Coastal Bend Regional Solid Waste Management Plan 2022-2042

COASTAL BEND
COUNCIL OF GOVERNMENTS

Regional Solid Waste Management Plan Volume I

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

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

Regional Solid Waste Management Plan Volume I

Regional Organization Information

Table 1. Organization Information

Name of Council of Government	COASTAL BEND COUNCIL OF GOVERNMENTS
Mailing Address	2910 LEOPARD STREET CORPUS CHRISTI, TX 78408
Website	WWW.COASTALBENDCOG.ORG
Phone Number	361-883-5743
Email Address	N/A

Section I. Geographic Scope

[Ref. 30 TAC §330.645(a)(1)]

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

Table I.I. Geographic Scope

Names of Member Counties in the Entire Planning Region	ARANSAS, BEE, BROOKS, DUVAL, JIM WELLS, KENEDY, KLEBERG, LIVE OAK, NUECES, REFUGIO, SAN PATRICIO

Section II. Plan Content

[Ref. 30 TAC §330.635(a)(2)]

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

II.A. Regional Goals and Objectives

[Ref. 30 TAC §330.635(a)(2)(A)]

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

Table II.A. Regional Goals and Objectives

Goal #1 Ensure the development of responsible waste processing and materials recovery practices for the Coastal Bend region.	<u>1.1: Provide for recovery of material resources by emphasizing reuse, reduction (waste minimization) and recycling.</u> • Increase residential recycling development and expansion of services throughout the Region. • Develop and encourage composting programs for brush and organic wastes in the Region. • Target waste reduction activities and develop affordable programs for the proper management and disposal of household hazardous wastes and those special wastes that pose a considerable risk to the waste stream, environmental health and human health. • Expand recycling opportunities for multi-family residential, government housing and businesses by increasing drop-off opportunities and partnering with disposal companies that service multi-family establishments and commercial establishments. <u>1.2: Increase commercial waste reduction efforts in the Region.</u> • Promote reuse opportunities for white goods, furniture and other household goods in the Region. • Promote reuse opportunities for paints and other materials that can still be of use. • Expand resource recovery efforts in the construction and demolition industry. • Promote education of contractors and professionals in the construction industry about reuse of building materials. • Support the creation of incentive programs for materials from deconstructed sites rather than demolition and disposal. <u>1.3: Support regional education and outreach for proper waste management and recycling practices.</u> • Promote reduction of ocean dumped wastes through increased education and awareness of the problem of ocean dumped wastes and wastes that begin

	on land and end up in the waterways of the Region. • Create partnerships in the Region with similar agencies and entities to further the promotion of the issue of proper waste management.
Goal #2 Improve upon and plan for adequate regional waste disposal capacity for the Coastal Bend region and utilize innovative resources to integrate and achieve optimum solid waste management.	<u>2.1: Expand disposal service options to the rural and under-serviced areas of the Region.</u> • Advocate for increased efforts to introduce additional citizen collection stations and transfer stations in the Region. • Identify areas with inadequate collection, transportation, and/or processing services, and provide solid waste management alternatives that will encourage proper disposal practices and reduce illegal dumping activities. • Support pilot projects and research projects that could provide for an increase in waste collection services in the rural areas. • Use state-of-the-art processes to create, manage and maintain rural transfer stations and collection stations in the Region. <u>2.2: Ensure the proper and safe management of solid waste, the availability of management alternatives, implementation of statewide goals at a regional and local level and through development, implementation and maintaining the Regional Solid Waste Management Plan and solid waste data for the Coastal Bend region.</u> • Maintain the Coastal Bend region's Closed Landfill Inventory. • Maintain data on solid waste behaviors in the Region and the State of Texas. • Use the State's Regional Solid Waste Grants Program as a tool to implement the Regional Solid Waste Management Plan. • Use the Regional Solid Waste Management Plan as a tool to clarify and support the implementation of MSW permits in the Region. • Ensure the availability of management alternatives, and implementation of statewide goals at the regional and local levels, through development and

	implementation of regional and local management plans. 2.3: Provide for the accommodations of large volumes of waste and storm debris produced by hurricanes and severe storms. • Work with the Region's local and State emergency management teams to insure there are proper disaster management strategies in place to adequately address communities needs for disaster training, planning and active management in the event of a disaster.
Goal #3 Improve the recovery of resources by halting illegal dumping activities in the Coastal Bend	3.1: Develop programs to assist regional entities in controlling illegal dumping and littering. • Provide continued regional training and education of professionals and the public for environmental crimes, illegal dumping laws and regulations, and continue with public awareness on a variety of solid waste topics that affect the issues of proper solid waste management, proper disposal and prosecution initiatives. • Expand public awareness campaigns to create strong partnerships with regional organizations and state agencies that also target the reduction of illegal dumping activities. • Continue to support all aspects of community cleanups, litter reduction and the removal of illegally dumped items. • Support programs to educate residents, businesses, property owners, and construction companies on the proper collection and disposal of wastes in the Region rather than illegally dumping materials throughout the Region. • Explore opportunities to require cleanup activities for illegal dumping violators or other corrective action opportunities for the violators. • Assess model ordinances and best management practices regarding illegal dumping and provide the platform for implementing changes to strengthen local illegal dumping laws.

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

[Ref. 30 TAC §330.635(a)(2)(B)]

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

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

Subject	Description
Current Efforts to Minimize Municipal Solid Waste and to Reuse or Recycle Waste	Large municipalities have curbside recycling programs. The more rural areas and smaller communities in the region need education and awareness on the importance of recycling and more opportunities for recycling, whether curbside or at drop-off locations in the region. Collaborative partnerships with waste management entities and private/public sector will be crucial to increase recycling in the region.
Recycling Rate Goal for the Region	The recycling rate for the CBCOG region is less than 15% overall. Only a handful of communities participate in either curbside residential recycling or have drop off centers for their communities. All urban areas need to increase and/or participate in recycling in the region. The goal of the region is to increase the recycling rate by implementing more recycling programs across the region and increasing education and awareness at all levels throughout the region.
Recommendations for Encouraging and Achieving a Greater Degree of Waste Minimization and Waste Reuse or Recycling	In order to achieve a greater degree of waste minimization there needs to be an increase in awareness and more hardline campaigns in the region to encourage people to recycle, stop litter and illegal dumping and reuse rather than waste. This is the only way to get the message across that this issue is serious and necessary to achieve reduction.
Existing or Proposed Community Programs for the Collection of Household Hazardous Waste	City of Corpus Christi has a drop off location for residents only for the collection of HHW. There are currently no other permanent HHW facilities in the region. HHW facilities need to increase and the promotion of reuse for paints should be introduced as well. The implementation of additional HHW facilities and an increase in HHW collection events across the region could boost the importance of proper HHW management in the region.
Composting Programs for Yard Waste and Related Organics	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. ☒ (IV) the creation of food waste recovery programs across the region to divert food waste from the landfills in the region.
Public Education/Outreach	The CBCOG provides education and outreach to the region with a recycling "Curby" robot to help promote reduce, reuse and recycle as well as litter prevention. This is available to all counties and communities free. The CBCOG also provides free training to all regional law enforcement and code enforcement to allow for them to stay current in their licensing and in the field

Subject	Description
	of code enforcement for solid waste issues in Texas and federally.

II.C. Commitment Regarding the Management of MSW Facilities

[Ref. 30 TAC §330.635(a)(2)(C)]

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

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

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

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

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

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

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

Section III. Required Approvals

Table III.I. Required Approvals

Solid Waste Advisory Committee	First reading – April 21, 2021 Second Reading – August 18, 2021
Public Meeting Dates	August 18, 2021
Executive Committee	

Regional Solid Waste Management Implementation Plan Volume II

Regional Organization Information

Table 1. Organization Information

Name of Council of Government	COASTAL BEND COUNCIL OF GOVERNMENTS
Mailing Address	P.O. BOX 9909 CORPUS CHRISTI, TEXASS 78469
Website	WWW.COASTALBENDCOG.ORG
Phone Number	361-883-5743
Email Address	N/A

Section I. Geographic Scope

Table I.I. Geographic Scope

I.A. Names of Member Counties in the Entire Planning Region [Ref. 30 TAC §330.643(a)(1)]	ARANSAS, BEE, BROOKS, DUVAL, JIM WELLS, KENEDY, KLEBERG, LIVE OAK, NUECES, REFUGIO, SAN PATRICIO
I.B. Geographic Planning Units Used in the Regional Implementation Plan [Ref. 30 TAC §330.643(a)(1)]	☐ Small geographic areas such as census tracts or city boundaries for the most detailed data collection and manipulation; ☐ Planning areas to be used for the assessment of concerns and the evaluation of alternatives. These planning areas shall be aggregations of small geographic areas; ☐ County boundaries for the summarization and presentation of key information; or ☒ The entire planning region

Section II. Planning Periods

[Ref. 30 TAC §330.643(a)(2)]

Table II.I. Planning Periods

II.A.1. Current and Historical Information	**2020**
II.A.2. Short-range Planning Period	**2022-2027**
II.A.3. Intermediate Planning Period	**2028-2032**
II.A.4. Long-range Planning Period	**2033-2042**
☐ Check box if additional details provided in *Attachment II.A.*	

Section III. Plan Content

III.A. Demographic Information

[Ref. 30 TAC §330.643(a)(3)(A)]

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

Table III.A.I. Residential Waste Generation

Year	Growth Rate per Year	Current Population-Population Projection	Landfill Disposal (Tons)	Disposal Rate (lbs./Person/ Day)	Recycling (Tons)	Recycling Rate (lbs./Person/ Day	Residential Waste Generation (Tons)
Current	N/A	581,474	808,886	7.62 lbs./P/Day	540,930	6.00 lbs./P/Day	1,349,816
2022	4.66%	608,571	846,580	7.62 lbs./P/Day	566,137	6.00 lbs./P/Day	1,412,717
2027	4.66%	636,930	886,031	7.62 lbs./P/Day	592,519	6.00 lbs./P/Day	1,478,550
2032	4.15%	663,363	922,801	7.62 lbs./P/Day	617,109	6.00 lbs./P/Day	1,539,910
2037	3.61%	687,310	956,114	7.62 lbs./P/Day	639,387	6.00 lbs./P/Day	1,595,501
2042	3.40%	710,679	988,622	7.62 lbs./P/Day	661,126	6.00 lbs./P/Day	1,649,748

Texas Demographic Center – Texas Population Projections: August 26, 2021
https://demographics.texas.gov/Infographics/2021/CBRedistrictingPlace

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	A majority of the CBCOG region is agricultural with some industrial refineries and tourism. The coastal areas of the region support a diverse roster of industries. Tourism is a top commercial industry for the region in revenue and the services that it supports. Goods and services associated with the industries in the region are healthcare, retail, warehouse operations, transport: trucking for overland transport, marine vessel support and railroad transport, bankers, lawyers, construction, grocery stores, restaurant, parts and equipment suppliers, office supply firms, and maintenance and repair services.	With industrial growth there will be a significant increase in commercial wastes such as construction and demolition waste, scrap metals, paper, wood and other packaging waste. There will be an increase in retail and food wastes as expected to support the personnel at the facilities.
2027	Many of the industrial refining and manufacturing facilities currently under construction are expected to be completed by 2030. An increase in overland and marine transportation of goods and services will increase. As time progresses the increase in commercial goods and services such as grocery and retail fueling facilities, hotel, retail shopping and healthcare providers will also increase slightly before stabilizing.	Wastes will continue to increase before stabilizing once industrial facilities are completed. A continued stream of packaging, paper, cardboard and special wastes associated with the industrial and commercial facilities will continue to be steady if not increase over time.
2032	Industrial growth has stabilized and the population increase has also started to become more stable. Commercial activities such as health care providers, transport and service providers for the industrial facilities such as parts suppliers, maintenance and equipment providers will be most significant	Commercial wastes related to goods and services, retail stores, organics and food waste, transportation, packaging, construction and special wastes will increase slightly before stabilizing.
2037	Tourism, industrial refining and manufacturing, transportation both overland and marine will be significant in the region.	Commercially related commerce and processes will continue to be a top generator of waste for the region. Packaging, special wastes, organics, and paper products will be a constant source of waste.
2042	Tourism, industrial refining and manufacturing, transportation both overland and marine will be significant in the region.	Retail stores, restaurants and grocery will continue to be a top generator of waste for the region.

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	Currently there are numerous industrial refineries and manufacturing facilities being constructed. Within the region there are a number of these facilities already located throughout the region. Other industrial activities include bulk storage facilities and terminals, pipelines and mining operations. Marine related industries such as bulk docks, grain elevators, and cargo related terminals and storage facilities.	Industrial wastes will increase. Construction and demolition, soil, concrete, masonry, scrap metals, organics, food wastes, solvents, sludge, wash water, greases and oils among other chemical wastes.
2027	Industrial refining and manufacturing facilities, bulk storage facilities and terminals, pipelines and mining operations. Marine related industries along the coast such as bulk docks, grain elevators, and cargo related terminals and storage facilities are also generators of industrial wastes.	Industrial wastes will increase if the economy supports the industrial services that are located in the region. The construction of additional pipelines into the region will generate more soil, construction and demolition wastes among other associated waste types.
2032	Industrial refining and manufacturing facilities, bulk storage facilities and terminals, pipelines and mining operations. Marine related industries along the coast such as bulk docks, grain elevators, and cargo related terminals and storage facilities are also generators of industrial wastes.	Industrial wastes will increase if the economy supports the industrial services that are located in the region.
2037	Industrial refining and manufacturing facilities, bulk storage facilities and terminals, pipelines and mining operations. Marine related industries along the coast such as bulk docks, grain elevators, and cargo related terminals and storage facilities are also generators of industrial wastes.	Industrial wastes will increase if the economy supports the industrial services that are located in the region.
2042	Industrial refining and manufacturing facilities, bulk storage facilities and terminals, pipelines and mining operations. Marine related industries along the coast such as bulk docks, grain elevators, and cargo related terminals and storage facilities are also generators of industrial wastes.	Industrial wastes will increase if the economy supports the industrial services that are located in the region.

The Economic Impacts of Port of Corpus Christi, 2015. Martin Associates for Port of Corpus Christi, June 23, 2016, PP.3
Report on Texas Growth Occupations: 2020. Texas Workforce Commission, LCMI. 12-15-2020.

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

[Ref. 30 TAC §330.643(a)(3)(B)]

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

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

Waste Type	Number of Landfills Accepting Waste Type	Percent of Total Tons Disposed	Current Year	5-year Projection (tons)	10-year Projection (tons)	15-year Projection (tons)	20-year Projection (tons)
Municipal	4	37%	498,862	522,807	544,504	564,161	583,342
Brush	5	3%	40,748	42,704	44,476	46,082	47,649
Construction or Demolition	7	14%	193,069	202,336	210,733	218,340	225,764
Litter	7	0	0	0	0	0	0
Class 1 Non-hazardous	0	0	0	0	0	0	0
Classes 2 and 3 Non-hazardous	1	2%	22,650	23,737	24,722	25,614	26,485
Incinerator Ash	1	<1%	272	285	297	308	318
Treated Medical Waste	0	0	0	0	0	0	0
Municipal Hazardous Waste from CESQGs	0	0	0	0	0	0	0
Regulated Asbestos-containing Material (RACM)	0	0	0	0	0	0	0
Non-RACM	1	<1%	1,653	1,732	1,804	1,869	1,933
Dead Animals	3	<1%	770	807	841	871	901
Sludge	2	3%	39,348	41,237	42,948	44,498	46,011
Grease Trap Waste	1	<1%	5.54	5.81	6.05	6.27	6.48
Septage	1	<1%	210	220	229	237	245
Contaminated soil	2	1%	10,877	11,399	11,872	12,301	12,719

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)
Tires (split, quartered, shredded)	1	<1%	366	384	400	414	428
Pesticides	0	0	0	0	0	0	0
Used Oil Filter	0	0	0	0	0	0	0
Other (identify other types reported as *Attachment III.B.*)	0	0	0	0	0	0	0
Total	7	66%	808,830	847,654	882,832	914,701	945,801
☐ Check box if additional details provided in *Attachment III.B.*							

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

[Ref. 30 TAC §330.643(a)(3)(C)]

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

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

Activity	Description
Generation	Current solid waste generation in the Region is mainly municipal in nature, but an increase in industrial growth throughout the Region has increased this waste category. Waste generation management still takes place over 80 percent through landfilling. Municipal solid waste (MSW) is managed within the Region by cities and/or counties through local ordinances and guidelines. Waste is generated at the source and is predominately municipal.
Source Separation	There are currently five (5) communities who participate in single stream curbside recycling. There is 1 large MRF facility to process these recyclables. There are 3 metal recycling facilities and 1 small independent recycler who accepts mostly cardboard and metal.
Collection	Collection for MSW in the Region begins at the collection containers at residential or commercial locations within the Region. The collection container sizes range in size from small residential carts to large roll-off containers that hold several cubic yards of material. There are numerous solid waste collection services in the Region that are contracted with municipalities and with some counties. All collection services have the capacity to offer commercial and residential services throughout the Region. Collection of commercial, industrial, construction and bulky wastes depend more on the source and container sizes. Collection rates vary throughout the region for these collection types as well. Cities generally operate on multi-year contracts for waste collection on an agreed renewal frequency. Smaller communities have opted to contract with private collection companies to collect their waste for their residents. Private companies take collected waste to the nearest permitted facility. Survey results for the Region show that most of the waste collection in the Region is facilitated by Republic Services, CC Disposal and Frontier Waste.
Handling	There are currently 7 landfills in the Region with no plans to add to this number or increase the number of facilities to handle or process wastes in the Region.
Storage	Current storage in the Region is adequate for the number of facilities that process, store, handle and ultimately transport to one of seven landfills in the Region.
Transportation	All solid waste transportation that takes place in the Region stays mainly in the Region. Transport from outside of the Region goes to the only facility that accepts class 1 hazardous waste in Robstown, Texas.
Processing	Current storage in the Region is adequate for the number of facilities that process and ultimately transport to one of seven landfills in the Region. Currently there are four (4) processing and/or transfer stations in the Region. The largest is operated by the City of Corpus Christi (Reg. No. 40228). Residents in Port Aransas on Mustang Island can take their waste to their processing site (Reg. No 20070). Live Oak County (Reg. No. 40002), San Patricio County (Reg. No. 2319) and Refugio County

Activity	Description
	(Reg. No. 40027) are the only other authorized processing/transfer sites in the region. There are no active medical waste facilities in the Region.
Treatment	The Coastal Bend region only landfills MSW. There are no processors or facilities that incinerate, compost organics or conduct pyrolysis or conduct gasification in the Region.
Resource Recovery	Currently any community that recycles sends their materials to the one large MRF in the Region. That facility sorts, separates and processes the materials that are then shipped globally. This facility serves the Coastal Bend region and numerous other communities outside of the Region.
Disposal of Solid Waste	There are currently 7 landfills in the CBCOG region. One facility, Gulley-Hurst, a Type IV landfill (Permit No. 2349) only accepts dry, non-putrescible waste. The Region generally has satisfactory disposal storage through the long-term planning period. The landfills currently have enough combined lifespan to last another 100 years.

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

Activity	Description
Generation	Waste generation will continue to gradually increase over time in correlation to population and industrial growth in the Region. Outside of these gradual progressions over time, there are no significant increase activities known to affect MSW generation for the Region.
Source Separation	There are no significant changes planned for the Region in source separation. The Region's residents in some areas have taken it upon themselves to increase voluntary cleanups and conduct recycling events. Survey results voiced a request for more source separation.
Collection	There are no planned changes to MSW collection for the Region within the long-range planning period.
Handling	There are no known plans to begin new waste handling for any municipality within the Region for the planning period.
Storage	There are no plans to being waste storage or add waste storage for any municipality in the Region within the long-range planning period.
Transportation	With the proposed incorporations of additional processing facilities or transfer and citizen collection stations in the Region there could potentially be an increase in the need for transportation services.
Processing	There are no plans to construct an additional MRF to aid in processing recyclables in the Region. However, there are currently plans to add citizen collection stations within the Region.
Treatment	There are no known plans to begin waste treatment for any municipality within the Region for the planning period.
Resource Recovery	There are no plans to construct an additional MRF to aid in processing recyclables in the Region.
Disposal of Solid Waste	There are no new planned disposal facility locations for the Coastal Bend region. Currently there are 7 landfills and combined remaining lifespan is over 100 years. Amendments to open new cells at these landfill locations have taken place sporadically over time, but not often enough to warrant concern about implementing a new landfill location in the Region.
☒ Check box if additional information of solid waste management activities is provided as *Attachment III.C.*	

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

[Ref. 30 TAC §330.643(a)(3)(D)]

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

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

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

[Ref. 30 TAC §330.643(a)(3)(E)]
Refer to Regional Plan Instructions for more information on III.E. Assessment of Current Source Reduction and Waste Minimization Efforts, Including Sludge, and Efforts to Reuse or Recycle Waste.

