



**NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS**

# **Material Diversion and Its Benefits**

**Solid Waste Management Administration and  
Solicitation Support**

**PROJECT NO. 172934**

**MAY 1, 2025**



# Contents

---

1.0	Introduction.....	2
2.0	Current Landscape of Material Management .....	2
2.1	Regulatory Framework .....	2
2.2	Programs for Material Diversion .....	3
2.2.1	Residential Recycling Programs .....	3
2.2.2	Commercial Recycling Programs.....	4
2.2.3	Composting Programs for Organics .....	4
2.2.4	Construction and Demolition Debris.....	5
2.2.5	Reuse Centers .....	5
3.0	Strategies for Material Diversion .....	5
3.1	Pay-As-You-Throw (PAYT) Programs .....	5
3.2	Public-Private Partnerships .....	6
3.3	Pilot Programs .....	6
3.4	Grants and Funding Opportunities .....	6
3.5	Public Education Campaigns .....	6
3.6	Ordinance Requirements .....	6
3.7	Regional Collaboration.....	7
4.0	Incorporating Material Diversion into RFPs .....	7
4.1	Defining Service Level Options.....	7
4.2	Cost Comparison and Evaluation.....	8
4.3	Flexibility in Contracting .....	8
4.4	Comprehensive RFP Components .....	8
4.5	Innovative Technologies and Sustainability Practices .....	8
4.6	Key Considerations for Effective RFPs .....	8
5.0	Case Studies .....	9
5.1	Case Study 1: City of Dallas, Texas.....	9
5.2	Case Study 2: City of Denton, Texas .....	10
5.3	Case Study 3: NCTCOG .....	11
5.4	Case Study 4: City of Granbury, Texas .....	11
6.0	Action Steps for Communities .....	12
7.0	Conclusion.....	13
8.0	Additional Resources .....	14

# 1.0 Introduction

---

In 2021, the Texas Commission on Environmental Quality (TCEQ) reported that Texas landfills received approximately 38.32 million tons of waste, averaging 7.09 pounds per Texan daily. The North Central Texas region alone contributed 11.1 million tons, the highest among twenty-four regions, accounting for nearly 30 percent of the state's total waste. If this trend continues, the twenty-two active landfills in the North Central Texas Council of Governments (NCTCOG) region will reach capacity in just 35 years.<sup>1</sup> This is due to ongoing population, economic growth, and heavy reliance on landfills for waste disposal. As a result, many communities are expected to face significant challenges with municipal solid waste (MSW) management in the near future.

Material diversion, which involves redirecting waste from landfills through recycling, composting, and other waste reduction strategies, is crucial. In the NCTCOG region, material diversion is vital for managing the increasing volumes of MSW generated by the growing population.

This white paper outlines best practices for material diversion in the NCTCOG region, emphasizing the environmental benefits of recycling, composting, and waste reduction strategies. By implementing effective programs, communities can conserve resources, reduce pollution, stimulate economic growth, and align with national and state sustainability goals.

## 2.0 Current Landscape of Material Management

---

The current landscape of material management across the NCTCOG region is dynamically evolving, with an increasing focus on sustainability, efficient resource utilization, and the integration of circular economy principles. These initiatives encompass enhancing existing recycling programs, expanding waste diversion efforts, and boosting composting activities. Additionally, there is a growing emphasis on developing innovative technologies and practices that further optimize the lifecycle management of materials, aiming to minimize waste generation and environmental impact while promoting economic efficiency and sustainability.

### 2.1 Regulatory Framework

Material diversion efforts are reinforced through regulations and goals at federal, state, and local levels. As Texas experiences growth and increased urbanization, these efforts enable communities to conserve resources, minimize pollution, and stimulate economic growth while aligning with broader national and state sustainability objectives.

Here is an overview of key elements of the framework:

- Federal Regulations
  - U.S. Environmental Protection Agency (EPA)
    - The EPA establishes recycling and landfill diversion goals to advance sustainable material management. Specifically, the goal is to increase the national recycling rate to 50 percent by 2030.

