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LBJ School of Public Affairs

Policymaking in Cities

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City of Austin

Landfill Diversion Ordinances

Policy Analysis

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POLICY MEMORANDUM

To: Bob Gedert, Austin Resource Recovery Director

From: Brent Perdue, LBJ Student

Date: 12/11/2015

Subject: Landfill Diversion Policy Analysis

This policy analysis report provides background, analysis, recommendations, and implementation strategies to improve single family residential, multi-family residential, and commercial landfill diversion activities. The report analyzes single family residential landfill diversion programs, as well as multi-family residential and commercial landfill diversion programs, as covered by the Universal Recycling Ordinance (URO).

The City of Austin (COA) and Austin Resource Recovery (ARR) established ambitious zero waste goals in the ARR Master Plan and related documents. Achievement of zero waste requires many interplaying policies and programs, as well as the support from Austin citizens, business, and landfill diversion service providers. The City and ARR play an important zero waste leadership role by leading by example and facilitating the meaningful involvement of stakeholders. Perhaps most importantly, the ARR Business Outreach Team will play an integral role of providing landfill diversion guidance and incentives to Austin multi-family and commercial properties.

The intent of this report is to offer improvements to single family residential landfill diversion activities and the Universal Recycling Ordinance. However, the analysis is limited in scope and the report may offer recommendations that have been previously. The report's recommendations include:

- 1) Provide landfill diversion credits to ARR residential customers.
- 2) Amend the URO to require mandatory hauler-provided landfill diversion service.
- 3) Expand organic material collection requirements to multi-family complexes.
- 4) Amend the Land Development Code with landfill diversion infrastructure and design guidelines.
- 5) Implement Inter Local Agreements or Memorandums of Understanding with entities outside the URO's jurisdiction.
- 6) Expand Business Outreach Team staff and budget resources.

EXECUTIVE SUMMARY

This policy analysis report will provide City of Austin landfill diversion policy background, analysis, and recommendations. The analysis will consider two aspects of the City of Austin’s landfill diversion efforts—single family residential recycling and the Universal Recycling Ordinance. The City of Austin directly controls single family residential recycling—representing approximately 25 percent of citywide waste generation (HDR, 2011). The City of Austin uses ordinances and programs to influence approximately 68 percent of citywide waste generation from multi-family residential and commercial properties (HDR, 2011). In 2005, the City of Austin committed to a 20 percent reduction of per capita waste sent to landfills. In 2011, the City of Austin committed 50 percent reduction of waste sent to landfills by 2015, 75 percent by 2020, and 90 by 2040. Charged with solid waste management, the Austin Resource Recovery department adopted a master plan with a series of program and policies designed to meet these zero waste goals (HDR, 2011). Landfill diversion programs can consist of a range of activities. This report will focus on recycling and organic material collection programs.

PROBLEM STATEMENT

Austin generates approximately 1.4 million tons of waste (HDR, 2011). Municipal solid waste consists of items that citizens and business consume and then dispose. Recycling and composting of waste reduces the amount of landfilled and incinerated materials, conserves land and natural resources, saves energy, and reduces greenhouse gas emissions (EPA, 2015). These external environmental costs to the public are not accounted for in the provision of landfill solid waste service.

Despite sustained efforts, the City of Austin has not met the Austin Resource Recovery Master Plan goal of 50 percent waste diversion from landfills and incinerators by 2015 (HDR, 2011).

RESEARCH APPROACH

This report will provide policy background, findings, and recommendations for the City of Austin’s single family residential recycling program and Universal Recycling Ordinance. A brief academic literature review, Universal Recycling Ordinance and related recycling documents review, and stakeholder interviews inform the analysis and recommendations. In addition, comparable commercial recycling ordinances from other governmental entities will be reviewed.

POLICY BACKGROUND

City of Austin Landfill Diversion Policy Development

The City of Austin implemented a number of solid waste management policies over the past three decades that attempted to expand recycling access and landfill diversion in the city of Austin.

In 1994, the City of Austin initiated its first curbside recycling program for single family homes (Chronicle, 2014). Shortly thereafter, the City of Austin passed the Commercial and Multi-Family Recycling Ordinance in 1998, which required limited recycling at apartments, businesses, and institutions (Chronicle, 2014). In 2008, the City of Austin began collecting single-stream recycling and rolled out large 96-gallon recycling collection bins (Chronicle, 2014).