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

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

[Ref. 30 TAC §330.643(a)(3)(F)]
In the table, identify new and additional opportunities for source reduction and waste minimization, including waste reuse or recycling programs. Add or remove rows as needed. Refer to Regional Plan Instructions for more information on III.F. Identification of Additional Opportunities for Source Reduction and Waste Minimization, and Reuse or Recycling of Waste.

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

Category of Activity (Source Reduction and Waste Minimization, Reuse or Recycling of Waste)	Opportunity Name	Brief Description
Source Reduction	Permanent Household Hazardous Waste Facility(ies)	Creation of permanent household hazardous waste facilities in the Region that could increase HHW collection exponentially.
Waste Minimization	Additional Citizen Collection Stations	Addition of citizen collection stations in the more rural areas of the Region to increase proper waste disposal options for residents.
Source Reduction	Additional Recycling Facilities	Introduction of more curbside and/or residential recycling drop off facilities to increase the options for recycling facilities that could accommodate more product for communities in the Region.
Waste Minimization	Community Cleanup Opportunities	Increase the awareness of community cleanup events and availability of either bulk waste collection containers in the Region. Also increase the number of community cleanup events that take place across the Region.
Source Reduction	Used and Scrap Tire Collections	Introduce multiple collection events for used or scrap tires in the Region. Provide tire collection trailers in the Region where scrap and used tires are an illegal dumping issue
Source Reduction	Implementation of Compost Facilities	Education on the importance of composting food scraps, organics and yard wastes in the Region. The implementation of region-wide

Category of Activity (Source Reduction and Waste Minimization, Reuse or Recycling of Waste)	Opportunity Name	Brief Description
		composting events, education and training events and community gardens could further this program. Public/private collaboration to provide compost bins to the residents of the Region.
Source Reduction	Strengthen Domestic Markets for Recycled Materials	Increase awareness and support for companies wanting to build repurposing, reprocessing facilities in the Region or the State that would boost the domestic markets for recycled materials in the United States and in Texas.
☒ Check box if additional information of opportunities and source reduction and waste minimization, reuse and recycling of waste is provided in *Attachment III. F.*		

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

[Ref. 30 TAC §330.643(a)(3)(G)]
In the table, provide a list of recommendations for encouraging and achieving a great degree or source reduction and waste minimization, and reuse and recycling of waste in the planning region. Add or remove rows as needed.

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

1. Increase recycling in the Coastal Bend region. The options for recycling region-wide should be increased to allow for curbside residential recycling, commercial recycling of paper and cardboard products, and drop-off locations should be implemented in the Region. Seek ways to expand recycling business activities in the Region.
2. Increase number of household hazardous waste (HHW) facilities for residents of the Region to take their unwanted paints, used oil and household chemicals.
3. With the implementation of a permanent HHW facility, the creation of a "ReBlend" Center could offer patrons the option of free or low-cost paint for refurbishing their homes and businesses. The creation of an HHW facility with a paint "ReBlend" Center would help keep paint out of the landfills, conserves water used to make new paints, prevents pollution from extracting and mining materials to make the paints and moves the Region forward towards a goal of being more sustainable.
4. There is an increased need for cost effective and convenient locations in the Region where construction and demolition (C&D) debris can be recycled and/or properly disposed of. The addition of said facilities needs to be addressed for the Region to alleviate the use of landfill space and illegal dumping of these materials. Through careful planning, reuse and recycling of C&D can actually be more economical than disposal in a landfill.
5. Create opportunities for the processing of green wastes such as brush, grass, and food scraps (organics) that can be composted. Diversion of materials is not only environmentally friendly it is a good economical choice. It extends the life of local landfills by freeing space, avoids costs and environmental impacts associated with new disposal facilities, reduces public and private sector solid waste management costs and offsets stormwater costs when compost is used in low impact development.
6. Expand the now implemented regional pharmaceutical waste program to control the issue of dumping unused, unwanted or expired pharmaceuticals into our waterways and our municipal solid waste systems. These pharmaceuticals, once in the environment, have been proven to have adverse effects on human health and environmental health.
7. Increase awareness and options for proper disposal of scrap tires in the Region. Currently, there are no tire recycling facilities in the Region. The creation of tire recycling opportunities is needed for the Coastal Bend region and would give a needed economic boost while removing scrap tires that have been illegally dumped in the Region.
8. Change the way the residents of the Region think about solid waste beyond, "garbage" or "trash," to understand that "waste is not waste until it is wasted." The materials we usual discard are actually a potential resource. Extensive education and outreach is needed for all ages and all demographics of the Region.
☒ Check box if additional details are provided in *Attachment III.G.*

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

[Ref. 30 TAC §330.643(a)(3)(H)]

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

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

[Ref. 30 TAC §330.643(a)(3)(I)]
In the table, list solid waste management concerns for the planning area and the priorities to address those concerns. Add or remove rows as needed.

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

Solid Waste Management Concern	Priorities to Address the Concern
Lack of recycling facilities in the Region	Based on annual distribution of funds from the TCEQ, assist funding for cities to provide PSAs, mail information, etc. to increase the public awareness and education on the need for recycling. Increase the number of recycling collection and processing in the region. The ability to collect and process recyclables has not been a priority for the region. The need to increase collection and processing is critical to conserve landfill space for the Region's seven (7) landfills.
Access to proper construction and demolition debris management facilities.	After enduring numerous storms in recent years, it became clear the region was able to receive and process debris, however this is an ongoing process or recovery and construction and there are not enough facilities to accept and process construction and demolition (C&D) debris completely. The ability to continue daily processing of C&D in the Region is critical for the continued growth and recovery after storms. Equipping facilities to accept C&D, process C&D or an increase in the number of facilities overall.
Implementation of a permanent facility(ies) to accept and process household hazardous waste (HHW) in the Region.	Based on annual funding provided by the TCEQ, provide the basis for communities to introduce additional cleanup days or provide the opportunities for permanent, easy access HHW facilities in the region. Survey results indicated a desire for HHW management in the region. There needs to be an increase partnership with HHW companies to make the disposal of household hazardous wastes more affordable and effective for the Region.
Implementation of a reuse facility for items brought to household hazardous waste facility(ies)	Other regions of Texas have successfully implemented reuse programs for used paints and chemicals that can be purchased or given to those who may use the items both residentially and commercially.
Lack of Community composting not offered in the Region.	Finding an appropriate end market for the product is of main concern for composting in the Region. Potential end markets for organic and biosolid wastes needs further development statewide. There is a desire for composting programs in the Region so the main objective is how to implement on a large scale.
Continued improper disposal of tires in the Region.	Assist funding for facilities to accept and process scrap tires and disposed of tires in the region with funding that is annual distributed by the TCEQ. Assist in providing education and outreach for the communities to educate on the importance of proper tire disposal.
☒ Check box if additional details are provided in *Attachment III.I*	

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

[Ref. 30 TAC §330.643(a)(3)(J)]
In the table below, list planning areas and agencies that may provide solutions and support to the established priorities for the concerns identified in III. I. Add or remove rows as needed.

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

Solid Waste Management Concern	Names of Planning Areas and Agencies that Could Address the Concern via Joint Action(s)
Lack of recycling throughout the Region for either curbside programs or drop off opportunities for residents	TCEQ, EPA, USDA, waste industry and associations, Region's cities and counties, Keep Texas Beautiful, Keep America Beautiful.
Continued improper disposal of tires in the Region.	TCEQ, EPA, USDA, waste industry and associations, Region's cities and counties, Keep Texas Beautiful, Keep America Beautiful. Other regional partners such as the Port of Corpus Christi and the Coastal Bend Bays and Estuaries Program could assist in the programs because they each have a vested interest in the removal of tires and keeping tires from entering the sensitive wetlands and estuaries in the Region. Regional law enforcement and code enforcement officials.
Implementation of a permanent facility(ies) to accept and process household hazardous waste (HHW) in the Region.	TCEQ, EPA, USDA, waste industry and associations, Region's cities and counties, Keep Texas Beautiful, Keep America Beautiful
Local enforcement of the State regulations and local ordinances associated with illegal dumping, environmental crimes and violations pertaining to solid waste issues.	Local governments, TCEQ Region 14 and TCEQ Austin for support of the local governments and City/County governments and municipal, district and other Courts in the Region.

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

[Ref. 30 TAC §330.643(a)(3)(K)]
In the table, identify incentives and barriers for source reduction and waste minimization and resource recovery including potential markets and strategies. Describe incentives and barriers impacting source reduction and waste minimization, and resource recovery. Identify public and private incentives and markets available to assist in meeting goals and objectives. Add or remove rows as needed for each section. Refer to Regional Plan Instructions for more information on III.K. Identification of Incentives and Barriers for Source Reduction and Waste Minimization, and Resource Recovery, Including Identification of Potential Markets.

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

Source Reduction and Waste Minimization	
Lack of participation in programs where they are already accessible for recycling	Lack of participation can be addressed through increasing awareness of the opportunities to recycle, the economic and environmental benefits of recycling over disposal. An increase in awareness and stronger campaign for participation can be added to address this lack of participation. Stress the economic benefits of participation for all.
Lack of, inconvenient, or limited access to recycling opportunities	Identify cost effective means of providing collection of materials, promoting the programs more aggressively to the public and potential collaboration with neighboring communities. Provisions for mandatory recycling services in a contract can also lead to increased service availability.
Resource Recovery	
Creation of a permanent HHW facility that can process and re-blend paints for use by the public. Costly to transport HHW from the area relative to the value of the materials.	The creation of a "ReBlend" Center business could offer residential and commercial citizens the option of free or low-cost paint for refurbishing their homes and businesses. The creation of a paint "ReBlend" Center would help keep paint out of the landfills, would keep it from being improperly disposed of in our stormwater and waste water systems and would move the Region towards a goal of being more sustainable.
Providing funding aid for material recovery facility	Funding is needed to aid in the construction of region-wide material recovery facilities or one large facility that could service the entire region. Lack of recycling in the region is attributed to required diversion and transportation of recyclable materials out of the area. Facility would increase recycling opportunities that do not exist, especially in the rural areas of the Region.
Potential Markets	
Limited availability for suitable markets in Texas	There is a great deal of potential in luring a tire processing company to the Region and create new business ventures for scrap tires management. Large quantity generators in the Region and improper disposal practices makes the area prime for a processing company to benefit while decreasing spare tire waste and providing recyclable materials. Quality deteriorates over time and this decreased the value and potential reuse. Providing financial assistance or identifying funding sources to provide a stronger scrap tire market in Texas could be beneficial for removing the vast number of stockpiles in the State and our Region and creating economic growth in areas that are lacking.

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

[Ref. 30 TAC §330.643(a)(3)(L)]
In the table, list the regional goals and corresponding objectives for the proper management of solid waste in the planning region. Identify the timetable for achieving each goal and objective using the established planning periods. Add rows as needed. The regional goals and objectives listed should match the goals and objectives provided in Volume I, per 30 TAC §330.635(A)(2)(A).

Table III.L.I Regional Goals and Objectives

Goal #1 Ensure the development of responsible waste processing and materials recovery practices for the Coastal Bend region.	1.1: Provide for recovery of material resources by emphasizing reuse, reduction (waste minimization) and recycling. • Increase residential recycling development and expansion of services throughout the Region. • Develop and encourage composting programs for brush and organic wastes in the Region. • Target waste reduction activities and develop affordable programs for the proper management and disposal of household hazardous wastes and those special wastes that pose a considerable risk to the waste stream, environmental health and human health. • Expand recycling opportunities for multi-family residential, government housing and businesses by increasing drop-off opportunities and partnering with disposal companies that service multi-family establishments and commercial establishments. 1.2: Increase commercial waste reduction efforts in the Region. • Promote reuse opportunities for white goods, furniture and other household goods in the Region. • Promote reuse opportunities for paints and other materials that can still be of use. • Expand resource recovery efforts in the construction and demolition industry. • Promote education of contractors and professionals in the construction industry about reuse of building materials. • Support the creation of incentive programs for materials from deconstructed sites rather than demolition and disposal. 1.3: Support regional education and outreach for proper waste management and recycling practices. • Promote reduction of ocean dumped wastes through increased education and awareness of the problem of ocean dumped wastes and wastes that begin on land and end up in the waterways of the Region.

	• Create partnerships in the Region with similar agencies and entities to further the promotion of the issue of proper waste management.
Goal #2 Improve upon and plan for adequate regional waste disposal capacity for the Coastal Bend region and utilize innovative resources to integrate and achieve optimum solid waste management.	<u>2.1: Expand disposal service options to the rural and under-serviced areas of the Region.</u> • Advocate for increased efforts to introduce additional citizen collection stations and transfer stations in the Region. • Identify areas with inadequate collection, transportation, and/or processing services, and provide solid waste management alternatives that will encourage proper disposal practices and reduce illegal dumping activities. • Support pilot projects and research projects that could provide for an increase in waste collection services in the rural areas. • Use state-of-the-art processes to create, manage and maintain rural transfer stations and collection stations in the Region. <u>2.2: Ensure the proper and safe management of solid waste, the availability of management alternatives, implementation of statewide goals at a regional and local level and through development, implementation and maintaining the Regional Solid Waste Management Plan and solid waste data for the Coastal Bend region.</u> • Maintain the Coastal Bend region's Closed Landfill Inventory. • Maintain data on solid waste behaviors in the Region and the State of Texas. • Use the State's Regional Solid Waste Grants Program as a tool to implement the Regional Solid Waste Management Plan. • Use the Regional Solid Waste Management Plan as a tool to clarify and support the implementation of MSW permits in the Region. • Ensure the availability of management alternatives, and implementation of statewide goals at the regional and local levels, through development and implementation of regional and local management plans. <u>2.3: Provide for the accommodations of large volumes of waste and storm debris produced by hurricanes and severe storms.</u> • Work with the Region's local and State emergency management teams to insure there are proper disaster management strategies in place to adequately address communities needs for disaster training, planning and active management in the event of a disaster.

Goal #3 Improve the recovery of resources by halting illegal dumping activities in the Coastal Bend region.	<u>3.1: Develop programs to assist regional entities in controlling illegal dumping and littering</u>. • Provide continued regional training and education of professionals and the public for environmental crimes, illegal dumping laws and regulations, and continue with public awareness on a variety of solid waste topics that affect the issues of proper solid waste management, proper disposal and prosecution initiatives. • Expand public awareness campaigns to create strong partnerships with regional organizations and state agencies that also target the reduction of illegal dumping activities. • Continue to support all aspects of community cleanups, litter reduction and the removal of illegally dumped items. • Support programs to educate residents, businesses, property owners, and construction companies on the proper collection and disposal of wastes in the Region rather than illegally dumping materials throughout the Region. • Explore opportunities to require cleanup activities for illegal dumping violators or other corrective action opportunities for the violators. • Assess model ordinances and best management practices regarding illegal dumping and provide the platform for implementing changes to strengthen local illegal dumping laws.

III.M. Advantages and Disadvantages of Alternative Actions

[Ref. 30 TAC §330.643(a)(3)(M)]

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

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

[Ref. 30 TAC §330.643(a)(3)(N)]
In the table, provide the plan of action and anticipated timetable for achieving the goals and objectives identified in Section III.L. Identify and describe action plans, the corresponding timetables and, where available, implementation milestones. Include brief descriptions of action plans, timetables, and milestones. Milestone dates may include specific years or planning periods; short-term planning period (1-5 years), intermediate planning period (6-10 years), and/or long-range planning period (11-20 years or longer). Refer to Regional Plan Instructions for more information on III.N. Recommended Plan of Action and Timetable for Achieving Regional Goals and Objectives, Including Specified Goals and Objectives.

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

Goal/Objective	Plan of Action	Milestone Dates
Waste Reduction	Encourage the implementation of source reduction, waste reduction and recycling programs for all local governments, including school districts and other governmental organizations.	Short Range 5 years
Waste Reduction	Support Statewide and regional efforts to establish and update waste generation, reduction and reuse discard rates.	Short Range 5 years
Waste Reduction	Encourage public/private sector collaboration to establish cost effective government, single family and multi-family residential and commercial recycling programs.	Intermediate Range 10 years
Waste Reduction	Expand source reduction and waste reduction services to the rural and underserved areas of the Region.	Long Range 20 years
Waste Reduction	Expand and encourage the implementation of waste diversion programs such as pharmaceutical take-back and construction and demolition material diversion programs.	Long Range 20 years
Goal/Objective	Plan of Action	Milestone Dates
Composting Programs for Yard Wastes and Related Organic Wastes	Encourage city and county programs to promote and provide opportunities for residents to participate in composting, organics and food waste diversion programs.	Short Range 5 years

Goal/Objective	Plan of Action	Milestone Dates
Composting Programs for Yard Wastes and Related Organic Wastes	Encourage public/private sector collaboration to establish cost effective opportunities to create composting and organics facilities throughout the Region.	Intermediate Range 10 years
Goal/Objective	Plan of Action	Milestone Dates
Household Hazardous Waste Collection and Disposal Programs	Promote and urge city and county programs to provide opportunities for residents to participate in source reduction, recycling and waste diversion programs (i.e., electronics and pharmaceutical take-back programs.	Short Range 5 years
Household Hazardous Waste Collection and Disposal Programs	Promote public awareness of options to donate certain HHW items (e.g., paint and electronics) to donation or reuse centers such as Habitat for Humanity or Goodwill Industries.	Short Range 5 years
Household Hazardous Waste Collection and Disposal Programs	Encourage implementation of and expansion of electronic recycling programs and projects throughout the Region, especially underserviced areas of the Region.	Short Range 5 years
Household Hazardous Waste Collection and Disposal Programs	Encourage cities and counties to collaborate with private, non-profit and other local government partners to establish and maintain HHW collection/reuse centers or regularly occurring collection events.	Intermediate Range 10 years
Household Hazardous Waste Collection and Disposal Programs	Encourage partnerships and collaborations between public/private sector to establish an HHW facility specifically for the purpose of re-blending paints to be used for residential and commercial needs at a low cost.	Long Range 20 years
Public Education Programs	Support regional training opportunities for the purpose of sharing knowledge and best management practices, collect case studies and be a regional information resource to reduce illegal dumping activities.	Short Range 5 years
Public Education Programs	Support and promote public education and outreach activities related to proper waste disposal methods such as reduce, reuse and recycle and illegal dumping.	Short Range 5 years
Public Education Programs	Promote the use of popular technologies and media to market and educate the public and commercial sector for special collection events, recycling programs and proper disposal methods for toxic materials.	Short Range 5 years
Public Education Programs	Encourage implementation of cost-effective illegal dumping programs such as cleanup events, purchasing of cleanup trailers, and other innovative projects through enhanced government and public/private sector collaborations.	Short Range 5 years
Goal/Objective	Plan of Action	Milestone Dates
The Need for New or Expanded Facilities and Practices	Support establishment and expansion of used and scrap tire management programs through local governments and public/private partnership programs.	Short Range 5 years

Goal/Objective	Plan of Action	Milestone Dates
The Need for New or Expanded Facilities and Practices	Continued support and expansion of the pharmaceutical take-back program in the region by enhancing the local government partnerships and enhancing the public outreach and educational awareness of proper pharmaceutical disposal practices.	Short Range 5 years
The Need for New or Expanded Facilities and Practices	Encourage implementation of cost-effective citizen collection stations or transfer stations by local governments and public/private sector collaboration to provide proper waste management and source reduction in the rural areas of the Region.	Long Range 20 years
The Need for New or Expanded Facilities and Practices	Encourage local governments and public/private sector collaboration to decrease food waste disposed of in landfills such as education and outreach campaigns about food waste source reduction, developing food waste disposal and processing infrastructure (e.g., community gardens, community composting programs and centers) and increasing the convenience of food waste disposal options.	Long Range 20 years
The Need for New or Expanded Facilities and Practices	Support and encourage demonstration projects, research and pilot projects to address the viability, feasibility and cost effectiveness of waste reduction, diversion and innovative source reduction technologies that could benefit the Region and the State.	Long Range 20 years
The Need for New or Expanded Facilities and Practices	Provide training and resources and encourage cities and counties to establish or expand multi-family and commercial recycling programs and support development of additional recycling facilities for residents	Long Range 20 years
☒ Check box if additional details are provided in *Attachment III.N.*		

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

[Ref. 30 TAC §330.643(a)(3)(O)]

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

Section IV. Required Approvals

Table IV.I Required Approvals

Solid Waste Advisory Committee	First Reading – April 21, 2021 Second Reading – August 18, 2021
Public Meeting Dates	August 18, 2021
Executive Committee	

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

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

Acknowledgement

The Coastal Bend Council of Governments (CBCOG) would like to acknowledge the Texas Commission on Environmental Quality (TCEQ) Waste Permits Division for their tireless leadership and guidance in creating this document.

