



Waste Management: Key Findings and Recommendations

January 13, 2009

Executive Summary

The current waste-management contract with Los Altos Garbage Company expires in September 2010. Over the next few months, the city will develop a Request for Proposals (RFP) for a new contract. The negotiation of the new contract presents a timely and critical opportunity for the city to improve waste-management practices in Los Altos and prepare for impending statewide diversion requirements at relatively little additional cost or burden to the city, its residents and businesses.

This report contains the waste-management recommendations of the Green Ribbon Citizens Committee (GRCC), a subcommittee of GreenTown Los Altos. It provides further information and substantiation to the Environmental Commission's Solid Waste Levels of Service Memorandum dated January 13, 2009. It outlines GreenTown's three Proposed Goals and 10 Specific Recommendations, the culmination of research and analysis by GRCC volunteers, and incorporates input from waste-management experts, Commissioners, Council members, and 108 participants who attended two GreenTown community meetings.

Policy Imperatives

Americans are consuming resources at an unsustainable rate. To address the impacts of our consumption on the planet, the State of California has implemented two pieces of legislation relevant to this report:

- AB939 requires local governments to divert at least 50% of the waste generated in their communities by 2000; pending legislative proposals increase the diversion requirement to 75% statewide.
- AB32 sets a statewide cap on emissions of greenhouse gases. Local government waste-management practices are impacted because landfills emit greenhouse gases. The California Air Resources Board Scoping Plan for implementing AB32 requires that local governments divert at least 50% of organic waste from landfills by 2020.

Waste-Management Issues

Our research on the local waste-management system led to four key findings that our goals and recommendations strive to address:

- Our local landfill site at Newby Island is 64% full and expected to close by June 2025.
- Most of the waste sent to the landfill consists of material that can be composted or recycled.
- Nearly 40% of the commercial and residential waste we send to the landfill is organic.
- Our garbage rates are among the highest in the region, yet we receive fewer services than neighboring communities.

Proposed Goals

We recommend that the city adopt and incorporate in the new waste contract RFP the following goals. These goals are achievable and, combined with our specific recommendations, address all four of the waste-management issues.

1. Divert 75% of waste generated in Los Altos within five years of the start of the new contract and achieve zero waste by 2020.
2. Reduce per capita waste generated by 5% within five years of the start of the new contract.
3. Reduce toxins in the environment generated from the improper disposal of household hazardous waste and universal waste.

Specific Recommendations

GreenTown has identified 10 specific recommendations that we believe are key to achieving the proposed goals.

1. **Weekly residential curbside collection of food wastes and other compostable material.** Residential food wastes and other organic materials represent approximately 43% of landfill waste from homes. Composting such waste will be essential to meeting a 75% diversion goal and will result in a significant reduction in landfill greenhouse gas emissions.
2. **Weekly residential curbside collection of recyclables in a standard rolling cart.** Rolling carts are more convenient for both residents and waste collectors to handle than the current rectangular bins. Weekly rather than biweekly collection will increase the amount of recyclables a resident can collect in a cart, making it easier for residents to recycle more waste.
3. **Smaller garbage can options with lower monthly rates.** Expanding the current volume-based refuse rates to include smaller can sizes priced at lower rates than standard 32-gallon service will create additional economic incentives for residents to reduce waste.
4. **Side-yard pick-up optional rather than standard.** Making side-yard pick-up an option, rather than a standard service for which all Los Altos residents currently pay, would offset some of the costs associated with new waste-management services under the new waste contract.
5. **Curbside collection of household hazardous and universal wastes.** Residents do not have a convenient means of disposal and often lack sufficient information regarding proper disposal of these wastes. Offering more convenient collection options would reduce their improper disposal.
6. **Commercial food waste and compostables collection service.** Food waste and other organic material from businesses such as restaurants and grocery stores account for approximately 30% of the commercial waste now sent to the landfill. Accordingly, providing regular pick-up of commercial food waste and other compostable materials is important to our efforts to divert organic materials from the landfill.
7. **Standard recycling pick-up for commercial and multi-tenant buildings.** Most businesses and multi-family dwellings are offered recycling bins only on request. Providing recycling bins for all commercial businesses and multi-family dwellings under the new waste contract would increase collection of recyclable materials.
8. **Public education and outreach program.** Education and outreach provided by the contract waste-hauler about the types of materials collected in each type of recycling and composting bin as well as proper disposal of hazardous and universal wastes would aid in increasing collection of these materials. This effort would complement a city public education and outreach campaign to promote waste reduction.
9. **Place bins for collection of recyclables and compostables in public areas and schools.** Placing receptacles for recoverable wastes in commercial areas, parks and schools, would enable shoppers, school children, club sports participants and others to recycle and compost, rather than send recoverable waste to the landfill.
10. **Structure waste contract with incentives for landfill diversion.** Including specific vendor incentives for achieving goals listed above (e.g., 75% diversion goal over five years) would induce the contractor to work in partnership with the city to maximize recycling and composting and reduce generation of waste and improper disposal of toxics.

