limited to, increased costs to construct new landfills, transfer stations, or recycling facilities.

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

[Ref. 30 TAC §330.643(a)(3)(L)]

In the form table, list your regional goals and corresponding objectives for the proper management of solid waste in your planning region. Identify the timetable for achieving each goal and objective in terms of planning periods. The regional goals and objectives here should be the same as goals and objectives provided in the Regional Solid Waste Management Plan Volume I, as described in 30 TAC §330.635(A)(2)(A).

III.M. Advantages and Disadvantages of Alternative Actions

[Ref. 30 TAC §330.643(a)(3)(M)]

If the regional area initiated or implemented alternative actions due to an inadequacy of solid waste management activities in the area, the regional area should answer “Yes” in the form table. The regional area should then list and describe any alternative action being considered for the regional area and detail the advantages and/or disadvantages to solid waste management activities that could result through implementations of these actions in **Attachment III.M.**

If the regional area did not initiate or implement alternative actions during the past plan period and did not identify necessary actions related to this section, then the regional area should answer “No” in the form table.

III.N. Recommended Plan of Action and Timetable for Achieving Regional Goals and Objectives, Including Specified Goals and Objectives

[Ref. 30 TAC §330.643(a)(3)(N)]

In the form table, provide the plan of action and anticipated timetable for achieving each specific goal and objective in the table. Plan of action and timetable items may be brief descriptions. Identify and describe action plans, the corresponding timetables and, where available, implementation milestones. Action plans, timetables, and milestones should be brief and provide stakeholders information on the planned progress of the plan activities. Milestone dates may be provided as a specific year or in terms of planning periods; short-term planning period (1-5 years), intermediate planning period (6-10 years), and/or long-range planning period (11-20 years or longer). Goals, objectives, timelines, and priorities may change during the time of the plan. Revisions aimed at addressing changing priorities for the planning area may be made during the duration of the plan. The plan is intended to be updated to respond to local, state, and federal changes priorities.

Additional information describing the actions and milestone dates may be submitted as **Attachment III.N.**

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

[Ref. 30 TAC §330.643(a)(3)(O)]

Provide an explanation of the process and mechanism that the regional organization will use to evaluate whether a proposed municipal solid waste facility application will be in conformance with an organization's regional plan as **Attachment III.O.**

The identified process should clarify to applicants and stakeholders that the process is not a regulatory technical review of the application and that the regional organization does not approve or deny permit applications. Approval of municipal solid waste management permit applications are the responsibility of the TCEQ.

Section IV. Required Approvals

In the form table, include the approval date by the Solid Waste Advisory Committee, public meeting date(s), and date approved by the Council of Governments Executive Committee.

Local government and jurisdiction resolutions and letters of support may be included as **Attachment IV.A.**

Public notice, agenda, public comments, and the transcript of the required public meeting shall also be included as **Attachment IV.B.**