The CBCOG would also like to acknowledge the Texas Association of Regional Councils (TARC) for their support of all twenty-four (24) Councils of Governments in Texas and all COG regions who worked together with each other to complete these Plans.

"Solid wastes are the discarded leftovers of our advanced consumer society." Jimmy Carter

Lastly, the CBCOG would especially like to thank the North Central Texas Council of Government (NCTCOG) for allowing other regions to examine and utilize their research and information templates for the developments of our Plan structure while creating our own Regional Solid Waste Management Plan Updates. And thank you to all COG regions who worked together to get these Regional Plans completed while supporting each other throughout 2020 and 2021.

Attachment I. Figure 1 Coastal Bend Council of Governments Regional Map

Attachment II.A Planning and Growth Trends in the Coastal Bend

The Texas Coastal Bend comprises an 11-county region situated along the Gulf of Mexico. The Coastal Bend Region includes eleven counties - Aransas, Bee, Brooks, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio and Refugio counties, all of which are separated from the Gulf of Mexico by barrier islands. Between the coastal counties and the barrier islands lie numerous shallow bays, tidal flats and estuaries. The Region encompasses a landmass of approximately 10,273 square miles. From the low-lying tidelands along the Gulf Coast, the surfaces rise gently culminating in gentle rolling hills in the inland counties.

The Coastal Bend is rich in natural resource assets, including multiple river systems that drain central Texas and feed productive estuaries. The region is internationally known as a migratory bird hotspot – including the last wild migratory population of the federally endangered whooping crane – and also boasts grasslands to woody species that provide key habitat. These assets form the basis of the tourism industry, which is the region's third largest industry and a significant portion of the economy in some counties. For example, according to NOAA data, in 2018 employment in tourism and recreation represented 80 percent of the economy in Aransas County (NOAA ENOW 2018).

The Coastal Bend is located between two major metropolitan areas, Houston, 200 miles to the northeast and San Antonio, 150 miles to the northwest. To the south is the Rio Grande Valley and Mexican border with an urban area extending from Brownsville in the east to McAllen in the west. Laredo is directly west of the region and provides an inland port serving commerce on both sides of the International Border. The locale of the Region proves to be an optimal location for trade, tourism and marketing for the area. The location, natural resources and economics of the region are key factors in how solid waste is managed over the next 20-year period.

The Coastal Bend region had a population of 581,477 in 2020, according to the Census figures. The three counties of the Corpus Christi metro area (Aransas, Nueces, and San Patricio) made up 76 percent of the regional population. The Coastal Bend is home to two Naval Air Stations – NAS Corpus Christi and NAS Kingsville. The NAS Corpus Christi includes the Corpus Christi Army Depot, which is the largest industrial employer in South Texas.

The Port of Corpus Christi which has been in operation since 1926 and has since become the third largest U.S. seaport by total revenue tonnage. The Port of Corpus Christi is poised to take advantage of the increased traffic through the newly expanded Panama Canal and opening of trade opportunities in South America. The Port has continued to grow due to a 50-year ban on crude oil exports being lifted in 2015 and became the largest exporter of crude oil in the U.S. in 2020. Throughout the growth of the Port of Corpus Christi they have found innovative ways to manage their carbon footprint and are recognized nationally as a leader in the Green Marine Program for waste and recyclables management for their properties and tenants.

The continued growth in the Coastal Bend region is important to agencies and businesses tasked with providing sufficient solid waste management services, alternatives, and adequate capacity for disposal of municipal solid waste.

Table 1: Populations Projections for Coastal Bend Region

Current Population Estimate (2020)	2022 Population Projection	2027 Population Projections	2032 Population Projections	2037 Population Projections	2042 Population Projections
581,474	608,571	636,930	663,363	687,310	710,679

(Source: U.S. Census 2020 Data Released, September 1, 2021 and Texas Water Development Board Population Projections 2021)

The 2020 census data for the Coastal Bend population shows a decline in all but 3 of the Coastal Bend counties. This significant decline is due to a collapse in the Texas oil and gas production, specifically the exploration of the Eagle Ford Shale. Work has shifted from exploration to pipeline and transport of product that has led to a population deficit in all Eagle Ford Shale counties in Texas. The same type of population trends can be seen across Texas in the various oil and gas exploration areas. While there has been a decline in population for some counties, projections suggest that there may be an increase in the coming years although there is no explanation as to the reason for the increase.

Analysis of the population growth trends is important to understand patterns and where residents are choosing to live within the Region. Table 2 demonstrates estimated population break down by county in the Coastal Bend region.

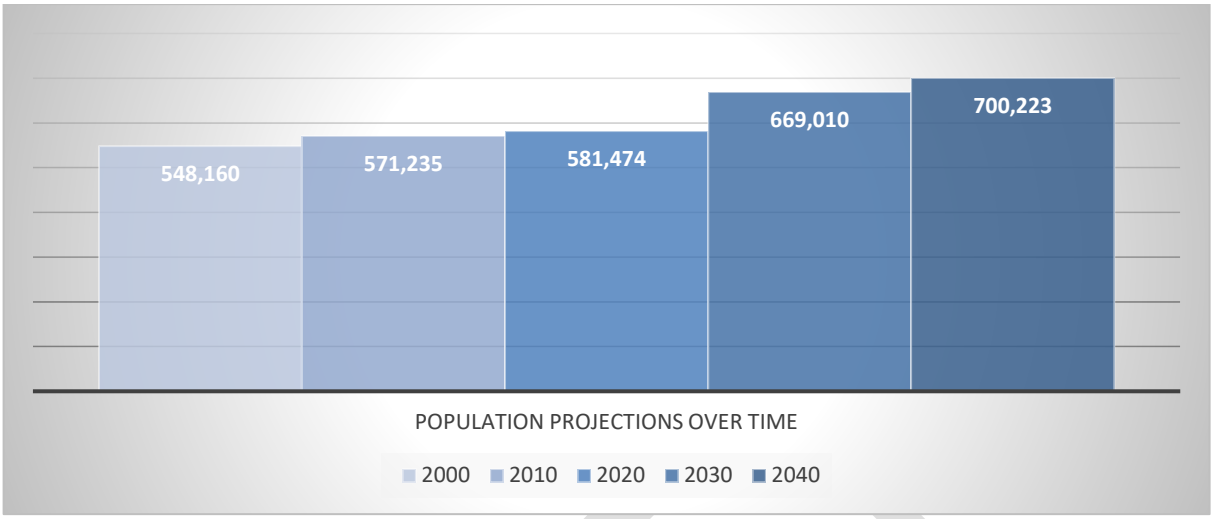

Figure 2: Population Projections Over Time (Source: Table 1)

Table 2 Population Projections by Coastal Bend County

County	2010 Population (Census)	2020 Population (Census)	2027 Population Projection	2032 Population Projection	2037 Population Projection	2042 Population Projection
Aransas	23,158	23,830	24,521	26,102	27,318	29,923
Bee	31,861	31,047	33,813	34,879	35,228	35,487
Brooks	7,223	7,076	7,861	8,252	8,335	8,722
Duval	11,182	9,231	12,842	13,470	13,608	14,098
Jim Wells	40,838	38,891	45,437	48,690	49,177	52,052
Kenedy	416	350	468	498	503	504
Kleberg	32,061	31,040	35,923	38,963	39,353	42,202
Live Oak	11,531	11,335	11,690	11,690	11,690	11,690
Nueces	340,223	353,178	377,890	407,534	411,609	428,513
Refugio	7,383	6,741	7,764	7,929	7,969	7,985
San Patricio	64,804	68,755	69,448	72,114	72,835	74,043

Source of data for 2020 population https://data.census.gov/cedsci/profile?g=0400000US48

*Denotes a decrease in population from previous U.S. Census data.

Growing cities and counties provide opportunities to proactively implement pilot projects, enhance education, and expand programs to address waste management service needs, save money and reduce needed landfill capacity.

Regional Economic Activity

The Coastal Bend Economic Development District compiled a Comprehensive Economic Development Strategies (CEDS) report in 2020. In that report, a *Strengths, Weaknesses, Opportunities and Weaknesses (SWOT)* analysis was conducted to determine the Region's strengths and weaknesses. This analysis is relevant to how the Coastal Bend region manages solid waste needs. The SWOT analysis is illustrated in Figure 3.

A SWOT analysis is an effective tool to exploit opportunities and minimize threats, using relevant data to determine the regional picture and point in future direction for development and growth. The Coastal Bend region has the capacity for a boundless amount of economic growth due to the Port of Corpus Christi and the activities of the diversified industries that have come into the region over the last decade. There are five main industry clusters in the region; oil and gas, construction, industrial manufacturing, healthcare and hospitality.

Figure 3: SWOT Analysis for Coastal Bend Comprehensive Economic Development Strategy report (Source: CBCOG, 2021)

The Coastal Bend region could be considered to be is in midst of a transformation that could be of global proportions because the overall footprint of the industrial partners moving into the Region are impacting the global economy, not just the regional economy.

Due to a construction boom of more than a dozen industrial and manufacturing facilities with capital investments over 40 billion dollars since 2010, the Coastal Bend is poised to become a leader in the global trade markets. More facilities are in the planning and negotiation stages proposed to be built in the Region over the next ten years.

Much of this growth is tied to the oil and gas pipeline industry and the ability for the Port of Corpus Christi and its partners to ship commodities in and out quickly, efficiently and cheaper than other areas of the State and even other ports in the United States.

With the increase in commercial and industrial growth across much of the Coastal Bend region there is growth in population and home building. The trend being seen in population growth for the Region, although not significant, is steady in the urban areas. However, the growth that is needed to sustain industries in the Region is not being seen due to outmigration of the younger populations who are leaving to move to more populous regions of the State like Austin, Houston and Dallas where they can find better paying jobs than those offered in the Coastal Bend region.

Another population issues, is that when facilities are constructed, much of the work is being done by transient workers who come in and then leave the area when construction is complete. However, the specialized nature of some of the manufacturing facilities has led to an increase in permanent populations in parts of the Region creating a need for affordable permanent housing. With the increase in population also comes the increase in the need for goods and services.

With the population and goods and service needs increasing in the Region, there is a demand to provide alternative solid waste management strategies to ensure there will be adequate landfill capacity moving forward for the Region. These needs and strategies are discussed in greater detail throughout the CBCOG Regional Solid Waste Management Plan Update.

Regional Economics and Solid Waste Management

In 1976, the United States Congress passed the Resource Conservation and Recovery Act (RCRA) in an effort to restrict waste generation. This law remains the primary federal law

on waste disposal. The statutory definition of a solid waste is not based on the physical form of the material (i.e., whether or not it is a solid as opposed to a liquid or gas), but on the fact that the material is a waste. RCRA §1004(27) defines solid waste as:

> *"Any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining and agricultural operations and from community activities."*

The United State Environmental Protection Agency (EPA) is the federal agency that oversees RCRA and all other federal environmental laws in the United States. The EPA summarily defines municipal solid waste (MSW) as items that are disposed of after such as "packaging, food, grass clippings, sofas, tires, computers and refrigerators," and excludes wastes that area hazardous, industrial or from construction.

The Texas Administrative Code (TAC) defines MSW as:

> "*Solid waste from or incidental to municipal, community, commercial, institutional and recreational activities, including garbage, rubbish, ashes, street cleaning, dead animals, abandoned automobiles, and all other solid waste other than industrial waste*."

Studies on waste characterization are costly and budget restrictive for both State and local governments. These constraints lead to a limited amount of accurate data being used to properly plan waste management in the region and for States.

In response to the State's goal to protect people and property; regional councils of governments and regional planning agencies are required to develop regional solid waste management plans that conform to the state regulations codified in Texas Administrative Code, Title 30, Chapter §330, Subchapter O.

Regional solid waste management plans are necessary to identify the overriding concerns, goals and objectives and recommended actions for solid waste management over a long period of time for the entirety of the region. Regional Plans must conform to Texas Health and Safety Code (THSC) §363.064, and be the result of a planning process related to proper management of solid waste in the planning area.

Regional plans provide the principal structure and commitment to comply with the requirements for regional planning. Additionally, regional plans identify the concerns, goals and objectives and recommended actions to accomplish the stated solid waste management goals and objectives.

The first Regional Solid Waste Management Plan (herein referred to as the Plan) for the Coastal Bend Council of Governments (CBCOG) was published in 1990 with an ensuing amendment in 2002. This document updates the 2002 regional plan that was approved by the Texas Commission on Environmental Quality (TCEQ) Commissioners in 2007.

The purpose of this document is to consider the solid waste management needs, materials management and address the evolution of the solid waste management realm for the Coastal Bend region for the planning period of 2022 to 2042.

Goals of the Natural Resources Advisory Committee, updated recommendations and actions needed to address solid waste priorities and emerging trends in materials management in the Coastal Bend are all a portion of the Regional Plan Update. The purpose of this Plan is to establish metrics that can be used to assess impacts of programs and projects for the Region over time pertaining to solid waste management needs in the Region.

The draft Regional Plan was provided for public comment on August 18, 2021. The draft plan was also approved by the CBCOG Natural Resources-Solid Waste Advisory Committee on August 18, 2021 and endorsed by the CBCOG Executive Board on …….

The CBCOG Regional Plan reflects the structure of the U.S. Environmental Protection Agency's Non-Hazardous Waste Management Hierarchy, shown in Figure 4. This hierarchy complements the Plan's goals and objectives and emphasizes the importance of preferred strategies when addressing the waste streams of the Coastal Bend. The Waste Management Hierarchy will be referenced in multiple sections throughout the Plan.

Figure 4: EPA Non-Hazardous Waste Management Hierarchy
(Source: EPA, 2021)

The State of Texas outlines in the Texas Health and Safety Code §361.022 the same hierarchy of preferred methods including:

1. Source Reduction and Waste Minimization
2. Reuse and Recycling of Waste
3. Treatment to Destroy or Reprocess Waste to Recover Energy or Other Beneficial Resources
4. Land Disposal

Consistent with both the national and state priorities, the Coastal Bend region has adopted the most of the preferred waste management strategies which serve as the foundation for the Plan.

The national, statewide and local efforts to continue to focus on three key areas of waste management that are concisely summarized by the EPA as:

- *Source Reduction:* Waste prevention, designing products to reduce the amount of waste that will later need to be thrown away and also to make the resulting waste less toxic to human and environmental health.

- *Recycling:* Recovery of useful materials such as paper, plastic, metal and glass, from the waste stream to use to make new products, reducing the amount of virgin raw materials needed.
- *Composting:* Collecting organic waste, such as food scraps and yard trimmings, and storing it under conditions designed to help break it down naturally, to then be used as natural fertilizer.

Landfilling is the most preferred method of waste management globally. Outside of using a landfill as a disposal choice there are many additional opportunities to dispose of waste and preferably to recover materials rather than landfill.

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

Defining solid waste is vital because wastes can differ depending on the source of the waste generated. Waste is an evolving mechanism and ever-changing depending on the life cycle of the waste stream. The EPA has stated that the average U.S. citizen generates approximately 1,825 pounds of trash per year, that is nearly 1 ton per person.

Characterizing waste is fundamental for proper waste management practices. Assessing opportunities for material recovery and for pinpointing the sources of particular waste types can be beneficial to solid waste management operations. Being able to identify waste streams and waste types is also critical to the Coastal Bend region due to the growth and industrial influx that will continue into the next twenty years.

In 2018, more than 146.1 million tons of municipal solid waste was taken to landfills in the United States. Nationally, in 2018, the largest waste component collected was food waste at 24% (approximately 35.2 million tons) of the total MSW generated. This was followed by plastics at 18.5%, paper and paperboard components at 12% and metals at 9.5%. Other categories included wood, glass, rubber & leather, and textiles and other materials that accounted for a combined 38.42% of the total MSW landfilled in 2018 as shown in Figure 5.

Figure 5 shows the amount of MSW collected in Texas landfills in 2019. Figure 6 details the State's waste characterization based on a broader representation and is not estimated on a more detailed level as the national assessment in Figure 5.

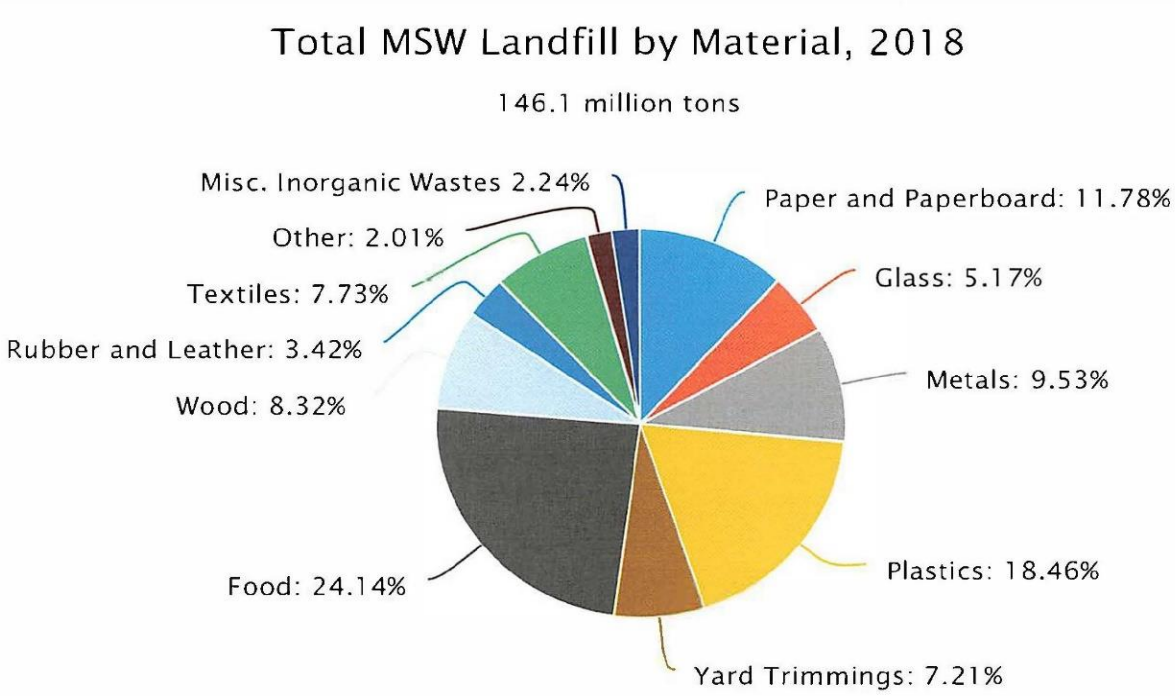

FIGURE 5: EPA Total MSW Landfill by Material, 2018
(Source: EPA, 2018)

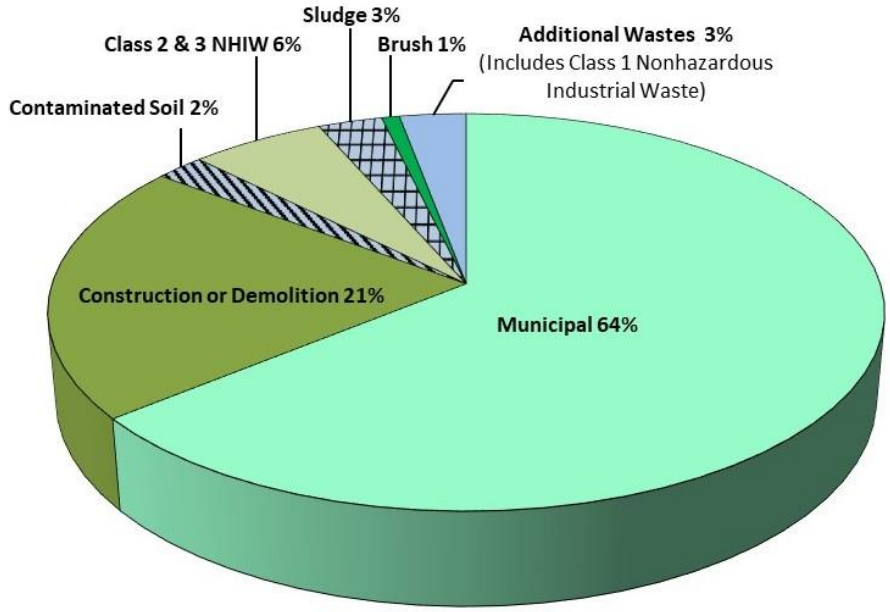

FIGURE 6: TCEQ Types and Amounts of Waste Disposed of In MSW Landfills in 2019
(Source: TCEQ, 2020)

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

Solid waste management in the Coastal Bend region is critical and can be successfully accomplished through the implementation of cutting-edge technology and through an unprecedented level of cooperation and coordination between recyclers, designers, industrial operators, manufacturers, businesses, municipalities, governments, and countless others.

