#### Memorandum



DATE January 23, 2015

Honorable Members of the Quality of Life & Environment Committee: Dwaine R. Caraway (Chair), Sandy Greyson (Vice Chair), Rick Callahan, Carolyn R. Davis, Lee M. Kleinman, Adam Medrano

#### **SUBJECT Waste Diversion Update**

Attached is a briefing that will be presented to the Quality of Life & Environment Committee on Monday, January 26, 2015. The briefing will provide an update on the City's Waste Diversion efforts.

Please feel free to contact me if you have any questions or need additional information.

Mark McDaniel

**Assistant City Manager** 

#### Attachment

c: The Honorable Mayor and Members of the City Council
A.C. Gonzalez, City Manager
Warren M.S. Ernst, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager
Eric D. Campbell, Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
Joey Zapata, Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Sana Syed, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor and Council

Kelly High, Director, Sanitation Services

# **Waste Diversion Update**

Quality of Life & Environment

Committee

January 26<sup>th</sup> 2015



#### Purpose

- Discuss status of Zero Waste efforts and goals
- Discuss current outreach programs, partnerships, and policies to advance our goals
- Discuss opportunities and policy matters for future consideration and development

#### What is the Zero Waste Plan?

The beginning of a long-term systematic effort, with incremental goals to:

- Strive for sustainability
- Reduce waste volume and maximize diversion through reuse and recycling efforts
- Demonstrate that economic growth, environmental stewardship and fiscal responsibility are NOT mutually exclusive







#### Goals for Zero Waste

#### **Today's Focus**



**Short-term** 

(2015-2020)

- Marketing & Outreach
- Multifamily/Commercial
- C&D Debris Ordinance
- Disposal Bans
- Producer Responsibility
- Brush & Bulk
- City Facility Zero Waste

60%

#### **Intermediate**

(2021-2030)

- Organics Collection
- Consider Universal Recycling Ordinance
- Resource Recovery Park
- Disposal Bans



#### Long-term

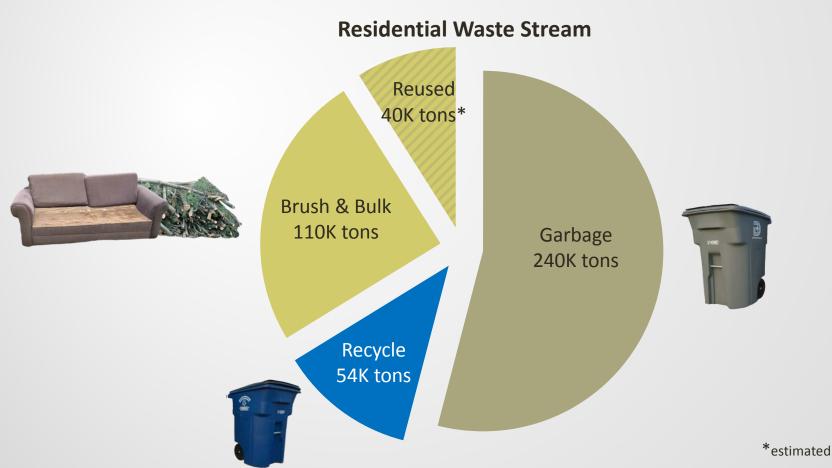
(2031-2040)

 Evaluate Emerging Technologies

#### Residential: Where are we now?

Currently, the City diverts or reuses approximately **20**% of the residential waste generated.