Report

GreenTown Los Altos was formed in 2007 to explore local actions to address global environmental issues such as greenhouse gas emissions, air, soil and water pollution and conservation of natural resources, and to more fully examine the impacts of our consumption on the environment.

This report contains the waste-management recommendations of GreenTown's Green Ribbon Citizens Committee (GRCC). It provides further information and substantiation to the Environmental Commission's Solid Waste Levels of Service Memorandum dated January 13, 2009. It outlines GreenTown's three Proposed Goals and 10 Specific Recommendations, the culmination of research and analysis by GRCC volunteers and incorporates input from waste-management experts, Commissioners, Council members, and 108 participants who attended two GreenTown community meetings. At these meetings we received broad citizen input on how Los Altos can improve its waste-management practices. As part of this process, GreenTown educated citizens about the environmental significance of better waste management, and engaged citizens in identifying barriers and developing practical and cost-effective solutions that would have everyday relevance to Los Altos residents.

Policy Imperatives

Americans are consuming resources at an unsustainable rate. If everyone on the planet consumed resources at the rate that we do in the U.S., we would require 5.3 planets to support the world's population.¹ To address the impacts of our consumption on the planet, the State of California has implemented two policies relevant to this report:

- AB939 requires local governments to divert at least 50% of the wastes generated in their communities by 2000; pending legislative proposals increase the diversion requirement to 75% statewide.
- AB32 sets a statewide cap on emissions of greenhouse gases. Because landfills emit greenhouse gases – methane and carbon dioxide (CO₂) – this bill impacts local governments' waste-management practices. The California Air Resources Board Scoping Plan for implementing AB32 requires that local governments divert at least 50% of organic waste from landfills by 2020. Organic waste, when buried in the landfill, generates a significant amount of methane, a greenhouse gas far more potent than CO₂.

Waste-Management Issues

Our research on the local waste-management system led to four key findings that our goals and recommendations strive to address:

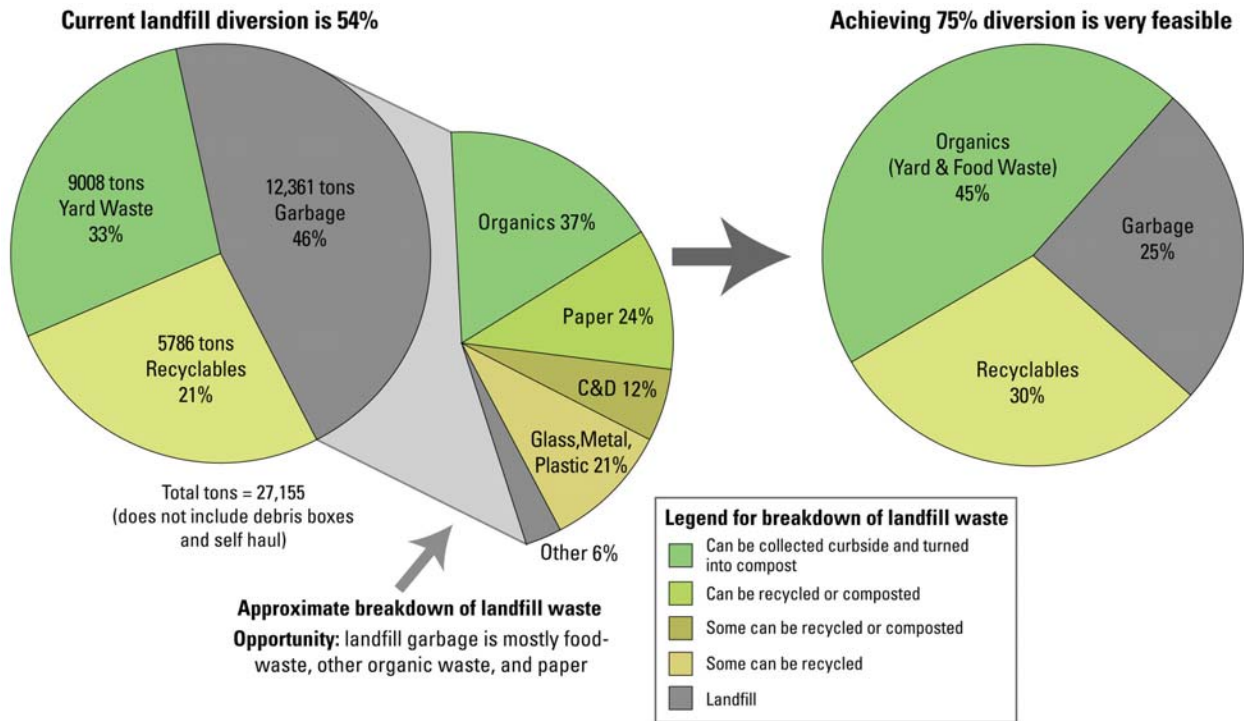
- Our local landfill site at Newby Island is 64% full and, based on projected waste disposal rates, is expected to close by June 2025.
- Most of the waste we send to the landfill consists of material that can be composted or recycled instead (see Figure 1).
- Nearly 40% of the commercial and residential waste we send to the landfill is organic (see Figure 1). Methane is a greenhouse gas that is more than 20 times as potent as CO₂ in its warming effect, when considered over a 100-year timeframe.² In contrast, composting, either at a composting facility or at home, generates little or no methane.
- Our garbage rates are among the highest in the region, yet we receive fewer services than neighboring communities (Figure 2).