---

<sup>1</sup> [NCTCOG - Source Reduction/Recycling](#)

- Texas State Regulations
  - Texas Commission on Environmental Quality (TCEQ):
    - TCEQ has established rules and resources for recycling organizations.
    - Texas state agencies must preference certain recycled, re-manufactured, or environmentally sensitive products as first choice purchasing products.
  - Texas Administrative Code (TAC):
    - Chapter 328 of the TAC identifies the state’s goal of recycling at least 40 percent of the state’s total municipal solid waste stream. This chapter identifies how recycling rates are to be measured and reported.
- Local Government Regulations
  - Local governments are empowered to enact ordinances and develop waste management plans prioritizing material diversion.

These layered regulations ensure a comprehensive approach to managing waste and recycling. They aim to reduce environmental impact while promoting recycling and reuse across multiple governmental levels. Each level of regulation supports the others, creating an integrated network of policies that encourage sustainable practices and material diversion.

## 2.2 Programs for Material Diversion

Communities have adopted a comprehensive approach to enhance material diversion through targeted programs to reduce waste and promote sustainability. These programs are discussed below.

### 2.2.1 Residential Recycling Programs

Based on survey results completed for the Regional Solid Waste Management Plan (RSWMP<sup>2</sup>), at least 5.3 million residents in the NCTCOG region receive curbside recycling collection, representing 67 percent of the total region’s population. Below are examples of how communities in the NCTCOG manage residential curbside collection:

- City of Granbury: The city contracts with a solid waste provider for garbage and recycling. Residents must purchase their garbage receptacles and the service provider will provide them with recycling receptacles. Commercial customers must establish service directly through the contracted solid waste provider.
- City of Denton: The city provides residential and recycling services, including weekly collection of trash, recycling, and yard waste. Additional services, such as bulky waste collection, Home Chemical Collection, and brush collection, are available for additional fees.
- City of Dallas: The city is the exclusive recycling collection service provider for single-family homes and duplexes. Residential recycling is provided once per week.

In less populated areas of the region, curbside collection is a challenge due to collection route distances. In these areas, residents are served by drop-off events and facilities. According to the RSWMP, at least seventeen citizen collection stations are in the NCTCOG region. Below is an example of how a community leveraged regional collaboration for a residential drop-off facility:

---

<sup>2</sup> [Final-RSWMP-11-18-2022\\_1.pdf](#)

- City of Granbury: Residents of Granbury can access the Hood County Citizen Collection Station. Recyclables are accepted for free.

### **2.2.2 Commercial Recycling Programs**

Commercial diversion programs are pivotal for businesses aiming to reduce their environmental impact through waste management. These programs focus on redirecting materials from landfills to more productive uses, such as recycling, repurposing, or composting. By integrating these sustainable practices, businesses not only help conserve natural resources but also reduce waste management costs and tap into new economic opportunities through the sale or reuse of recycled materials. Below are examples of how communities have implemented commercial diversion programs:

- City of Denton: The city has implemented a Commercial Diversion program that requires all multi-family, business, government, and commercial entities to create a diversion plan that recycles/diverts materials for reuse.
- City of Granbury: The city contracts with a solid waste provider for garbage and recycling. Commercial customers must establish service directly through the contracted solid waste provider.
- City of Dallas: Commercial and multi-family properties may request collection services from the city or elect service from a private solid waste hauler authorized to conduct business within the city.

### **2.2.3 Composting Programs for Organics**

Organics refers to materials such as brush, yard trimmings and food waste. Data collected during the waste characterization assessment performed by the NCTCOG in 2020 estimates that approximately 50 percent of the waste stream in the area consists of yard and food waste<sup>3</sup>. Organics can be recycled through composting, mulching or anaerobic digestion processes. There are several composting and mulch facilities in the region. Below are examples of how communities in the NCTCOG manage yard waste and brush diversion:

- City of Richardson: Residents can request curbside pickup of brush turned into mulch.
- City of Irving: Brush is picked up curbside during weekly trash collection. Residents, businesses, and landscape companies can purchase mulch, which is ground from brush debris collected from residential customers.

Below are examples of how communities in the NCTCOG manage food waste diversion:

- North Texas Municipal Water District: As part of residential solid waste service, the North Texas Municipal Water District allows the City of Allen, Frisco, McKinney, Plano and Richardson to drop off food waste at the landfill or the three transfer stations up to twice per month.
- City of Fort Worth: The city has implemented a Composting Pilot Program. For a one-time \$20 subscription fee, residents receive a composting starter kit and access to the city drop-off station.

