



# City of Palo Alto

## Finance Committee Staff Report

(ID # 3099)

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**Report Type: Action Items Meeting Date: 10/2/2012**

**Summary Title: Refuse Pilot Collection Modification Program**

**Title: Update on Potential Food Scrap Collection Pilot for Residents**

**From: City Manager**

**Lead Department: Public Works**

### **Executive Summary**

This is an informational report on possible pilot refuse collection programs for expanded organic wastes (mainly food scraps) in the single family residential sector. No action by the Finance Committee is required.

Staff is following up on a previous Finance Committee request to consider reducing the collection frequency of **the City's** refuse. Staff is currently evaluating the costs and benefits of an expanded organics collection pilot project that would reduce the frequency of residential garbage collection. Staff is forecasting the implementation of the pilot collection project in January 2013.

### **Background**

In 2007, Council adopted **the City's Zero Waste Operational Plan (ZWOP)** which identified the collection of compostable organic wastes as a key opportunity to increase diversion from landfills. With the inception of the contract with GreenWaste of Palo Alto (GreenWaste) in 2009, compostables collection service, which includes yard trimmings, food scraps, and compostable paper, was offered to commercial and multi-family customers. Last year, this expanded organic waste service resulted in the diversion of over 10,000 tons of organic materials from the landfill, producing a marketable compost product.

Due to increased service fees, the 2009 GreenWaste services did not include expanded organic waste collection services to single-family residential customers. Council approved the continuation of the previous weekly service levels that collected yard trimmings only. These residential yard trimmings are collected curbside and delivered

to the SMaRT Station (SMaRT) for processing and then transferred to the Z-Best composting facility to yield high quality compost. Nearly 6,000 tons per year of other compostable organic materials such as food scraps and compostable paper continued being disposed in the landfill.

Many communities in the Bay Area have already implemented expanded organics collection programs that allow residential customers to place most of their compostable organic materials in their organics (green) cart. To date, there have been numerous requests from Palo Alto residents to expand the collection service to other organic wastes for single-family residences. While some of these residential organics could be **composted at residents' homes, it is an activity that only some residents are willing and able to do.** The City has made a concerted effort to educate and encourage home composting through monthly educational workshops, garden tours highlighting the benefits of composting, demonstration gardens, demonstration compost bins, compost giveaways and collaborative efforts with other stakeholders. Despite these efforts, there are still a significant amount of compostable organic waste in the residential garbage stream.

Previously, staff has viewed the collection and processing of expanded organic residential wastes as a service that would significantly increase costs. However, if a new expanded organic waste collection program could be implemented in conjunction with reduced garbage service levels, then the additional costs could be much smaller or could even yield cost savings. Over the past two years, staff has worked with GreenWaste to explore ways to: 1) reduce services and expenses; 2) address the imbalance in the residential sector between the costs of services provided compared to revenues received; and 3) continue to divert additional wastes to meet the ZWOP goals. Some of the options explored included biweekly garbage collection, reduced recycling collection, changing the collection methodology (i.e., fully automatic collection), and food scrap collection.

Staff is continuing discussions with GreenWaste on these options and will continue evaluating potential cost estimates and their impacts on the contract and on the Refuse Fund. **Although the City's contract with GreenWaste is an 8-year term,** it does provide the flexibility for the City to initiate pilot programs and negotiate changes that could affect the longer-term collection services. During Finance Committee Meetings in FY 2012, committee members asked staff to evaluate reducing expenses by changing the frequency of waste collection services.

## **Discussion**

Offering a comprehensive single-family residential expanded organics collection service in conjunction with a garbage collection frequency reduction in a cost effective manner

may now be possible. This staff report presents the preferred pilot alternatives currently being evaluated that would capture some of the single-family residential expanded organic wastes that are now landfilled. Staff prefers the pilot options that will reduce garbage collection frequency over options that would reduce recyclable or yard trimmings frequencies because these options are more **consistent with the City's Zero Waste** goals to generate and collect less garbage from residents.

Staff believes that the garbage frequency can be reduced because the last waste characterization study showed that over 75% of the average garbage cart contents were divertible (either compostable or recyclable). Therefore, on average, less than 25% of the material in the garbage cart is true garbage and cannot be recycled or composted. Since the garbage cart capacity (on average) would fill up every four weeks and since the true garbage material would be inert (i.e. putrescibles collected in the green carts), then that would mean that the garbage collection could be less frequent. Theoretically, once residents begin diverting all compostable organic material to the green bin and recyclable material to the blue bin, it would take four weeks to fill up the garbage cart.

The goals of the Expanded Organics Pilot Project are:

- 1) To help evaluate the feasibility and effectiveness of a residential expanded organics collection **program that would help achieve the City's Zero Waste goals** by increasing diversion on a portion of the 5,800 tons per year of food scraps and compostable paper from the landfill in a cost effective manner;
- 2) To explore the potential benefits and challenges that the pilot program would have with the collection, processing and community outreach;
- 3) To meet community requests (public has asked for collection of expanded organics in past public meetings, through emails and phone calls);
- 4) To evaluate the cost effectiveness of a City wide program through potential reductions in garbage collection frequency;
- 5) To explore **collection services that best meet the communities' values and fully** integrate with the future processing capabilities of a potential Measure E energy or compost facility if necessary;
- 6) To determine the effect of the pilot on the diversion and collection of recyclables that are currently being disposed in the garbage cart, much of which is being landfilled.