Our current waste contract expires in September 2010, and city staff will be developing a Request for Proposal (RFP) for a new waste contract in early 2009. This represents an historic opportunity for the city to improve our waste-management practices through the provision of new services and public education, with relatively little added cost or burden to the city and its residents and businesses. Further, improving our waste contract can significantly reduce the amount of waste sent to the landfill and the amount of greenhouse gas emissions we generate from our organic waste.

¹ "Shrink Your Ecological Footprint," Bridget Bentz Sizer, *The Washington Post*, March 12, 2006, p. M05.

² United Nations Framework Convention on Climate Change, unfccc.int/ghg_data/items/3825.php.

Figure 1: Current and Potential Landfill Diversion Rates



Source: Los Altos Garbage Company provided total tons hauled in 2007. Composition of LAGCo hauled landfill waste based on California Integrated Waste Management Board 2004 statewide waste characterization study.

Figure 2: Comparison of Garbage Service Options and Monthly Cost

City	Residential								Commercial		Waste Company
	monthly cost*	mini can (20 gal)	mini-mini (12/13 gal)	weekly pickup of recyclables	cart for recyclables	food waste	side-yard pickup	bulky pickups per year	recycling	food waste	
Los Altos Hills	\$33.76	✓		✓	✓	✓	✓\$	\$	✓		Green Waste
Los Altos	\$28.11						✓	2	✓		LA Garbage (NorCal)
San Jose	\$26.95	✓		✓	✓			0	✓		Garden City
Palo Alto**	\$26.58	✓		✓	✓		✓	1	✓		PASCO
San Francisco	\$24.76	✓		✓	✓	✓	✓\$	2	✓	✓	Sunset Scav (NorCal)
Berkeley	\$24.00	✓	✓	✓		✓		1	✓		Berkeley Pub. Wks.
Portola Valley	\$23.32	✓		✓	✓	✓	✓\$	\$	✓		Green Waste
Saratoga	\$20.97	✓		✓	✓			1	✓	✓	West Valley Collect.
Cupertino	\$19.83			✓	✓			2	✓		LA Garbage (NorCal)
Los Gatos	\$18.95	✓		✓	✓			1	✓	✓	West Valley Collect.
Seattle	\$17.65	✓	✓		✓	✓\$			✓		Seattle Pub. Util.
Mountain View	\$16.40	✓			✓			3	✓		Foothill Disposal
Menlo Park	\$12.55	✓						2	✓	✓	Allied Waste

* Monthly cost for 32 gallon can residential, cities listed in order of cost

** Palo Alto data does not reflect newest waste contract with GreenWaste to start April 2009.

\$ = extra cost

Proposed Goals

We recommend that the city adopt a set of overarching goals and incorporate these goals into the waste contract RFP. Establishing interim and long-range goals before establishing a new waste contract will be critical in guiding analysis of service requirements and selection of a waste hauler. We recommend:

1. **75% diversion within five years of the start of the new contract and zero waste³ by 2020.** At present, the city's diversion rate (the portion of its waste stream that is diverted from the landfill to be either recycled or composted) is approximately 54% (see Figure 1 above). We believe a goal of 75% is readily attainable as demonstrated in Figure 1. Many nearby communities (see Figure 3) and more than 100 throughout the world have adopted similar goals. Los Altos Hills and Portola Valley currently exceed diversion rates of 75%, largely by maximizing the recovery of organic material.
2. **Reduce per capita waste generated by 5% within five years of the start of the new contract.** Reducing waste at its source is consistent with our city's obligation under the Los Altos General Plan, policy 5.3. This goal offers a specific 1% annual reduction target and is achievable largely through incentive-based garbage pricing and public education.
3. **Reduce toxins in the environment generated from the improper disposal of household hazardous waste and universal waste.** These wastes present significant hazards to human and other species' health. Particularly damaging are heavy metals found in items such as batteries, fluorescent bulbs and thermometers. Achieving this goal requires education and changes in the waste-management services that render proper disposal more convenient.