---

<sup>3</sup> [NCTCOG - Organic Waste Gap Analysis Study](#)

- The City of Plano: Launched in early 2023, Plano residents can now participate in Plano’s Residential Food Scrap Composting Program. After joining, participants can drop off food scraps at any of the eight drop-off locations across Plano as frequently as needed. To join the program, a one-time membership fee of \$45 is required to register.

#### **2.2.4 Construction and Demolition Debris**

Construction and demolition (C&D) debris refers to materials generated from construction and demolition activities and includes treated and untreated lumber, wallboard, carpet, etc. A portion of C&D is recyclable. According to the RSWMP, there is one mixed C&D recycling facility in the region and several material-specific processors. The NCTCOG website lists recyclers in the area that recycle C&D debris.<sup>4</sup>

#### **2.2.5 Reuse Centers**

Reuse programs focus on extending the life cycle of products and materials, reducing the need for new resources and diverting waste from the landfill. There are several types of reuse programs in the NCTCOG. These programs exemplify how local initiatives can contribute significantly to environmental sustainability by diverting valuable materials and products from landfills and making them available for reuse within the community. Examples include:

- Habitat for Humanity ReStores: These stores accept donations of building materials, household goods, furniture, and appliances. They are an excellent resource for both donating and purchasing reused items. This helps reduce waste by giving materials and products a second life.
- City of Plano: The city operates a Household Chemical Reuse Center to pick up free redistributed chemical products collected through the Household Chemical Collection program. For example, chemicals include paints, cleaners, and lawn and garden treatments.
- City of Fort Worth: The city has implemented a Help-Yourself-Shelf where chemicals, cleaners, and paint in like-new condition are offered free of charge.

## **3.0 Strategies for Material Diversion**

---

Material diversion is critical for managing municipal solid waste effectively and sustainably. As communities grow and environmental regulations become more stringent, approaches such as Pay-As-You-Throw (PAYT) systems, public-private partnerships, pilot programs, grants and funding opportunities, public education, ordinance requirements, and regional collaboration are essential. Each of these strategies offers unique benefits and challenges, and when combined, they can significantly enhance a region's ability to manage waste responsibly.

### **3.1 Pay-As-You-Throw (PAYT) Programs**

This system incentivizes waste reduction by charging residents based on the amount of waste they produce rather than a fixed fee. This encourages people to generate less waste and participate more actively in recycling programs. PAYT programs can result in higher recycling rates (especially in communities with bag-

---

<sup>4</sup> [NCTCOG - Commercial and Residential Recyclers](#)

based programs) due to the financial incentive of minimizing waste disposed. The U.S. EPA has recommended PAYT user fee systems for decades, and their effectiveness is well demonstrated.

### **3.2 Public-Private Partnerships**

These collaborations between municipal governments and private companies leverage the strengths of both sectors. Private companies can bring efficiency and innovation, while public entities provide regulatory support and community engagement, enhancing the scale and effectiveness of recycling programs.

### **3.3 Pilot Programs**

Testing new ideas on a small scale before broader implementation allows communities to learn and adapt strategies most effective for their specific conditions. Pilot programs can explore innovative recycling technologies, community composting initiatives, or unique waste collection methods.

### **3.4 Grants and Funding Opportunities**

Grant and funding opportunities from government entities or private foundations can help launch or expand waste diversion programs. These funds can be crucial for covering the upfront costs of new recycling facilities, community education campaigns, or research into new waste management technologies. Every two years, the TCEQ allocates funds generated by landfill tipping fees to the twenty-four councils of governments in Texas. The NCTCOG allocates some of the funding toward local and regional Implementation Grants.

### **3.5 Public Education Campaigns**

Educating the community about the benefits of waste reduction and proper recycling practices is fundamental. Effective education campaigns increase participation rates in recycling programs and reduce contamination in recycling streams, making recycling more efficient.