This involves: Garbage, Bulk & Brush and Recycling



#### **Diversion Rate Comparison**

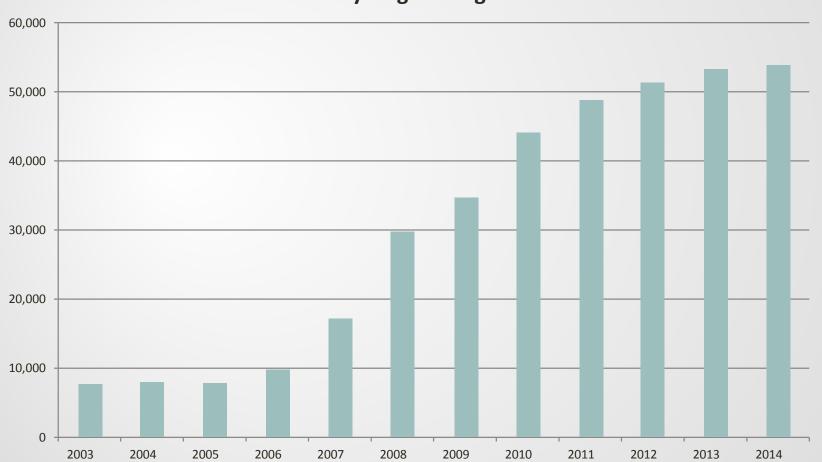
City	<b>Diversion Rate</b>
Dallas	20%
Fort Worth	24%
Houston	26%
San Antonio	30%
National Average*	35%
Austin	40%

\*Based on the 2012 EPA MSW Study

- Factors that influence diversion rates
  - Separate collection of brush and yard waste for diversion
  - Many cities don't have their own landfills
  - High cost of transportation, disposal and acquiring land for new landfills

# Residential Recycling: History

#### **Recycling Tonnages**



## Recycling Comparison

- Curbside Recycling: Pounds per Household\*
  - Houston 159.7 lbs per HH/Yr
  - San Antonio 419.5 lbs per HH/Yr
  - Fort Worth 438.8 lbs per HH/Yr
  - Dallas 442.6 lbs per HH/Yr
  - Austin 639.6 lbs per HH/Yr



<sup>\*</sup>based on best available information

#### Goals for Zero Waste



#### **Short-term**

(2015-2020)

- Marketing & Outreach
- Multifamily/Commercial
- C&D Debris Ordinance
- Disposal Bans
- Producer Responsibility
- Brush & Bulk
- City Facility Zero Waste



Sanitation Services has a comprehensive outreach strategy to increase customer's awareness and participation.





As you may know, the Earth's resources are declining due to population growth and the trend of throwing everything away, instead of recycling it. Together, we can change that.

Whether you're teaching your children or they're teaching you, recycling together is a great way to make a difference. By recycling the Items below, you'll be saving natural resources, energy AND creating jobs for Dallas residents.

- + Recycling one aluminum can saves enough energy to run a television for 2 hours
- . Preventing one ton of paper from entering the landfill saves between 15 and 17 mature trees

Just Imagine what you could do if you recycled at home! We could create a healthler planet for our children and future generations.











Mixed paper and newspaper







#### **Helpful Tips**

- To order your FREE recycling roll cart, please call 3-1-1 and place your order today! Please do not bag your recyclables. They should be placed directly in the recycling roll cart without being bagged.
- · For Information on what to do with hard to recycle items like plastic bags or metal. hangers, go to dallasrecycles.com.

For more information about recycling at home or recycling drop-off locations, go to dallasrecycles.com or call 214-670-4475.

# No, I'm not fetching!! I'm taking this to the recycling bin. - Max, the Cat dallasrecycles.com



#### ¿Cómo su familia conservaría el planeta?

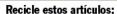
Como ustedes saben, los recursos del planeta están disminuyendo debido al crecimiento de la población y la tendencia de firar todo por la borda, en lugar de reciclarlo. Juntos, nodemos cambiar eso

Ya sea que, usted esté enseñando a sus hijos o que ellos le estén enseñando a usted, recidando juntos es una gran manera de hacer una diferencia. Al reciclar los elementos que enseñamos abajo, usted va a conservar los recursos naturales, la energía y la creación de puestos de trabajo para los residentes de Dallas.

#### ¿Sabía usted que?

- Reciclando una lata de aluminio ahorra suficiente e nergía para hacer funcionar un televisor durante 2 horas
- Prevenir de que una tonelada de papel entre en el basurero ahorra entre entre 15 y 17 árboles maduros.

