



CITY OF KIRKLAND
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MEMORANDUM

To: David Ramsay, City Manager

From: Elaine Borjeson, Solid Waste Coordinator
Daryl Grigsby, Public Works Director

Date: September 7, 2006

Subject: CITYWIDE COMMERCIAL ORGANICS PROGRAM PROPOSAL

RECOMMENDATION

Staff requests that Council provide direction on a funding method for a new citywide commercial organics program. The proposed options are: embed the costs in the commercial rate structure or establish a fee-for-service charge. Staff recommends that the costs be embedded in the commercial rate (Option 1).

Implementation of a commercial organics program is dependent upon Council budget approval during the 2007-2008 Budget process. Council direction at this time will assist with the Solid Waste Rates that will be proposed.

BACKGROUND

In November, 2004, Council approved the City's participation in a yearlong pilot program to recycle commercial organics (food, food-soiled paper, plant material, etc.) in coordination with the King County Solid Waste Division and Waste Management. The program began in March, 2005 and continued until March, 2006 with 28 participating businesses in the Totem Lake area. These businesses recycled nearly 100 tons (97.69 tons) of organic material. Instead of being thrown into the garbage and ending up at the landfill, the material was diverted to the Cedar Grove Composting Facility where it became compost. In turn, this compost was then sold for residential and commercial landscaping in the Puget Sound region.

The goal of the pilot program was to:

- Gain information on the level of interest in the targeted business community for organics recycling;
- Determine the amount of material that would be diverted from the landfill;
- Gauge the ability of businesses to reduce their garbage costs;
- Discover barriers to commercial organics recycling; and,
- Develop a citywide program including costs and incentives for businesses to participate when the pilot ended.

A report on these goals was submitted to Council on February 21, 2006 (Attachment 1). The purpose of this memorandum is to provide options for a full-scale program utilizing data from the pilot along with additional information from a survey conducted at the conclusion of the project (Attachment 2).

The need for a commercial organics program is evident by King County data from 2005 indicating that 26% (by weight) of all material currently disposed by businesses is foodwaste and food-soiled paper. Under current conditions, the landfill is expected to reach permitted capacity and close in 2015. Sixty-five percent of the respondents to the survey conducted at the end of the pilot program noticed a reduction in the amount of garbage they produced. Sixty-five percent of respondents also thought they would decrease the size of their garbage container if the program became permanent. A commercial organics recycling program may also have a positive impact on wastewater infrastructure and treatment because 45% of the pilot program participants noticed they used their garbage disposal less frequently and 3% observed fewer clogged drains.

The region is beginning to respond to the need for commercial organics recycling. King County has identified organics as a key target for achieving waste reduction and recycling goals. The neighboring jurisdictions of Redmond and Issaquah began offering citywide programs this year, and Seattle has had a program since July, 2005. These programs have had a slower rollout than is proposed for Kirkland and are described in a later section of this memorandum.

PROPOSED COMMERCIAL ORGANICS PROGRAM

The proposed structure for a citywide commercial organics program is based on data from the pilot projects conducted in the cities of Kirkland, Redmond and Bellevue as well as the survey given to participants at the conclusion of Kirkland’s pilot program. It is also based on input from the Seattle-King County Public Health Department, Waste Management, King County and their consultants.

The results show that twice per week collection frequency is sufficient for most, if not all, businesses (Kirkland’s pilot program had three times per week collection, but Bellevue’s was twice per week). The proposed program would have participating businesses place their organic material into 64 or 96 gallon carts which Waste Management drivers will line with biodegradable bags each time the cart is emptied. Initially, this program will focus on approximately 240 businesses which include restaurants, delis, coffee stands, hotels, grocery stores, florists, the technical college and hospital. Waste Management’s proposed collection fees are shown in Table 1.