The cost of providing residential and commercial waste collection in Texas is carried by the waste generator or residential and businesses. Local governments in the Coastal Bend region either provide waste collection services as a local government function or contract with private-sector disposal service providers. The cost of providing these services to residents are collected by local government through utility fees each month. Additionally, when a resident or business uses the landfills, disposal fees are collected to assist with funding operation and maintenance at the landfills.

Tipping fees or solid waste disposal fees are on the rise across the nation; however, Texas has some of the lowest fees in the nation. The average tipping fee per ton in the United States in 2020 was $56.72, this is a decrease of $1.76 in 2019 per ton. Texas tipping fees are among some of the lowest in the nation at $37.94 per ton in 2019. Alaska has the highest tipping fees in the nation at $154.92 per ton, while Kentucky has the lowest tipping fees of $29.82 per ton.

The average landfill tipping fees in the Coastal Bend are drastically lower than the National average fee rate and are among some of the lowest in the State at $35.61 per ton in 2020. This tipping fee rate has not changed since 2015.

Other fees can exist in a waste cycle, including recycling, HHW, collecting commercial recycling, batteries or used oil. In the Region, fees for residential recycling are assessed through the MSW fees and not a separate fee. If a municipality or county has a Citizen Collection Station or Transfer Station that is allowed to accept used oils, batteries, tires, HHW or other special wastes a nominal fee is calculated for the resident dropping off the materials at that time and not assessed in monthly fees for the entire community or county for such services. Residential curbside recycling in the Coastal Bend region is not a separate assessed fee for the Coastal Bend communities.

In 1990, there were over 6,000 landfills in the United States. This number has dramatically decreased to 1,269 landfills as of 2018. Factors that drive the tipping fee rates are not just based on the number of landfills in an area or State but are based on variable factors such as total waste generation, fractional recovery for recycling and/or composting and interstate transport of the waste.

It is estimated that wastes being generated in the Coastal Bend region will more than double in the number of tons collected while recycling rates will either stay the same or decrease. Waste generation disposal figures and rates must decrease while recycling rates must continue to increase. The creation of organics collection, or green waste, and composting programs should be included in the disposal cycle as an option, as well as household hazardous waste (HHW) collection to divert these wastes from the landfills.

The number of active landfills in the Region have fluctuated between 7 and 8 since 2003. In 2003, there was an estimated 2.9 million tons of disposal capacity for the Region with eight (8) active landfills. Despite this fluctuating number of active landfills, the overall landfill capacity has increased exponentially over time. In 2019, that number was estimated at 92.4 million tons of disposal capacity with a combined remaining time period for disposal in the Region of 326 years for only seven (7) active landfills.

The increase in landfill space and years is due to the addition of new permitted capacities that has been attained through new and expanded facilities, therefore increasing the remaining capacity in terms of volume that can be accepted as well as the estimated years remaining of capacity.

Summary

In conclusion, if the CBCOG region were to stay on the current track of an estimated 7.62 pounds per person for disposal and a recycling rate of only 6 pounds per person per day, and the Region saw no major natural disasters for the next 20 years, then the Region would have sufficient landfill capacity moving into the future.

However, the population and disposal rates are estimated to nearly double in the next 20 years with the recycling rate staying low and we cannot predict natural disasters. In order to accommodate the increase in population and disposal for the Region the rate of recycling and other diversion programs needs to increase considerably.

In 2017, the Region experienced Category 4, Hurricane Harvey. This was the first major hurricane to hit the Region directly in over 40 years. The aftermath of Hurricane Harvey left an enormous volume of debris. Some of the waste generated from the storm ended up in the Region's landfills, other landfills outside of the Region and some of the debris was incinerated. The Region needs to be prepared every year for this magnitude of a storm and for the volume of debris it could generated.

After Hurricane Harvey, the landfill capacities dropped considerably. In 2016, the Region had approximately 103.2 million tons of remaining capacity. The recorded landfill capacity for 2017 dropped to 85.9 million tons. Landfill capacity rebound in 2018 to 110 million tons remaining. This increase was due to two of the Region's landfills gaining permitted expansion projects for operations to increase and new cells to open. The Coastal Bend region cannot predict what will happen year to year when it comes to natural disasters and must be prepared for extra capacities to be available.

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

The Region has experienced significant events that affected the solid waste management strategies over the last twenty (20) years. Landfills in Bee and San Patricio counties closed permanently. In 2013, the Region had twelve (12) counties, however, McMullen County sought removal from the Region by the Governor's office and moved into the Alamo Area Council of Governments (AACOG). These major changes did not impact the overall landfill total or capacity because two new landfills were brought into operation. However, the removal of McMullen County impacted the size (in square miles) of the Region, the population and tipping fee calculations used to facilitate numerous programs administered on the State and Federal level for the Coastal Bend region.

Despite the capacity increases for regional landfills and the reallocation of a county to another region, there are still inadequacies in solid waste management for the Coastal Bend. While waste hauling operations in the Region are adequate, there is need for improvement and expansion of regional infrastructure and services for the Region's residents.

Resource Recovery and Transportation Adequacy

The Coastal Bend region has one materials recovery facility (MRF) that has the capacity to process residential materials for recycling of products for the entire Region. This facility is under-utilized and has the potential to increase processing should the global markets experience an uptick for recycling commodities. The smaller private recovery facilities that service mainly commercial businesses in the Region, but they are not equipped for large capacity operations. These facilities usually only handle one or two different commodities like metals or cardboard and not the broad spectrum of recyclable materials.

The Region hosts numerous commercial recyclers for metals, concrete, asphalt and wood materials. These facilities can process commercial, light industrial and materials dropped off by residents or materials brought in by commercial contractors.

The influx of industrial activity throughout the Coastal Bend has proven that the Region is a prime location along the Gulf Coast of Texas for the transport of recovered materials to other areas of the United States and globally. This type of expansion can only be accomplished if the right infrastructure is put in place. The Coastal Bend is middle ground for the expansion and growth of materials recovery in Texas and could be the leader if the infrastructure, markets and industrial partners were in place.

Community Allocations to Solid Waste Management

Waste collection and transportation infrastructure is an integral part of the waste cycle and because it is a costly portion of a local government's operating budget long-term planning for a more efficient, sustainable infrastructure should be considered moving forward to alleviate the costs on local governments.

The transportation of waste and waste processing infrastructure are important aspects of the cycle of waste management of products. The costs associated with resource recovery processing facilities can be cost prohibitive especially for the Coastal Bend because the large MRF is located in Corpus Christi and the rural outlying areas do not have the infrastructure in place to process and transport into the urban area.

State legislation requires local governments to provide waste collection and disposal for residents within their jurisdiction. To provide these services, waste collection and transportation services are often contracted with registered private companies. Some communities with their own landfills and processing facilities provide their own solid waste collection and transportation for their residents.

Local governments struggle to increase their waste collection coverage and efficiency due to a number of common challenges faced by communities globally. These common challenges include increased volume of waste, limited space for storage and transferring waste, shortage of funding, limited public awareness for the importance and well-being of proper waste disposal and physical obstacles to collection like navigating narrow or poor roadways for proper waste collection.

Storage Adequacy

Residents can bring their wastes to Transfer Stations or Citizen Collection Stations (CCS) that are often centrally located in a city or county for use by residents. Establishing additional CCS in rural areas offers residents a cost-effective alternative to illegal dumping. Many of the CCS in the Coastal Bend also function as a drop-off location for limited recyclables, mainly metals and cardboard.

The Texas Administrative Code defines a Citizen Collection Station (CCS) as a "facility established for the convenience and exclusive use of residents not commercial or industrial users or collection vehicles, except in small communities where regular collections are not available. Small quantities of commercial waste may be deposited by the generator of the waste and the facility may consist of one or more storage containers, bins, or trailers." Under the Texas Administrative Code, Chapter §330.11, Citizen Collection Stations are required to notify the TCEQ, but may be exempted from recycling and other activities.

The inclusion of any level of recycling at a CCS can be beneficial for educating and introducing the idea of larger scale recycling program in the Region and can complement the curbside recycling programs of larger neighboring cities who have existing recycling programs.

Transfer stations provide a significant incentive financially to rural communities that face hauling waste long distances to a landfill. The costs of disposal, distance to a landfill, annual tonnage and fuel costs are all important factors in determining the use of a transfer station for a community versus direct haul to a landfill. Transfer stations are required to be registered or permitted with the TCEQ and may also function as a processing facility. The primary reason a transfer station exists is to reduce the burden of costs for a community. Figure 6 shows the locations for the transfer stations and processing facilities in the Coastal Bend region.

The advantage of a Transfer Station or CCS in a local government's jurisdiction is that there are fewer stops for waste collection vehicles and less waste is stored at a resident's home.

Some disadvantages of transfer stations and CVS are the potential for illegal dumping if bins are inconveniently located or are not routinely staffed. Often times bulk waste appears at the entrance to a transfer station or collection station in a rural area that is not properly staffed and open to the public on a routine basis. Residents become disillusioned and frustrated and just leave their waste at the gate.

Respondents of the solid waste survey voiced their desires to see an increase in additional collection stations due to the inadequacy of the number of options for collection stations in the Coastal Bend. The addition of collection options in the region is a priority that is supported by the Regional Plan.

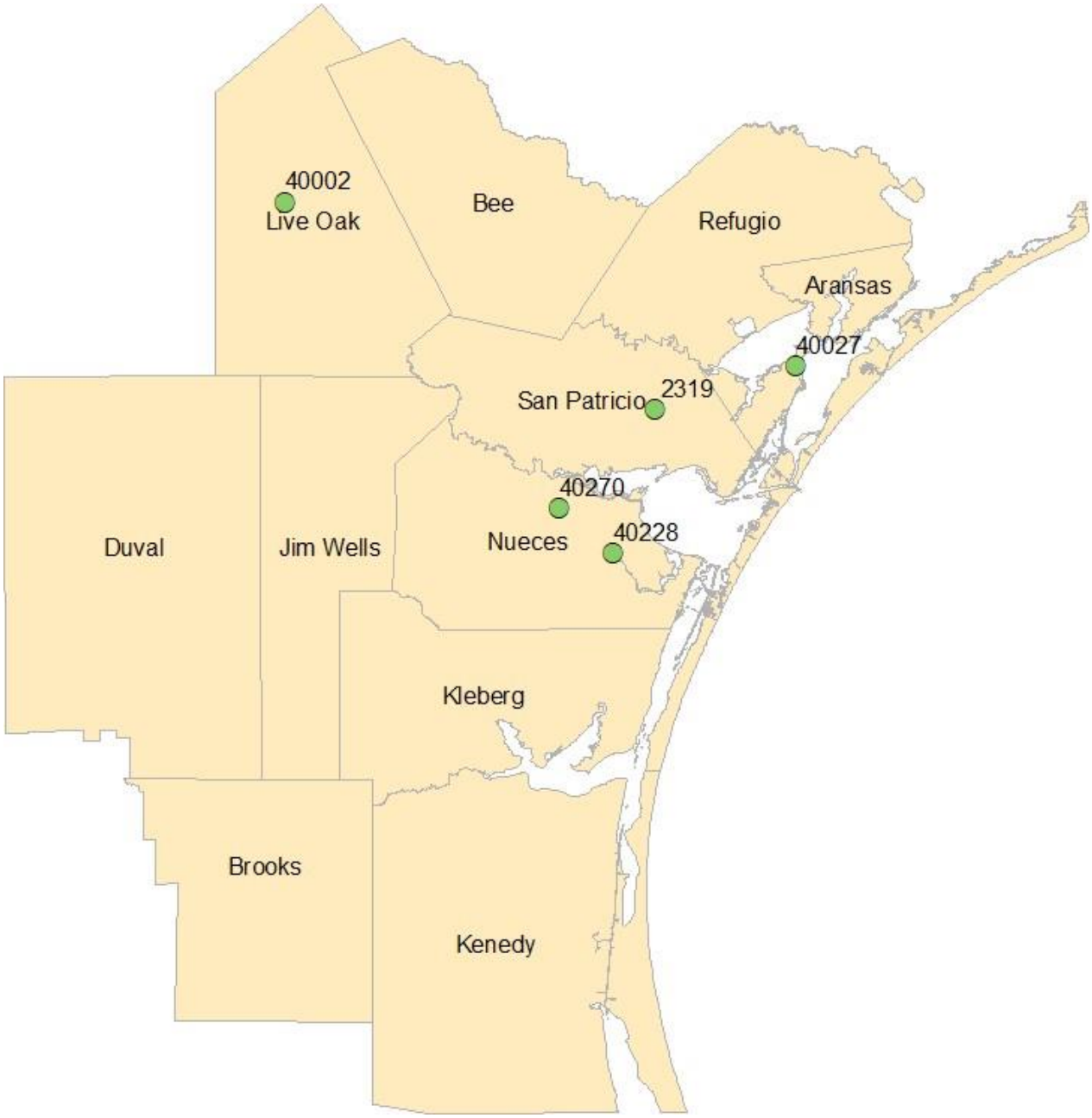

FIGURE 7: Coastal Bend Municipal Solid Waste Transfer Stations and Processing Facilities
(Source: TCEQ, 2020)

Treatment and Disposal Adequacy

The Coastal Bend region has a total of seven (7) active permitted landfills. Figure 8 depicts the landfill locations and landfill types in the Coastal Bend region. Table 3 lists the permit numbers and type for each landfill location in the Region.

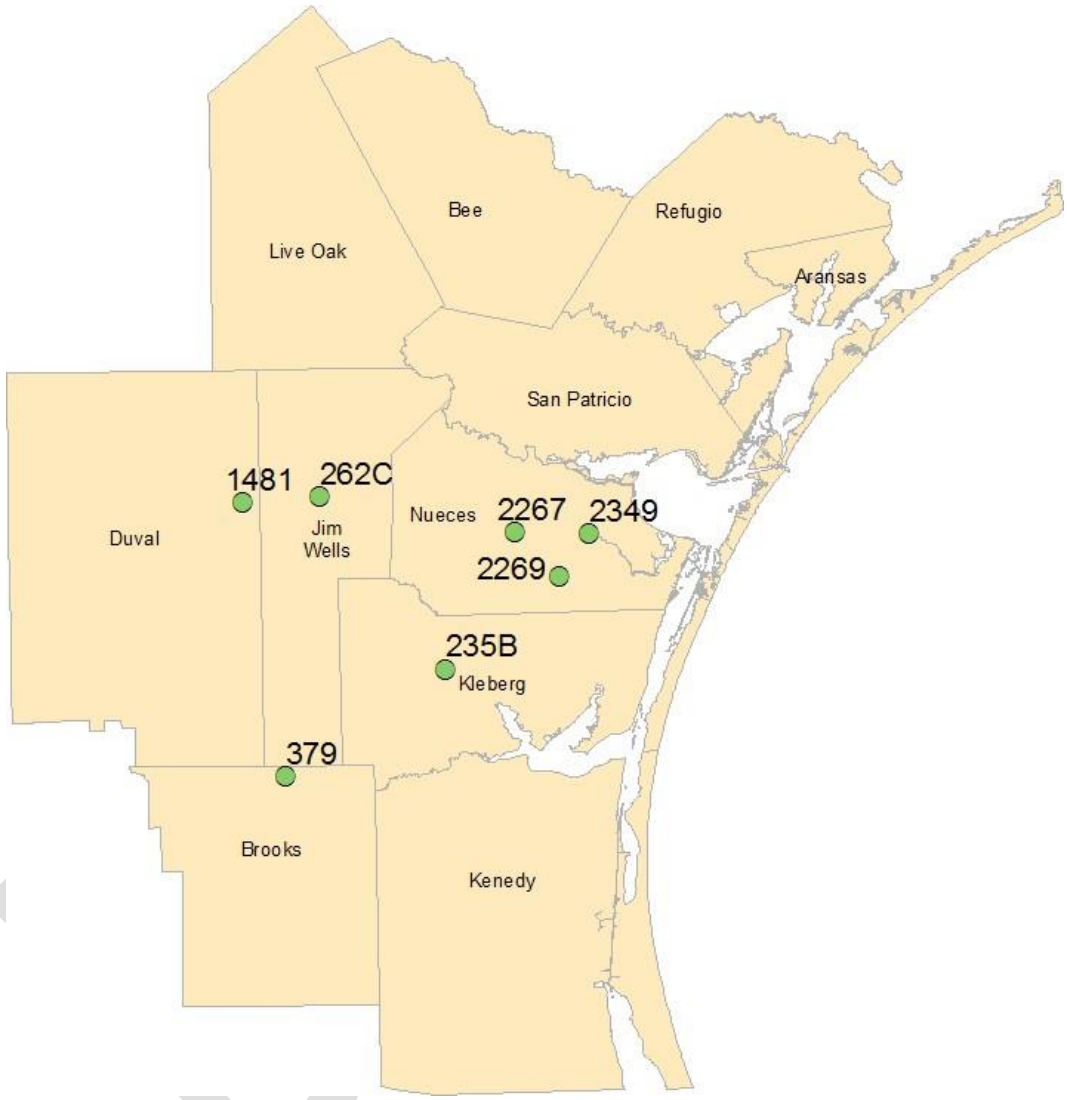

FIGURE 8: TCEQ Coastal Bend Council of Governments Landfill Location Map

(Source: TCEQ, 2020)

Table 3: TCEQ CBCOG List of Active Landfills

Permit	Site Name	County	Type
379	Brooks County Landfill	Brooks	4AE
1481	Duval County Landfill	Duval	4AE
262C	City of Alice Landfill	Jim Wells	1
235B	City of Kingsville Landfill	Kleberg	1
2267	El Centro Landfill	Nueces	1
2269	Cefe Valenzuela Landfill	Nueces	1
2349	Gulley Hurst Landfill	Nueces	4

(Source: TCEQ, 2020)

Household Hazardous Waste Capacity and Disposal Adequacy

Hazardous waste is defined as a waste that may cause or significantly contribute to injury or death. Household hazardous waste (HHW) is generally defined as household wastes that are toxic, flammable, corrosive or reactive. Improper disposal of HHW introduces harmful compounds, which cannot be removed by treatment facilities into the environment, and these chemicals end up in human, animal and plant tissue. What constitutes to inadequate disposal varies from pouring down the sink or drainage, dumping in the garbage or even out on the ground.

Veolia North America estimated in 2020 that the average U.S. home can accumulate as much as 100 pounds of HHW over a lifetime, so assisting the residents of the Region to find a solution to proper HHW disposal is critical. According to the Consumer Product Safety Commission, the average household contains 63 different products involving hundreds of different chemicals that can be classified as HHW. Common HHW includes:

- Used mercury, nickel-cadmium and lead-acid batteries;
- Oil-based paints, varnishes, stains, and lacquers, paint thinners and strippers;
- Batteries;
- Adhesives, caulks, tars and sealers;
- Pool, aquarium, lawn and garden chemicals;
- Pesticides and other poisons;
- Used oil, antifreeze, transmission and hydraulic fluids, old gasoline, solvents, lighter fluid, propane and other flammables;
- Household, automotive and drain cleaners;
- Refrigerants and aerosols;
- Fluorescent and HID lamps;
- Cosmetics, personal care products and pharmaceuticals;

- Art and hobby chemicals; and
- Air fresheners; and much more…

The federal regulation that governs hazardous waste are found in the Resource Conservation and Recovery Act (RCRA), Subtitle C, (Title 40, Code of Federal Regulations Part 261). The RCRA program is designed to control the management of hazardous waste from its generation to its ultimate disposal. The comprehensive regulation is designed to provide guidelines for industrial and commercial operations, but not for household hazardous waste. Household products often contain the same hazardous components as products used in commercial and industrial operations, but since the resulting wastes are generated in a home, it is exempt from most environmental regulations including Part C regulations.