Waste characterization studies are relevant to public education efforts in waste management. They primarily serve as tools to inform and tailor these educational strategies rather than being part of public education. This data is crucial for understanding the primary sources of waste and identifying significant areas where waste reduction and recycling can be improved. With the data from these studies, public education campaigns can be specifically tailored to address the most pressing waste issues identified. For example, if a study finds a high percentage of organic waste in the trash, this could lead to targeted campaigns on composting or food waste prevention. Knowing which recyclable materials are most commonly disposed of incorrectly can help to design educational programs that focus on proper recycling practices for these items, reducing contamination and improving the overall efficiency of recycling operations. Waste characterization studies can help to engage the community by showing tangible evidence of waste issues. They can be used in workshops, school programs, and community meetings to raise awareness and encourage participation in local waste reduction initiatives.

### **3.6 Ordinance Requirements**

Ordinances can effectively mandate material diversion by setting legal requirements for waste management practices within a community. These local laws can specify the minimum recycling, composting, and reuse levels that residents, businesses, and institutions must meet. Ordinances can also outline penalties for non-compliance and incentives for surpassing the minimum standards, thereby promoting higher rates of

material diversion. By formalizing these requirements, ordinances help ensure that waste diversion goals align with broader environmental sustainability objectives of reducing landfill use and promoting recycling.

### 3.7 Regional Collaboration

By working together, neighboring municipalities can pool resources, knowledge, and infrastructure to enhance their waste diversion efforts. Regional collaboration can lead to the development of shared facilities, coordinated public education programs, and standardized policies that streamline recycling processes across municipal boundaries. This collaborative approach typically involves two key strategies.

- *Shared Services:* By partnering with neighboring communities, municipalities can share the provision of services such as recycling collection, transportation, and processing. This reduces the individual costs for each participating community by spreading out expenses and enhances their bargaining power when negotiating with service providers. Shared services might include joint recycling processing facilities, shared staffing for specialized roles, or communal educational programs about waste reduction and recycling.
- *Joint Contracts:* Collaborating communities can issue joint Requests for Proposals (RFPs) for waste management services. This approach attracts more competitive bids from service providers who value the larger, consolidated contracts. Municipalities can secure more favorable terms and lower prices by pooling their needs, benefiting from economies of scale. This reduces costs and leads to improved service quality due to the increased financial incentive for contractors.

## 4.0 Incorporating Material Diversion into RFPs

---

In the evolving landscape of municipal waste management, incorporating material diversion strategies into RFPs is becoming increasingly necessary. As cities and communities intensify their focus on sustainability, RFPs that clearly articulate material diversion requirements set a solid foundation for effective waste management partnerships. These RFPs ensure that the waste management services align with community-specific sustainability goals and facilitate significant strides in waste reduction, recycling, and composting initiatives. This section discusses various practical strategies to embed material diversion into RFPs, enhancing the effectiveness of contracting waste management services.

### 4.1 Defining Service Level Options

Defining service level options within RFPs for waste management services can ensure that the services align with the environmental and operational standards expected by the community. The following provisions should be considered when drafting RFPs.

- *Providing Recycling Carts:* Consider requiring contractors to supply standardized recycling carts for residents. Include details on cart size, durability, maintenance, and replacement policies.
- *Composting Carts and Services:* Offer organics collection services with appropriate food scraps and yard waste containers. Define acceptable materials, collection frequency, and processing methods.
- *Yard Waste Pick-up:* Implement regular or seasonal yard waste collection services. Outline how yard waste will be collected, processed, and whether materials will be composted or mulched.



- *Hosting Drop-off Events:* Consider whether the service provider is responsible for organizing events to collect hazardous materials, electronics, bulky items, and other hard-to-dispose items. Determine event frequency, locations, accepted materials, and ensure proper recycling methods.
- *Educational and Outreach Programs:* Require contractors to conduct public education campaigns on recycling and waste reduction. Include goals for reducing contamination, increasing participation, and methods for community engagement.
- *Reporting and Data Management:* Mandate regular reporting on diversion rates, contamination levels, program participation, and other key metrics. Establish standardized formats and frequency for reporting and require transparency and accessibility of data.

## **4.2 Cost Comparison and Evaluation**

Request detailed cost breakdowns within the RFPs to ensure transparency in pricing that includes all capital and operational costs. Evaluating these costs against service quality and potential long-term savings will aid in assessing the value provided by different proposers.