Table 1: Commercial Organics Collection Fee

Monthly Fee	Once Per Week Collection		Twice Per Week Collection	
	64 Gallon Cart	96 Gallon Cart	64 Gallon Cart	96 Gallon Cart
One Cart	\$14.85	\$18.43	\$27.55	\$34.70
Biodegradable Bags	\$3.49	\$3.49	\$6.98	\$6.98
Total	\$18.34	\$21.92	\$34.53	\$41.69
Each Additional Cart	\$8.34	\$11.43	\$16.27	\$22.47
Additional Bags	\$3.49	\$3.49	\$6.98	\$6.98
Additional Cart Cost	\$11.83	\$14.92	\$23.25	\$29.45
Total w/two Carts	\$30.17	\$36.84	\$57.78	\$71.14

Participating businesses will receive technical assistance throughout the program which is an important component of the overall system. Unlike basic recyclables such as paper, cardboard and glass, organics recycling is new, and employees do not know intuitively which materials are acceptable in the program. Recycling organics requires a change in the flow of materials in the kitchen, and adequate training and support will help ensure that the organic material is handled properly and that businesses use the program

efficiently and successfully. The proposed program budgets \$20,000 per year for technical assistance that will be heavily weighted toward onsite outreach and education.

If approved by Council, the program will be implemented through a contract amendment to the existing Comprehensive Garbage, Recyclables and Organics (Yard Debris + Food Waste) Collection Contract with Waste Management. Because this is a relatively new area of recycling, there is no standard among other cities in the region that have implemented similar programs. For that reason, the City and Waste Management will meet again prior to the next biennial budget cycle to evaluate program costs and options based on information gained from implementation of Kirkland's citywide program and make adjustments as necessary.

OPTIONS FOR FINANCING COMMERCIAL ORGANICS PROGRAM

There are two basic methods for financing a commercial organics program: embedding the costs into the commercial garbage collection rate structure as is done with other residential and commercial recycling collection programs or establishing a fee-for-service charge directly to program participants. These options are described below along with the perceived advantages and disadvantages:

- Option 1: Proposed Program with Embedded Rate Structure:
 - All commercial accounts pay program costs whether or not they participate (currently 671 accounts representing 2,290 non-home based businesses)
 - Cost is estimated at 3.3% of commercial rate base or an increase of about \$10.20/month on an average \$295/month solid waste fee
 - Program will provide each participating business with up to two 64-gallon carts or one 96-gallon cart for organics collection twice per week, additional carts can be ordered at business' own expense; this level of service provides adequate coverage to nearly 90% of organics-generating businesses
 - Approximately 240 businesses will be the focus for the first two years
 - Estimate 80 businesses will participate in Year 1 (0.33% of 240), and an additional 53 businesses will participant in Year 2 (0.33% of 160)
 - Program goal is to recycle 465 tons of organic material by the end of Year 2 and annually thereafter
 - Advantages:
 - Greater participation from eligible businesses because no additional direct costs are incurred
 - 75% of participants in the pilot program indicated they would not continue recycling organics if the program became fee based
 - At the conclusion of the yearlong pilot, only two of 28 (7%) businesses continued the program when charged a fee
 - Ensures program funding is available and stable
 - Disadvantages:
 - Businesses that do not produce organic material are required to subsidize the organics recycling program
- Option 2: Proposed Program with Fee-for-Service Charge:
 - Each participating commercial account is charged a fee for organics recycling plus technical assistance

- o Expect 24 businesses to participate in Year 1 (0.10% of 240), and an additional 22 businesses to participate in Year 2 (0.10% of 216)
- o Program goal is 160 tons of organic material recycled annually by end of Year 2
- o Advantage:
 - Only subscribing businesses pay the costs of service
- o Disadvantages:
 - Lower participation rate
 - Difficult for small to medium sized businesses to realize cost savings from recycling organics
 - Unstable funding for technical assistance (dependent on size of participant pool)
 - Organics recycling would be funded differently than other City recycling programs
 - Decreased ability of many organics-generating businesses that are part of a property managed complex to sign up for a fee based program if the increased costs impact all of the businesses in the complex

COMMERCIAL ORGANICS RECYCLING PROGRAMS IN NEIGHBORING JURISDICTIONS

Seattle, Issaquah and Redmond started citywide commercial organics programs within the last year. Seattle's program involves both of the region's haulers – Waste Management and Allied Waste Services. It began in July, 2005 with Allied Waste Services and in August, 2005 with Waste Management. About 370 accounts out of an estimated 3,500 food generating business accounts are currently signed up for service. Seattle has approximately 10,000 commercial accounts. Commercial recycling in Seattle (including organics) is a fee-for-service program.

