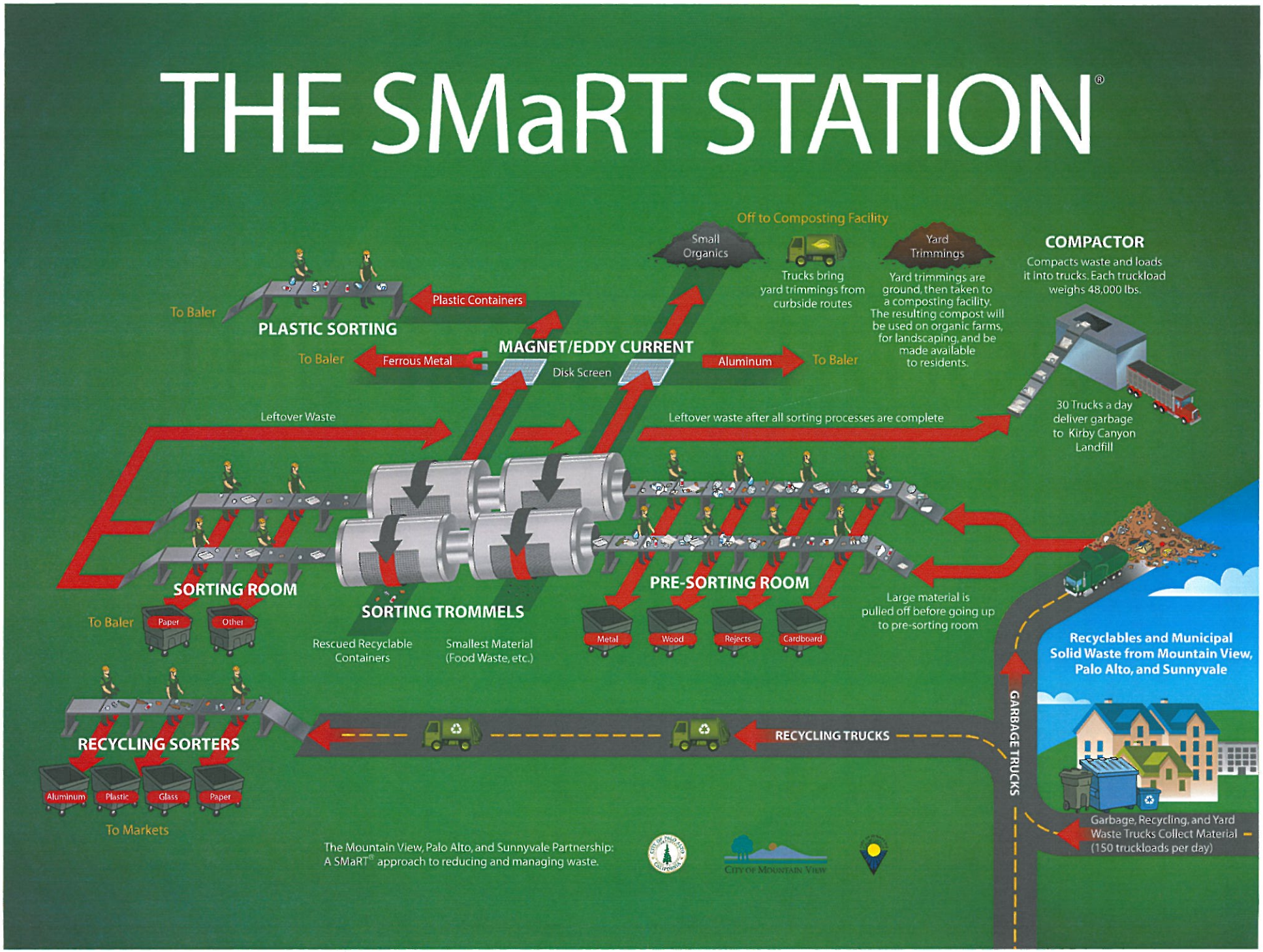
THE SMaRT STATION®



SMaRT Station® Facts Sheet

The cities of Mountain View, Palo Alto, and Sunnyvale partnered to build the SMaRT Station, which began operation in July 1993 and serves a population of 280,000. Owned by the City of Sunnyvale and operated by Bay Counties Waste Services, the station sits on 9 acres of land, employs 122 people and handles about 950 tons of waste per day. The station is permitted to process up to 1500 tons of material per day and new Materials Recovery Equipment installed in Fall 2009 is projected to divert at least 25% of the incoming *garbage* for recycling.

