

STAFF REPORT

DATE: December 7, 2010

TO: City Council

FROM: Richard Tsai, Senior Utility Resource Specialist
Sue Gedestad, Assistant Public Works Director

SUBJECT: Voluntary Commercial Organics Collection Pilot Program

Recommendation

Support the development and implementation of a pilot program to collect commercially generated organics.

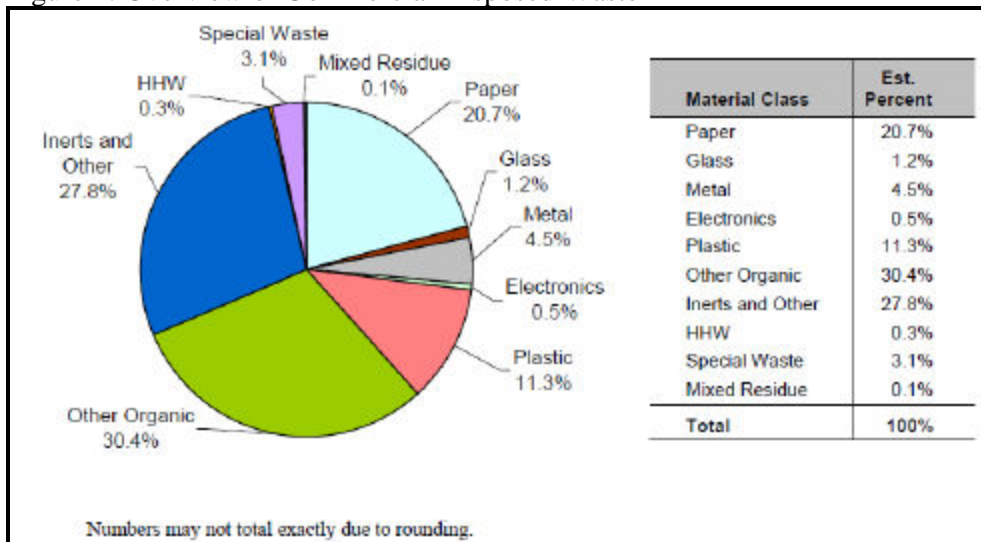
Fiscal Impact

Staff time will be needed for outreach with businesses and can be absorbed with the current budget.

Background and Analysis

A Waste Characterization study performed in 2008 by the California Department of Resources, Recycling and Recovery (CalRecycle) found that 30.4% of commercial waste is organic material, including yard materials, lumber, carpet, textiles and food scraps (see Figure 1). The food scrap component makes up a total of 15.4% of commercial waste (see Appendix).

Figure 1: Overview of Commercial Disposed Waste



Source: California Department of Resources, Recycling and Recovery 2008 Statewide Waste Characterization Survey

Of the top 5 material classes found in commercial waste, there are currently recycling programs available to divert the most of the waste from the landfill (see Attachment). Paper, metals and plastic are all accepted for recycling at no cost in the recycling carts from commercial and residential customers alike. These materials can also be dropped off 24/7 at DWR. Yard materials, concrete, dirt, and construction and demolition materials make up a large portion of the Other Organic and Inerts and Other Material Classes. Much of this material is already being taken to the Yolo County Landfill and recycled (as required for applicable projects under the City's Construction and Demolition Diversion Ordinance). The largest material type found in commercial waste that currently is not diverted is food waste.

Organics (food scraps) diversion therefore is the next logical step towards increasing the City's overall waste diversion. Since food scraps are heavy, removing this one component from the waste stream may have a large effect on the City's state-calculated diversion rate, since diversion is measured by weight.

In anticipation of the increased the State mandated diversion rate from 50% to 75% and at the request of a number of local restaurants, staff recommends that we move forward with a commercial organics collection pilot.

Implementation

The pilot program would place a maximum of 100 65-gallon carts at various restaurants, grocery stores and other commercial businesses to collect food scraps. DWR would use an automated truck for collection. The organics will then be taken to a local compost facility for processing and composting.

Food scraps are heavier and more putrescible than yard trimmings and must be handled appropriately. To avoid odor and health and safety concerns, organics carts must be collected twice a week. In the pilot, the carts would be serviced by DWR twice a week, (Monday and Friday).

Data collected by DWR indicated that the average 64 gallon cart weighs 193 lbs. when full.

A large pilot program such as this is recommended by staff to more carefully assess how issues such as space constraints, cost, smell and contamination will be handled and will allow staff to determine the feasibility of a larger commercial program. In order to accurately determine this, the pilot aims to include a comparable percentage of commercial customers in the pilot that currently exist in the City:

- 60% Restaurants
- 20% Industrial (i.e. grocery stores)
- 20% Institutional (i.e. hospitals, schools, nursing homes)

Although the proposed pilot is voluntary, there is not likely to be a challenge in getting the suggested number of commercial customers to sign up. A few interested local restaurants owners have already been gathering support for the pilot from a number of other restaurants and grocery stores.

Incentives:

There are a number of incentives for the City to offer the pilot:

- Increase the City's solid waste diversion rate.
- Meet organics service requests from commercial customers.

There are a number of incentives for businesses to participate in the pilot:

- Potential to save money— some businesses may be able to downgrade their trash service and save money once they remove all their organics from their trash
- Receive green recognition— participation counts as credit toward the Partners For a Greener Davis green business Program.