Issaquah's program is also based on fee-for-service and was implemented by a contract amendment with Waste Management at the end of May, 2006. Issaquah plans to sign up approximately 30 businesses per year, but the rollout has been very slow so far, and they plan to meet again with Waste Management and then go back to the business community to generate renewed interest in organics recycling.

Redmond's City Council authorized their citywide program in August, 2006 for a trial period of one year. The City of Redmond will fund the costs for the program through their solid waste reserve fund. They plan to re-open their contract with Waste Management after one year when the costs and benefits of the trial year have been evaluated. Current enrollees in Redmond's program are the 28 businesses that participated in their pilot program.

CONCLUSION

The City of Kirkland has been successful at increasing recycling rates since Council set recycling goals in 2002. Development of new recycling programs will ensure that Kirkland remains an area leader in waste reduction and diversion. Organic materials are the largest component of the commercial waste stream that can be diverted from the landfill but continue to be thrown into the garbage. A program to remove this reusable resource from the landfill is consistent with the US Mayor's Climate Protection Agreement, the Final 2001 King County Comprehensive Solid Waste Management Plan approved by the Kirkland City Council and Council's own environmental stewardship goals.

Attachments: 1 – Council Memorandum, Update on Pilot Commercial Organics Program
2 – Kirkland Commercial Food Recycling Pilot Program Survey



MEMORANDUM

To: David Ramsay, City Manager

From: Elaine Borjeson, Solid Waste Coordinator
Daryl Grigsby, Public Works Director

Date: February 21, 2006

Subject: UPDATE ON PILOT COMMERCIAL ORGANICS PROGRAM

At the December 14, 2004 Council meeting, the Kirkland City Council authorized the City's participation in a yearlong pilot program to recycle commercial organics in partnership with the King County Solid Waste Division (Division) and Waste Management. The program began in the Totem Lake area in mid-March 2005 and is scheduled to end on February 28, 2006. As of mid-January, ten months into the program, participating Kirkland businesses diverted 83.93 tons of organic material from the landfill. The material is delivered by Waste Management to the Cedar Grove Composting facility in Maple Valley or Everett where it is turned into a valuable soil amendment which is then sold to Puget Sound area consumers.

The structure of the pilot program requires the City to pay Waste Management's additional route collection costs. In 2005, the City paid \$19,785.78 for the program (of which \$10,000 was reimbursed by grant funds from the Division). Invoices average \$2,083 per month. The Division pays for all promotional materials, training, technical assistance, biodegradable bags, container costs, monitoring and evaluation. Waste Management is responsible for all of its incidental expenses including but not limited to driver orientation, calls to the call center and data logging.

The overall purpose of the pilot program is to divert foodwaste from the landfill and recycle it as compost while at the same time determining the:

- level of interest in participation among the business community,
- ability of businesses to decrease their garbage costs,
- amount of foodwaste that is diverted from transfer stations and the landfill,
- barriers to foodwaste collection at businesses, and
- development of a model for cities to determine collection costs and business incentives to continue the program after the pilot ends.

Level of Interest in the Business Community: The pilot program primarily targeted small and medium sized businesses that generate foodwaste. Letters were sent to 71 businesses in the Totem Lake area on February 7, 2005 explaining the program and inviting them to participate. The Division's consultant contacted these businesses during the following three weeks, and foodwaste recycling began with 19 participants on March 14, 2005. The program quickly grew to include 26 businesses. Over the course of

the year, one business was dropped for not participating and three more establishments were added for a total of 28 participants, including grocery stores, delis, restaurants, espresso stands, a daycare, technical college and hospital. This met the original program goal which was to include approximately 30 businesses in the pilot. Similar ongoing pilot programs in Redmond and Bellevue have 30 and 37 participants, respectively.

Ability of Businesses to Decrease Garbage Costs: The small to medium sized businesses that are participating in the program have not downsized their garbage containers due to the temporary nature of this project as a pilot program and the accompanying uncertainty that they might need to reinstate their former level of service once the pilot ends. Larger businesses have been able to save costs by decreasing the number of times their compacters are emptied.