Figure 3: Waste Diversion Goals Adopted by Bay Area Governments (partial list)

City/County	Percent*	by Year	Zero Waste by
Alameda County	75%	2010	
Berkeley	75%	2010	2020
Oakland	75%	2010	2020
San Francisco	75%	2010	2020
Palo Alto	73%	2011	2021
San Jose	75%	2013	2021

* Percent to be diverted from landfill by given date

Core Strategies

GreenTown identified four core strategies to achieve these goals in the most cost-efficient and effective manner. These strategies have been incorporated into the 10 specific recommendations.

1. **Offer incentives** to motivate residents, businesses and the waste contractor to reduce waste and maximize recycling and composting.
2. **Provide education and outreach.** At two GreenTown public input meetings, education was considered the highest priority. Residents and businesses are eager to improve their waste-disposal practices, but need trusted sources of information to be effective. The city, its contract waste hauler and other partners can share the burden for educating the public.
3. **Expand collection of organic waste – the largest source of landfill waste – as well as household hazardous and universal wastes.** Special attention to these waste sources will be critical to meeting the proposed goals.
4. **Provide service where it is not currently provided,** such as in commercial districts, parks and schools, to take advantage of additional waste-diversion opportunities.

Specific Recommendations

Achieving the proposed goals will require a coordinated set of actions, including vendor and customer incentives, public education and outreach, and changes to our waste-management services. We have

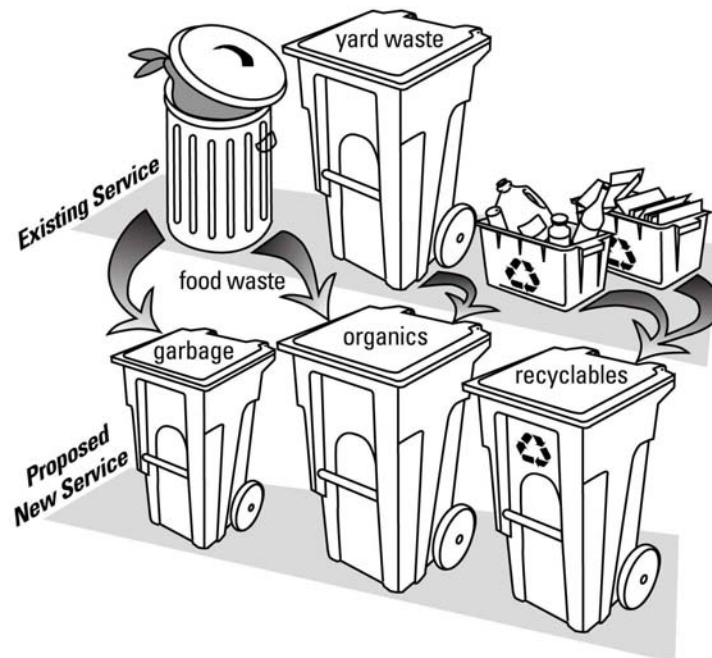
³ Zero waste requires that we maximize our existing recycling and reuse efforts, while ensuring that products are designed for the environment and have the potential to be repaired, reused, or recycled. See zerowaste.ca.gov. *Green Ribbon Citizens Committee Report on Waste Management, 1/13/09*

identified 10 specific recommendations – organized by the sector served: residential, commercial and community-wide -- for the new waste-management contract. We believe these recommendations are key to achieving a 75% diversion rate within five years of the start of the contract, setting the stage for ongoing improvements in diversion, and helping to achieve the other proposed goals.

