



FARMERS BRANCH

RECYCLING
Presentation

JUNE 18, 2013

City Council Study Session

Overview

- Benefits of recycling
- History of recycling in Farmers Branch
- Recycling process
- Storage methods
- Potential roadblocks to implementation

General Benefits of Recycling

- Better use of reusable resources
- Provide a requested service to Citizens
- Build goodwill
- Divert reusable items from landfill
- Save valuable landfill airspace

Curbside Recycling 1992 – 2002

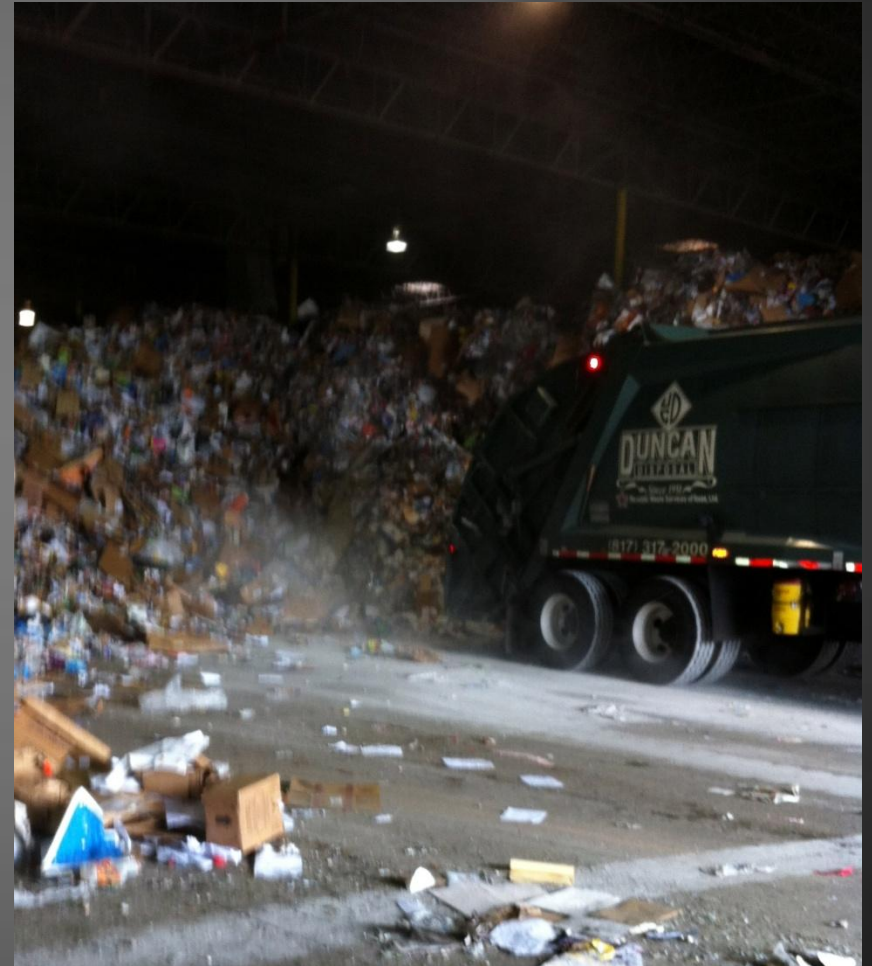
- Low 15% participation rate
- Costs exceeded revenues
- Budget constraints prompted service cutbacks
- Replaced by Drop-off Program in 2003

Recycling Process

- Resident places all recyclable materials into one container
 - Comingled or single stream
- Materials hauled to materials recycling facility
- Materials are sorted using automation and manual labor, then baled for shipping
 - Goal is no contamination
- Commodities sold to end users or brokers
 - Domestic and international markets

Tipping Floor

- Trucks back up and dump contents on the floor
- Loader behind this pile dumps materials into the drum press



Drum Press

- First step
- Goal is to create an even thickness of material on the conveyor belt



