



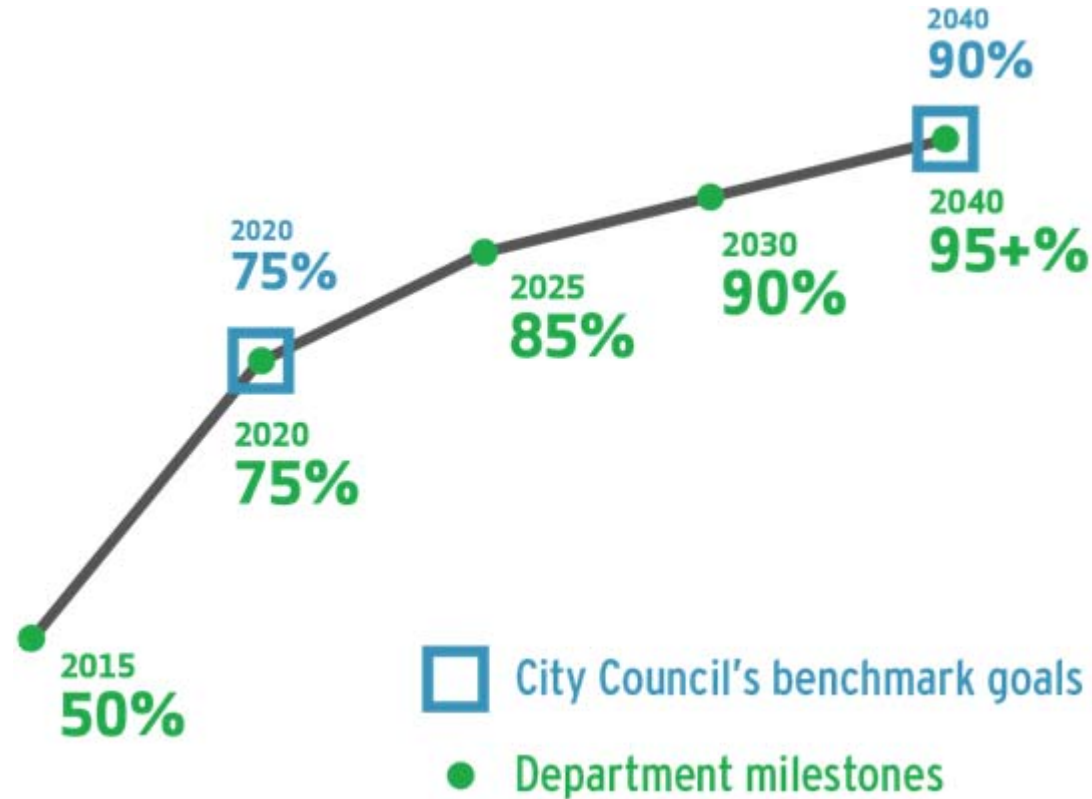
Austin's 2015 Diversion Study

Methodology for measuring diversion in Austin





Austin's Zero Waste Goal and Milestones



90% Diversion by 2040





Baseline study

- Goals for measuring diversion in Austin
 - Research best practices of other communities
 - Comprehensive approach
 - Capture activities such as Reduction, Reuse, Repurposing
- Goals for future studies
 - Transparency
 - Repeatability





Challenges

- City of Austin directly controls less than 25% of the resource stream
 - Services residential (single family) homes
- Private/Self haulers handle at least 75% of materials generated in Austin
 - Universal Recycling Ordinance (URO) influences market
- Multiple haulers and facilities manage commercial and multifamily waste
 - No City of Austin landfill or MRF





Methodology: Four Pillars

- Comprehensive approach to diversion
 - Data Collection
 - Business Surveys
 - Lid-lifting observations
 - Waste Characterization





Data Collection

- Data from publicly available sources
 - Licensed Hauler Tons
 - URO Annual Diversion Plans
 - City facility and contracts
- Direct outreach to businesses
 - Donation Centers
 - Large Employers

AUSTIN ANNUAL DIVERSION PLAN
Member: CITY OF AUSTIN SAMPLE ADP | Year: 2016 | Cycle: ANNUAL

Recycling Collection Services

	TYPE	NUMBER*	VOLUME*	UNIT*	SERVICE FREQUEN CY*	UNIT*	COMPAC TORT**	CUBIC YDS/PK	
1	- Select *	.....	.....	Cubic Y *	.....	Per/Week *	No *		

Add

Additional Diverted Materials by Volume, Weight, or Quantity (Optional)
Austin Resource Recovery staff will review this information and may request additional documentation.