Environmental benefits of the pilot

- Creation of a usable product— a nutrient-rich soil amendment— instead of sending the organics to be landfilled.
- Composting organics places nutrients back into the soil, making the soil healthier and more productive for agriculture.
- Keeping the wet, high-nitrogen waste from being sent to the landfill reduces the amount of methane gas released as the organics decompose in the landfill.

Challenges

Food waste can produce an unpleasant odor, whether mixed in with trash or collected separately. The proposed pilot would collect organics twice a week, the same frequency that is currently required for trash dumpsters. There should not be a significant change in the amount of odor. A significant portion of the outreach during the pilot will need to be aimed at keeping the cart lids closed and washing out the carts regularly to avoid pests and odors.

Conclusion

In trying to balance solid waste diversion goals and commercial customer preferences, staff is recommending a pilot program that collects commercial organics at a limited number of commercial locations for one year, after which the program will be reviewed.

Table 10: Composition of Commercial Disposed Waste

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
Paper	20.7%		4,072,311	Other Organic	30.4%		5,982,161
Uncoated Corrugated Cardboard	7.2%	1.8%	1,423,530	Food	15.4%	3.7%	3,032,805
Paper Bags	0.4%	0.1%	71,741	Leaves and Grass	3.0%	1.0%	594,919
Newspaper	1.0%	0.3%	100,237	Prunings and Trimmings	3.3%	2.0%	658,051
White Ledger Paper	1.0%	0.5%	202,791	Branches and Stumps	0.5%	0.5%	100,513
Other Office Paper	1.3%	1.1%	240,458	Manures	0.0%	0.0%	140
Magazines and Catalogs	0.6%	0.3%	117,828	Textiles	1.4%	0.4%	270,583
Phone Books and Directories	0.1%	0.1%	11,220	Carpet	3.5%	3.8%	667,481
Other Miscellaneous Paper	3.0%	0.6%	597,228	Remainder/Composite Organic	3.2%	0.8%	628,700
Remainder/Composite Paper	8.2%	1.3%	1,218,271				
Glass	1.2%		245,547	Inerts and Other	27.8%		5,461,616
Clear Glass Bottles and Containers	0.4%	0.2%	80,349	Concrete	0.8%	0.2%	107,312
Green Glass Bottles and Containers	0.2%	0.1%	20,764	Asphalt Paving	0.0%	0.0%	4,780
Brown Glass Bottles and Containers	0.3%	0.1%	51,368	Asphalt Roofing	2.3%	2.8%	455,701
Other Colored Glass Bottles and Containers	0.0%	0.0%	7,708	Lumber	15.7%	3.2%	3,088,888
Flat Glass	0.1%	0.1%	18,027	Gypsum Board	1.5%	1.3%	300,703
Remainder/Composite Glass	0.3%	0.2%	54,343	Rock, Soil and Fines	2.3%	1.4%	440,800
				Remainder/Composite Inerts and Other	5.1%	2.0%	664,939
Metal	4.5%		880,362	Household Hazardous Waste (HHW)	0.3%		55,007
Tin/Steel Cans	0.0%	0.2%	113,788	Paint	0.2%	0.2%	41,084
Major Appliances	0.1%	0.1%	17,120	Vehicle and Equipment Fluids	0.0%	0.0%	1,070
Used Oil Filters	0.0%	0.0%	234	Used Oil	0.0%	0.0%	140
Other Ferrous	2.0%	0.0%	388,270	Batteries	0.0%	0.0%	4,708
Aluminum Cans	0.1%	0.0%	20,168	Remainder/Composite Household Hazardous	0.0%	0.0%	7,934
Other Non-Ferrous	0.2%	0.1%	43,657				
Remainder/Composite Metal	1.5%	0.8%	287,223	Special Waste	3.1%		617,641
				Ash	0.2%	0.2%	32,314
Electronics	0.6%		96,710	Treated Medical Waste	0.0%	0.0%	0
Brown Goods	0.2%	0.1%	39,583	Bulky Items	2.5%	1.7%	460,003
Computer-related Electronics	0.0%	0.0%	2,688	Tires	0.3%	0.3%	65,700
Other Small Consumer Electronics	0.1%	0.0%	10,516	Remainder/Composite Special Waste	0.2%	0.2%	40,534
Video Display Devices	0.2%	0.3%	44,820				
				Mixed Residue	0.1%		28,507
Plastic	11.3%		2,232,684	Mixed Residue	0.1%	0.1%	28,507
PETE Containers	0.5%	0.1%	88,177				
HDPE Containers	0.4%	0.1%	74,261				
Miscellaneous Plastic Containers	0.4%	0.1%	84,301				
Plastic Trash Bags	1.2%	0.3%	233,075				
Plastic Grocery and Other Merchandise Bags	0.2%	0.1%	43,671				
Non-Bag Commercial and Industrial Packaging Film	0.8%	0.4%	188,675				
Film Products	0.2%	0.1%	38,321				
Other Film	1.7%	0.6%	329,444				
Durable Plastic Items	2.0%	0.6%	385,704				
Remainder/Composite Plastic	4.0%	1.4%	793,050				
				Totals	100.0%		19,672,547
				Sample Count	250		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding. More detailed composition tables can be found in Appendix D: Expanded Statewide Waste Characterization Tables