¡Sólo imagínese lo que podría hacersi usted recicla en casa! Podríamos crearun planeta más saludable para la vida de nuestros hijos y las futuras generaciones

















#### Conseios útiles

- Para solicitar el servicio GRATIS de contenedor azul de reciclaje, por favor llame al 3-1-1 y jhaga su solicitud hoy mismo!
- Por favor, no coloque los artículos reciclables en bolsas. Deben ser colocados directamente en el carro rodante de reciclaje, sin ser empacados en bolsas
- Para obtener información sobre qué hacer con los artículos difíciles de recidar, como, bolsas de plástico, ganchos de ropa metálicos, visite la página dellasrecycles.com.

Para obtener más información sobre cómo recidar en casa o los sitios para entrega de artículos recidables, visite la página dellasrecycles com. o llame al 214-670-4475.







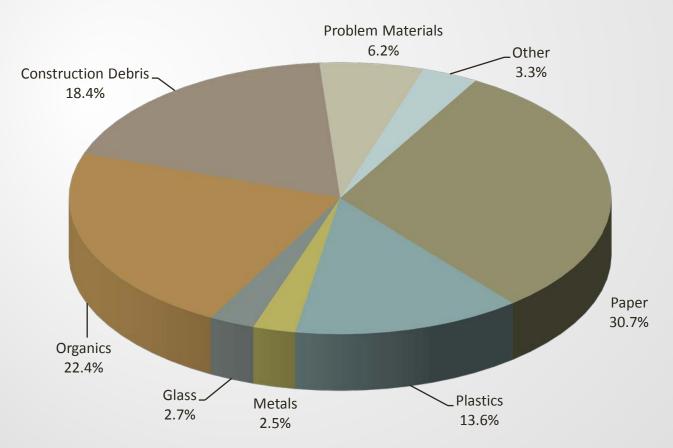
Sanitation Services is actively engaged with school districts in Dallas on classroom education (Grades 1 - 6).

- In FY13-14, the Environmental Education Initiative, implemented through a contract with the University of North Texas educated:
  - 11,135 students
  - 236 teachers





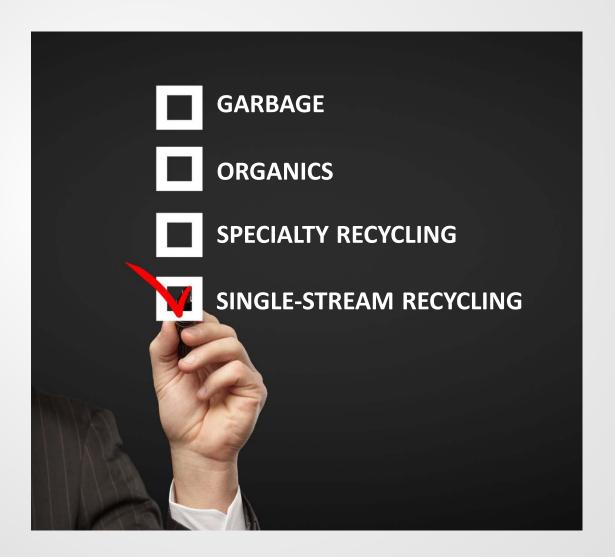
- Approximately 65% of the waste disposed at McCommas Bluff Landfill is derived from commercial customers
- Based on a recent Waste Characterization study of mixed commercial waste, excluding loads comprised of only C&D waste, we found the following:



As outlined in the Plan, Sanitation staff has partnered with the commercial sector to:

- Host quarterly stakeholder meetings to identify strategies for maximum recycling
  - Major stakeholders include:
    - Apartment Association of Greater Dallas (AAGD)
    - Hotel Association of North Texas (HANTx)
    - Building Office Managers Association (BOMA) Dallas
    - Texas Campaign for the Environment
- Complete a survey and establish a baseline diversion rate for individual sectors
- Document voluntarily adopted recycling goals
  - Track achievement of recycling goals

**Commercial Survey** 



#### **Commercial Survey**

- Sanitation staff worked with Decision Analyst Inc. and stakeholders to develop questions and distribute surveys to their members.
  - Over 1,000 surveys were sent out
    - Over 200 to BOMA members
    - Over 650 to AAGD members
    - Over 150 to hotels
  - Recipients included property owners, property managers & hotel general managers
  - The survey helped establish baselines and provided a better understanding of diversion barriers and opportunities
  - After the survey results were reviewed, goals were established