The Coastal Bend region is a diverse region of coastal, industrial and agricultural operations across the landscape. This creates a wide array of hazardous waste types, not just those in the home, but also includes agricultural and commercial and industrial hazardous products. The Plan only focuses on the household hazardous wastes generated in the Region and how to managed the proper disposal of these HHW. The Plan does not address agricultural or commercial hazardous waste types.

Improper disposal of HHW can include pouring items down the drain, on the ground, into the storm sewers, or in some cases putting them out with the rest of household trash to be picked up each week by a waste hauler. The dangers of such disposal methods might not be immediately obvious, but improper disposal of these wastes pollutes the environment and poses a threat to human health.

The goals of household hazardous waste management are:

- To provide proper disposal of the HHW;
- Remove HHW from homes, thus reducing exposure and potential injury;
- Reduce dangers to waste disposal collectors and other sanitation workers;
- Increase general public awareness of HHW found in most homes and how these materials may impact human health and the environment; and
- Educate residents as to the best methods of disposal.

There are numerous options for managing HHW that range from establishing a permanent facility in a community or county or a community can opt to host community HHW collection events for residents to drop off their HHW in one location so that it can be properly disposed of free of charge for them.

HHW is a complicated and costly waste to manage. Whether it is a permanent facility, mobile collection unit or a community one-day event, the costs to a community can be staggering. The Coastal Bend region's survey results reflected a pronounced desire for public education on HHW management and HHW disposal options across the Region.

HHW is likely to be disposed of improperly because residents do not always understand the level, effect and potential impact of toxicity in the products that they use. Public education, source separation, and recycling are key strategies to reducing the quantity of the HHW stream into municipal facilities and the environment.

The success of management strategies for HHW in the Region requires action from residents, local governments and partnership schemes that make proper disposal more accessible to residents. Without these, the inadequacy and lack of education for the effects of HHW will continue to be a problem for the Coastal Bend region.

Summary

Options for increasing rural and unincorporated access to disposal options would include for long-term strategic partnerships between sub-regional entities to coordinate solid waste management on behalf of multiple communities.

Many smaller communities in Texas have established joint agencies to share the responsibilities of disposal through interlocal agreements. These interlocal agreements allow for multiple communities to shoulder the burden of budget costs with others and to work together.

Transfer Stations are another option used throughout Texas to manage waste. A transfer station is, "a facility designated to allow the transfer of materials from the vehicle, or garbage truck, to a larger vehicle for transport to their final destination at a landfill elsewhere." Transfer stations are not citizen collection stations where residents can dispose of their waste in bulk containers or bins. The transfer station provides a service to waste hauling vehicles collecting waste in the Region. The costs of hauling to a transfer station are often much less than the disposal vehicles going straight to a landfill often several miles outside of a metropolitan area.

While the landfill capacity is adequate in the Region through the foreseeable future, the existence of CCS and transfer stations should be addressed in the rural areas. There is a

need for more transfer stations and collection stations in the Region, especially outlying areas where transfer of wastes is costly and not feasible for a community's operating budget.

The need for proper HHW management in the Coastal Bend region is apparent through solid waste survey results received. Steps should be taken within the next twenty-year period to address the need for HHW collection opportunities in the Region. This can be accomplished by either large scale implementation programs such as permanent facilities or through smaller scale HHW collection such as routine collection events held throughout the Region on a regular basis. Either scenario will require cooperation and creative sources of funding for HHW collection in the Region.

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

Source reduction is the highest goal in the solid waste management hierarchy - Reduce, Reuse, Recycle. By itself, recycling does not address the issue of wasteful product use. When recycling is coupled with source reduction, however, wasteful purchase and use of products is minimized. In the Coastal Bend, there is a lack of adequate source reduction options for much of the Region and a lack of understanding by residents to the importance of consumer responsibility and materials recovery.

The practice of source reduction benefits the environment through reduced energy consumption and pollution, conservation of natural resources, and extension of valuable landfill space. Source reduction can also have economic benefits by reducing costs associated with transportation, disposal or recycling of wastes.

For the Coastal Bend region, the main barrier to effective source reduction is considered to be the feasibility of shipping commodities to other areas outside of the Region. As previously discussed, the Coastal Bend is located roughly 200 miles from the major metropolitan areas of Houston, San Antonio and the Rio Grande Valley. The location of the Region, in the middle of these metropolitan areas should be a perfect location. The economics of implementing a large-scale infrastructure network for proper source reduction, transportation and reuse efforts in the Coastal Bend region to other areas outside of the Region are just not plausible and are seen to cost too much for a commodity that is not stable enough to provide a beneficial source or revenue.

Examples faced by communities in general across Texas and those communities in the Region who partake in recycling commodities would be how tires, glass, and other material are handled. In order to effectively recycle glass, the material has to be transported from the Region and transported to the Houston or Dallas area for recycling. This is not cost effective. The same can be said for recycling tires from the Coastal Bend. Tires must be taken from the Region and transported to San Antonio or the Houston area for recycling.

On the other hand, there are commodities that have the potential to produce a considerable revenue stream for the Region. Those commodities are metals (aluminum and steel), plastics, card board or paper that is recycled in the Region and shipped out via railcar or via cargo ships to other parts across the globe. These commodities have been found to be profitable if there is an end market for the materials.

The option of reusing and recycling sludge and septage in the Coastal Bend are a viable revenue source for some communities. One such waste type that is difficult to manage is the recovery of grease and grit trap wastes. There are a handful of facilities in the Region that treat and dispose of grease and grit trap wastes.

Grease and grit trap wastes can be transported from facilities such as restaurants, car washes or industrial facilities. Grease and grit traps or interceptors are required at facilities to protect the municipal wastewater systems and prevent grease and other potentially hazardous wastes from entering the sewer and wastewater systems.

Liquid waste as defined by the TCEQ is "any waste material that is determined to contain "free liquids." Liquid waste processing facilities are designed to treat grease trap and grit trap waste, sludge and septage.

Liquid Transfer Stations are characterized by the TCEQ, as an MSW Type V facility that processes only grease trap and grit trap waste, septage or a combination of these three liquids. Currently there are no liquid waste processing facilities in the Coastal Bend region.

In the Region, sludge and septage is taken by one commercial operation that creates a "super dirt" composted material that is sold across the State for garden and landscaping needs. This is a small operation and mostly sells locally, but it has been known to sell outside of the Region. Large scale recycling, reuse and reduction of sludge is not taking place in the Region. Prior to 2008 the sludge and septage from San Patricio County was being taken to an industrial facility to serve as substrate for the revegetation of Bauxite tailing beds and as dust suppression on properties away from the general public. Since the facility is no longer operational this partnership has since ceased and septage is being landfilled.

To upgrade and provide adequate source reduction in the Region, creative economics and ingenuity will be required to make sure that the infrastructure is economical and not a detriment to the Region's communities and commercial partners.

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

Responsible management of the materials consumed is imperative for a variety of reasons including environmental quality, recovery of economic value and public safety. Thinking back more than 50 years, the primary method of disposal was to landfill or bury what a person generated. Options were limited for recovery at the end of the material's life cycle then. Recycling was virtually non-existent 50 years ago.

By implementing creative source reduction strategies, we are able to not only save natural resources, conserve energy, reduce pollution, and lower the toxicity of human waste, but it can also save a business time and money.

To address the complexity of handling waste materials, the EPA developed a hierarchy, Figure 3 in Attachment II.A, demonstrating best practices for waste management.

Recycling has many advantages for local governments that include reduction of waste disposal costs associated with landfilling wastes, reducing environmental impacts and strengthening economic growth and social equity by creating jobs and offering socioeconomically disproportionate populations a source of income in their communities. Formal recycling programs supported by some communities have served as a way for informal section workers to become formal solid waste management staff, improving their health, security and working conditions.

Recycling at the Local Level in the Coastal Bend

A great majority of the communities in the Coastal Bend region do not offer any form of recycling programs in their communities. Expanding the opportunities for residents and commercial/businesses to recycle in the Region should be a high priority for cities and the Coastal Bend region overall. Improving the recycling rate from the 2020 rate of 6% is a critical goal that the Coastal Bend region must focus on going forward.

In 2019, the 86th Texas Legislature passed Senate Bill 649, which directed the Texas Commission on Environmental Quality (TCEQ) to develop a plan to stimulate the use of recycled material feedstocks in processing and manufacturing in Texas. The final report titled; Recycling Market Development Plan (RMDP) was published August 2021. This report gives detailed analysis of the current state of recycling, market conditions, barriers, and opportunities to increase recycling in Texas.

In 2018, Americans recycled and composted 94 million tons of materials generated, equivalent to a 32.1% recycling rate. In 2015, approximately 9.2 million tons of MSW was recycled in Texas. Of these materials approximately 8.7 million tones, or 94.4% were materials that could have been recycled (C&D, recyclable materials or organics). This recycling rate is calculated using an approach known as the materials flow methodology. As stated in the Texas Health and Safety Code §361.422, the State of Texas set a source reduction and recycling goal of 40% in 1999 that still remains in place. There are no reporting requirements set by Texas for materials that are diverted from landfills, such as from curbside recycling programs, making an accurate recycling rate difficult to calculate.

Curbside recycling programs, have been a mainstay for residential recycling in the United States for many years. However, in the Coastal Bend region, of the 11 counties and 32 partner communities there are only 5 communities who actively participate in single stream curbside recycling programs for their residents. In Texas, the annual volume of materials that are generated and diverted into recycling programs is 503 pounds per household annually. In the Coastal Bend, this number is virtually nonexistent.

Single stream recycling is a convenient option for users and can increase the volume of what is recycled, even with contamination to the materials. While the increase in contamination to materials drives up the costs passed down from the MRF to the local governments who then pass it on to their residents, blaming the residents for contamination is not the sole reason to not recycle or to pull back on recycling programs.

Based on the 2020 solid waste survey results, local government respondents in the Coastal Bend would like to see an increase in providing convenience centers or more drop-off locations for recycling and other materials such as yard wastes. These centers could be used in lieu of providing recycling services to residential homes.

Through source reduction education and outreach, the Coastal Bend region can offer local governments the information necessary for learning how to negotiate recycling contracts, alternatives to providing residential pick-up services, and expanding the collection stations and transfer stations in the region. These are important actions that can be used to enhance

the need for more recycling and simplify and make more convenient to communities the act of recycling in the Coastal Bend region.

If a local government wanted to start a recycling program, a great way would be to look within, determine how to start small. Small steps are often well received and can introduce what is needed to take a recycling program to the next level. Popular local government source reduction programs that can be implemented and can take unique forms depending on funding for the community and creativity for those local governments are:

- In house programs to encourage governmental agencies to reduce the volume and toxicity of the waste the produce;
- Salvage and reuse programs that divert materials from the waste stream by extending the useful life of the product or reducing the number of a total product being used. For example, using less paper within the office;
- Policies and economic incentives that require/encourage consumers and businesses to reduce waste generation;
- Educational efforts that encourage or require consumers to purchase goods that are less toxic, more durable, reusable and/or have less packaging and to participate in community source reduction programs;
- Educational and on-site business assistance programs that advise businesses how to use materials more efficiently, conserve resources, and reduce waste generation; and
- Composting programs that encourage the management of yard trimmings in their community at the source of generation, therefore reducing the volume of material entering the collection system.

Source reduction offers numerous benefits for both the community and society in general by reducing the waste generated. Source reduction saves valuable natural resources and landfill space. On the local level, communities embarking on source reduction programs realize many of the following benefits:

1. Saves money for local governments through reduced purchases;
2. Reduces the amount of waste requiring residential collection; thus, decreasing the costs to the local government in tipping fees and other related waste fees;
3. Reduces the tonnage of waste requiring disposal and extends the useful life of the Region's landfills;
4. Lessens the tonnage of yard trimmings generated by residents for processing by sending it to a centralized composting facility;

5. Provides local businesses incentives and a service that helps them save money by participating in source reduction programs; and
6. Creates public awareness campaigns that involves the entire community.

Source reduction requires residents, local government, and local businesses to change their attitude and behaviors regarding the use of disposal of materials they generate. Local governments have a variety of powers to move their communities towards the goal of source reduction.

An enormous economic benefit to the Coastal Bend region would be to strengthen recycling infrastructure for the Region that would support companies looking to build domestic reprocessing facilities and reuse facilities for plastics and other materials. By supporting this infrastructure in the Region, it would bolster the economy and strengthen domestic markets for recycled materials.

Multi-Family Recycling

There are currently no multi-family recycling programs in place in the Region. These types of programs can be difficult to manage because multifamily residential waste needs are serviced by private haulers not local governments and a single-family residential program model is not ideal for multifamily units.

However, recycling for multi-family residential is a viable program if the private haulers are willing to work with the property owners and property managers. Expanding existing services and creating new programs that improve recycling accessibility to all residents is imperative to supporting continued improvement of the regional and statewide recycling rates.

Because multi-family residential is a housing category that can experience high turnover of tenants; there are often large quantities of cardboard for those moving in and out of a location. Currently, cardboard is a lucrative commodity selling for $200 per ton. This is a potential revenue stream for a property to gain or for a waste hauler to use to off-set the cost of accommodating servicing for this material stream. Cardboard is also one of the easier recyclable material programs to implement.

Supporting the adoption of programs and universal ordinances that promote recycling, sharing best practices among communities, encouraging public-private partnerships to

expand programs, and educating the apartment and multi-family housing industry about the costs and benefits of such programs, are important initiatives supported by the Plan.

Composting

According to the U.S. EPA; the Nation discards approximately 146.1 million tons of MSW in 2018, approximately 31.35 % of which was food waste and yard trimmings.

A composting facility as defined by the Texas Administrative Code, 30 TAC §332 as, "a facility for processing the stabilized product of decomposition which is used or sold for use as a soil amendment, artificial top soil, growing medium amendment, or other similar uses." Items that can be composted include:

- Feed stock that includes any source-separated meat, fish, dead animal carcasses, oils, greases or dairy materials; and
- Operations which incorporate the above with source-separated yard trimmings, clean wood material, vegetative material, paper or manure.
-

There are many forms of composting that are available to turn yard waste and other organic materials including food waste, into useful soil amendments and top soil products. The beneficial use of sewage sludge was discussed previously in Attachment III.E.

Green Waste

Green waste (yard wastes) and organic wastes provide for a large opportunity to recover these items prior to being landfilled. Many of the Coastal Bend local governments provide opportunities to collect yard waste for residents throughout the year, however, a large amount of yard waste still ends up in regional landfills, either by these same local governments who collect it, but do not use it or by residents who take it to a landfill themselves.

Green waste includes waste from gardens, landscaping and tree trimmings. Food waste include unused produce from pre-consumption sources (restaurants and grocery stores) and food left over after consumption. Food loss includes unused products from the agricultural sector (e.g., unharvested crops).

Most of the Region's communities only allow once a month set out and pick up for bulk items and yard wastes unless there are special circumstances like a natural disaster. Should a disaster or severe weather event occur, then protocol changes and the schedules increase the number of pickups of the solid waste materials. Several Coastal Bend communities allow access for residents to a city or county facility to drop off the yard waste free of charge.

In Texas, under the Texas Health and Safety Code §361.428, there are incentives in place for composting programs that can reduce MSW in the waste stream by 15%. To date, no Coastal Bend community takes advantage of these incentivized composting programs.

Composting yard waste is one way to recover materials and use the materials as an economic benefit for the local governments. Currently, Beeville, Corpus Christi, Kingsville, Ingleside, Alice and many others mulch yard waste and offer it free of charge to their residents. But no one composts waste in the Region and uses this material.

The disposal of organic wastes like yard waste and food wastes in a landfill are detrimental for various reasons.

For example, organic wastes are very dense and have high moisture content. Transporting large quantities of organic wastes from point of generation to a landfill contributes to higher fuel consumption rates and higher waste disposal fees. All of which are passed on to the local government who then in turn passes the costs on to their residents. If organics were removed from the waste disposal equation that trip to a disposal facility would cost less for a local government.

Another concerning issue with organic wastes being landfilled, are the rich sources of nutrients that are being lost to the landfills. The organic waste could have been collected

instead and used to enrich both an urban or rural environment. In other words, the organic matter that was composted could have been used as mulch or fertilizer on a community's gardens and landscaping.

Leachate, gas management, and structural shirting from organic decomposition are some of the most cost intensive issues at a landfill site. Disposing of large quantities of organic materials reduces the lifespan of a landfill by taking up valuable landfill space.

The last concern associated with placing organics in a landfill versus composting is the environmental impact to local air quality and climate change. Organic wastes that are decomposing contribute to air, water and ground pollution.

When organics decompose in an anaerobic condition, they produce methane gases. Methane is a short-lived climate pollutant and an air pollutant. Release of methane gases can cause landfill fires. Methane gas management is a crucial component of landfill management that takes a great deal of technical expertise and time to manage. Both are costly budget components.

Leachate is a critical landfill component that takes a great deal of time and expense to manage. Leachate is formed when rainwater filters through wastes placed in a landfill. When this liquid comes in contact with buried wastes, it leaches, or draws out, chemicals or other constituents from those waters. Leachate results in both water and ground or soil pollution.

Summary

Enabling private and public stakeholders to begin improving recycling collection facilities, building a greater recycling infrastructure for the Region, improving education on recycling contracting and negotiation, and educating residents on acceptable recyclables, contamination and compostable items and food waste are all important initiatives supported by the Plan.

Expanding recovery services to collect yard waste and food wastes regionally, expanding education and outreach for commercial and residential customers, and supporting a regional composting infrastructure network are all concepts that are supported by the Regional Plan and would significantly reduce the amount of yard waste and food waste that ends up in our regional landfills each year.

By implementing an organics recovery program in the Region, it could save a great deal of landfill space and save money for local governments whose fees are also associated with this material's disposal.

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

The Coastal Bend region has innumerable opportunities to improve upon the recycling infrastructure and source reduction avenues. There are waste streams that have been identified as needing to be prioritized due to the lack of attention these materials receive when it comes to being diverted from the waste stream.

Based upon the Region's waste survey that was administered, the respondents voiced their desire to see more attention focused on specific waste streams. These have been identified by local governments and other solid waste stakeholders as key areas to focus regional efforts to establish and/or expand enterprises. The categories of other wastes identified and discussed as priority include:

- Construction and Demolition Debris
- Household Hazardous Waste
- Tires
- Pharmaceutical Waste
- Food Waste and/or green waste

Expanding partnerships and identifying opportunities to address these challenging waste streams are important for the Coastal Bend region to achieving the regional goals set forth in the Regional Plan. These waste stream challenges identified through the survey are supported by the Plan objectives and recommendations.

Construction and Demolition Debris Management

During the renovation, construction or demolition of a residential or commercial building there are a great deal of materials that can be generated. A significant portion of residential renovation debris is discarded by homeowners into their household trash each year. This ends up in MSW landfills.

Discarded items often include replacement plumbing, electrical fixtures, sheet rock from walls and ceiling repairs, lumber and other materials used in home repairs or improvement projects. These materials are bulky and take up a great deal of space or capacity in our landfills.

The U.S. EPA defines construction and demolition (C&D) debris as "materials generated during construction, renovation, and demolition of buildings, roads, and bridges." C&D waste often contains bulky, heavy materials such as:

- Concrete
- Glass
- Plastics
- Metals
- Bricks and masonry
- Wood (Lumber from buildings)
- Asphalt (from road and roof shingles)
- Gypsum (Drywall and/or sheetrock material)
- Salvaged Components (Windows, doors, plumbing fixtures)
- Trees, stumps, earth, and rock from clearing a site

The TCEQ reported in 2019, that approximately 161 landfills in Texas diverted 7.77 million tons of C&D materials from the solid waste stream in Texas. This is approximately 21.12 percent of the total number of tons diverted in Texas landfills.

The Coastal Bend region contains two 4AE (Arid-Exempt) landfills and one Type IV landfill. These three facilities accept only brush and non-decaying materials. The one Type IV landfill in the Region also only accepts the C&D materials. Cumulatively, the one Type IV and two Type 4AE landfills accepted approximately 173,041 tons of materials in 2019 with the Gully-Hurst landfill accepting approximately 170,401 tons of waste.

When Hurricane Harvey hit Texas in 2017, decimating areas from the Texas-Louisiana border to Corpus Christi, an estimated 200 million cubic yards of waste was created. Much of this from the destruction of more than 135,000 homes and numerous other commercial and industrial businesses.

This unprecedented event consumed enormous amounts of critical landfill space all across Texas, not just along the Gulf Coast. A diminutive amount of C&D was recycled or diverted from landfills in the Coastal Bend region, the rest was landfilled.