The ability of businesses to decrease costs on a more permanent basis is discussed in more detail in the section on developing a model for an ongoing program.

Amount of Foodwaste Diverted from the Landfill: The 28 businesses in the Kirkland program diverted nearly 84 tons (83.93 tons) of organic material from the transfer station and the landfill during the first ten months of the program. Collectively, the pilot programs in Kirkland, Bellevue and Redmond have diverted 465 tons of organic material over the course of 18 months as shown in Table 1.

Table1: Pilot Commercial Organic Programs in Three Eastside Cities:

City	Start Date	End Date	# of Customers	Tons Collected as of 1/13/06
Bellevue	6/17/04	4/30/06	37	167
Kirkland	3/14/05	2/28/06	28	83
Redmond	7/2/04	5/31/06	30	215
		Total:	95	465

Barriers to Foodwaste Collection: Foodwaste recycling was well received by businesses and only one Kirkland establishment was dropped for non-participation (four businesses were dropped from the combined three-city total of 99 participants over the course of the pilot). Few problems were reported with contamination from non-organic products, and cart cleanliness was acceptable with only occasional cart washing required.

Despite the popularity of the program, the major barrier to commercial foodwaste collection involves issues with the cost and distribution of the bags used to collect the organic material. The original program requires participants to place all recyclable material in biodegradable bags in the kitchen. Kirkland's 28 businesses used over 21,000 bags in ten months at a cost of approximately \$0.40 - \$0.50 per bag. Bags were distributed free of charge on a bi-weekly schedule to each establishment by the Division's consultant who also provided technical assistance when needed. These costs were paid by the Division for the pilot project but are unsustainable for an expanded ongoing program.

In an effort to reduce the cost of biodegradable bags, the program was reassessed and in December, 2005 the Bellevue and Redmond programs added several new participants who were instructed to use biodegradable cart liners for the 64-gallon container located outdoors instead of using individual

biodegradable bags in the kitchen. In this way, one \$1.00 cart liner replaced 5 -10 individual bags which cost \$0.40 - \$0.50 each. Initial results are encouraging, and compliance is high among businesses participating in this alternative program. The Health Department is closely monitoring both programs.

Development of a Model Program for Full Scale Implementation: The development of a model for full scale implementation must account for the fact that garbage collection rates are currently based on container size and not container weight – in effect producers of heavy waste (i.e. food establishments) are subsidized by producers of lighter waste (i.e. retail). Customers only receive cost savings if they are able to downsize their garbage container or decrease the number of times it is collected in a week and/or month. This has the following effect:

- No economic incentive exists for small to medium-sized businesses to participate in foodwaste recycling because the costs of added collection, purchasing and distributing bags, and technical assistance to participants exceed the savings for these establishments
- Larger businesses using drop-box services have a greater ability to establish cost effective foodwaste recycling programs because they have direct access to disposal cost savings (currently \$82.50/ton for garbage vs. \$35/ton for organics)

Potential solutions for widespread program implementation involve (1) removing the garbage subsidies for heavy (foodwaste) generators and/or (2) embedding foodwaste collection throughout the commercial garbage rate base.

1. Removing garbage subsidies – This approach would require a two-tiered commercial rate base wherein businesses would be classified as standard or heavy (foodwaste) garbage generators. Food service establishments would be placed in the “heavy” classification unless they participated in foodwaste recycling. The additional revenue generated by the “heavy” classification would pay for the foodwaste collection program up until the point that participation increased to a level where the excess revenue stream would begin to decline as the foodwaste collection expenses increased. At that point, another subsidy would be required to maintain the program.
2. Embedded foodwaste collection – The total cost of foodwaste collection would require a commercial rate increase across all detachable container customers to fund the program. The scope of this increase is currently being evaluated.

The City of Seattle and the City of Issaquah are launching full-scale commercial organics recycling programs in 2006. Kirkland is working in conjunction with Issaquah, the Division and other cities in the region to determine the best way to have a successful program.