# Commercial Survey: Participation and Diversion Rates

Organization	Small	Medium	Large	Overall
BOMA Recycling Participation	58%	94%	100%	84%
<b>BOMA</b> Diversion	11%	23%	29%	21%
HANTx Recycling Participation	14%	73%	100%	61%
HANTx Diversion	12%	7%	11%	10%
AAGD Recycling Participation	30%	35%	53%	37%
AAGD Diversion	5%	6%	8%	6%

- Among the properties that participated, the results revealed that large and medium-sized members of BOMA and HANTx have the highest recycling participation rates
- All three industries need assistance in reaching smaller properties

# Commercial Survey: Obstacles to Participation

Reasons for <u>Not</u> Recycling	ВОМА	AAGD	Hotel
Not enough space	50%	39%	50%
Owners/Managers have not requested it		41%	50%
Tenants/Guests have not requested it		33%	17%
Equipment/Staff training is too expensive	17%	24%	17%
Tenant/Guest education is too expensive	17%	15%	17%

<sup>•</sup> Survey respondents were able to select multiple answers from a menu of options

# Multifamily and Commercial: Short-term Goals



## Voluntary Short-term Goals

AAGD and HANTx leadership have established short-term participation goals:

	AAGD	HANT
Current Average Participation	37%	61%
Future Goal	50% by Jan. 1 <sup>st</sup> 2016	70% by Jan. 1 <sup>st</sup> 2016

BOMA Dallas has not set a participation goal, however; BOMA currently has a high average participation rate (84%). They believe an ordinance change allowing the city to service smaller properties with recycling roll carts would maximize the overall rate.

### Increasing Awareness

As part of the voluntary goal setting, each association is taking steps to increase recycling awareness:

- Apartment Association of Greater Dallas
  - "Let's Go Green in 2015!"
  - They will be developing an additional survey for their members
    - They would like to know more about their members' recycling practices
  - Addresses recycling in their monthly magazines
- Hotel Association of North Texas
  - Established a Solid Waste Committee
  - Will be hosting education programs on sustainability issues
- BOMA Dallas
  - Providing education through newsletters, social media and events
  - Working with Sanitation to establish a recycling roll cart service for smaller properties



## Stakeholder Support

Sanitation staff has been working with stakeholders to develop outreach and educational material.

#### A Resident's Guide to Recycling

- List of Recyclables
- List of Contaminants
- Hard to Recycle Materials
- City's Collection Events

#### A Property Owner's Guide to Recycling

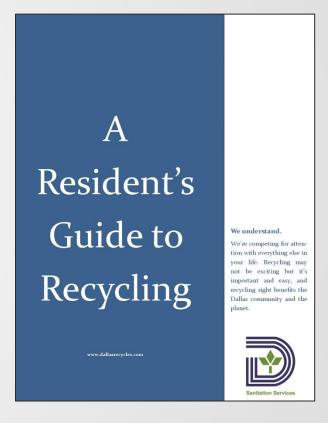
- Process for establishing recycling services
- Tips for educating residents
- Tips for expanding the recycling program

#### Brochure

- List of Recyclables
- Community Recycling Containers

#### Posters

- What to recycle
- Why recycle



## New Service Opportunities

Space for a large recycling container is an obstacle for small properties.

- Based on feedback from small commercial properties, there is an interest in a recycling-only service via roll-carts
- Sanitation Services is developing an option to provide recycling-only service, targeted to small commercial properties
  - This service would be a once-a-week fee based service.
  - Staff anticipates bringing forth Chapter 18 ordinance changes in the summer of 2015 and can incorporate this new program for Council consideration



#### Construction & Demolition







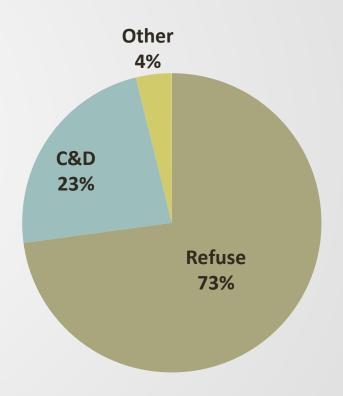


#### Construction & Demolition

Approximately 23% of the commercial waste disposed of at the McCommas Bluff Landfill is construction and demolition debris.