Unlike other regions in Texas, the Coastal Bend does not have incentive programs or green programs in place to minimize the amount of C&D that is landfilled. There are a number of local governments in Texas that incentivize developers and construction contractors by providing monetary incentives to divert C&D from the landfills. There are also refund programs in place.

Increasing the recycling rate for C&D materials is an important focus of the regional waste management efforts in the Coastal Bend. Addressing the challenge of this bulky waste that is being landfilled is important to reduce disposal rates and increase recycling of this material to recover the waste's economic value. Programs such as the adoption of ordinances, programs and infrastructure expansion are relevant to achieving the goals that are recommended by the Plan. C&D materials are a valuable commodity that can be easily recycled into new products. The Plan supports the recycling of C&D materials not only to conserve landfill capacity, but to also encourage local markets of recovering goods.

Household Hazardous Waste Management

Household hazardous waste (HHW) facilities offer residents the ability to dispose of materials that cannot be disposed of a landfill. HHW is defined as "any solid waste generated in a household by a consumer which, except for the exclusion provided in 40 Code of Federal Regulations (CFR) §261.4(b)(1), would be classified as a hazard waste under 40 CFR Part 261." The term has the same meaning as "hazardous household waste." HHW typically includes, but is not limited to, items such as:

- Corrosive cleaners (such as drain cleaners and lye-based oven cleaner)
- Fluorescent light bulbs (including CFLs)
- Fuels (gasoline, propane, diesel)
- Mercury
- Paints (oil-based or some anti-mildew latex)
- Pesticides
- Pool Chlorine and acids
- Wood Stains or varnishes

Texas Health and Safety Code §361.023, concerning hazardous waste, attests that it is the State's goal to "reduce the generation of HHW through source reduction and recycling or reuse." TCEQ reported that in 2015 a total of 1,684 tons of HHW were collected in Texas. There are no mobile facilities in the Region that collect HHW for residents. The City of Corpus Christi J.C. Elliot Transfer Station has a contract with a third-party vendor that collects HHW for the residents and is available for those in Nueces County as well. Aransas

County has a temporary HHW collection unit at their Citizen Collection Station, but this program is limited in what is accepted. These are the only two locations within the 11 county Coastal Bend region for HHW.

Local government responses to the waste survey administered in 2020 emphasized a desire to have HHW collection in the Region. Either via permanent facilities or through collection events that could be facilitated with grant funding or other sources. These two options would help to alleviate some of the HHW needs in the Region.

There is an increased need and desire for HHW management and disposal options in the Region. The Coastal Bend's local governments may need to seek partnerships with some of the Region's industrial businesses or other commercial entities to assist in alleviating the expensive cost of HHW disposal.

The creation of permanent HHW collection sites in the Region could offer citizens with the opportunity to dispose of HHW year-round, however, additional disposal services are needed in the rural areas of the region. Enhancing or creating education and outreach about the importance of proper management at home and disposal options is critical to increasing the amount of HHW that is collected in the Region, since currently there is a near zero effort in reduction of HHW for the Coastal Bend. Improving the amount of collected HHW that is reused to create new goods, such as a "ReUse Store" for paint products, and support partnerships that improve the convenience of HHW recycling through infrastructure expansion is included as a priority in the Regional Plan.

Scrap Tires Management

Scrap tires can be a valuable commodity when properly managed. The TCEQ regulates the management of used and scrap tires in Texas under the authority of the Texas Health and Safety Code §361.011, §361.112 and §361.1125. Tire regulations in Title 30, Texas Administrative Code, Chapter 328, Subchapter F, outline regulatory requirements and standards for management relating to used and scrap tires.

In 2019, the TCEQ supervised the collection, processing and recycling of approximately 44.8 million used and scrap tires in Texas. The TCEQ maintains a list of known unauthorized scrap tires sites in Texas. In 2019, there were approximately 11.7 million tires at 111 unauthorized tire dump sites in Texas.

These unauthorized sites do not account for the numerous illegally dumped tires in our waterways, along our roadways and other areas that are discarded each year. There are

simply too many tires statewide to account for the approximate location of every single tire. The large number of tires being illegally dumped not only degrades the environment but also endangers public health by serving as a breeding ground for mosquitoes and other vectors.

Tires are commonly banned from landfills because they are required to be quartered, split or shredded to be accepted in a landfill. In 2019, 67,896 tons of tires were landfilled in Texas. This was only 0.18 percent of the total waste landfilled.

The problem of tires is a topic that local governments want to see addressed more than any other issue. Properly managed scrap tires can be used in recycling, erosion control and sports surfaces. Local governments want to see an expansion of collection opportunities in the Region and more effort dedicated to education and outreach of tire disposal and illegal dumping of tires.

Pharmaceutical Waste Management

Proper disposal of medications that are not wanted or needed, or are expired is a challenging waste stream. Especially since mismanagement poses a risk to public health and safety and environmental quality. A lack of disposal options may persuade residents to leave unused pharmaceuticals in their home. Unintended consequences of storing medications at home include drugs falling into the hands of children or substance abusers. Improper disposal of pharmaceuticals takes a variety of forms including flushing medications down the toilet or washing them down the sinks. This disposal method impacts our drinking water sources because much of it cannot be treated and removed from water at wastewater treatment plants.

Many of the communities in the region participate in occasional drug take back events sponsored by the U.S. Drug Enforcement Agency (DEA). Other communities in the Coastal Bend participate in the COG MedSafe program. This program was instituted in 2016 through the TCEQ Solid Waste Grants Program.

The focus of this program is for the rural areas of the Coastal Bend region that do not have access to large pharmacy chain stores that allow for takeback of unused pharmaceuticals for disposal and take back or for the DEA collection events. The MedSafe program is a secure 24-7 drop-off location at local government law enforcement or safety center

locations like Fire Departments. The MedSafes are a cost-effective way for local governments to offer free, secure, anonymous drop-off of unwanted pharmaceuticals for their residents.

The cost of the MedSafe program is absorbed by the CBCOG instead of the local governments and has allowed for effective elimination of pharmaceuticals from the region. In the first eight (8) months of operation, the four units that were in place at that time collected over 500 pounds of unused pharmaceuticals that could have entered or wastewater systems, the hands of children or the environment. To date more than 2,600 pounds of pharmaceuticals have been collected.

The CBCOG is dedicated to continuing to provide innovative solutions to the complex issue of pharmaceutical wastes and proper disposal of medications is a priority for the Coastal Bend region. The CBCOG will continue to support the challenge of medical waste management in the Plan.

Food Waste Management

Just how much food do American's waste? The United States is the global leader in food waste, with Americans discarding nearly 40 million tons of food every year. That is 80 billion pounds of food and equates to more than $161 billion, approximately 219 pounds of waste per person and 30-40 percent of the U.S. food supply. Most of this food is sent to landfills; food is the single largest component taking up space inside U.S. landfills. Food waste makes up 24 percent of municipal solid waste (MSW).

Food waste can be diverted from the waste stream in a multitude of ways beyond composting each year. These options can include something as simple as portion control for meals, donating food to charities, feed for animals, and rendering fats, oils and grease (FOG) for biofuel.

Getting to the bottom of what causes food waste in America is a challenge that traverses the complex landscapes of socioeconomic disparities, confusion, and ingrained beliefs, layered with human behaviors and habits according to the EPA.

The EPA and the United States Department of Agriculture (USDA) have set forth the first national food waste reduction goal for 2030. The goal is to cut food waste 50 percent by 2030. The EPA and USDA are collaborating with local, state, schools and non-profit organizations, the private sectors, landfills and others to divert food out of the landfills.

The Plan supports the enhancement of food waste planning and beneficial use for food waste as well as innovative programs to divert food waste from the regional landfills.

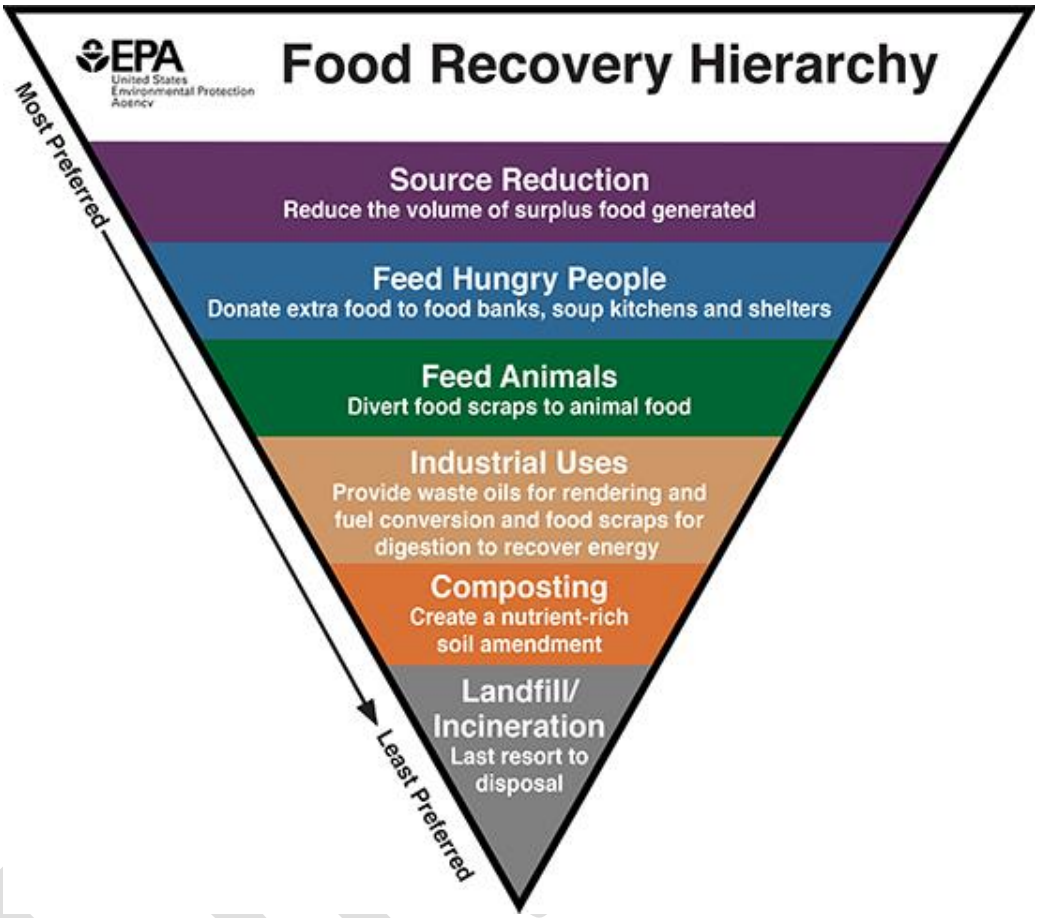

Figure 9: 2021 EPA Food Recovery Hierarchy
(Source: EPA.gov)

Summary

The Coastal Bend region continues to grow and the trends in waste management must also grow and evolve with the population and industrial influx into the Region. Waste generation, disposal and recycling efforts must evolve at both regional and local levels to provide residents and the business community with enhanced and increasingly innovative waste solutions. The Coastal Bend will focus on recycling and composting programs as part of the continued goals of source reduction strategies.

Partnerships and education and outreach to encourage greater source reduction will be priority areas of interest for the Coastal Bend to pursue and emphasize as the Region grows.

Additionally, the Coastal Bend should focus efforts on sustainable waste management strategies that incorporate reuse and recycling and create a more sustainable mindset for the Region that can introduce the future concepts of waste management for the Region and bring the Coastal Bend to the forefront of waste management in Texas.

The CBCOG will encourage the identification and creation of opportunities for cities to collaborate with each other, stakeholders, and industries to improve the chances for waste reduction and increase reuse, diversion and recycling of materials. In rural areas of the Region, cooperation on the county level can result in expanding services that would be more cost effective than initiating projects on an individual city level.

The existing landfills in the Region's urban areas will be able to accommodate the solid waste demands for the next twenty years. However, in order to move beyond the next planning period, the Coastal Bend needs to make source reduction, reuse and recycling a vital portion of the Region's waste management strategies and planning going forward.

The Coastal Bend curbside recycling infrastructure is either underutilized or nonexistent and increasing awareness and education for this waste management strategy is critical to meeting waste reduction goals for the Region.

Other rapidly growing regions in Texas are pressed to develop solid waste infrastructure to process materials produced by the population growth in their areas. Local governments' creation and expansion of recycling programs is a necessary option for the Coastal Bend to move forth in an innovative and sustainable manner and keep pace with other areas of Texas.

Costs for all aspects of solid waste management in the Region are the largest barrier faced by our local governments who want to expand their solid waste programs. In addition to cost, there are a lack of markets available for the sale of materials collected to recoup costs.

The Coastal Bend region, both urban and rural, face the struggle of illegal dumping crimes. The rural areas of the Region face a greater struggle with illegal dumping crimes that are sparked by the lack of solid waste collection programs available to them and by lack of personnel to enforce the laws.

Respondents of the CBCOG waste survey expressed that they felt that the regulations for enforcing environmental crimes, specifically illegal dumping, were sufficient, but there is not enough education for local governments to counter illegal dumping activities.

Respondents to the survey stated they would like to see more training and education for local government officials not just enforcement personnel.

The CBCOG has provided cost free training for numerous years to local law enforcement and code enforcement on the local, state and federal laws pertaining to environmental regulations and crimes. A more comprehensive approach to reducing illegal dumping, increasing local enforcement training in the rural areas and facilitating the collaboration urban cities and rural areas on illegal dumping management strategies is a priority of the Regional Plan supported by the CBCOG.

Based on solid waste survey results, expanding solid waste management programs is cost prohibitive and additional funding sources as well as more efficient operations could boost regional opportunities for recycling, source reduction and reuse of materials.

The need for additional solid waste management programs and facilities in the Region are going to be essential to the needs of residents and businesses equally as the Region moves forward. The industrial nature of the Region's future growth will initiate the need for infrastructure that can process the unique waste streams safely and proficiently.

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

In the Coastal Bend there are a multitude of choices when it comes to selecting a waste management company, both private and public, to address waste needs. Many of the local governments and businesses in the Region use a combination of public, or city owned solid waste services, and private operators. These services run concurrently and seamlessly with each other and without interruption of services. Because there are only 7 landfills most of the waste services in the area are handled by private companies and not municipalities.

Table 4(A) Waste Management Partners in the Coastal Bend Region

Municipality	Scope of Activities
City of Alice	Operate drop-off center for residents. Promote to public
City of Beeville	Collect materials from households or businesses. Promote to public
City of Corpus Christi	Collect materials from households and businesses. Promote to public
City of Kingsville	Operate drop-off center for residents and businesses. Promote to public
City of Portland	Collect materials from households or businesses. Promote to public
City of Rockport	Collect materials from households. Promote to public.

Table 4(B): Waste Management Partners in Coastal Bend Region

Management Agency	Public	Private	Responsibilities
City of Alice	X		Waste collection and disposal for city limits and surrounding area
City of Corpus Christi	X		The City of Corpus Christi operates the Cefe Valenzuela landfill for its residents as well as the J.C. Elliot Transfer Station. Waste contractors for outlying Nueces County communities are allowed to contract and bring waste to the waste disposal facilities herein mentioned.
City of Kingsville	X		Waste collection and disposal for city limits and surrounding areas.
Republic Services		X	Republic Services operates the largest landfill in the region, the El Centro landfill in Robstown, Texas. Waste from Aransas, Bee, Duval, Jim Wells, Refugio and San Patricio counties is accepted at this facility. In addition to the landfill, Republic Services also operates the only MRF in the Region. This facility accepts materials from all over South Texas.
Gulley-Hurst		X	The Gulley-Hurst landfill is a privately operated landfill that specializes in accepting wastes associated with construction and demolition projects all over South Texas. Waste is accepted from all 11 counties of the Coastal Bend region.
Absolute Waste Services		X	Waste collection and disposal regionally and surrounding counties outside of the Coastal Bend.
CC Disposal Services		X	Waste collection and disposal regionally and surrounding counties outside of the Coastal Bend.
Frontier Waste Solutions South Texas		X	Waste management company that serves the greater Victoria area and the Coastal Bend including Matagorda, Port O'Connor, Rockport, Port Aransas, Corpus Christi, Kingsville, Alice, George West, Beeville, and Goliad to the west.

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

Solid waste management is a local issue with global implications. As populations increase so does the amount of waste each person generates. The Regional Plan focuses on a number of strategies and actions that a variety of partners can implement to achieve greater source reduction, reuse, and recycling impacts. While some of the actions can be achieved through expanded partnerships, many will require additional funding outside of traditional local government and private sector budgets.

Solid waste management is important because it is designed to keep us safe. Keep the environment safe. Worldwide many regions face the exact same issues with managing their solid waste as the Coastal Bend region does. According to an October 2020 EPA report, improper waste management can impair a community and their citizens in ways that are often classified into three categories: Human Health, Environmental Health and Socioeconomics.

Figure 10: Challenges to Proper Solid Waste Management
(Source: EPA 530-R-20-002 October 2020)

Limited operating budgets and limited sustainable economic measurements are what some local governments in the Coastal Bend region face when it comes to implementing infrastructure or operations for managing waste. Cost is the greatest concern for all phases of waste management.

The operational costs of collecting, treating, and disposing of solid waste create a significant financial burden for many local governments, which can create a barrier to implementing a successful solid waste management system.

In some instances, solid waste management accounts for the largest portion of the local budget; on average, solid waste management accounts for 20 percent of local budgets. However, the management of solid waste for a local government still comes last in priority to emergency response, streets and water infrastructure for a community. This is because solid waste issues and management are either seen as unimportant or are often not understood fully.

Mismanaged solid waste can be a missed opportunity for economic growth, including increased property values, tourism benefits like having clean streets, parks, rivers and beaches. Proper solid waste management and overall reduction of solid waste can generate cost savings in transportation, taxes, fees and fuel costs for a local government.

No single solid waste management approach is suitable for managing all materials and waste streams in all circumstances. Local governments should work to create a plan that meets the specific needs and conditions of their area.

The most critical priority to address is funding and financial costs of waste management in the Coastal Bend region. A number of funding opportunities exist to establish, maintain, or grow solid waste management programs within a local government. These funding opportunities include federal, state, foundation, corporate, and industry association grants. Many non-profits, federal agencies, industry association such as Keep America Beautiful, Solid Waste Association of North America, and the United States Environmental Protection Agency, provide a wealth of resources including case studies, technical assistance, and training opportunities.

Another opportunity for funding waste management programs is through one of the twenty-four (24) Councils of Governments in Texas. Every two years, the Texas Commission on Environmental Quality (TCEQ) distributes funds to regional planning agencies across the State. These solid waste funds are generated by solid waste disposal fees the TCEQ collects at landfills. Each legislative session, the State Legislature allocates these funds through the TCEQ to regional planning councils based on population and the amount of fees collected. CBCOG administers a grant program, with the assistance of the Natural Resources – Solid Waste Advisory Committee, to distribute these funds to local governments and other eligible entities for solid waste projects that align with the goals and objectives of the Regional Plan.

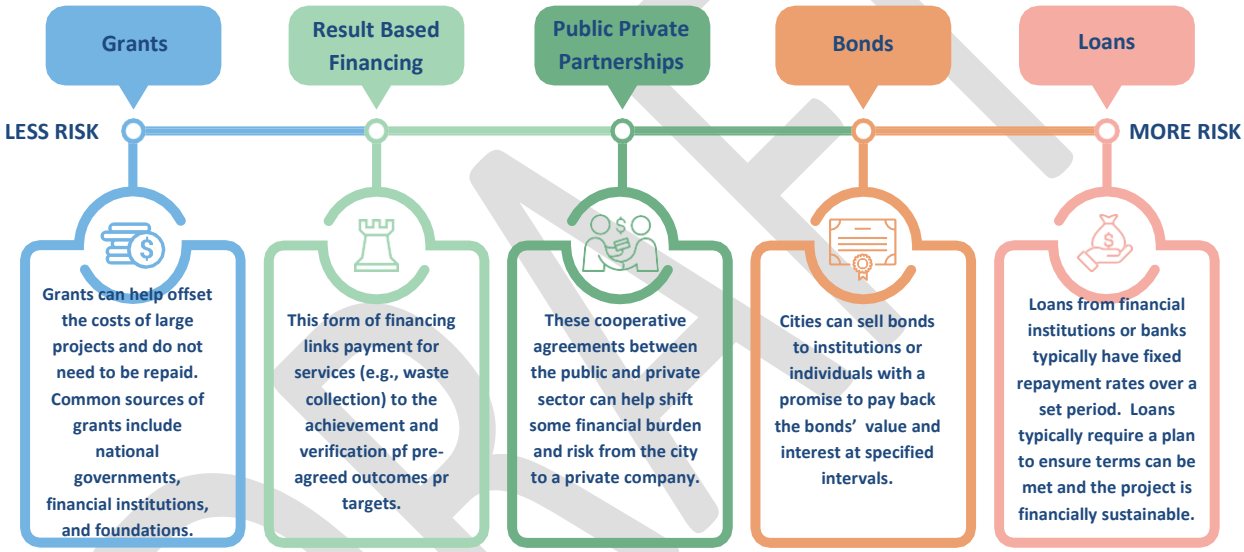

Figure 11: Common Types of Financing in the Waste Sector
(Source: EPA 530-R-20-002 October 2020)

Funding opportunities used most often in Texas to obtain funds are:

- The Recycling Partnership: Provides grants and technical assistance for curbside recycling with a goal to meet demand/supply gap between industries that need processing infrastructure and communities. More information can be found at http://recyclingpartnership.org.