## **4.3 Flexibility in Contracting**

RFPs should allow for contractual flexibility to accommodate varying community needs over time. This includes clauses for adjustments based on performance reviews, ensuring that contractors are held to their commitments, incentives for exceeding efficiency targets and penalties for non-compliance.

## **4.4 Comprehensive RFP Components**

A well-crafted RFP should outline the service expectations and scheduling options. These could include by-appointment collections with specified response times or fixed schedules with clear frequency, dates, and acceptable items guidelines. Additional pick-up costs, composting and mulching services, and provisions for community drop-off events should be detailed to provide a full spectrum of waste management services.

## **4.5 Innovative Technologies and Sustainability Practices**

It is crucial to encourage technology integration, such as routing software and mobile apps, for efficient collection scheduling and customer interaction. Proposals should also emphasize sustainability practices, including minimizing environmental impact and providing metrics for sustainability performance.

## **4.6 Key Considerations for Effective RFPs**

Finally, the RFP should clearly define the scope of services, contractor qualifications, pricing and cost transparency, and performance metrics. Compliance with regulatory standards and active community engagement and education should also be highlighted to ensure the program's success.

- *Performance Metrics:* Set clear and achievable targets for waste reduction and recycling rates. Define acceptable contamination levels and require contractors to implement measures to meet these standards.
- *Contractor Qualifications:* Require evidence of successful implementation of material diversion programs. Ensure contractors adhere to all relevant environmental regulations and industry best practices. Encourage proposals that include innovative approaches to waste reduction and recycling.
- *Educational Components:* Contractors should develop and implement comprehensive education and outreach plans. These plans should include provisions for workshops, school programs, and participation in community events.
- *Financial Considerations:* Evaluate the financial viability of proposals, including cost to residents and potential savings. Consider options for sharing revenues from the sale of recyclable materials.
- *Service Level Agreements (SLAs):* Define service frequency, reliability, and quality expectations. Include requirements for managing resident inquiries, complaints, and providing timely resolutions.
- *Environmental Compliance:* Contractors must comply with federal, state, and local environmental laws and regulations. Evaluate contractors based on their commitment to environmental stewardship and sustainable practices.

## 5.0 Case Studies

---

The following case studies showcase diverse approaches to material diversion, each tailored to meet the unique needs and resources of its respective area.

### 5.1 Case Study 1: City of Dallas, Texas

2023 Population (estimate<sup>5</sup>): 1,302,868

A significant amount of waste generated in the City of Dallas originates from organic materials in single-family homes, multi-family residences, and businesses. Since organics constitute a large portion of landfill waste, exploring methods to divert them from landfills is essential. Recycling organic matter is highly advantageous; food waste can be transformed into compost, which can be used to cultivate more food. This process creates a sustainable cycle that reduces waste and enhances food productivity.

#### Key Strategies Implemented:

- *Public Private Partnership, Pilot Programs, Regional Collaboration, Grants and Public Education Campaign:* The Bishop Arts District Compost Pilot Program, launched in collaboration with the City of Dallas, encompasses efforts from the Sanitation Services Department, Office of Environmental Quality & Sustainability, Office of Special Events, and the Dallas County Department of Health and Human Services. This initiative is designed to reduce food waste by collecting it from restaurants

---

<sup>5</sup> [U.S. Census Bureau QuickFacts: Dallas city, Texas](#)

and events within the Bishop Arts District and converting it into compost for local community gardens. The food waste is taken to Turn Compost, a private facility in Dallas. A recent waste characterization study revealed that 44 percent of the waste is organic, including yard waste, wood, and food waste. The insights gained from this pilot are instrumental in shaping data-driven policies and educational campaigns to improve waste management practices across the city. A grant from the U.S. Department of Agriculture made the pilot study possible.

Program Outcomes:

- Four restaurants are actively participating in the pilot study.
- The program supports the city's goal of achieving "Zero Waste" by working towards diverting 85 percent of solid waste.
- By composting food waste, the program has helped reduce greenhouse gas emissions and produced a valuable soil amendment that enhances the quality of community gardens in Dallas.