- Currently, there are regulations regarding diversion of new construction activities
- There are no diversion regulations regarding demolition or renovation projects

#### **Commercial: Solid Waste**



# Construction & Demolition: Current Regulations

Currently, the City has a Green Building Ordinance that addresses waste diversion related to <a href="new construction">new construction</a>.

Depending on the selected compliance path, it covers reduction, reuse and recycling in a number of ways.

- One of those ways is having space for recycling in the building
  - Green Building Ordinance Residential & Commercial
    - Providing space for recycling is required
  - Green Built Texas Multifamily
    - Providing space for recycling is required
  - LEED for New Construction (LEED NC) Residential & Commercial
    - Providing space for recycling is optional

Council could make the space for recycling option a requirement for those who choose the LEED NC compliance path.

#### Construction & Demolition

Moving forward, Sanitation Services will be participating in the Green Building taskforce review of the 2015 Code.

- Sanitation Services will be working with the taskforce to evaluate potential diversion requirements for demolition and renovation projects
  - Any taskforce recommendations would be brought to Council for consideration





#### Other Short-term Initiatives



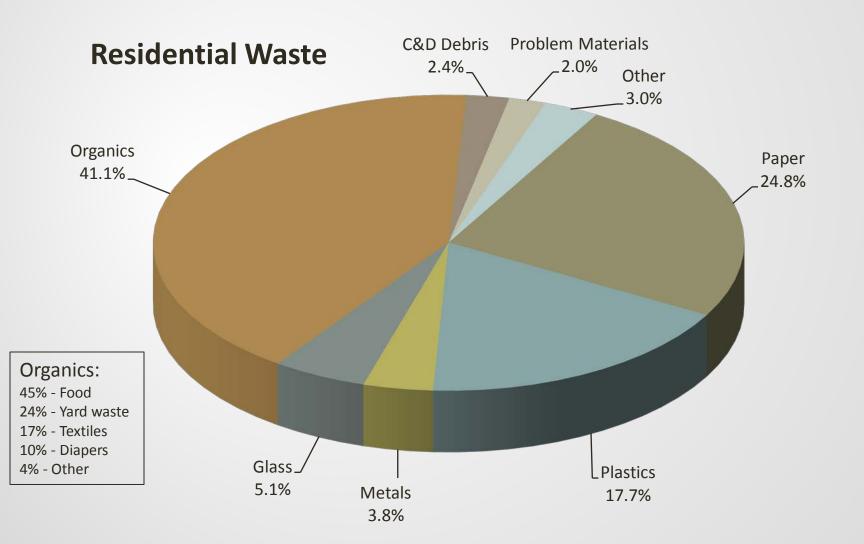
#### Recycling Right

Approximately 77% of Dallas residents have a recycling roll-cart.

- In 2013, a waste characterization audit revealed there are approximately 75,000 tons of recyclable material being put in the grey roll cart every year
- Currently, the City's contamination rate is 16%



# Recycling Right: Opportunities



### Recycling Right: Contamination







## Recycling Right

We need to continue our "Recycle Right Recycle More" campaign.

- We need to continue strengthening our education and outreach
- Inspection team may be required to reduce contamination
  - Encouraging compliance
  - Currently, San Antonio, Austin and Fort Worth have inspection programs
- Some cities and states outside of Texas, have adopted regulations requiring residents to participate in recycling and enacted a disposal ban on specific recyclable materials

### Producer Responsibility

The City's Office of Environmental Quality is developing an Extended Producer Responsibility resolution.