State regulation requires that putrescible wastes, which includes mostly food scraps, along with pet feces, diapers, and other items that can decompose on its own, be collected weekly to prevent health and sanitation nuisances. Therefore, the only way to

reduce garbage collection frequency and comply with State Law is to divert putrescible wastes from the garbage cart in some manner. Food scraps can be diverted from the garbage cart and either added to the green cart (yard trimmings) or collected in a separate container and composted or anaerobically digested. Factors to be considered prior to and during the food scraps pilot project include the following (not necessarily in order of importance):

- Diversion From Landfills
- Cost or Cost Savings
- Reduction in street congestion (less garbage collection truck trips)
- Comingling and degradation of recovered or recycled materials
- Simpler (easy to understand)
- Greenhouse gas reductions
- Nuisances (odors, soiled carts)
- Zero Waste mindset (education – where things are going, purchasing policies, Extended Producer Responsibility lobbying etc).

Staff has preliminarily narrowed the choices to the following pilot food scrap collection projects:

Pilot Option #1 – Residents contain expanded organic wastes in bags and place the bags inside their green cart, combined with yard trimmings. Reduce garbage collection frequency to bi-weekly or monthly.

- Expanded organics to be separated from yard trimmings at either the SMaRT or at the GreenWaste Materials Recovery Facility (GreenWaste MRF) in San Jose.
- Expanded organics to be composted at ZBest or anaerobically digested (TBD).
- Yard trimmings continue to be composted at ZBest.
- Encourage residents to fully utilize their blue recycling carts while using their garbage carts only for non-recyclable and non-compostable items (e.g., polystyrene, old garden hose, multi-material products such as granola bar wrappers).

Note: A variance to this pilot would be to add the expanded organics to the green cart directly (i.e. not in bags), collected with the same vehicle and compost the material comingled. Another variance could be to collect the expanded organics

in a small container placed curbside to be collected and processed separately.

Pilot Option #2 – Residents contain expanded organic wastes in bags and dispose of the bags in their green cart. Eliminate garbage collection completely. This collection methodology is frequently categorized as a Wet-Dry Collection.

- Expanded organics to be separated from yard trimmings at either SMaRT or at the GreenWaste MRF in San Jose.
- Expanded organics to be composted or anaerobically digested (TBD).
- Yard trimmings continue to be composted at ZBest.
- Residents to place all of their solid and recyclable wastes into the blue recycling carts. Residual garbage to be sorted out of recyclables at GreenWaste MRF.

Note: A variance to this pilot would be to add the expanded organics to the green cart directly (i.e. not in bags) and composted comingled.

### **Next Steps**

After a Public Meeting and web based outreach, staff will determine the details of a pilot collection project, and a project description will be generated by staff that will outline the project parameters and the data that will be collected. A typical Palo Alto neighborhood will be selected. More isolated neighborhoods are preferred as to not divide collection routes or neighborhoods. Staff will reach out to residents in the selected neighborhood prior to the pilot with mailings, a neighborhood meeting, and with door-hangers.

During the Pilot, data will be collected that will answer the following questions:

- a) Does the pilot reduce the overall number of collection vehicle miles travelled? Is there a reduction in greenhouse gas emissions?
- b) What are the costs/savings?
- c) How effective is the pilot collection program? Are residents participating?
- d) What residual materials are left in the black cart for disposal?
- e) What are the resident responses to the pilot and opinions?
- f) If the food scraps are collected in bags, then how do the bags hold up to separated food waste? How are the food scrap bags separated from yard trimmings?
- g) How much of all waste materials are collected?

- h) What are the impacts to the quality of compost - if materials are commingled with food scraps during collection?

Staff is forecasting that the pilot can be implemented during Winter 2013 and will collect data for 12 months. Staff will then return to the Finance Committee with data from the pilot, potential cost implications, and a recommendation on whether to apply the collection program city-wide.

### **Resource Impact**

Staff has not yet received final cost information from GreenWaste, however, the cost to implement this pilot project is not expected to be significant. There will be roughly offsetting cost reductions through the reduction of the frequency of garbage collection. Staff will estimate the cost implications and factor these costs into the decision of selecting the pilot to implement.

### **Policy Implications**

There are no policy changes associated with a pilot program. The pilot program is consistent with existing policy in the City's Zero Waste Operational Plan.

### **Environmental Review**

This pilot collection project (if implemented) would be for information collection purposes and would qualify for a Class 6 Categorical Exemption consisting of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource.

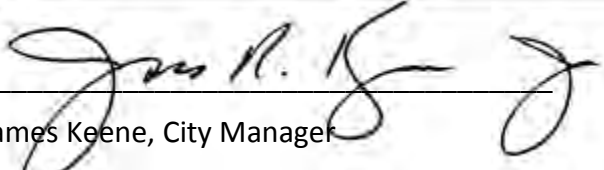
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