

Menu of Options for Solid Waste and Recycling Services in Lawrence

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Background Information

September 7, 2010, the City Commission directed staff to draft a menu of options that includes:

- review of existing City services
- development of long-term options for automation and other efficiency and safety improvements
- variable rate pricing for solid waste collection
- curbside recycling service opportunities



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Process

Develop a long-term solid waste plan in consultation with interested citizens and citizen groups including the City's Sustainability Advisory Board.

The City Commission and Lawrence community will determine the appropriate mix of services, rate structures, service quality, and level of automation.



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Outline of Menu of Options

On November 23, 2010 staff's outline of the menu of options was posted as a City Commission's Future Agenda item. The outline includes:

- Current services and other special projects
- Source reduction policy options
- Menu of options for solid waste and recycling
- Curbside recycling program options



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Outline of Menu of Options

The outline of the menu of options also includes:

- Estimated vehicle and cart pricing
- Workers' compensation costs
- Staff research, brainstorming meetings, and area facility tours



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Current Services

Yard Trimmings Collection and Composting Program



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Current Services

Yard Trimmings Collection and Composting Program



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Current Services

Compost and Woodchip Sales



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Current Services

Backyard Composting Bins and Kitchen Scrap Pails



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Current Services

Community Drop-Off Recycling Bins for Newspaper, Cardboard, and Mixed Paper



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Current Services

Cardboard and Office Paper Recycling Programs for Businesses



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Current Services

Household Hazardous Waste Program



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Current Services

Small Quantity Generator Program



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Current Services

Electronic Recycling Collection Event



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Current Services

Freon Containing Units Recycling Program



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Current Services

Tire Disposal and Recycling Program



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Current Services

Event: Lawrence Earth Day Parade



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Current Services

Event: Lawrence Earth Day Celebration



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Current Services

Event: Lawrence Energy Conservation Fair



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Current Services

Event: Lawrence Sustainable Homes Tour



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Current Services

Education: Community Group and School Presentations and Facility Tours



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Current Services

Education: Central Point for Recycling Information

Phone consultations

Online resources (website, Facebook)

Brochures and flyers

Ads (print, online, radio)



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Solid Waste Special Projects

Downtown Litter Cleanup



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Solid Waste Special Projects

Highway Litter Cleanup



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Solid Waste Special Projects

Neighborhood Cleanup



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Solid Waste Special Projects

Dead Animal Pickup



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Source Reduction

Source reduction is the practice of designing, manufacturing, purchasing, or using materials in ways that reduce the amount or toxicity of trash created.

It can help reduce waste disposal and handling costs, because it avoids the costs of recycling, municipal composting, and landfilling.



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Source Reduction



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Source Reduction

Pass policy ordinances or regulations targeted at retailers, businesses, or individuals that encourage the reduction of a particular material or that bans material from collection or disposal.

Provide economic incentives targeted to residents and businesses.



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Source Reduction

Establish a source reduction or reuse program, including a salvage/reuse center, a comprehensive backyard composting program, or an on-site technical assistance program for local businesses.

Educate businesses and consumers about general source reduction goals and specific source reduction behaviors.



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Source Reduction

Implement source reduction programs in-house within local government facilities and operations to reduce volume and toxicity of waste.

Form partnerships with other groups to initiate programs or to support federal and state policies encouraging source reduction and the efficient use of materials.



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Outline of the menu of options

Residential Curbside Collection:

- Trash
- Yard Trimmings and Food Waste
- Recycling
- Construction and Demolition



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Trash

Residential Curbside Collection OPTION A (page 5):

Fleet: Fully Automated with Minimal Semi Automated

Containers: Mandatory Carts (various sizes)

Variable Rates Pricing (based on weight or volume)

Bulky Item Charges



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Trash

Residential Curbside Collection OPTION B (page 5):

Fleet: Both Fully and Semi Automated

Containers: Mandatory Carts (various sizes)

Variable Rates Pricing (based on volume)

Bulky Item Charges



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Trash

Residential Curbside Collection OPTION C (page 5):

Fleet: Semi Automated

Containers: Carts (available for rent), Bags and Cans

Fixed Rate for all Residents' Unlimited Trash Volumes

Minimal Charges for Bulky Item



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Yard Trimmings (Food Waste)

Residential Curbside Collection OPTION A (page 6):