- Some of the materials acknowledged in the resolution include electronics, tires, paint and carpet
- The Zero Waste Plan suggests adopting a resolution that supports statewide legislation for product stewardship
- OEQ and Sanitation staff continue to support the Texas
   Product Stewardship Council







#### Bulk and Brush Collection

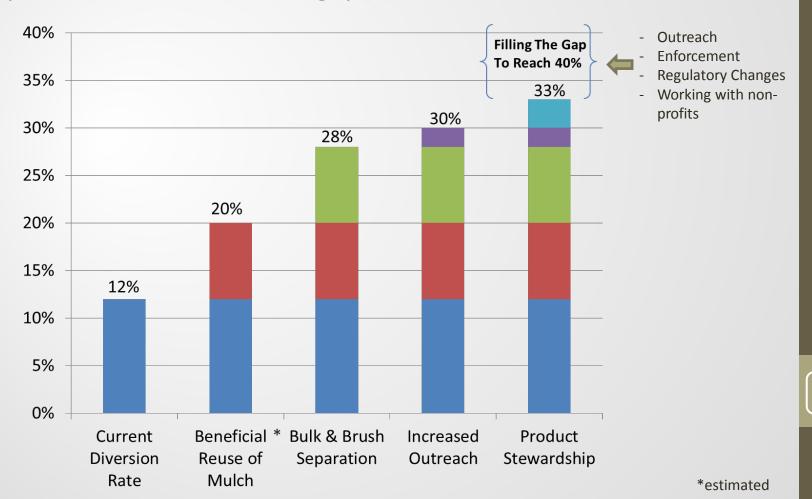
- Sanitation Services collects approximately 150K tons of bulk and brush debris annually
  - Approximately 40-60% of that material is organic (e.g., leaves, tree limbs, grass clippings)
- Organic material can be diverted for mulch, compost or be beneficially reused at the landfill
  - This would require program changes:
    - Separate collection of organic and bulk material
    - Eliminating the use of plastic bags for leaves and grass clippings

#### Bulk and Brush Collection

- Dallas could consider changes related to bulk & brush collection and disposal
  - Currently, all major Texas cities (except Dallas) separate brush and bulk collection and place limits on the amount of material that can be placed at the curb
    - Many have limits on the number of yearly collection cycles
  - Many cities are expanding the use of conveniently based neighborhood drop-off locations
- In February, Sanitation Services plans to brief the Quality of Life Committee on Bulk & Brush collection services and begin a discussion on potential program changes

#### Reaching our goals - Residential

Based on current efforts, the chart below shows the estimated progress towards our diversion goals and future opportunities to close the gap(s).



# Policy Decisions for Future Consideration

Sanitation Services has identified several topics that require more research and could be briefed to the Quality of Life committee for further consideration.

- Brush & Bulk Collection Options
- Disposal Regulations & Mandates
- Construction & Demolition Diversion Requirements
- Product Stewardship Support
- Organics (Food Waste) Collection
- Landfill Fee Increases (to incentivize diversion)

Additionally, we're looking for the committee's feedback on these briefing topics and others to consider.

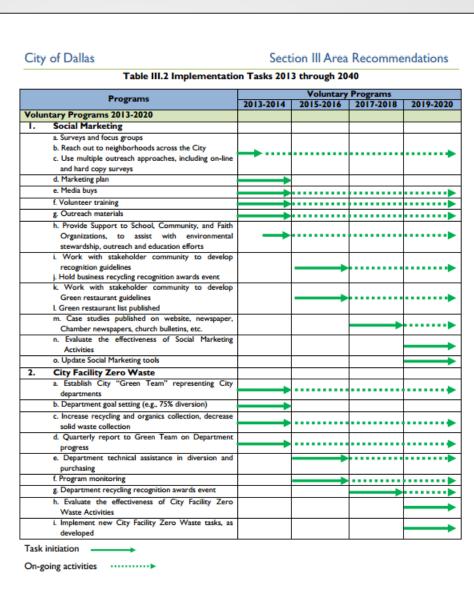
#### Summary

Sanitation Services, along with other City departments and the Commercial sector are working on multiple efforts to maximize diversion and reach 40% diversion by 2020.

