



Single-Stream Collection of Recyclables Workshop

Because a large number of jurisdictions are switching from multistream recycling collection to single-stream recycling collection, CalRecycle held a workshop on April 2, 2003, to discuss the designing, implementing, monitoring, and promoting of single-stream recycling collection. The workshop included an eight-member panel discussion, which included staff from the City of Chula Vista, paper brokers, paper manufacturers, equipment manufacturers, and facility operators. Topics discussed included:

- Historical multistream recycling collection information.
- How to implement a single-stream recycling collection program.
- Benefits in using new and different technology.
- How to deal with the higher contamination levels after program implementation.
- Improved aesthetics, convenience, pounds per setout, and safety.

The following workshop materials are available and can provide insights for those unable to attend the workshop:

- The entire [workshop transcript](#) .
- Waste Management's [presentation](#) by Joel Corona.
- [The City of Chula Vista's presentation](#)



Single-Stream Workshop

Waste Management Inc. Presentation

CalRecycle hosted a workshop on single-stream recycling April 2, 2003. Waste Management Inc. presented a PowerPoint presentation that was facilitated by Joel Corona.

Workshop Topics

- State of industry
- Paradigm shift
- Efficiencies
- Economies
- Benefits

State of Industry:

- Discovery of what to do...
...to how to do it better
- Benefits from technology
- Sustained effort

Collection Efficiency:

- Improve safety
- Increase payload
- Reduce drive time
- Optimize fleet utility
- Increase opportunities

Processing Efficiencies:

- Greater capacity
- Greater throughput
- Lower incremental cost
- Increase tonnage concentration

Community Benefits

- Improve aesthetics and convenience
- Improve participation and lbs. per set-out
- Reduce time per stop and trucks on street
- Greater employment opportunity
- Greater employee safety

Images

Star Screen



Concave Camber Screen



Sort Conveyors 1,2 & 3



Container Sorters



Installation Crane



Transfer Conveyor



**Single-Stream Material
Recovery Facility (MRF)**



Premier Refuse and Recycling Collection Program for the 21st Century



Pacific Waste in
partnership with the
City of Chula Vista



2001 Diversion Programs - Single Family

■ Source Separated 3 stream

- Bottles and Cans - 18 gal. curbside container
- Newspapers and magazines - Bundled
- Cardboard - Bundled

■ Positive Observations

- Residents were educated in acceptable recyclable material

■ Negative Observations

- Inconvenient to residents
- Recycling containers had limited capacity
- Litter Problems
- Appearance



Goals for 21st Century Collection Program in Chula Vista

- Increase Diversion 34% to 50%
- Easier and More Convenient Service for Residents
- Improve City Appearance
- Provide Safer Environment for Residents and Employees
- Reduce Vehicle Emissions
- Reduce Insects and Vermin



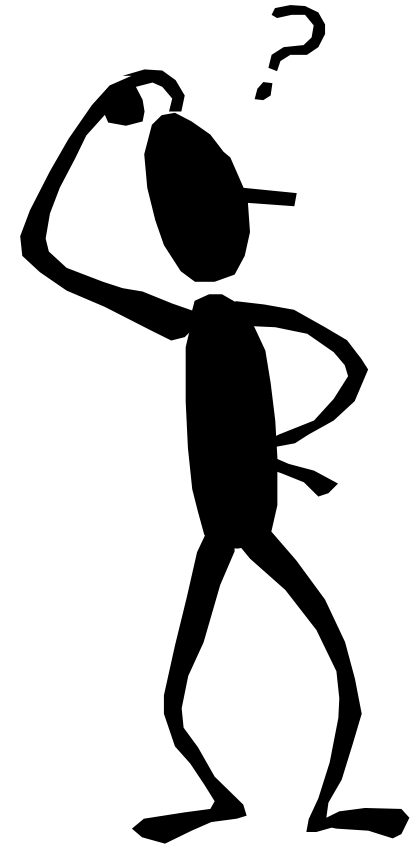


What We Wanted To Do To Meet The Goals

- Variable Rate Pricing
- “Single Stream” Recycling
- Automated Trash and Recycling Collection
- Biodiesel