Conclusion/Recommendation

The information gathered during this pilot project and a continued regional effort will be very valuable for development of an ongoing commercial organics recycling program. At this time, staff recommends ending the pilot at the end of February and proceeding with development of a program and rate structure, in time for the 2007-2008 Budget cycle, if possible. Staff will write letters to those businesses who participated in the pilot program thanking them and providing options for the interim period until a full-scale program is developed.

20 out of 28 were returned (71%).

Employees know what can be recycled in the Food+ Recycling Program.

65% responded that they could “strongly agree” with the statement (13 out of 20)
30% responded that they could “somewhat agree” with the statement (6 out of 20)
5% responded that they could “strongly disagree” with the statement (1 out of 20)

This program has been easy to start and maintain.

70% responded that they could “strongly agree” with the statement (14 out of 20)
30% responded that they could “somewhat agree” with the statement (4 out of 20)
5% responded that they could “neither” agree or disagree (1 out of 20)
5% responded that they could “strongly disagree” with the statement (1 out of 20)

All the materials we need, such as containers and signs are provided.

85% responded that they could “strongly agree” with the statement (17 out of 20)
10% responded that they could “somewhat agree” with the statement (2 out of 20)
5% responded that they could “somewhat disagree” with the statement (1 out of 20)

We received all the assistance we needed to start the program.

85% responded that they could “strongly agree” with the statement (17 out of 20)
15% responded that they could “somewhat agree” with the statement (3 out of 20)

We continue to receive assistance when needed.

80% responded that they could “strongly agree” with the statement (16 out of 20)
15% responded that they could “somewhat agree” with the statement (3 out of 20)
5% responded that they could “strongly disagree” with the statement (1 out of 20)

Outdoor Food+ Recycling containers are picked up frequently enough.

80% responded that they could “strongly agree” with the statement (16 out of 20)
15% responded that they could “somewhat agree” with the statement (3 out of 20)
5% responded that they could “strongly disagree” with the statement (1 out of 20)

The biodegradable bags work as well as regular plastic bags.

55% responded that they could “strongly agree” with the statement (9 out of 20)
20% responded that they could “somewhat agree” with the statement (4 out of 20)
10% responded that they could “neither” disagree or agree (2 out of 20)
10% responded they could “somewhat disagree” with the statement (2 out of 20)
5% responded that they did not use bags (1 out of 20)

The kitchen containers that were provided are the right size for our business

65% responded that they could “strongly agree” with the statement (13 out of 20)
30% responded that they could “somewhat agree” with the statement (6 out of 20)
5% responded that they could “strongly disagree” with the statement (1 out of 20)

Our garbage has decreased as a result of this program.

- 65% responded that they could “strongly agree” with the statement (13 out of 20)
- 10% responded that they could “somewhat agree” with the statement (2 out of 20)
- 15% responded that they could “neither agree or disagree” with the statement (3 out of 20)
- 5% responded that they could “somewhat disagree” with the statement (1 out of 20)
- 5% responded that they could “strongly disagree” with the statement (1 out of 20)

1. Have you had any of the following issues with biodegradable bags?

- 35% responded that “Bags tore or broke open” (7 out of 20)
- 10% responded that “Bags did not hold enough materials” (2 out of 20)
- 10% responded that “Bags were difficult to tie off” (2 out of 20)
- 10% responded that they “ran out of bags before more were delivered” (2 out of 20)
- 5% responded that “Bags were difficult to remove from containers” (1 out of 20)
- 5% responded “Bags were difficult to tear off role” (1 out of 20)
- 5% responded that they did not use bags (1 out of 20)
- 35% did not have problems (7 out of 20)

One business noted that “bags leaked”; another noted “bags are too saggy”

2. How do you purchase your regular plastic garbage bags that you normally buy?

- 20% responded that they “Purchase through our company regionally or nationally.” (4 out of 20)
- 45% responded that they “Purchase from a retail store” (9 out of 20)
- 25% responded that they “Purchase from a distributor” (5 out of 20)
Listed stores for distributors or businesses that order through their company:
 - Golden State Foods (1)
 - Food Services(1)
 - Cash and Carry (1)
 - Costco (1)
 - Fikes (1)
- 10% said “other” (2 out of 20)