- We are committed to:
  - Continued outreach & education
  - Researching and analyzing best practices
  - Implementing new technologies in our recycling efforts
  - Working with the commercial sector on diversion opportunities and gathering better diversion data
  - Looking for additional partnerships (e.g., DISD, medical districts and large food waste generators)
  - Evaluating and researching solutions for 2020 and beyond
  - Bringing policy matters to committees for further discussion and review

## Questions?

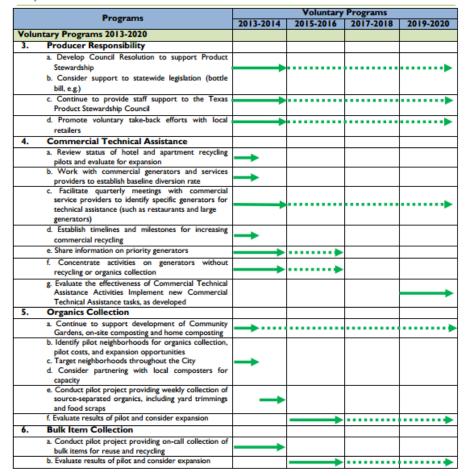
## Appendix



HDR.

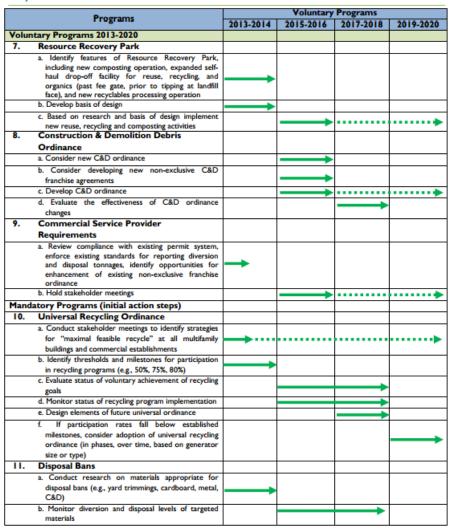
#### City of Dallas

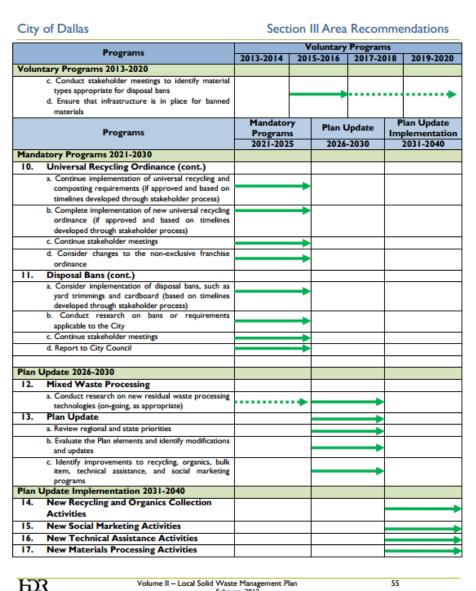
#### Section III Area Recommendations





#### Section III Area Recommendations





**1997**: Single-family recycling begins. Accepted materials were newspapers, aluminum & tin cans, and plastics.

**2000:** The City Council authorized a contract for the implementation of an expanded citywide residential recycling service.



- Paper products were bundled and placed next to commingled blue bag recyclables.
- Residents also had the option of utilizing community drop-off sites (also known as "recycling igloos").



**2003:** Mayor's Recycling Task Force – established recycling goals for the City and proposed changes to collection (e.g. single-stream recycling, blue roll cart collection, etc.)

**2005:** City Council authorized a contract renewal for citywide residential recycling.

 It introduced single-stream recycling and expanded the list of accepted recyclables.

**Early 2006:** City Council approved the usage of the blue recycling roll carts for collection. The blue bag program continued in the interim.



Late 2006: The City's first order of recycling roll carts were delivered. Each cart was delivered with an educational kit.

**2006/2007:** Sanitation Services crews began the collection of the City's single-stream recyclables.

Late 2007: The City Council authorized a contract for a company to process the City's recyclables.

**2008:** Community recycling containers were placed around the City to create recycling drop-off sites.



March 2008: Phase 1 of OneDAY Dallas began

February 2009: Phase 2 of OneDAY Dallas

March 2010: Phase 3 of OneDAY Dallas



**February 2013:** The City Council passed the Local Solid Waste Management Plan

The Plan describes the policies and programs that could be implemented to achieve the City's goal of Zero Waste by 2040, with interim steps of 40% diversion by 2020 and 60% by 2030.