- United States Department of Agriculture (USDA) Rural Development Solid Waste Management Grants: More information can be found at http://www.rd.usda.gov/

- Texas Commission on Environmental Quality Regional Solid Waste Grants Program: Program to provide grants to regional councils of governments to fund solid waste management activities and various local and regional projects that help implement solid waste management plans. More information can be found at https://www.tceq.texas.gov.

- Keep America Beautiful partners with business sponsors to provide grants to support waste reduction, recycling, litter prevention, and other preferred methods for material management. More information can be found at http://www.kab.org/site/PageServer?pagename=grants_home

- Composting Refund for MSW Facilities through TCEQ: Refund up to 20 percent of the solid waste fees collected by the facility. The MSW facility permit holder may apply for the compost refund if they have an onsite or off-site composting operation. There are few requirements for the application of these refunds. For more information: https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw_permits/msw_compost_credit.html

- Defense Economic Adjustment Grants (DEAAG): This program is an infrastructure program administered by the Texas Military Preparedness Commission. The grants are designed to assist defense communities whose defense contracts have changed, reduced or been terminated. For more information: http://gov.texas.gov/military/grants

- New Market Tax Credit program: operated by the Department of the Treasury and provides investors with Federal tax credits for qualified development in low-income

communities. For more information: https://www.cdfifund.gov/programs-training/Programs/new-markets-tax-credit

- Recycling Partnership program: is an industry funded national recycling nonprofit with the goal of improving curbside recycling in the U.S. Grant funds can be used for education and outreach in communities, cart purchases and access to technical assistance and more. For more information: http//recyclingpartnership.org/

- The Closed Loop Fund (CLF): was created to increase recycling rates and is funded by consumer goods and retail companies. The goal of the CLF is to provide zero interest loans to municipalities and low interest loans to private companies. The goal is to increase recycling infrastructure in the United States. For more information: http://www.closedloopfund.com/

Climate Bonds for Solid Waste Management

The Climate Bonds Initiative (CBI) is an organization that works to mobilize the global bond market for climate change solutions. CBI implements a variety of practices, including publishing market intelligence, providing policy advice, and establishing standards for green bonds. In 2019, they published a set of criteria for waste management bonds. By being certified by CBI, a waste management bond can prove to investors that the projects it funds meet certain mitigation and/or adaptation qualifications.

For More Information, see CBI's website

Figure 12: Climate Bonds for Solid Waste Management
(Source: EPA 530-R-20-002 October 2020)

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

Stakeholder and partners are critical to any type of planning processes. In the solid waste management planning sector, partnership/stakeholder engagement, is the process of building relationships with residents, interest groups and other impacted entities in order to gain support for solid waste policies, programs or service issues. Working with stakeholders and partners creates a robust system to protect the environment and creates long-term support for the systems and operations associated with solid waste.

In order for the partnerships to work there needs to be continuous communications with the stakeholders and partners and keep them informed of policies or changes to the waste management system in the Region. Stakeholder involvement includes four main principles identified by the U.S. Environmental Protection Agency (EPA):

- Integrity – Transparent and clear purpose and scope.
- Inclusiveness – Accessible to all partners whose full range of values and perspectives are sought.
- Dialogue – Open and genuine discussion supported by timely and accurate information.
- Influence – Input reflected in outcomes.

Some of the agencies and local organizations that have been identified as key partners for future solid waste management planning in the Coastal Bend region are:

- CBCOG Local Governments
- EPA Region 6
- Texas Commission on Environmental Quality Region 14
- USDA Eastern Texas Region
- Texas Agri-Life Extension Offices

- Waste industry companies such as waste haulers, waste storage, recycling and private landfill operators.
- Port of Corpus Christi
- Keep Texas Beautiful affiliates
- Keep America Beautiful affiliates
- Coastal Bend Bays and Estuaries Program
- All Secondary Education locations in the Region (i.e., Universities and colleges)
- Construction contractors
- Demolition contractors
- City and County Planners

Each of the potential partners that have been identified are all focused on environmental concerns and corrective actions within the Coastal Bend region. Each entity identified could potentially assist the Coastal Bend region in their goal of achieving of more waste management options like recycling and HHW collections. One of the most important stakeholder groups that cannot be overlooked are the residents of the Coastal Bend region. Residents are a key component to promote local progress in solid waste management.

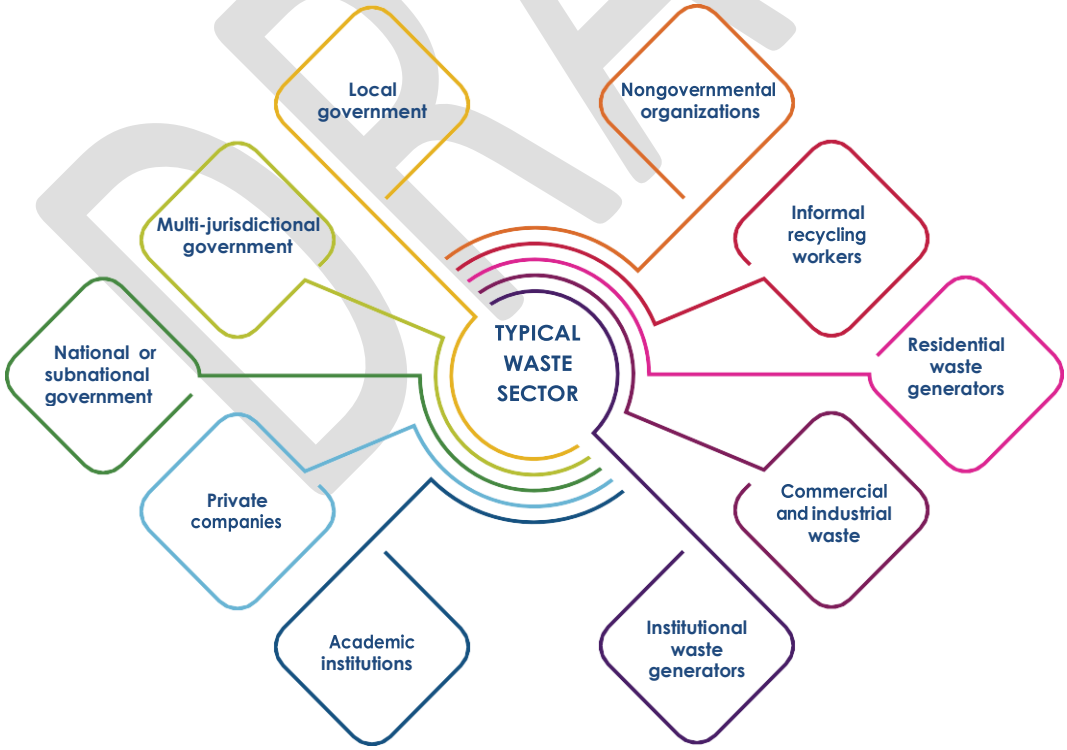

Figure 13: Typical Waste Sector Stakeholders
(Source: EPA 530-R-20-002 October 2020)

Within the Coastal Bend region there are four (4) key areas of concern that were identified in the regional survey as topics that needed to be addressed further through partnerships, joint agency actions and planning for proper solid waste management in the Region. The key concerns are:

- Lack of recycling throughout the Region for both curbside and/or drop off options for residents.
- Continued improper disposal or dumping of tires in the Region.
- Implementation of a permanent facility(ies) to accept household hazardous waste (HHW) in the Region.
- Local enforcement of the State regulations and local ordinances associated with illegal dumping, environmental crimes and violations pertaining to solid waste issues.

Summary

In order to address the key concerns identified, continuous communication and education over the next twenty (20) year planning period will be crucial for growth and development needed to achieve the Goals and Objectives of the Plan.

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

The table below is taken from Coastal Bend Regional Solid Waste Management Plan Volume II and illustrates the key barriers identified by the survey results for the Coastal Bend region and potential solutions or incentives that could be used to achieve one of the goals listed.

Table 5: Waste Barriers and Solutions for the Coastal Bend Region

BARRIER ISSUE: Recycling	POSSIBLE SOLLUTIONS
Lack of participation in programs where they are already accessible	Lack of participation can be addressed through increasing awareness of the opportunities to recycle, the economic and environmental benefits of recycling over disposal. An increase in awareness and stronger campaign for participation can be added to address this lack of participation. Stress the economic benefits of participation for all.
Lack of inconvenient or limited access to recycling opportunities	Identify cost effective means of providing collection of materials, promoting the programs more aggressively to the public and potential collaboration with neighboring communities. Provisions for mandatory recycling services in a contract can also lead to increased service availability.
BARRIER ISSUE: HHW and Reuse	POSSIBLE SOLUTIONS
Creation of a permanent HHW facility that can process and re-blend paints for use by the public. Costly to transport HHW from the area relative to the value of the materials.	The creation of a "ReBlend" Center business could offer residential and commercial citizens the option of free or low-cost paint for refurbishing their homes and businesses. The creation of a paint "ReBlend" Center would help keep paint out of the landfills, would keep it from being improperly disposed of in our stormwater and waste water systems and would move the region towards a goal of being more sustainable. There are opportunities to stimulate the demand for used paints in city/county departments. Paint recycling can be placed at the same level as disposal for a community increasing the opportunities for reuse. And the creation of incentive programs for generators can be developed as well.
Providing funding aid for material recovery facility	Funding is needed to aid in the construction of region-wide material recovery facilities or one large facility that could service the entire region. Lack of recycling in the region is attributed to required diversion and transportation of recyclable materials out of the area. Facility would increase recycling opportunities that do not exist, especially in the rural areas of the region.

BARRIER ISSUES: Tires	POSSIBLE SOLUTIONS
Limited availability for suitable markets in Texas	There is a great deal of potential in luring a tire processing company to the Region and create new business ventures for scrap tires management. Large quantity generators in the Region and improper disposal practices makes the area prime for a processing company to benefit while decreasing spare tire waste and providing recyclable materials. Quality deteriorates over time and this decreased the value and potential reuse. Providing financial assistance or identifying funding sources to provide a stronger scrap tire market in Texas could be beneficial for removing the vast number of stockpiles in the State and our Region and creating economic growth in areas that are lacking.
Lack of adequate participate and awareness for the public for recycling and proper disposal of tires.	Generators, transporters and the public in general are not aware of the many recycling programs for tires that are available. Stronger education and outreach are needed for tire recycling and disposal. Some are not aware of the wide variety of products that can be created from tires, other than synthetic turf. By increasing the awareness of other end markets and opportunities this could create a potential economic boost and business opportunities.
Costly to transport from the Region relative to the value and competition with low-cost alternatives to recycling the tires	Tires are generated all over Texas. Some areas, like the CBCOG region are a great distance to a recycling or properly permitted tire disposal facility. This makes the cost versus value of the tires expensive to city and county governments who in turn chose to landfill instead of an alternative way of management for the tires. Addressing the economic barriers limiting movement of tires to high-value end use of Texas scrap tires is a must across the State.

For every barrier there is a solution and a potential incentive. In order to obtain the desired outcomes, you must be creative and think outside the box while planning for the future.

Several higher education assets exist in the Region, including Texas A&M University Corpus Christi, Texas A&M University Kingsville, University of Texas Marine Science Institute, Del Mar College, Coastal Bend College, and the University of the Incarnate Word Corpus Christi Center. Local governments can explore a number of approached relating to technology, engineering, design and knowledge by accessing one of these institutions.

Summary

One solution that local governments are implementing is accessing resources and information available through "centers of excellence." Within the Coastal Bend region there are a plethora of Institutes and Centers within the university systems that are often free or low-cost tools that can be used when planning or researching projects for a community to implement. For example, a community could access Texas A&M University Corpus Christi or Kingsville for assistance in engineering projects. The project would include the engineered work as well as the budget analysis, statistical research and more that can be used by local governments. The research or work is conducted by graduate students overseen by Professors.

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

The Natural Resources – Solid Waste Advisory Committee of the Coastal Bend Council of Governments identified three (3) main Goals and their corresponding Objectives for the next twenty- year (20) planning period for the Coastal Bend region.

Goal 1: Ensure the development of responsible waste processing and materials recovery practices for the Coastal Bend region.

- 1.1 Provide for the recovery of material resources by emphasizing reuse, reduction (waste minimization) and recycling.
  - Increase residential recycling development and expansion of services throughout the Region.
  - Develop and encourage composting programs for brush and organics waste in the Region.
  - Target waste reduction activities and develop affordable programs for the proper management and disposal of household hazardous wastes and those special wastes that pose a considerable risk to the waste stream, environmental health and human health.
  - Expand recycling opportunities for multi-family residential, government housing and businesses by increasing drop-off opportunities and partnering with disposal companies that service multi-family establishments.

- 1.2 Increase commercial waste reduction efforts in the Region.
  - Promote reuse opportunities for white goods, furniture and other household goods in the Region.
  - Promote reuse opportunities for paints and other materials that can still be of use.
  - Expand resource recovery efforts in the construction and demolition industry.
  - Promote education of contractors and professionals in the construction industry about reuse of building materials.
  - Support the creation of incentive programs for materials from deconstructed sites rather than demolition and disposal.

- 1.3 Support regional education and outreach for proper waste management and recycling practices.
    - Promote reduction of ocean dumped wastes through increased education and awareness of the problem of ocean dumped wastes and wastes that begin on land and end up in the waterways of the Region.
    - Create partnerships in the Region with similar agencies and entities to further the promotion of the issue of proper waste management.

Goal 2: Improve upon and plan for adequate regional waste disposal capacity for the Coastal Bend region and utilize innovative resources to integrate and achieve optimum solid waste management.

- 2.1 Expand disposal service options to the rural and under-serviced areas of the Region.
    - Advocate for increased efforts to introduce additional citizen collection stations and transfer stations in the Region.
    - Identify areas with inadequate collection, transportation, and/or processing services, and provide solid waste management alternatives that will encourage proper disposal practices and reduce illegal dumping activities.
    - Support pilot projects and research project that could provide for an increase in waste collection services in the rural areas of the Region.
    - Use state-of-the-art processes to create, manage and maintain rural transfer stations and collection stations in the Region.

- 2.2 Ensure the proper and safe management of solid waste, the availability of management alternatives, implementation of statewide goals at a regional and local level and through development, implementation and maintaining the Regional Solid Waste Management Plan and solid waste data for the Coastal Bend region.
    - Maintain the Coastal Bend region's Closed Landfill Inventory.
    - Maintain data on solid waste behaviors in the Region and the State of Texas.
    - Use the State's Regional Solid Waste Grants Program as a tool to implement the Regional Solid Waste Management Plan.
    - Use the Regional Solid Waste Management Plan as a tool to clarify and support the implementation of MSW permits in the Region.
    - Ensure the availability of management alternatives, and implementation of statewide goals at the regional and local levels, through development and implementation of regional and local management plans.

- 2.3 Provide for the accommodations of large volumes of waste and storm debris produced by natural disasters in the Region.
    - Work with the Region's local and State emergency management teams to insure there are proper disaster management strategies in place to adequately address communities needs for disaster debris training, planning and active management in the event of a disaster.

Goal 3: Improve the recovery of resources by halting illegal dumping activities in the Coastal Bend region.

- 3.1 Develop programs to assist regional entities in controlling illegal dumping and littering.
    - Provide continued regional training and education of professionals and the public for environmental crimes, illegal dumping laws and regulations, and continue with public awareness on a variety of solid waste topics that affect the issues of proper solid waste management, proper disposal and prosecution initiatives.
    - Expand public awareness campaigns to create strong partnerships with regional organizations and state agencies that also target the reduction of illegal dumping activities.
    - Continue to support all aspects of community cleanups, litter reduction and the removal of illegally dumped items.
    - Support programs to educate residents, businesses, property owners and construction companies on the proper collection and disposal of wastes in the Region rather than illegally dumping materials throughout the Region.
    - Explore opportunities to require cleanup activities for illegal dumping violators or other corrective action opportunities for the violators.
    - Assess model ordinances and best management practices regarding illegal dumping and provide the platform for implementing changes to strengthen local illegal dumping laws.

Attachment III.M Advantages and Disadvantages of Alternative Actions

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

Goal/Objective	Plan of Action	Milestone Dates
Waste Reduction	Encourage the implementation of source reduction, waste reduction and recycling programs for all local governments, including school districts and other governmental organizations.	Short Range 5 years
Waste Reduction	Support Statewide and regional efforts to establish and update waste generation, reduction and reuse discard rates.	Short Range 5 years
Waste Reduction	Encourage public/private sector collaboration to establish cost effective government, single family and multi-family residential and commercial recycling programs	Intermediate Range 10 years
Waste Reduction	Expand source reduction and waste reduction services to the rural and underserved areas of the Region.	Long Range 20 years
Waste Reduction	Expand and encourage the implementation of waste diversion programs such as pharmaceutical take-back and construction and demolition material diversion programs	Long Range 20 years
Goal/Objective	Plan of Action	Milestone Dates
Composting Programs for Yard Wastes and Related Organic Wastes	Encourage city and county programs to promote and provide opportunities for residents to participate in composting, organics and food waste diversion programs.	Short Range 5 years
Composting Programs for Yard Wastes and Related Organic Wastes	Encourage public/private sector collaboration to establish cost effective opportunities to create composting and organics facilities throughout the Region.	Intermediate Range 10 years
Goal/Objective	Plan of Action	Milestone Dates
Household Hazardous Waste Collection and Disposal Programs	Promote and urge city and county programs to provide opportunities for residents to participate in source reduction, recycling and waste diversion programs (i.e., electronics and pharmaceutical take-back programs.	Short Range 5 years

Household Hazardous Waste Collection and Disposal Programs	Promote public awareness of options to donate certain HHW items (e.g., paint and electronics) to donation or reuse centers such as Habitat for Humanity or Goodwill Industries.	Short Range 5 years
Household Hazardous Waste Collection and Disposal Programs	Encourage implementation of and expansion of electronic recycling programs and projects	Short Range 5 years
Household Hazardous Waste Collection and Disposal Programs	Encourage cities and counties to collaborate with private, non-profit and other local government partners to establish and maintain HHW collection/reuse centers or regularly occurring collection events	Intermediate Range 10 years
Household Hazardous Waste Collection and Disposal Programs	Encourage partnerships and collaborations between public/private sector to establish an HHW facility specifically for the purpose of re-blending paints to be used for residential and commercial needs at a low cost.	Long Range 20 years
Public Education Programs	Support regional training opportunities for the purpose of sharing knowledge and best management practices, collect case studies and be a regional information resource to reduce illegal dumping activities.	Short Range 5 years
Public Education Programs	Support and promote public education and outreach activities related to proper waste disposal methods such as reduce, reuse and recycle and illegal dumping.	Short Range 5 years
Public Education Programs	Promote the use of popular technologies and media to market and educate the public and commercial sector for special collection events, recycling programs and proper disposal methods for toxic materials.	Short Range 5 years
Public Education Programs	Encourage implementation of cost-effective illegal dumping programs such as cleanup events, purchasing of cleanup trailers, and other innovative projects through enhanced government and public/private sector collaborations.	Short Range 5 years
The Need for New or Expanded Facilities and Practices	Support establishment and expansion of used and scrap tire management programs through local governments and public/private partnership programs.	Short Range 5 years

The Need for New or Expanded Facilities and Practices	Continued support and expansion of the pharmaceutical take-back program in the region by enhancing the local government partnerships and enhancing the public outreach and educational awareness of proper pharmaceutical disposal practices.	Short Range 5 years
The Need for New or Expanded Facilities and Practices	Encourage implementation of cost-effective citizen collection stations or transfer stations by local governments and public/private sector collaboration to provide proper waste management and source reduction in the rural areas of the Region.	Long Range 20 years
The Need for New or Expanded Facilities and Practices	Encourage local governments and public/private sector collaboration to decrease food waste disposed of in landfills such as education and outreach campaigns about food waste source reduction, developing food waste disposal and processing infrastructure (e.g., community gardens, community composting programs and centers) and increasing the convenience of food waste disposal options.	Long Range 20 years
The Need for New or Expanded Facilities and Practices	Support and encourage demonstration projects, research and pilot projects to address the viability, feasibility and cost effectiveness of waste reduction, diversion and innovative source reduction technologies that could benefit the Region and the State.	Long Range 20 years
The Need for New or Expanded Facilities and Practices	Provide training and resources and encourage cities and counties to establish or expand multi-family and commercial recycling programs and support development of additional recycling facilities for residents.	Long Range 20 years

Attachment 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 Texas Commission on Environmental Quality (TCEQ) requires that all municipal solid waste (MSW) facilities proposed for siting in the Coastal Bend region must conform to the Regional Solid Waste Management Plan, as stated in the Texas Health and Safety Code §363.066 and the TCEQ rules (30 TAC §330.566). When conducting a conformance review the CBCOG is looking for the following components of the application(s) to be compliant to the Regional Plan:

(a) No person may cause, suffer, allow, or permit any activity of storage, processing, removal, or disposal of any municipal solid waste unless such activity is authorized by a permit or other authorization from the Texas Water Commission, except as provided for in subsections (c) - (h) of this section. Permits issued by the Texas Department of Health prior to the effective date of this chapter satisfy the requirements of this subsection. No person may commence physical construction of a new municipal solid waste management facility or a lateral expansion without first having submitted a permit application in accordance with §330.50 - §330.65 of this title (relating to Permit Procedures) and received a permit from the commission, except as provided for specifically herein.