## 5.2 Case Study 2: City of Denton, Texas

2023 Population (estimate<sup>6</sup>): 158,349

The City of Denton has implemented several strategies for material diversion.

Key Strategies Implemented:

- *PAYT*: In a revised PAYT program, residents will no longer have trash bags outside of their carts picked up as bulky items. Instead, there will be a \$5 charge per bag for extra trash bags left outside the trash cart, with charges added directly to the utility bill without prior scheduling. The limit for extra bags is five per week. Residents needing more space are encouraged to contact Customer Service to discuss increasing their cart size or adding additional carts to their service for a fee.
- *Ordinance Requirements and Public Education Campaigns*: The Code of Ordinances, Chapter 24 Solid Waste, includes a Commercial Diversion program that requires all multi-family, businesses, government, and commercial entities to create a diversion plan that recycles/diverts materials for reuse from ultimate disposal at the City of Denton Landfill. The diversion plan is submitted to the city via a link on the website. A waste characterization study was used to understand the primary sources of waste and identify significant areas where waste reduction and recycling can be improved. "Let's Discuss Denton," an online engagement platform, was used to voice opinions on the program.

Program Outcomes:

- The introduction of a fee for extra bags outside trash carts is expected to reduce the volume of waste left outside, incentivizing residents to manage their waste within their allotted cart space or opt for additional cart services.
- The Commercial Diversion program was implemented in 2023; therefore, specific data is limited. However, the program's impact is expected to be significant. A waste characterization study

---

<sup>6</sup> [U.S. Census Bureau QuickFacts: Denton city, Texas](#)

completed in 2020 indicated that between 42 percent and 55 percent of all commercial and multi-family trash is recyclable.

### 5.3 Case Study 3: NCTCOG

In 2019 and again in 2023, the NCTCOG, guided by the Resource Conservation Council, issued RFPs for electronics recycling services across the region.

#### Key Strategies Implemented:

- *Regional Collaboration and Public-Private Partnerships:* These strategies led to selecting two vendors under Master Services Agreements for a preliminary three-year term, with renewal options. These vendors provide comprehensive electronics recycling services, including permanent facility drop-offs and one-day events, emphasizing competitive pricing and regional accessibility. This case study exemplifies effective regional collaboration and public-private partnerships in enhancing sustainable waste management practices.

#### Program Outcomes:

- The NCTCOG electronics recycling program has been enhanced by including secure asset management services, ensuring that sensitive data is properly destroyed before recycling electronic devices. This addition safeguards privacy and encourages higher participation rates by alleviating data security concerns among residents and businesses. As a result, the program effectively minimizes electronic waste in the region, aligning with broader environmental protection and sustainability objectives.

### 5.4 Case Study 4: City of Granbury, Texas

2023 Population (estimate<sup>7</sup>): 12,622

Local communities, particularly smaller ones, can implement various strategies to enhance diversion. The City of Granbury has implemented several material diversion strategies.

#### Key Strategies Implemented:

- *Implement Pay-As-You-Throw Strategies:* Residents are charged based on the amount of waste they produce, which is a direct financial incentive for them to generate less waste.
- *Public-Private Partnerships and Public Education Programs:* The city's solid waste page provides information about donating used and unwanted items instead of discarding them. While not a formal partnership between the city and private entities, advertising nonprofit organizations or second-hand stores for donating unwanted items is a cost-free option.
- *Regional Collaboration:* Citizens of Granbury can take brush to the Hood County Brush Yard. The brush is recycled into coarse and fine mulch.

#### Program Outcomes:

---

<sup>7</sup> [U.S. Census Bureau QuickFacts: Granbury city, Texas](#)

- PAYT charges residents based on the amount of trash they generate. This creates a fair system where households producing less waste pay less. Small communities, where resources are often limited, benefit from this equitable approach.
- Small communities often have tight budgets. By reducing waste volumes, they can lower landfill transportation and disposal costs.
- Small communities like Granbury can maximize their resources by partnering with neighboring cities, counties, or private companies to share resources and services.

## 6.0 Action Steps for Communities

---

Based on the reviewed strategies and outcomes from material diversion programs in cities with varying populations within the NCTCOG region, communities can take the following steps to improve their solid waste management systems.