Remainder of the Sorting Process

- Material is carried via conveyor belts through a series of machines and manual sorting stations
- Automation includes disc screens, eddy currents, magnets, and optical sorting
- Automation achieves most of the sorting, but personnel are essential to achieving end user product quality

Methods of Storage

- Blue bags
- 18 Gallon Bins (Totes)
- 95 gallon rollout carts

Blue Bags

- Used by Irving and Richardson
- Pros:
 - Similar to current trash storage system in Farmers Branch
- Cons:
 - Bags are least preferred method at MRF
 - Each bag must be opened manually
 - Maintenance issues
 - Product quality due to effect on disc screens
 - Potential vector issues
 - Weight limit due to thickness of bag
 - Low tonnage

Problems with Bags



18 Gallon Totes

- Used by the City of Grand Prairie; trying to switch to carts
- Pros:
 - Reusable container
 - Sturdier than the plastic bag
- Cons
 - Potential for litter is high, especially on windy days
 - Storage capacity is insufficient for typical recyclers
 - Replacement rate is high – easily taken during relocation
 - Potential for vectors is high if materials are not clean

18 Gallon Tote



95 Gallon Rollout Carts

- Used by most cities in the Metroplex – Dallas, Carrollton, Coppell, Flower Mound (recently switched from 18 gallon), Frisco, Plano, and others
- Pros
 - Reusable container
 - Adequate storage capacity
 - Minimal to no vector issues
- Cons
 - Storage of container - aesthetics
 - Possibly cumbersome for some residents

95 Gallon Rollout Cart



Potential Implementation Issues

- Method of collection – carts
- Contract amendment or postpone implementation until contract expires
- Citizen education
- Cost of service or funding

Farmers Branch Waste Stream

AVERAGES SINCE JANUARY 2011:

- Solid Waste - 1,600 tons/month
 - 50% residential waste – 800 tons/month
 - 33% Green Grabber – 530 tons/month
 - 15% Self-Haul – 235 tons/month
 - 3% Municipal Waste (City facilities) – 41 tons/month
 - Tipping Fee (\$26.50/ton) ~ \$42,000/month or \$509,000/year
- Recyclables – 28 tons/month
 - ~2% of total

Current Service

- Collection vehicles travel each street 3x/week to collect solid waste materials
 - 2x/wk garbage
 - 1/wk brush and bulky
- There is no charge for disposal of solid waste from Farmers Branch residents and municipal facilities
- Revenue from the landfill allows the City to provide residential services at no charge

Cost of Recycling Service

- Collection frequency – typically once per week or once every other week
- Recycling facilities are further from Farmers Branch than Camelot Landfill
- Processing fee at Materials Recycling Facility is \$40 to \$50/ton
- Approximately 12 lb/wk per WM = \$97,000 to \$121,000 per year for processing
- These additional costs make it difficult to provide the service at no charge
- Typical cost is ~\$3 per household per month

Would we extend the life of the landfill by curbside recycling?

- Not significantly
- Camelot Landfill – open market
- Farmers Branch is typically 2% to 5% of the total volume of material disposed at Camelot Landfill
- If Farmers Branch was able to reduce 50% of its waste stream through curbside recycling, it would only extend the life of the landfill by an estimated 2.5 months

Curbside Recycling Citizen Surveys

- 2008
 - 42% of residents rate the City's current recycling program as good or excellent
 - 54% favor a weekly curbside recycling program for a fee
 - Of those, 56% would be willing to pay \$3 per month

Curbside Recycling Citizen Surveys

- 2010
 - 56% of residents - residential recycling services are excellent or good
 - 17% of the respondents - fair or poor
- 2012
 - 37% of residents polled reported residential recycling services are excellent or good.
 - 39% of respondents rated it as fair or poor

Possible Curbside Recycling Program

- The City would contract with a collection service to provide curbside recycling services.
- Proposal would be for 1/week collection services for both recycling and garbage.
- Automation in Materials Recycling Facilities no longer processes bags so container method would be 95-gallon rollout bins.
- Typical cost is estimated at \$2.50 to \$3 per month per household, or approximately \$240,000 to \$288,000 annually.