(b) In accordance with the requirements of subsection (a) of this section, no generator, transporter, owner or operator of a facility, or any other person may cause, suffer, allow, or permit wastes to be stored, processed, or disposed of at an unauthorized facility or in violation of a permit. In the event this requirement is violated, the executive director may seek recourse against not only the person who stored, processed, or disposed of the waste but also against the transporter, owner or operator, or other person who caused, suffered, allowed, or permitted its waste to be stored, processed, or disposed.

(c) A separate permit is not required for the storage or processing of municipal solid waste that is grease trap wastes, grit trap wastes, or septage that contains free liquids if the waste is treated/processed at a permitted municipal solid waste landfill. Any person who

intends to conduct such activity under this subsection shall comply with the notification requirements of §330.8 of this title (relating to Notification Requirements).

(d) A permit is not required for a municipal solid waste transfer station facility that is used in the transfer of municipal solid waste to a solid waste processing or disposal facility from:

(1) a municipality with a population of less than 50,000;
(2) a county with a population of less than 85,000;
(3) a facility used in the transfer of municipal solid waste that transfers or will transfer 125 tons per day or less; or
(4) a transfer station located within the permitted boundaries of a municipal solid waste Type I, Type II, Type III, or Type IV facility as specified in §330.41 of this title (relating to Types of Municipal Solid Waste Facilities).

(e) A request for registration for sites or facilities exempted from permits under subsections (c) and (d) of this section shall be submitted in a format provided by the executive director and shall include all information requested thereon and any additional information considered necessary by the applicant or that may be requested by the executive director.

(f) Facilities must obtain a permit or registration as applicable under subsection (a), (d), or (q) of this section unless otherwise exempted under this chapter, or:

(1) the facility or site is used as:

(A) a citizens' collection station;

(B) a collection and processing point for only non-putrescible source-separated recyclable material, provided that the facility is in compliance with §328.3 - §328.5 of this title (relating to General Requirements; Limitations on Storage of Recyclable Materials; and Reporting and Record keeping Requirements);

(C) a collection and processing point for mulching or composting of only source-separated recyclable material, provided that the facility is in compliance with Chapter 332 of this title (relating to Composting); or

(D) a collection point for parking lot or street sweepings or wastes collected and received in sealed plastic bags from such activities as periodic citywide cleanup campaigns and cleanup of rights-of-way or roadside parks; or

(2) the site is used for the disposal of soil, dirt, rock, sand, or other natural or man-made inert solid materials used to fill land if the object of the fill is to make the land suitable for the construction of surface improvements.

(g) A permit amendment is not required to establish a waste separation/recycling facility established in conjunction with a permitted municipal solid waste site, or composting facility at an existing permitted municipal solid waste site if owned by the permittee of the existing site. Facilities exempted from a permit amendment under this subsection shall be registered with the executive director in accordance with §330.65 of this title (relating to Registration for Solid Waste Management Facilities). Failure to operate such registered facilities in accordance with the requirements established in §330.150 - §330.159 of this title (relating to Operational Standards for Solid Waste Processing and Experimental Sites) may be grounds for the revocation of the registration.

(h) A permit is not required for a site or facility where the only operation is the storage and/or processing of used and scrap tires as provided for in §330.801 - §330.889 of this title (relating to Management of Whole Used or Scrap Tires). Facilities exempted from a permit under this subsection shall be registered with the executive director in accordance with §330.53 of this title (relating to Technical Requirements of Part II of the Application). Failure to operate such registered facilities in accordance with the requirements established in §330.801 - §330.889 of this title may be grounds for the revocation of the registration. A permit or registration under this chapter is not required for the operation of an approved treatment process unit (as provided in §330.1004(c)(1) of this title (relating to Generators of Medical Waste)) used only for the treatment of on-site (as defined in §330.1004(f) of this title) generated special waste from health care-related facilities.

(j) A separate permit is not required for a facility to treat petroleum contaminated soil if the contaminated soil is treated/processed at a permitted solid waste landfill facility. The treated soil shall be disposed of at the facility or may be used as daily cover on the facility. Any person who intends to conduct such activity under this subsection shall comply with the notification requirements of §330.8 of this title (relating to Notification Requirements).

(k) A licensed hospital may function as a medical waste collection and transfer facility for generators that generate less than 50 pounds of untreated medical waste per month and that transports its own waste if:

(1) the hospital is located in an incorporated area with a population of less than 25,000 and in a county with a population of less than one million; or

(2) the hospital is located in an unincorporated area that is not within the extraterritorial jurisdiction of a city with a population more than 25,000 or within a county with a

population of more than one million. The hospital shall submit a request to the executive director for registration as a medical waste collection station.

(l) A permit is not required for an on-site medical waste incinerator used by a licensed hospital for incineration of only on-site generated medical wastes.

(m) Any change to a condition or term of an issued permit requires a permit amendment in accordance with §305.62 of this title (relating to Amendment) or a permit modification in accordance with §305.70 of this title (relating to Municipal Solid Waste Permit Modification). The owner or operator shall submit an amendment or modification application in accordance with the requirements contained in §§330.50 - 330.65 of this title to address the items covered by the requested change.

(n) For energy and material recovery and gas recovery operations relating to municipal solid waste, a registration is required. A permit is not required for a municipal solid waste facility-Type IX that recovers gas for beneficial use. Those Type IX facilities that recover gas for beneficial use that are exempt from permitting under this subsection shall be registered with the executive director in accordance with §330.70 of this title (relating to Registration of Facilities That Recover Gas for Beneficial Use). However, exploratory and test operations for feasibility purposes may be conducted after approval of the operation by the executive director.

(o) Submission of a Soil and Liner Evaluation Report (SLER) and/or a Flexible Membrane Liner Evaluation Report (FMLER) required by §330.206 of this title (relating to Soil and Liner Evaluation Report and Flexible Membrane Liner Evaluation Report) for a liner design which meets all design and operational requirements of §330.50 - §330.65 of this title and §330.200 - §330.206 of this title (relating to Groundwater Protection Design and Operation) shall not require a permit amendment or modification.

(p) A permit or registration is not required for the drying of grit trap waste at a car wash facility as long as these wastes are disposed of in compliance with applicable federal, state, and local regulations. Grit trap waste from car wash facilities may be transported for drying purposes to another car wash facility if the facilities have the same owner and if the facilities are located within 50 miles of each other. This subsection is not intended to preempt or supersede local government regulation of grit trap waste-drying facilities. Drying facilities must comply with Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) if applicable.

(q) In addition to permit exemptions established in subsection (d) of this section, a permit is not required for any new municipal solid waste Type V transfer station that includes a material recovery operation that meets all of the requirements established by this subsection. Owners and operators of Type V transfer facilities meeting the requirements of this subsection are allowed to register their operations in lieu of permitting them. Owners and operators of transfer stations that meet the permit exemption requirements and wish to exercise the exemption option must register their operation in accordance with §330.65 of this title (relating to Registration for Solid Waste Management Facilities).

(1) Materials recovery. The transfer facility must recover 10% or more by weight or weight equivalent of the total incoming waste stream for reuse or recycling. The applicant must demonstrate in the registration application the method that will be used to assure the 10% requirement is achieved. The effective date of this subsection is February 2, 1995.

(2) Distance to a landfill. The transfer facility must demonstrate in the registration application that it will transfer the remaining nonrecyclable waste to a landfill not more than 50 miles from the facility.

(3) Exempt facilities. Transfer facilities exempted from a permit under this subsection shall register with the executive director in accordance with §330.65 of this title and meet the additional design criteria of §330.65(f) of this title.

(4) Revocation. Failure to operate such registered facilities in accordance with the requirements established in Subchapter G of this chapter (relating to Operational Standards for Solid Waste Processing and Experimental Sites) may be grounds for revocation of the registration.

(r) A permit is not required for a municipal solid waste transfer station that is used only in the transfer of grease trap waste, grit trap waste, septage, or other similar liquid waste if the facility used in the transfer will receive 32,000 gallons per day or less. Liquid waste transfer stations that will receive 32,000 gallons a day or less may operate if they notify the Executive Director 30 days prior to initiating operations and if the facility is designed and operated in accordance with the requirements of §330.66 of this title

relating to Liquid Waste Transfer Facility Design and Operation). Facilities that will receive over 32,000 gallons per day must apply for a permit.

(s) A permit is not required for a municipal solid waste Type V processing facility that processes only grease trap waste, grit trap waste, or septage or a combination of these three liquid wastes if:

(1) the facility can attain a 10% recovery of material for beneficial use from the incoming waste. Recovery of material for beneficial use is considered to be the recovery of fats, oils, greases and the recovery of food solids for composting, but does not include the recovery of water;

(2) the Type V processing facility is located within the permit boundaries of a commission permitted Type I landfill; or

(3) the Type V processing facility is located at a manned treatment facility permitted under the Texas Water Code, Chapter 26 and which is permitted to discharge at least 1 million gallons per day and which is owned by and operated for the benefit of a political subdivision of this state. Facilities meeting any of these exemptions must obtain a registration by meeting the operational criteria and design criteria established in §330.71 of this title (relating to Registration for Municipal Solid Waste Facilities That Process Grease Trap Waste, Grit Trap Waste, or Septage).

(t) A registration is required for a mobile liquid waste processing facility that processes grease trap waste, grit trap waste, or septage or a combination of these three liquid wastes. Mobile liquid waste processing facilities must obtain a registration by meeting the operational criteria and design criteria established in §330.72 of this title (relating to Registration of Mobile Liquid Waste Processing Units).

(u) A permit is not required for a municipal solid waste Type VI facility that demonstrates new management methods for processing or handling grease trap waste, grit trap waste,

or septage or a combination of these three liquid wastes. Those facilities meeting this exemption must obtain a registration by meeting the operational criteria and design criteria established in §330.73 of this title (relating to Registration of Demonstration Projects for Liquid Waste Processing Facilities).

(v) A permit, registration, or other authorization is not required for the disposal of litter or other solid waste, generated by an individual, on that individual's own land where:

(1) the litter or waste is generated on land the individual owns;

(2) the litter or waste is not generated as a result of an activity related to a commercial purpose;

(3) the disposal occurs on land the individual owns;

(4) the disposal is not for a commercial purpose;

(5) the waste disposed of is not hazardous waste or industrial waste;

(6) the volume of waste disposed of by the individual does not exceed 2,000 pounds per year;

(7) the waste disposal method complies with §§111.201 - 111.221 of this title (relating to Outdoor Burning);

(8) the waste disposal method does not contribute to a nuisance and does not endanger the public health or the environment. Exceeding 2,000 pounds per individual's residence per year is considered to be a nuisance; and

(9) the individual complies with the deed recordation and notification requirements in §330.7 of this title (relating to Deed Recordation) and §330.8 of this title.

(w) A permit or registration is not required for the disposal of animal carcasses from government roadway maintenance when

(1) either of the following:

(A) the animals were killed on county or municipal roadways and the carcasses are buried on property owned by the entity that is responsible for road maintenance; or

(B) the animals were killed on state highway right-of way and the carcasses are disposed of by the Texas Department of Transportation by burying the carcasses on state highway right-of-way; and

(2) the waste disposal method does not contribute to a nuisance and does not endanger the public health or the environment; and (3) the animal carcasses are

covered with at least two feet of soil within 24 hours of collection in accordance with §330.136(b)(2) of this title (relating to Disposal of Special Wastes).

(x) A major permit amendment, as defined by §305.62 of this title (relating to Amendment), is required to reopen a Type I, Type I-AE, Type IV, or Type IV-AE municipal solid waste facility permitted by the commission or any of its predecessor or successor agencies that has either stopped accepting waste, or only accepted waste in accordance with an emergency authorization, for a period of five years or longer. The municipal solid waste facilities covered by this subsection may not be reopened to accept waste again unless the permittee demonstrates compliance with all applicable current state, federal, and local requirements, including the requirements of Subtitle D of the federal Resource Conservation and Recovery Act of 1976 (42 United States Code, §§6901 *et seq.)* and the implementing Texas state regulations.

If a municipal solid waste facility was subject to a contract of sale on January 1, 2001, the scope of any public hearing held on the permit amendment required by this subsection is limited to land use compatibility, as provided by §330.51(a) of this title (relating to Permit Application for Municipal Solid Waste Facilities) and §330.61 of this title (relating to Land-Use Public Hearing). This subsection does not apply to any municipal solid waste facility that has received a permit but never received waste, or that received an approved Subtitle D permit modification before September 1, 2001.

(y) A permit or registration is not required for disposal of the remains from an animal that dies in the care of a veterinarian licensed by the Texas State Board of Veterinary Medical Examiners where all of the following occur:

(1) the veterinarian disposes of the remains of an animal and the remains do not include any other type of medical waste;
(2) the veterinarian does not charge for the disposal;
(3) the disposal is on property owned by the veterinarian;
(4)the disposal occurs in a county with a population of less than 10,000;
(5) the waste disposal does not contribute to a nuisance and does not endanger the public health or the environment;
(6) the veterinarian complies with the deed recordation and notification requirements in §330.7 and §330.8 of this title;
(7) the animal carcasses are covered with at least two feet of soil within 24 hours of disposal in accordance with §330.136(b)(2) of this title;
(8) uncontrolled access is prevented; and

(9) the disposal complies with §111.209 of this title (relating to Exceptions for Disposal Fires).

Attachment IV References and Resources for the Regional Solid Waste Management Plan

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Attachment IV.A Letters of Support

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Attachment IV.B Required Approvals

Public Notice
Agenda for Meeting August 18, 2021
Public Meeting Minutes and Comments

NOTICE OF PUBLIC MEETING
COASTAL BEND COUNCIL OF GOVERNMENTS

NOTICE IS HEREBY GIVEN that the SOLID WASTE ADVISORY COMMITTEE of the COASTAL BEND COUNCIL OF GOVERNMENTS, at its regularly scheduled meeting to be held on AUGUST 18, 2021, will present information pertaining to the development of the 2022-2042 Coastal Bend Regional Solid Waste Management Plan (RSWMP) that are required by and being prepared in accordance Texas Health and Safety Code (THSC) §363.062. Contents of a RSWMP are described in THSC §363.064 and the Texas Administrative Code (TAC), Chapter 330, Subchapter O. Public comment and consideration will be accepted at this meeting.

The *DRAFT 2022-2042 Coastal Bend Regional Solid Waste Management Plan* is available for review at the offices of the COASTAL BEND COUNCIL OF GOVERNMENTS located at 2910 LEOPARD STREET, CORPUS CHRISTI, TEXAS 78408.

All individuals wishing to comment on the DRAFT of the Coastal Bend 2022-2042 RSWMP are invited to attend the meeting of the Coastal Bend Council of Governments Solid Waste Advisory Committee at the following time and location:

DATE:	**WEDNESDAY, AUGUST 18, 2021**
TIME:	**1:30 P.M.**
LOCATION:	**CBCOG LARGE CONFERENCE ROOM**

CBCOG

AGENDA

Regional Solid Waste Management Plan Public Meeting

WEDNESDAY,AUGUST 18, 2021 at 2:30 p.m.

IN PERSON ONLY

CBCOG

2910 LEOPARD STREET

CORPUS CHRISTI, TEXAS 78408

1. **Call To Order**

2. **Introductions**

3. **Presentation - Volume 1 of Regional Solid Waste Management Plan 2022-2042**

4. **Public Comment**
   This time is for anyone to comment on items related to the draft 20 Year Regional Solid Waste Management Plan 2022- 2042. Time allowed is at the discretion of CBCOG, with three (3) minutes being customary. Per person/group.

5. **Close Public Comment**

6. **Determination of Quorum**

7. **Discussion/Approval: RSWMP Volume 1**

8. **Adjourn**

This meeting is accessible to people with disabilities. The accessible entrance is located at the front of the building of 2910 Leopard Street, Corpus Christi, Texas 78408. Accessible parking spaces are also available.

CBCOG

MINUTES

Coastal Bend Council of Governments
Regional Solid Waste Plan Update 2022-2042 Public Meeting
Wednesday, August 18, 2021

Public Meeting Attendees:
Ms. Dianne Leubert, Private Citizen Kingsville
Ms. Valerie Gonzalez, Aransas County
Commissioner Margie H. Gonzalez, Jim Wells County
Officer Ned Cherry, III, Nueces County
Officer Christopher Dorr, Nueces County
Mr. Robbie Guerrero, Bee County
Mr. Roger Potts, Private Citizen Nueces County
Ms. Kimberly Henry, Assistant City Manager, City of Rockport
Commissioner Stanley Tuttle, Refugio County
Mr. Gary Keenan, City of Robstown

1. Call to Order - Meeting called to order at 2:35 PM.

2. Introductions of CBCOG Staff and those in attendance. – Those present at the meeting gave their name and where they were from.

3. Introduction of the Regional Solid Waste Management Plan – The CBCOG Staff gave a brief introduction of what the regional solid waste management plan was. Why it was necessary to update the plan and why there was a need for a public meeting and input from the public.

4. Presentation of the CBCOG Regional Solid Waste Management Plan (RSWMP) – The CBCOG Staff gave a PowerPoint presentation for the current 2002-2022 RSWMP and lead into the RSWMP Update that has been proposed for 2022-2042 for the CBCOG region. During the presentation topics such as demographics, landfill capacities, population and current and proposed goals and objectives for the RSWMP.

5. Public Comment – The Floor for the Public Comments was opened at 2:41 p.m.

Public Comment included questions and comments from Commissioner Stanley Tuttle from Refugio County and Commissioner Margie Gonzalez from Jim Wells County.

Commissioner Tuttle expressed his lack of knowledge about this Plan and that he was glad to be in attendance. Commissioner Tuttle expressed that he would like to see more done about the illegal dumping in his County as well as ways to find funding for more enforcement.

Commissioner Gonzalez asked about the Goals and Objectives portion of the RSWMP and whether or not tires were included. CBCOG Staff directed her to the portion of the presentation slides that

addressed tires as “special waste” or what is currently called “other” that is addressed in Goal 1, Objective 1.1.

Commissioner Gonzalez also commented about the need for additional collection stations in the Region.

6. Public Comment Closed at 3:00 after no more comments or questions were raised.

7. Determination of a Quorum – CBCOG Staff determined that there were a enough SWAC member in attendance of the Public Meeting to have a vote on acceptance of the CBCOG Regional Solid Waste Management Plan Volume 1 document.

7. Discussion and Approval - Draft Regional Solid Waste Management Plan Update Volume 1 document. The CBCOG Staff asked if there were any other items about the RSWMP that anyone had question about or needed clarification on. There were no comments made per the CBCOG Staff request.

A Motion was made by Commissioner Margie Gonzalez to accept and approve the Volume 1 Regional Solid Waste Management Plan Update for the CBCOG. A Second was given by Ms. Valerie Gonzalez. Motion passed unanimously.

8. Adjourn - The meeting was adjourned at 3:45 PM.