Residential Service

1. **Weekly residential curbside collection of food wastes and other compostable material (collected in yard waste bin or separated from garbage at the waste-processing facility).** Residential food wastes and other organic materials such as used paper plates represent approximately 43% of landfill waste from homes. Diverting such waste to a composting facility will be essential to meeting a 75% diversion goal and will result in a significant reduction in landfill methane emissions. Most food waste can be collected in the same bin as yard waste as long as it is collected weekly rather than biweekly. We estimate that nearly 60% of residential food waste and other organics would be diverted from the landfill.⁴
2. **Weekly residential curbside collection of recyclables in a standard rolling cart.** Many communities have adopted a single rolling cart similar to our current yard waste bin (see Figure 4) in place of hand-carried recycling bins of the type used in Los Altos. Rolling carts are more convenient for both residents and waste collectors to handle, and they have a neater curbside appearance than overflowing uncovered bins. Carts may be divided into separate halves for paper and other recyclables (as is done in Mountain View and Sunnyvale), or may combine all recyclables in a “single stream” (as is done in Los Altos Hills and Portola Valley), with the materials being sorted at the recycling facility. Increasing the collection frequency from biweekly to weekly increases the amount of recyclables a resident can collect in a cart, reducing the instances where residents must separately bag excess recyclables, which is inconvenient and may adversely affect recycling rates. We estimate that use of such rolling carts, combined with a weekly collection schedule, would increase the diversion of paper, glass, plastics and metal by 15% to 30%.⁴

Figure 4: Improving Convenience of Recycling and Composting



3. **Smaller garbage can options with lower monthly rates.** To further incent residents to reduce waste and use recycling and composting options, we recommend expanding the current volume-based refuse rates to include smaller can sizes that would be priced at a lower rate than standard 32-

⁴ GRCC analysis based on California Integrated Waste Management Board 2004 statewide waste characterization study, 2007 tonnage hauled as provided by Los Altos Garbage Company and the quantitative results experienced by Portola Valley, Los Altos Hills and San Francisco when they changed waste-management practices.

gallon service. Many other communities offer a 20-gallon “mini-can” and others a 12-gallon “mini-mini-can” (see Figure 2). Pricing can be tiered such that smaller can sizes can be subsidized by rates paid for full-size cans. We estimate this feature will result in approximately a 5% to 10% increase in diversion of residential waste from the landfill; potentially more if combined with the other recommendations presented.⁴

4. **Side-yard pick-up optional rather than standard.** Making side-yard pick-up an optional service, involving an additional fee, rather than a standard service for which all Los Altos residents pay would offset costs associated with new services negotiated under a new waste-management contract. More than half of Los Altos residents do not use side-yard pick-up even though it is part of the standard service. This added fee for side-yard pick-up could be waived for certain qualifying residents, such as disabled persons.
5. **Curbside collection of household hazardous wastes and universal wastes.** Residents do not have a convenient means of disposal and often lack sufficient information regarding proper disposal of household hazardous waste and universal waste. Offering curbside collection and periodic local drop-off opportunities for eligible items would increase collection and reduce improper disposal of these dangerous wastes.

Commercial Service

6. **Commercial food waste and compostables collection service.** Food waste and other organic material (such as used paper plates and corrugated cup holders) from restaurants, grocery stores and others, accounts for approximately 30% of the commercial waste now sent to the landfill. We recommend that the new waste contract provide for regular pick-up of commercial food waste and other compostable material.
7. **Standard recycling pick-up for commercial and multi-tenant buildings.** Under the current contract, businesses and multi-family dwellings must request recycling bins if they want them. The new waste contract should provide recycling bins to all commercial businesses and multi-family building owners/managers as well as on-site assistance in setting up a recycling program. Offering incentives for commercial customers to recycle will also increase the effectiveness of these efforts. If implemented, we estimate these changes in service could improve the recovery of recyclable material from commercial and multi-tenant locations by more than 30%.⁴

Community-Wide Service

8. **Public education and outreach program.** The waste-management company should share responsibility for public education and outreach on the types of materials that can be placed in each type of bin as well as on details on collection and proper disposal of household hazardous waste and universal waste. The waste contract should require that the contractor label all bins to specify acceptable items. Waste hauler responsibility for public education and outreach would complement an effort by the city to provide information on proper waste-management practices and waste reduction.
9. **Place bins for collection of recyclables and compostables in public areas and schools.** At present, there is no standard way to dispose of recyclable or compostable items in commercial zones, parks and schools. We recommend that the city introduce receptacles for recoverable wastes at such locations.
10. **Structure waste contract with incentives for landfill diversion.** The new waste contract should contain specific vendor incentives for achieving a 75% diversion goal in the short-term and zero waste over the long term, as some communities, such as Palo Alto, have done. Such incentives can motivate the contract waste hauler to maximize diversion of recyclable and compostable waste from the landfill.

We believe these 10 recommendations will enable Los Altos to meet the current and future state waste-management requirements and provide residents and businesses with a comprehensive program that is easy to understand and implement and is competitive with the offerings in other cities in the region.