

# ***The Road to Dual Stream Collection***

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Solid Waste Section**

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# Clark County Collection System

- Curbside collection program began in 1992
- Three bin program
- Weekly collection in urban areas and every other week collection in rural areas
- Manual collection with side load trucks
- Good range of materials

# Reasons for Changing System

- County's current contract ending
- Opportunity to add new materials to program
- Bins and trucks need replacing
- Scheduled improvements to Materials Recovery Facility
- Litter and scavenging issues
- Portland Metro Area programs considering cart based collection

# Feasibility Study for Curbside Recycling Program

## Clark County Utilized Pierce County Collection Program Feasibility Study as a Model

### Feasibility Study Project Activities – Phase I:

- Benchmarking
- Focus groups
- Phone surveys
- Case studies

# Goals of Feasibility Study

- Compare performance of current system to other systems
- Compare three bin systems to single stream and dual stream systems
- Evaluate customer preferences and satisfaction
- Determine customer preferences for managing glass collection
- Conduct Pilot Program to study cart based collection and compare with our current three bin system

# Conducting the Feasibility Study

- Clark County released Request for Proposals for consultant to prepare the Feasibility Study
- Team headed by Rick Hlavka, Green Solutions, was selected to conduct the study and prepare a report
- *Clark County Curbside Recycling Feasibility Study Report* is available for review online at: <http://www.clark.wa.gov/recycle/SWAC.html>

# Feasibility Study Results

## Conclusions:

- Clark County's current system comparable to other three bin systems
- Three bin systems collect less than dual stream or single stream systems
- Customers preferred carts over bins
- Customers preferred bins over carts if glass not collected in a cart system
- SWAC recommended implementing Phase II – Pilot Program to study dual stream cart systems with glass collected in a bin on the side

# Goals of Pilot Program

- Evaluate weekly collection versus every other week collection
- Determine customer preference for collection frequency and cart size
- Test collection methods, truck configuration, truck capacity and route size
- Determine set out rates for glass bins, oil and antifreeze

## Goals of Pilot Program (continued)

- Track participation rates
- Compare tonnage collected – weekly versus every other week
- Study contamination and characterize materials collected
- Analyze collection costs
- Collect customer feedback data from dedicated phone line and mail survey

# Pilot Program Design – Phase II

- Pilot Program design was a collaboration of ideas and recommendations from Cities and County staff, Solid Waste Advisory Commission (SWAC), Waste Connections and Green Solutions

# Phase II Design Criteria

- Six month Pilot with approximately 4,900 customers
- Pilot consisted of 7 routes (3 in City of Vancouver, 1 each in the Cities of Washougal and Camas, and 2 in unincorporated Clark County)
- One control route (three bin, weekly)
- Dual stream collection with glass on the side
- Weekly collection with 64 gallon containers (4 routes)
- Every other week collection with 95 gallon containers (3 routes)

## Phase II Design Criteria (Continued)

- Glass collected in 11.3 or 18 gallon bin on the side
- Test semi-automated and fully automated collection vehicles with a separate compartment for glass
- One route to evaluate the use of a second truck to collect glass and oil
- Extensive education and outreach including information molded in the lid of the cart

# Phase II – Evaluation Process

**Three months of pre-pilot data collected for a baseline to compare to pilot data**

- Track inbound tonnages and set outs by customer and route
- Conduct material characterization studies of material collected
- Evaluate changes in material type and contamination rates

## Phase II – Evaluation Process (Continued)

- On route observations of materials in carts by Green Solutions Team and City of Vancouver staff
- Second round of focus groups
- Mail survey to all pilot customers
- Track customer feedback through a dedicated telephone line
- Develop a cost analysis for the various collection methodologies

# Pilot Program Results

- Pilot routes collected 24% more material over baseline
- Route observations show majority of carts with no visible contamination (61%)
- Observed glass set out rate of 32%; with 85% showing no visible contamination
- Composition studies of materials collected showed contamination increased from 3.29% to 4.04% (However, figure included plastic tubs which will be included in new system.)

# Pilot Program Results (Continued)

- Materials collected increased across the board
  - Containers up 36% (includes tin cans, aluminum cans, plastic bottles)
  - Glass collection up 38%
  - Paper collection up 16% (newspaper declined while cardboard and mixed paper increased)

## Pilot Program Results (Continued)

- Conducted 7 focus groups with 43 of 45 participants indicating a preference for a cart system over a three bin system
- Dedicated telephone line logged 862 calls from 778 households (Most were received shortly after roll out and consisted of basic questions regarding the program.)
- Mail survey sent to approximately 5,000 pilot households with response rate of 39%

# Pilot Program Results (Continued)

- Super majority of 95% of households surveyed preferred cart system over three bin system
- Customer feedback did not provide clear preference between weekly or every other week
- Customers did indicate a preference for flexibility in cart size
- Cost analysis indicates a cost increase for both three bin and dual stream systems due to strong cost increases in fuel and equipment

# Pilot Program Report

- Green Solutions has prepared a draft report – *Clark County Curbside Recycling Pilot Project*
- Final report will be available in May and will be available for review online at:  
*<http://www.clark.wa.gov/recycle/SWAC.html>*

# Program Selection and Timeline

- Clark County released a RFP for single family and multi-family collection in January
- RFP had options for the County to choose from (three bin, carts weekly, carts every other week)
- Received responses in February
- Anticipate SWAC and Board of County Commissioners recommendation on preferred system in May

# Program Selection and Timeline (Continued)

- Selection of proposer to negotiate a contract in late May or early June
- Section of new system and finalize contract in late June or early July
- Roll out new system in January 2009

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