Fleet: Fully Automated with Minimal Semi Automated

Containers: Mandatory Carts (various sizes)

Services Included in Solid Waste Base Fee



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Yard Trimmings (Food Waste)

Residential Curbside Collection OPTION B (page 6):

Fleet: Both Fully and Semi Automated

Containers: Carts (available for rent), YW Paper Bags,
and Cans

Service Included in Solid Waste Base Fee



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Yard Trimmings (Food Waste)

Residential Curbside Collection OPTION C (page 6):

Fleet: Semi Automated

Containers: Carts (available for rent), YW Paper Bags,
and Cans

Service Included in Solid Waste Base Fee



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Recycling

Residential Curbside Collection OPTION A (page 6):

Fleet: Fully Automated with Minimal Semi Automated

Containers: Mandatory Carts (various sizes)

Services Included in Solid Waste Base Fee



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Recycling

Residential Curbside Collection OPTION B (page 6):

Fleet: Semi Automated

Containers: Mandatory Carts (various sizes)

Services Included in Solid Waste Base Fee



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Recycling

Residential Curbside Collection OPTION C (page 6):

Currently the City does not operate residential curbside recycling collection. Six private companies provide this service.



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Construction and Demolition

Residential Curbside Collection OPTION A (page 6):

Fleet: Fully Automated

Containers: Mandatory Carts (various sizes)

Variable Rates Pricing (based on weight or volume)

Destination: Construction and Demolition Recycling
Facility



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Construction and Demolition

Residential Curbside Collection OPTION B (page 6):

Fleet: Fully Automated

Containers: Mandatory Carts (various sizes)

Variable Rates Pricing (volume)

Destination: Landfill



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Outline of the menu of options

Commercial Curbside Collection:

- Trash
- Food Waste
- Recycling
- Construction and Demolition



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Trash

Commercial Curbside Collection OPTION A (page 7):

Fleet: Fully Automated with Minimal Semi Automated

Containers: Mandatory Carts (various sizes)

Variable Rates Pricing (based on weight or volume)

Bulky Item Charges



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Trash

Commercial Curbside Collection OPTION B (page 7):

Fleet: Both Fully and Semi Automated

Containers: Mandatory Carts (various sizes)

Variable Rates Pricing (based on volume)

Bulky Item Charges



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Food Waste

Commercial Curbside Collection OPTION A (page 7):

Fleet: Fully Automated with Minimal Semi Automated

Containers: Mandatory Carts (various sizes)

Participating Businesses Pay a Fee, Includes Cart



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Food Waste

Commercial Curbside Collection OPTION B (page 7):

Fleet: Semi Automated

Containers: Mandatory Carts (various sizes)

Participating Businesses Pay a Fee, Includes Cart



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Food Waste

Commercial Curbside Collection OPTION C (page 7):

Currently the City does not operate curbside collection for food waste generated by commercial customers.



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Recycling

Commercial Curbside Collection OPTION A (page 7):

Fleet: Fully Automated with Minimal Semi Automated

Containers: Mandatory Carts (various sizes)

Participating Businesses Pay a Fee

Recyclables Included: Single Stream



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Recycling

Commercial Curbside Collection OPTION B (page 7):

Fleet: Semi Automated

Containers: Mandatory Carts (various sizes)

Participating Businesses Pay a Fee

Recyclables Included: Single Stream



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Recycling

Commercial Curbside Collection OPTION C (page 7):

Fleet: Semi Automated

Containers: Mandatory Carts (various sizes)

Service Included in Solid Waste Base Fee

Recyclables Included: Cardboard, Office Paper Only



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Construction and Demolition

Commercial Curbside Collection OPTION A (page 8):

Fleet: Fully Automated

Containers: Mandatory Carts (various sizes)

Variable Rates Pricing (based on weight or volume)

Destination: Construction and Demolition Recycling
Facility



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Construction and Demolition

Commercial Curbside Collection OPTION B (page 8):

Fleet: Fully Automated

Containers: Mandatory Carts (various sizes)

Variable Rates Pricing (based on volume)

Destination: Landfill



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Curbside Recycling Options:

Curbside Program OPTION A (page 9):

- City Collection
- Delivering material to City owned material recovery facility (or City partners with private company to build/operate a material recovery facility)



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Curbside Recycling Options:

Curbside Program OPTION B (page 9):