3. What is the cost you currently pay for your regular plastic bags?

10 businesses did not respond

Quantity	Cost per quantity	Cost per bag
90	\$15.00	.16
90	\$8.00	.09
100	\$19.00	.19
100	\$20.00	.20
200	\$11.99	.06
200	\$10.00	.05
220	\$15.00	.07
250	\$29.41	.12
500	\$17.98	.04

4. Why did you agree to participate in this program?

Note: most respondents checked off more than one of the following:

25% responded "To save money in garbage disposal costs." (5 out of 20)

80% responded "For environmental reasons." (15 out of 20)

60% responded "Because the program was free." (11 out of 20)

15% responded "other" and wrote "County introduction.", "educational value for our kids", "convenient" (3 out of 20)

5. What is the biggest difficulty your business has had with the program?

Note: most respondents checked off more than one of the following:

25% responded "Employee training." (5 out of 20)

25% responded "Employee participation." (5 out of 20)

20% responded "Keeping containers clean." (4 out of 20)

5% responded "bags." (1 out of 20)

0 responded "messiness"

15% responded "other" and wrote "outsiders dumping their trash in our containers", "Not having proper sized cans and bags" and "kid training" (3 out of 20)

6. Have you downsized your garbage container or decreased garbage pickups since your business started to participate in the Food+ Recycling Program?

50% responded "Yes." (10 out of 20)

50% responded "No." (10 out of 20)

Written comments included "My business increased, so I can't tell" and "no, but it is no longer overflowing."

7. If the pilot became a permanent program, do you think you could decrease the size of your garbage container?

65% responded "Yes." (13 out of 20)

35% responded "No." (7 out of 20)

Reasons noted for why garbage cannot be decreased:

- *We have a lot of food and makes it easy to work.*
- *Small percentage of our overall waste was recycled.*
- *Employees are not dedicated to the program.*

8. WM will continue this service for a fee. Do you plan to participate in the Food+ Recycling program if you have to pay for the service, but pay a rate lower than current garbage disposal?

15% responded "Yes." (3 out of 20)

75% responded "No." (14 out of 20)

10% of businesses did not respond (2 out of 20)

Reasons noted for why businesses would not participate:

- *Depends on the money I save on garbage with less pickups.*
- *My service is free*
- *Has to be OK'd through the corporate officer*
- *Depends on the fee; I'd buy bags but it seems ridiculous to charge more than that to help the state decrease the amount of garbage going to it's landfills.*
- *Depends on how much.*
- *Yes if it is a lower rate.*

- *Corporate office won't approve at this time.*
- *Because the bags are expensive.*
- *Additional costs to the business.*
- *Any program involving cash needs to have corporate approval.*
- *No noticeable decrease in garbage*
- *It costs money.*

9. The City and County may publicize the Food+ Recycling program and recognize businesses that participate. Would you like your business to be recognized with this type of publicity?

80% responded "Yes." (16 out of 20)

20% responded "No." (4 out of 20)

10. Do you use your garbage disposal less since you started participating in the Food+ Recycling Pilot?

45% responded "Yes." (9 out of 18) ; 3% who responded yes- said they noticed less clogged drains (9 out of 20).

40% responded "No." (8 out of 20)

10% responded that they did not have one (2 out of 20)

5% did not respond (1 out of 20)

11. How much food waste and paper do you estimate is still being thrown away in the regular garbage?

60% responded "25% or less." (45 out of 20)

25% responded "50%." (5 out of 20)

15% responded "75% or more." (3 out of 20)

12. Are there additional materials or types of assistance that we could provide to help with the Food+ Recycling program?

1 businesses responded with a suggestion, others left it blank or said "no":

- *Lock on the outside toter*
- *The bags should have strings to tie off. It'd be easier to lift them.*
- *Proper bags and cans*

Additional Comments?

6 businesses responded:

- *Does the regular residential recycling program charge a fee for the use of the glass, paper bins they provide to them for recycling?*
- *Thanks Sam! We had fun with this!*
- *We are sorry, but we were lazy as a company to fully train, encourage and enforce the use of this program.*