### Marketing & Outreach

#### The current strategy includes:

- Facebook & Twitter
- Website improvements
- Community Events & Neighborhood meetings
- Print Ads
- Online Ads
- Email Blasts
- Radio
- Working with school districts

#### Future improvements include:

- Videos: YouTube & Vimeo
- Website Tool & App
- Nextdoor.com
- Blogging
- Canvassing
- Collaborating with Churches
- Sanitation Truck Signage

### Marketing & Outreach

- FY 12
  - 14,753 students
  - 250 teachers
- FY 13
  - 14,846 students
  - 298 teachers
- FY 14
  - 11,135 students
  - 236 teachers

#### In the past three years:

Total number of students: 40,734 Total number of teachers: 784



### Multifamily and Commercial

#### **Quarterly Meetings**



# Commercial Survey: Participants

	Definition of Property Size	Number of Properties	Number of Properties that Responded
BOMA			
Small Property	0 to 249,999 sq. ft.	unkn.	12
Midsized property	250,000 to 999,999 sq. ft.	unkn.	17
Large Property	1,000,000 + sq. ft.	unkn.	9
AAGD			
Small Property	0 to 199 units	463	53
Midsized property	200 to 399 units	394	72
Large Property	400+ units	89	32
Hotels			
Small Property	0 to 150 rooms	149	7
Midsized property	151 to 500 rooms	51	11
Large Property	501 + rooms	9	5

# Multifamily and Commercial: Baseline

Apartment Association of Greater Dallas

Diversion rate: 6%

Participation rate: 37%

Hotel Association of North Texas

Diversion rate: 10%

Participation rate: 61%

BOMA Dallas

Diversion rate: 21%

Participation rate: 84%







#### Commercial Survey and Initiatives

#### Based on 1st survey:

- Diversion rate: 6%
- Properties that offer recycling: 37%
- Goal: 50% participation by January 1<sup>st</sup> 2016



- The AAGD Board of Directors has approved the "Let's Go Green in 2015" recycling initiative
- A meeting was held with the trash and recycling haulers to ask for their cooperation in servicing multifamily properties (MFPs) at a reasonable rate
- The AAGD will provide a booth for Sanitation at their upcoming March tradeshow
- The AAGD is utilizing online outreach materials created by Sanitation
- Working with Sanitation to establish a recycling roll cart service for smaller properties
- The AAGD is learning more about large vendors that habitually recycle bulky items from apartments
  - Identifying carpet mills that collect carpet and padding from our flooring vendors
  - Similar research is being done on appliances and hot water heaters

#### Commercial Survey and Initiatives



- Diversion Rate: 10%
- Properties that offer recycling: 61%
- Goal: 70% participation by January 1<sup>st</sup> 2016
  - HANTx established a Solid Waste Committee
    - Many hotels have best practices already in place, that could be helpful and educational for other hotel properties
    - HANTx has started setting up meetings
  - HANTx will begin hosting regular education programs on sustainability issues for hoteliers
  - HANTx will work with Sanitation Services to set up classes and seminars

#### Multifamily and Commercial



- Diversion Rate: 21%
- Properties that offer recycling: 84%
  - BOMA Dallas will be working with Sanitation Services to determine if smaller containers (collected by the City) will be feasible for properties that lack space
  - BOMA is working to provide education through newsletters, events, website, social media & monthly luncheons
    - Sanitation presented at BOMA's October luncheon

#### Efforts to Increase Multifamily Recycling

Currently, there are 140 community containers throughout the city for people that do not have access to recycling such as apartment residents.

#### Recipients

- Any apartment within 0.5 miles of a recycling drop-off site
  - 38 apartments
  - Over 7,000 Dallas residents
- Postcards mailed: September 2014
  - 171.91 tons of recyclables collected in October 2014
  - 26% tonnage increase vs. October 2013

#### Continued Outreach

Biannual





### Setting the Example

Currently, all City facilities offer recycling and are achieving a 17% diversion rate (single-stream).

- In FY14, City facilities recycled approximately 960 tons of recyclables
- In the next year, Sanitation Services will begin implementation of a Citywide Green Team
  - All departments included
  - Establish facility recycling champions
  - Develop programs and outreach materials
    - Create Recycling Competitions
  - Provide waste audits
  - Establish facility goals