- City Collection
- Delivering material to City owned transfer station for recyclables (or City partners with private company to build/operate a transfer station for recyclables)



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Curbside Recycling Options:

Curbside Program OPTION C (page 9):

- City Collection
- Delivering material to established material recovery facility



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Curbside Recycling Options:

Curbside Program OPTION D (page 10):

- City contract with a private company for turnkey recycling curbside collection and material processing



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Other Recycling Options:

OPTION E (page 10):

- Partner with existing curbside companies to promote services



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Other Recycling Options:

OPTION F (page 10):

- Expand drop off locations for recyclables:
 - duplication of Wal-Mart style drop-off facility in one or more additional locations
 - contract placement of multiple-material collections containers



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Estimated Vehicle Pricing

Estimated vehicle pricing

| 25 Yard Vehicles | | Conventional Cab | Low Entry Cab | Dual Drive | Total Unit Cost |
|-------------------------|---|-------------------------|----------------------|-------------------|------------------------|
| Option A | Rear Loader Semi-Automated 2 or 3 Person Operation | \$170,000 | \$20,000 | \$10,000 | \$200,000 |
| Option B | Side Loader Semi-Automated 1 or 2 Person Operation | \$195,000 | \$20,000 | \$10,000 | \$225,000 |
| Option C | Side Loader with Arm Fully Automated 1 Person Operation | \$210,000 | \$20,000 | NA | \$230,000 |
| Option D | Front Loader Fully Automated 1 Person Operation | \$185,000 | \$20,000 | NA | \$205,000 |

| Other Type of Vehicles | Conventional Cab | Low Entry Cab | Dual Drive | Total Unit Cost |
|---------------------------------|-------------------------|----------------------|-------------------|------------------------|
| Roll-Off 1 Person Operation | \$150,000 | NA | NA | \$150,000 |
| Hook-Lift 1 Person Operation | \$90,000 | NA | NA | \$90,000 |



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Estimated Cart Pricing

| Cart Size | Unit Cost ¹ | RFID Tag ² | Total Unit Cost |
|-----------|------------------------|-----------------------|-----------------|
| 35 Gallon | \$33 | \$1.50 | \$34.50 |
| 65 Gallon | \$41 | \$1.50 | \$42.50 |
| 95 Gallon | \$45 | \$1.50 | \$46.50 |

¹ The unit cost of each cart size is based on a total purchase of 21,000 carts.

² The Radio Frequency Identification (RFID) tag price estimate is for the tag on each cart and does not include the cost of the software and miscellaneous fees associated with full implementation of this tracking system.



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Workers' Compensation Cost

City of Lawrence Solid Waste Division workers' compensation costs
per Risk Management, January 5, 2011

| Workers' Compensation Costs (2005 – 2010) | |
|---|-------------------------------|
| Year | Costs |
| 2005 | \$116,184 |
| 2006 | \$431,107 |
| 2007 | \$132,703 |
| 2008 | \$431,871 |
| 2009 | \$52,534 |
| 2010 | \$361,025 (paid and reserved) |

The yearly average workers' compensation cost from 2005 through 2010 is \$254,237.



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Staff Research and Meetings

Expansion of glass recycling options

Brainstorming session with Hamm Waste Services
Manager

Olathe solid waste and recycling update



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Staff Research and Meetings

THE WALL STREET JOURNAL.

WSJ.com

POLITICS | DECEMBER 31, 2010

Trash Overhaul Stalls in Toledo

By KATE LINEBAUGH



Brett Mountain for The Wall Street Journal

An automated trash truck at work this week in Toledo.

TOLEDO, Ohio—A high-tech garbage-collection system designed to save the city \$3 million a year in labor costs now looks like it is headed for the scrap heap.



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Tours of Recycling Facilities

Feb. 27th – Town and Country MRF, Harrisonville, MO

April 5th – GreenPoint C&D Recycling, Topeka, KS

April 26th – Deffenbaugh MRF, Kansas City, KS

August 24th – Stutzman MRF, Hutchinson, KS

December 13th – City of Columbia MRF, Columbia, MO



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Possible Next Steps

Place information on City Commission Agenda

Form a Task Force

Present information to citizens and citizen groups
including the Sustainability Advisory Board

Possible Next Steps

Once consensus is reached on the overall service plan (appropriate mix of services, rate structure, service quality, and level of automation), the City Commission can determine the best method for achieving that service.



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