The signing of the 2005 U.N. Environmental Accords signaled more municipal focus on landfill diversion activities, such as recycling and composting (Chronicle, 2014). Reflecting the increased focus on landfill diversion, the Austin City Council adopted a resolution that committed the City to a 20 percent reduction of per capita solid waste disposal to landfills and incinerators by 2012 (COA, 2005). Furthermore, the City of Austin adopted the Austin, Texas Zero Waste Strategic Plan in 2009 (Chronicle, 2014). The strategic plan called for an updated and expanded commercial and multi-family recycling ordinance as a part of a larger zero waste plan of landfill diversion (Liss, 2009). To that end, the Austin City Council adopted the Universal Recycling Ordinance in 2010 and updated in the URO in 2014 (HDR, 2011; COA, 2014b). In 2011, reflecting a shift from sanitation to sustainable materials management, the City of Austin Solid Waste Services Department changed its name to Austin Resource Recovery and adopted the Austin Resource Recovery Master Plan (Chronicle, 2014). The master plan detailed the 30-year path of interplaying policy initiatives to achieve the ultimate zero waste goal of 90 percent landfill and incinerator diversion (HDR, 2011).

The shift to sustainable materials management and a zero waste philosophy, changes traditional sanitation management emphasis on a linear, cradle-to-grave waste management, which the majority of waste material is destined for a landfill or incinerator. Instead, zero waste emphasizes a lifecycle approach to sustainable materials management. Materials are recovered by recycling or composting and are available as feedstocks for new products.

Landfill Diversion Ordinances Policy Summary

Recycling and composting ordinances regulate waste material generated by properties within the entities' jurisdictional authority. These ordinances define the parties responsible for recycling and composting service provision (Beck, 2009). The compliance burden may be placed upon property owners, business managers, service providers, and/or tenants by these ordinances (Beck, 2009). Typically, these ordinances specify the types of recycling and organic materials to be collected onsite (Beck, 2009). The ordinances typically affect three land use categories (Beck, 2009):

- Single Family Residential
- Multi-Family Residential
- Commercial

Often, the ordinances will include additional educational, design, and reporting requirements (Beck, 2009). Ordinances may require recycling and composting recovery education for employees and residents (Beck, 2009). Many ordinances include design standards—such as collection capacity minimums, bin placement guidelines, and signage requirements (Beck, 2009). In order to measure landfill diversion performance, most ordinances require annual reporting of service provision levels and landfill diversion estimates by responsible parties (Beck, 2009).

Recycling and composting ordinances can be mandatory, voluntary, or a combination of mandatory and voluntary requirements (Beck, 2009). Mandatory ordinances require recycling and composting service and allow for penalties for non-compliance (Beck, 2009). Voluntary ordinances encourage service, but do not impose penalties for non-compliance (Beck, 2009). Regulating entities may combine mandatory and voluntary requirements to allow for business adaption to new regulations or if service provider capacity is not sufficient to meet service provision demand (Beck, 2009). Ordinances may also phase-in ordinance applicability and compliance based on number of residential units or size of commercial property.

Recycling and composting ordinances may be developed in conjunction with service provider, or hauler, ordinances. Service provider ordinances regulate the collection and transportation of solid waste. Often, these ordinances will establish a set of requirements necessary for a service provider to be a licensed solid waste hauler in the entities' jurisdictional authority.

Residential & Universal Recycling Ordinances Summary

Single Family

The City of Austin provides single stream recycling service to Single Family Residences under five dwelling units (COA, 2015b). Austin Resource Recovery plans to begin organic collection service at those residences by 2016 and is currently conducting a pilot program (COA, 2015a). For Fiscal Year 2015 to Date, ARR reported diverting approximately 30.5 percent of recyclables material from residences participating in this program (ARR, 2015a). In a 2015 waste characterization study, consultants reported approximately 44 percent of single family resident waste is recyclable and 46 percent is organic material (CB&I, 2015). ARR estimates that the waste generated from single family residences represents roughly 25 percent of total waste generated in Austin (HDI, 2011).

Multi-Family & Commercial

ARR estimates that multi-family and commercial properties generate roughly 68 percent of waste in Austin (HDR, 2011). The URO combines regulation of multi-family residential and commercial land uses into one ordinance (COA, 2014b). The ordinance places the compliance burden on property owners and managers (COA, 2014b). Austin Independent School District and State of Texas facilities are not subject to this ordinance (COA, 2014b).