MATERIAL	UNITS OF MEASURE	AMOUNT	FREQUENCY	EST. CUBIC YARDS/WEEK	EST. TONS/WEEK
Battery, general	- Select - *	.....	- Select - *		
Battery, motor vehicle	- Select - *	.....	- Select - *		
Cardboard, baled	- Select - *	.....	- Select - *		
Donated Food	- Select - *	.....	- Select - *		
Electronics	- Select - *	.....	- Select - *		
Landscape Debris	- Select - *	.....	- Select - *		
Mattress	- Select - *	.....	- Select - *		
Metal Scrap (Steel, Tin, Etc.)	- Select - *	.....	- Select - *		
Motor Oil	- Select - *	.....	- Select - *		
Pallets, wood or plastic	- Select - *	.....	- Select - *		
Paper, shredded	- Select - *	.....	- Select - *		
Plastic bags and film (including pallet wrap)	- Select - *	.....	- Select - *		
Expanded Polystyrene	- Select - *	.....	- Select - *		

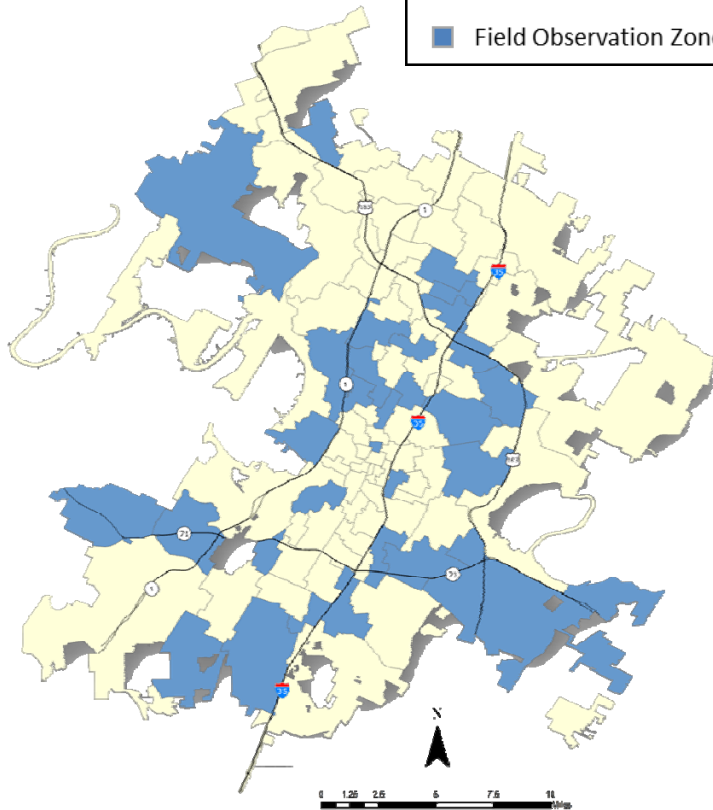




Lid-Lifting Observations

Legend

■ Field Observation Zone Investigated



Lid-Lifting Observation Form



Date *

12/15/2015

Investigators Last Name, and First Initial (Example: Nelson, W.) *

Address (Street Number, Name, and Suite) *

Zip Code

GPS Coordinates 1

GPS Coordinates 2

NAICS Code

if known

Photo 1 - Front of container *

No file chosen

Photo 2 - Inside of container *

No file chosen

Is the container shared with multiple tenants? *

- Select -

Are multiple trash/recycling vendors on site? *

- Select -

Container Observation Description Table

Size *

Units *

- Select -

Type of Container *

- Select -

URO compliant decals on the container? *

- Select -

Percent Full *

- Select -

Predominant Materials 1 *

- Select -

Predominant Materials 2 *

- Select -

Predominant Materials 3 *

- Select -

Contamination Present? *

- Select -

Notes

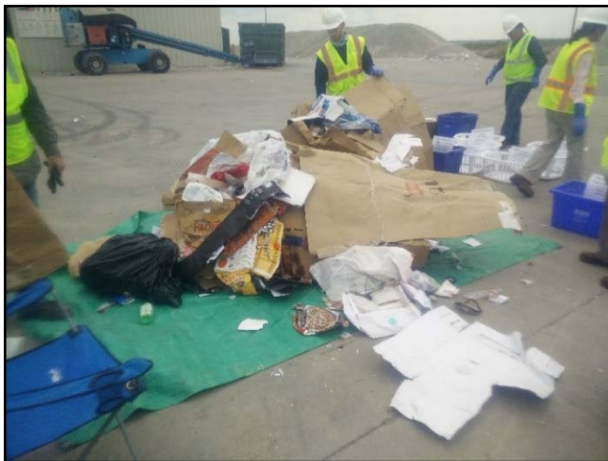
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Waste Characterizations

- Sorts at 3 landfills, 3 MRFs, observations at 2 compost facilities
- Expanded category list, 30+ material categories
- No control over routes





Success: What worked?

- Met study objectives within budget and schedule
- Built awareness in the community
- Included diversion activities not previously captured
- Foundation for continuous improvement





Success: Methodology

- We have a lot of good data available
- Good response rate for business sureys
- Easy mobile reporting for lid-lifting through Re-Trac
- Laminated labels on bins increased sort efficiency





Lessons Learned

- Statistically significant waste sorts
- Observations are good, but difficult to include in calculations
- Improved survey techniques





Challenges and Next Steps

- How do you measure what isn't there?
- Real Diversion includes Reduction, Reuse, Repair, not just Recycling
- No standardized way to quantify





Next Steps

- What can we do now to improve the next study
 - Help establish national standards
 - Get systems and processes in place for 2020
 - Is diversion rate the best way to calculate how well we're doing?





Thank you

Questions?

- Roslyn Kygar, P.G.
Roslyn.Kygar@austintexas.gov
512.974.3533
- Business Outreach Team
CommercialRecycling@austintexas.gov
512.974-9727
- Diversion Study web page –
coming soon!
- www.austintexas.gov/URO