bag-breaker teeth at trommel entrance

Garbage and Recyclables Arriving:

How many truckloads arrive every day from pick-up routes? 150 per day

Who generates the waste? 28% residential, 69% commercial/industrial, 3% self-haul

When did the station's curbside recycling sorting area go into operation? June 2001

Garbage Getting Compacted:

How much garbage can the compactor process in an hour? 100 tons

What are the dimensions of a truckload of compacted garbage? 37 feet long, 7 feet wide

How much does a truckload of compacted garbage weigh? 24 tons

Garbage Leaving:

Where does the compacted garbage go? Kirby Canyon Recycling and Disposal Facility, located in South San Jose and operated by Waste Management

How far is it from the SMaRT Station to Kirby Canyon? 27 miles, one-way

How many truckloads of compacted garbage per day go to Kirby Canyon Landfill? 30

How many transfer trucks are there? 9

How much does it cost to dispose of garbage at Kirby Canyon? $56.44 per ton as of Fall 2009

How many tons per day go to Kirby Canyon? 665 tons

Recyclables:

What are the dimensions of a bale of recycled cans, paper, or plastic? 31" x 45" x 63"

How much does a bale of cans weigh? 1,379 lbs. average

So then how many cans are in a bale of recycled cans? 41,094!!

The Department of Conservation reports there are about 29.8 cans per pound. At 1,379 lbs each, these three bales contain over 123,000 cans!

About the SMaRT Building:

The building is 116,000 square feet, consisting of 50,000 square feel for the Tipping Floor area, 50,000 square feet for the Materials Recovery Facility and Recycling areas, 10,000 square feet for the wood and yard trimmings processing area, and 6,000 square feet for the office. Many green building elements went into the construction of the facility, including E-Coat interior and exterior paint, recycled PET carpet, recycled tire carpet, recycled bathroom partitions, and recycled tile in the bathrooms. Recycled plastic was also used to produce the tables, benches, and bollards around the exterior. Recycled aggregate secondary road base was used, along with recycled steel beams and reused office partitions. The station also uses reclaimed water for landscape irrigation and toilets.

Appendix B

White Paper – Non Franchised Haulers

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Background and Recommendation on Recycling Franchise Fees

In response to the City's budget challenges, Department of Public Works made a suggestion to increase General Fund revenue by charging a franchise fee on recycling collectors who charge for their services. This suggestion was later included in the FY 2009/10 budget adopted by Council. This white paper was written to provide background on the franchise fee issue as well as provide information on new commercial recycling reporting requirements from AB 32, the Global Warming Solutions Act of 2006.

Background:
Since about 1990, the City of Sunnyvale has provided little regulation of companies that provide large-scale recycling collection services that charge a fee. This policy direction was a response to the City's landfill capacity crisis of the late 1980s and early 1990s when there was a lack of local recycling processing infrastructure. Because of the dwindling landfill capacity, the City has allowed "mixed recyclables" generated by large industrial and commercial customers to be hauled off by recyclers. This material is typically comprised of essentially anything the waste generator discards in their debris box, compactor or dumpster. Some of the recyclers limit their collection to source separated recyclables while others collect mixed recyclables and haul the non-recyclable material to landfills for disposal. Because the City has a franchise agreement for garbage collection, these non-franchised haulers are essentially in competition with the City and its franchised hauler.

California law allows the City to control collection of recyclables for which the waste collector charges a fee to its customer (Rancho Mirage Supreme Court decision)[1], but up to this point, Sunnyvale has chosen not to use this power and instead draws the line between "solid waste" and "recyclable materials." This line is difficult to define and enforce in the field as it requires bin-by-bin analysis to determine whether the material in the bin is "recyclable" or not. In addition, with the City now owning its own materials recovery facility at the SMaRT Station, the material sorted at the SMaRT Station looks no different than the "recyclables" hauled by non-franchised collectors so the issue of not having the infrastructure to handle the material no longer exists.

