Austin Resource Recovery
Zero Waste Goals & Programs

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Department Director

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City of Austin by the numbers

11th Largest City in US by Population

2015 Austin Population: 900,700
New Residents per Year (trending): 24,000

Single Family Residential Units: 190,000
Multi-Family Residential Units: 180,000

Land Area (Sq Miles) 322
Core Services

• Curbside Collection Services
  – Weekly trash
  – Every other week recycling
  – Weekly yard trimmings
  – Twice per year bulky item
  – Twice per year large brush

• Household Hazardous Waste (HHW) Drop Off

• Street and Boulevard Sweeping

• Litter Pick up/Alley cleaning

• Dead Animal Collection
Additional Services

- Storm Debris Cleanup
- Mulching/Compost Operations/Dillo Dirt
- Downtown Trash Container Collection
- City Landfill Closure
- Cart Delivery and Repair
- Appliance and Electronics Drop-off
- Special Event Diversion Services
- Community Clean Up Assistance
- Illegal Dump Clean up Assistance
New Direction

Past:
Sanitation Waste Collection

Recent:
Integrated Solid Waste Management

New Direction:
Materials Management

> Zero Waste Goal!
City Council Policy History
Adopting Zero Waste

2005 Urban Environmental Accords
Council Resolution 20050519-44

2009 Austin Zero Waste Strategic Plan
Council Resolution 20090115-050

2011 Austin Resource Recovery Master Plan
Council Resolution 20111215-047
Definition of Zero Waste

zerowasteistagoal
to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use.

zerowaste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them.

Excerpts from Zero Waste International Alliance
Materials Management: Highest & Best Use

Source: USEPA
Austin Resource Recovery

On the Path of Resource Recovery

On the Journey Toward Zero Waste

New Name:
Master Plan:
Zero Waste Diversion Goals

City-wide Diversion Assessment every 5 years:
- Single Family Residential
- Commercial / Retail / Multifamily sector
- Education / Government Institutions
Municipal Waste Stream

# Austin Zero Waste

## Residential Diversion Calculations

<table>
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<tr>
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<th>2014</th>
<th>2020</th>
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<tbody>
<tr>
<td>Landfilled</td>
<td>137,258</td>
<td>60,000</td>
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<tr>
<td>Recycled</td>
<td>55,966</td>
<td>101,000</td>
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<tr>
<td>Composted</td>
<td>34,049</td>
<td>79,000</td>
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<tr>
<td>Total Tons</td>
<td>227,273</td>
<td>240,000  tons</td>
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<tr>
<td>Diversion %</td>
<td>39.6%</td>
<td>75.0%</td>
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<tr>
<td>Landfilled Per HH</td>
<td>27.9</td>
<td>11.0 lbs/week</td>
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<tr>
<td>Diversion Per HH</td>
<td>18.3</td>
<td>33.0 lbs/week</td>
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Residential Recycling
Projected Diversion (in Tons)
Residential Organics
Projected Diversion (in tons)

Yard Trimmings & Food Waste

- 2014 Actual
- 2015 Target
- 2020 Target
- 2025 Target
- 2030 Target
Overview of Waste Stream

- 75% Commercial & Multifamily Managed by Private Haulers
- 25% Mostly Residential Managed by City of Austin
Austin Zero Waste

Four Keystone Initiatives

- Materials Management
  It’s materials to recover, not solid waste!

- Expanded Recycling Opportunities

- Organics Collection & Composting

- Recycling Economic Development
ARR Master Plan

Zero Waste Synergy with Sustainability Efforts
- City Green Purchasing – Recycled Content
- Routing Efficiencies – 10% reduction miles
- 225 Vehicles – CNG, Bio-Diesel, Hybrids

Waste Reduction – First “R”
- Waste Reduction – Catalog Choice
- Business Waste Reduction Assistance
- Top of “Highest and Best Use” Hierarchy

Reuse – Second “R”
- Creative Arts / Teacher Resource Center
- Reuse Austin Drop-off sites for reusables
ARR Master Plan

Single-Stream Recycling Collection – Third “R”
- Long-Term Processing Contracts
- New pricing in October 2015
- Add materials to Single Stream Program
- Provide 96 gal and 64 gal blue containers
- Transition from biweekly to weekly (2018?)