Single Stream Recycling

- City concerns
 - Revenue
 - Increased processing costs would not be offset by increased volume
 - Contamination would increase and lower the quality of recyclables
 - Change would confuse the residents
 - Residents would not have room for the carts



Variable Trash Rate Pricing

- Resident's rates are based on trash cart sizes
 - 96 Gallon - \$17.05
 - 64 Gallon - \$14.50
 - 32 Gallon - \$11.19
- No additional charge for recycling or yard waste



Single Stream Recycling


- Residents received a blue 96 gallon cart (optional 64 or 32 gallon)
 - More convenient for resident
 - No more sorting recyclables into 3 streams
 - Increased capacity



Single Stream Recycling


- Education, Education, Education
 - Meetings
 - With the public every week for 3 months
 - Civic groups
 - City staff
 - Schools
 - Condos and HOAs
 - Mailers
 - Newspaper ads
 - Brochures
 - Answering phone calls (1500+ P/Day)

Para obtener esta información en Español
favor de llamar al teléfono 421-9400



Important Notice!
Trash & Recycling Service Changes

**Chula
Vista
Residents**



32-gallon 64-gallon 96-gallon

Your new fully
"automated" waste and
recycling collection is
quickly approaching.

619-421-9400

Automated Service - Carts

- Improves City Appearance
 - Carts provide a uniform look on the streets
 - No more battered trash cans
 - No more over full trash cans
 - No more multi-colored trash cans



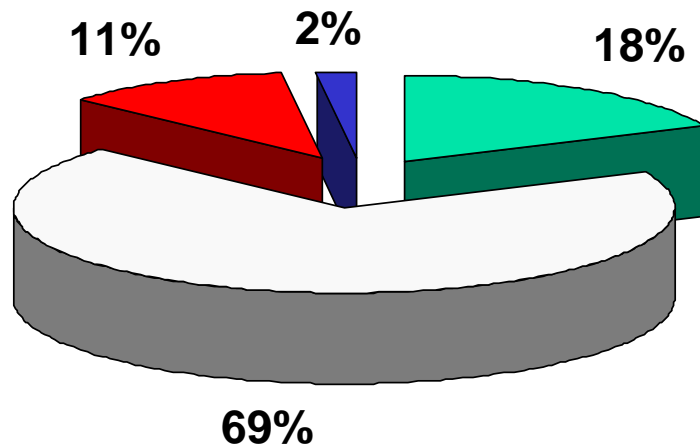
Automated Service - Collection

- Safer for employees
 - No more lifting of heavy cans
 - Reduced chance of personal injury
- Excellent forward vision
 - Cart dumped in front of driver
 - Driver can see cart contamination
 - Easier to operate in tight locations
- Quieter Service
 - Equipment operates at idle
 - Less engine noise
 - Less hydraulic noise