### Conduct a Waste Audit:

- *Assess Community Waste:* Conduct regular waste audits to identify the types and volumes of waste generated in the community. Use these insights to prioritize materials for diversion programs.
- *Visual Data Sharing:* Present audit findings using infographics or simple visuals to help residents understand where their waste goes and how they can reduce it.
- *Set Clear Goals:* Share waste reduction targets based on audit results, giving the community a tangible benchmark to work toward.

### Enhance Community Education:

- *Clear Communication:* Simplify communication about recycling, composting, and waste diversion programs. Use visuals (e.g., photos, infographics, videos) to demonstrate what materials are accepted, how to separate waste properly, and the benefits of participation.
- *Workshops and Fix-it Clinics:* Host educational events about the importance of material division. Organize community "Fix-It Clinics" where residents can bring broken items (e.g., electronics, small appliances, clothing) and learn how to repair them with the help of volunteers. These events not only reduce waste but also empower participants with valuable skills.
- *Leverage Social Media Platforms:* Use social media to announce upcoming workshops or special recycling events. These posts can include all the logistical details and benefits of participating. Design content that is easily shareable, increasing its reach. This can consist of catchy slogans, compelling images, or fun videos that people are more likely to share with their networks.
- *Share Success Stories:* Highlight positive outcomes from community efforts, such as notable reductions in waste or successful recycling initiatives. This not only informs but also motivates the community by showing tangible results.

### Organics Collection and Composting

- *Yard Waste Practices:* Consider adopting yard waste practices that enable more composting and diversion of organic waste. For example, it can be promoted via education or required via policy that grass clippings be left on lawns rather than collected for disposal. Grass clippings can function as a natural fertilizer.
- *Source-separated Collection:* Implement programs that require a separate collection of grass clippings, leaves and brush while disallowing the use of plastic bags. Plastic bags create contamination that is difficult to remove during the composting process. Instead, encourage using paper bags or dedicated carts for yard trimmings. These measures help create a clean, source-separated organics stream for composting.
- *Backyard Composting and Technology:* Promote voluntary at-home composting practices like backyard or high-tech in-home composting machines. These options are ideal for single-family homeowners with yards and gardens and can reduce the volume of organic waste sent for municipal collection.
- *Drop-Off and Subscription Programs:* Offer subscription-based collection services or drop-off programs for food scraps and yard trimmings. These programs are particularly effective in collecting uncontaminated food residuals and can be expanded with municipal support, such as providing drop-off facilities or contracting with private service providers.

#### Monitor and Measure Program Success:

- *Regular Reporting:* Share updates on diversion rates, recycling contamination levels, and program success through newsletters or community meetings.
- *Feedback Mechanisms:* Provide avenues for residents to share ideas or concerns about the programs.
- *Adjust Programs:* Use data to refine programs, focusing on areas with low participation or high contamination.

## 7.0 Conclusion

---

Material diversion is a critical strategy for reducing landfill use, conserving resources, and lowering greenhouse gas emissions. By implementing practical measures like PAYT programs, clear rules, and education initiatives, communities can create systems that encourage participation and minimize contamination. Securing grants and funding opportunities can ease financial challenges, while regional collaboration enables neighboring communities to pool resources, streamline operations, and amplify the impact of their efforts.

By working with businesses, schools, and other organizations, communities can expand material diversion opportunities and create a more sustainable waste management system. Through these collective actions, communities can not only protect the environment but also reduce costs and improve the quality of life for their residents, ensuring a healthier and more sustainable future.

## 8.0 Additional Resources

---

### North Central Texas Council of Governments (NCTCOG):

- Educational materials and resources.
- Website: [www.timetorecycle.com](http://www.timetorecycle.com)

### Texas Commission on Environmental Quality (TCEQ):

- Information on recycling markets and economic impacts.
- Website: [www.tceq.texas.gov](http://www.tceq.texas.gov)

### U.S. Environmental Protection Agency (EPA):

- Sustainable materials management, guidelines, and best practices.
- Website: [www.epa.gov/smm](http://www.epa.gov/smm)

### The Recycling Partnership:

- Tools and resources for communities to support improving recycling programs.
- Website: [www.recyclingpartnership.org](http://www.recyclingpartnership.org)