The ordinance is being phased-in from 2010 to 2017 based on property size and material collected (COA, 2014b). The ordinance immediately applied to the largest properties, phased-in smaller properties, and extended the timeline for organic collection compliance (COA, 2014b). Organic material collection is only required for premises with a food permit, except for premises serving primarily prepackaged goods (COA, 2014b). ARR Chapter 15-6 Administrative Rules details specific capacity, design, education, and reporting requirements established in the URO for multi-family residences and commercial properties (COA, 2014a). URO requirements include (COA, 2014b):

Universal Recycling Ordinance	
<i>Service Requirements</i>	<i>Program Development</i>
<ul style="list-style-type: none">• Adequate collection capacity• Bin placement convenience• Types of materials collected• Contracting with a licensed service provider	<ul style="list-style-type: none">• Educational efforts• Signage• Annual diversion reporting

Properties can achieve compliance with the URO by either meeting collection capacity requirements or proving diversion performance standards with a third-party audit (COA, 2014b). If a premise is deemed non-compliant, the URO allows for financial penalties to be imposed according the compliance procedures (COA, 2014b; ARR, 2014a).

Program Development

In addition to the ordinance, ARR manages programs to support implementation of the URO. ARR's Business Outreach Team provides property owners and managers URO guidance and determines URO compliance (ARR, 2015e). ARR URO-support programs include (ARR, 2015e):

- Business rebates
- Educational materials
- Signage templates
- Speakers and trainings
- Onsite waste assessments

POLICY ANALYSIS

Analysis Summary

URO policy development was a multi-year process that involved dozens of stakeholders, including policy advocates, service providers, businesses, apartment managers, and city staff members. When completely phased-in, the URO will cover all multi-family residential and commercial properties within the City of Austin's jurisdictional authority (COA, 2014b). These properties number in the thousands and each property has unique physical forms, sizes, and business models. Some properties may have adequate space for landfill diversion infrastructure, others may not. Properties range in square footage and number of employees or residents creating site-specific service capacity needs. The business models range from residential to offices to food establishments to facilities. The diversity of properties types and business models necessitated that the URO establish regulations that were general in design in order to meet the needs of all affected properties (COA, 2014b). The single family residential recycling program implementation is more uniform due to direct City control of implementation and relative uniformity of single family residential development.

Finding 1: ARR does not provide landfill diversion credits to customers.

ARR charges single family residential customers a tiered ‘pay-as-you-throw’ system for trash collection (ARR, 2015c). Customers pay more for larger trash collection bins (ARR, 2015c). No additional fee is required for recycling service (ARR, 2015c). ARR provides residential rebates for onsite composting systems (ARR, 2015b). ARR does not measure landfill diversion for individual single family residences. Single family residential recycling participation does not maximize the potential for diversion (CB&I, 2015).

Finding 2: The URO places the compliance burden on property owners and managers.

The URO does not require mandatory hauler-provided landfill diversion service (COA, 2014b). Some municipalities enact ordinances that mandate service providers offer landfill diversion services (Beck, 2009). Mandatory hauler-provided landfill diversion services can be tailored to properties based on size, space, and age (Beck, 2009). Often regulating entities will only include large properties, exclude properties without sufficient service space, and apply to properties built after ordinance adoption (Beck, 2009).

Finding 3: The URO organic material collection requirement only applies to premises with food permits.

The URO does not require organic material collection at multi-family residential properties (COA, 2014b). The City of San Francisco requires that multi-family residential properties provide organic material collection programs (Beck, 2009). In some organic material collection programs, no fines or penalties are imposed for non-compliance (Beck, 2009).

Finding 4: The Land Development Code does not provide landfill diversion infrastructure and design guidelines.

The URO provides landfill diversion infrastructure and design guidelines (COA, 2014b). However, a search of the City of Austin Land Development Code did not discover recycling infrastructure or design guidelines for new development (COA, 2015b). Currently, ARR is proposing to include recycling guidelines for construction and demolition projects in the Land Development Code (PZD, 2015).

Finding 5: The URO does not apply to premises outside of the City of Austin’s ordinance jurisdiction.

The City of Austin cannot require URO compliance for all premises inside the city of Austin, such as properties owned by the Austin Independent School District (AISD), Austin Community College (ACC), county governments, the State of Texas, and the federal government (COA, 2013). AISD, ACC, and The University of Texas at Austin (UT Austin) are taking landfill diversion initiative and implementing waste reduction and recovery programs (ACC, 2009; AISD, 2011; UT Austin 2012). In 2014, The City of Austin and Travis County signed an Inter Local Agreement (ILA) to implement landfill diversion programs at County facilities as stipulated by the URO when facility waste contracts come up for renewal (Travis County, 2014).