Single-Stream Organics Collection
- Promote Residential Backyard Composting
- Collect yard trimmings in 96 & 64 gal carts
- Adding food scraps and compostable paper
- Pilot = 14,000 households
- City-wide by 2019 (?)
ARR Master Plan

- Household Hazardous Waste
  - Expanded Saturday and Daily Hours
  - Battery Retail take-back program
  - Enlarged door-to-door collection
  - Pharmaceutical Take-back program
  - Adding North HHW Service Site (2017)

- Closed Landfill Management
  - Post-Closure Care of City Landfill
  - Expanded Gas Capture - LFGTE
  - Solar Farm – 50 acres
  - ReManufacutraling Hub – 107 acres
ARR Master Plan

Recycling Economic Development
- Austin Materials Exchange – Waste Pairings
- Business Waste Reduction Assistance Program
- Brownfield Redevelopment Program
- Hired Recycling Economic Development Liaison
- ReManufacturing Hub (at closed city landfill)

Community Partnerships
- Non-Profit Partnerships – KAB, Ecology Action
- Regional Cooperation & Inter-local Agreements
- Public / Private Partnerships – Material Processing
- Education Institution Partnerships to support Research and Development
Policies & Ordinances
- Universal Recycling and Composting Ord.
  - Phase 1 multifamily complexes, offices
  - Phase 2 retail, restaurants and industrial
  - Phased in through 2018
- Special Event Ordinance – Recycling requirements
- Construction and Demolition Ordinance
- Single Use Bag Ordinance

Incentives and Rewards
- Business Assistance and Recognition
- Composting Workshops & Rebate Program
- City Sponsored Events Recycling Rebate Program
- Pay-as-you-Throw Rate Structure Incentives
Recycling Economic Development

- Buy Local – Buy Zero Waste
- Circular Economy – localize markets
- Materials Marketplace (materials exchange)
- Austin Reuse/Recycling Economic Impact = $720 million annually and 2,600+ jobs
- Austin Recycling Innovations Investment Forum
Recycling Economic Development

- Austin Remanufacturing Hub at Closed Landfill
  US EDA $1 Million Grant for land development
  https://www.youtube.com/watch?v=hclQh8geiyw
Pay As you Throw Rate Structure

- Unit Pricing Per Gal of Trash Service
- Stratified rates rewards Conservation
- “Wasters” Pay More per Month
- “Zero Wasters” Pay Less
- PAYT encourages waste reduction
- More than 3,000 municipalities use Pay-as-you-Throw rate structures
2014-15 Rates
Pay-As-You-Throw Rate Structure

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<tr>
<td>Trash Cart Size</td>
<td></td>
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<tr>
<td>24 gallon</td>
<td>$0.16 x 24</td>
<td>$3.85</td>
<td>$11.35</td>
<td>$15.20</td>
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<td>32 gallon</td>
<td>$0.16 x 32</td>
<td>$5.10</td>
<td>$11.35</td>
<td>$16.45</td>
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<tr>
<td>64 gallon</td>
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<td>$10.25</td>
<td>$11.35</td>
<td>$21.60</td>
<td>65%</td>
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<tr>
<td>96 gallon</td>
<td>$0.25 x 96</td>
<td>$24.00</td>
<td>$11.35</td>
<td>$40.15</td>
<td>10%</td>
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Clean Community Fee - $4.30 per month per residential customer
Cost of Service

Monthly costs per Customer Curbside Collection Services

$11.06 – Trash collection & Disposal
$ 7.46 – Recycling collection/processing
$ 3.13 – Yard waste collection/processing
$ 2.21 – Semi-Annual Brush collection
$ 1.28 – Semi-Annual Bulk collection
$ 25.14 – Average Monthly Curbside Costs
Cost of Service

Monthly costs per Customer Clean Community Services

$ 1.54 – Litter Collection, Dead Animal, & Clean Austin Neighborhood Cleanups
$ 0.89 – Street & Boulevard Sweeping
$ 0.62 – Household Hazardous Waste & Resource Recovery Center
$ 0.75 – Business & Resident Outreach
$ 0.15 – Recycling Redevelopment & Brownfields Remediation
$ 0.41 – Landfill Closure Requirements
$ 4.36 – Average Monthly Community Costs
Your Part of Zero Waste

Recycle More!

Newspaper & Mixed Paper
Boxboard & Cardboard
Aluminum & Metals
Glass Bottles
Hard Plastics
Your Part of Zero Waste

Compost More!

Yard Trimmings
Grass Clippings
Small Brush
Tree Branches (cut to 5 feet)

Consider: Backyard Composting

Soon: Food Scrap

Curbside Organics Collection Pilot
Bob Gedert’s
Top 10 Best Practices

1. Community & Employee Involvement
2. Pay As you Throw Rate Structure
3. Full Cost Accounting / Transparency
4. Curbside Recycling – high capacity
5. Curbside Organics – food waste included
6. Universal Recycling Ordinance – “access”
7. Color Coded containers/vehicles
8. Full cycle auditing of material disposition
9. Circular Economy - Localize Markets
10. Commitment toward Zero
Your Part of Zero Waste
Take Action!

Any “Waste” as an Output of your Business [or your Home] is an Operational Inefficiency

Buckminster Fuller - 1976
Your Part of Zero Waste
Take Action!

Start by doing what's necessary; then do what's possible; and suddenly you are doing the impossible.

Francis of Assisi
Your Part of Zero Waste
Take Action!

How much “Waste” are you “for”?

I’m for **Zero** Waste!

Bob Gedert
Bob Gedert, ARR Director

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