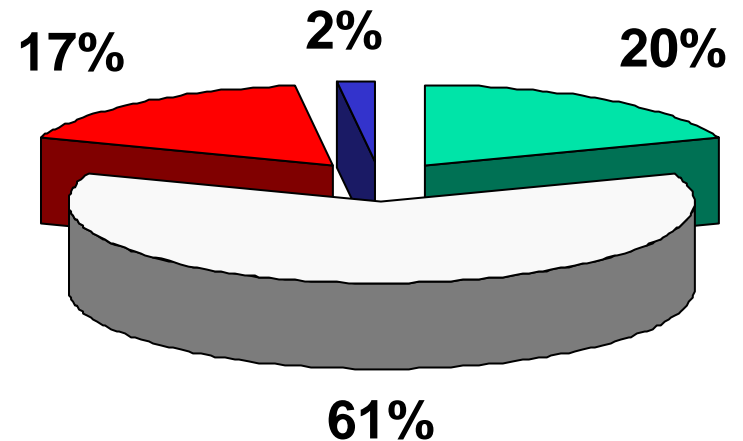
Variable Trash Rate Pricing

Expected Use of Cart Sizes



- 32 Gallon
- 64 Gallon
- 96 Gallon
- 96+64 or 32 Gallon

Actual Use of Cart Sizes



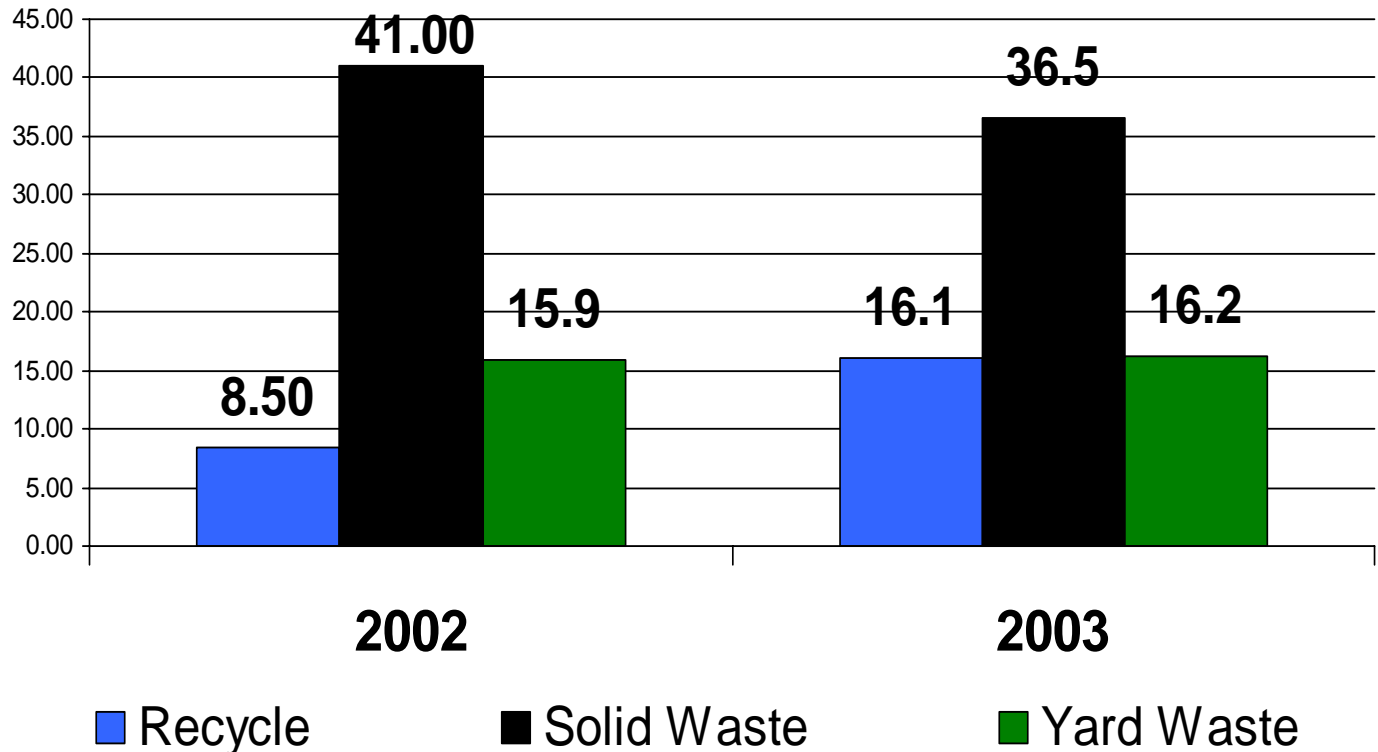
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- 96 Gallon
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Solid Waste and Recycling Weekly Average Pounds per Home

Solid Waste
Decreased
11%

Recycling
Increased
89%

Yard Waste
Increased
2%



Reduce Emissions – Bio-diesel

- Converted entire fleet to 20% Biodiesel mixture
 - Alternative fuel derived from soy beans
- 46% opacity reduction fleet wide
- Estimated reduction of 500 tons of pollutants annually



Proceed with Caution

- Expect a LARGE amount of phone calls no matter how much public education you provide
- Keep the education simple (KISS system)
- Have a good plan for delivering new carts
- Initially new routes and old routes should be run together