Finding 6: ARR provides comprehensive URO guidance and incentives to affected premises.

ARR is creating landfill diversion additional incentives by offering service provision rebates to affected premises (ARR, 2015e). ARR educational materials provide clear and consistent landfill diversion messages and signage (ARR, 2015e). ARR’s Business Outreach Team offers comprehensive URO guidance with online factsheets, online capacity calculators, and onsite waste assessments (ARR, 2015e). URO reporting is streamlined with online submission (ARR, 2015e). URO implementation focuses on compliance rather than enforcement.

POLICY RECOMMENDATIONS

The policy recommendations are limited to the scope of this report. There may be reasons why the recommendations have not been implemented or considered outside the scope of the report.

Recommendation 1: Provide landfill diversion credits to ARR residential customers.

A landfill diversion credit program may create incentives for recycling and composting. The program could start with recycling collection and expand to organic material collection. Some customers would choose to compost onsite and would not receive an organic material collection rebate.

To implement such a program, ARR may consider installation of bin weight measurement technology on collection vehicles. An individual customer’s recycling bin would be weighed and

tared resulting in an amount of recycling collected. The customer would be rebated on the utility bill for the amount of diverted recycling equal to a percentage of landfill cost avoidance. Periodic compliance auditing would be necessary to verify separation of recyclable materials.

Recommendation 2: Amend the URO to require mandatory hauler-provided landfill diversion service.

ARR may consider amending the Hauler Ordinance with mandatory hauler-provided landfill diversion service for multi-family residential properties with 25 or above units and commercial properties greater than 25,000 square feet. This requirement may level any residential rent increases due to landfill diversion service requirements across all multi-family residential properties. Service provider may object to mandatory service requirements. However, by making hauler-provided landfill diversion service mandatory, all service providers would be required to offer similar service. Service providers may experience increased business activity with the inclusion of landfill diversion services in service packages. Under the Hauler Ordinance, enforcement of this provision could be implemented by allowing for hauler license revocation or fines for non-compliant service providers.

Recommendation 3: Expand organic material collection requirements to multi-family complexes.

ARR may consider amending the URO to require organic material collection at multi-family residential properties. CB&I estimates that organic materials constitutes roughly 44 percent percent of residential waste streams (CB&I, 2015). Extrapolating to multi-family residential households, this represents a significant portion of divertible materials not covered by the URO. This requirement could initially be voluntary, and supported by service rebates, to acclimate property managers and residents to the program. By 2020, the program could become mandatory to assist in meeting landfill diversion goals. To mitigate costs to smaller multi-family residential properties, this amendment may focus on properties with 10 or more units.

Recommendation 4: Amend the Land Development Code with landfill diversion infrastructure and design guidelines.

ARR may seek to amend the LDC with landfill diversion infrastructure and design guidelines to improve URO implementation. Considering Austin's current development boom, immediate

revision of the LDC may be considered. In addition, ARR staff may advocate for inclusion of landfill diversion infrastructure and design guidelines in the currently on-going LDC rewrite, called CodeNEXT.

Recommendation 5: Implement Inter Local Agreements or Memorandums of Understanding with entities outside the URO’s jurisdiction.

AISD, ACC, State of Texas department facilities, and UT Austin constitute significant premises not covered by the URO. Similar to the ILA agreement between the City of Austin and Travis County, the City may seek to enter ILAs or Memorandums of Understanding (MU) with properties inside the city limits, but outside URO jurisdiction. Whereas AISD, ACC, and UT Austin are implementing landfill diversion programs, the ILAs or MUs could promote greater coordination and alignment of URO policies. Furthermore, individual State of Texas departments may be approached to adopt policies similar to the URO at facilities and offices.

Recommendation 6: Expand Business Outreach Team staff and budget resources.

To support increased URO compliance, the City may hire additional Business Outreach Team staff members to provide greater URO guidance and landfill diversion incentives. In addition, the City should expand Business Outreach Team budgetary resources to increase education and marketing efforts. Rebates for URO compliant properties should be increased and more widely distributed.

CONCLUSION

The URO represents many years of city staff and stakeholder involvement and input. While a significant component of the zero waste master plan, the URO may be improved with the proposed recommendations. The recommendations provided in this report are intended to support the City’s zero waste diversion efforts and URO implementation. The recommendations may be implemented as stand-alone policy initiatives or as a comprehensive policy package. Austin residents and businesses may respond most favorably to landfill diversion incentives rather than regulation. To that end, the City’s most important endeavor is to support the URO Business Outreach Team’s guidance and implementation efforts.

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