Furthermore, the lack of regulation has led to a situation where the City has little information on quantities recycled and virtually no ability to enforce on these haulers the same sorts of contract service standards that apply to Specialty Solid Waste and Recycling (Specialty), the franchised refuse hauler including safety standards, appearance of vehicles, customer service standards, hours of operation, and payment of a franchise fee to the City.

To add another twist to the issue, new legislation passed in 2006 requiring reductions in greenhouse gas emissions have lead to the possible adoption of a Mandatory Commercial Recycling measure that will likely require the City to expand the recycling program and begin collecting recycling data. The current unregulated system provides the City with no information on who the haulers are or the amounts and disposition of material collected. Proposed to take effect January 1, 2012, mandatory commercial recycling is expected to result in annual reduction equivalents of at least 5 million metric tons of carbon dioxide.

[1] Waste Management of the Desert, Inc., et al. v. Palm Springs Recycling Center. (1994) 7 Cal.4th 478

Staff explored ways to generate franchise fee revenues from collection activity in response to the budget shortfall as well as to simultaneously meet the new reporting requirements.

Discussion:
While other cities take varied approaches to solid waste and recycling collection, two primary systems are in use, although they vary considerably in how they are applied and administered.

Option 1 –Franchise Boundaries Extend to "Rancho Mirage" Limits
Option 1 would be to only permit collection of source-separated recyclables that are being purchased or that are being collected at no charge (thus enforcing the limits allowed by the Rancho Mirage Supreme Court decision). In addition, require the hauler to obtain a non-exclusive franchise from the City and report on tons collected. All other garbage and recycling collection activity would be reserved for the franchised hauler, working under City direction to ensure that wastes are properly disposed and/or recycled and that service standards are enforced. Because it only has to deal with one company, this approach would give the City unlimited discretion in setting the amount of the franchise fee. Collection of the fee would be easy, since it is simply deducted from the City's monthly payments to the franchised hauler. Both of the SMaRT Station partner cities, Mountain View and Palo Alto take this approach to enforcing their franchise boundaries.

By moving more of the material currently being collected by unfranchised haulers to the publicly-owned SMaRT Station, it could increase the amount of material actually recycled while making transparent the methods and results. If 80% of the material currently being hauled by others returns to SMaRT, the $3.75 host fee charge per ton could amount to $48,000 to the City's General Fund. Furthermore, by channeling material and data through the SMaRT Station, Option 1 will assist the City in complying with the anticipated AB 32 requirements for reports on commercial recycling in the context of climate change.

Option 2 – Multiple, Non-exclusive Franchises
The second option would be to require the recycling haulers to enter into a non-exclusive franchise agreement with the City and pay the City a franchise fee that is a percent of company revenues (Specialty pays a franchise fee that is 10% of their revenue). It would require Council approval of an ordinance, which adds non-exclusive recycling franchises and a franchise fee to the Municipal Code. Requirements would include service standards as well as audit and open book inspections. This approach is used, among others, by Santa Clara and San Jose.

Annual revenues are very difficult to estimate, however, because the current unregulated system provides the City with no information on the amounts of material collected or charges billed to Sunnyvale waste generators by the various haulers. Based on a typical Bay Area fee of 10% of company revenues, the General Fund could realize an additional $40,000 annually, although the estimated .5 FT equivalent in staff time to administer could offset the revenue.

Staff anticipates that, to the extent the recycling haulers must increase their prices to recover the franchise fee, some customer accounts may move back into the solid waste collection system. Because they would go to the SMaRT Station for sorting and recycling, these materials would see a similar outcome as if they were collected by a recycler. Some additional revenue generation is an expected outcome because, as noted above, as the General Fund receives $3.75 per ton from the host fee charged there.

Conclusion

To the extent that the various franchisees accurately tracked and reported recycling data, Option 2 would be an improvement on the current system with regard to AB 32 reporting on commercial recycling. Option 1 would, however, provide more complete, easily accessed data than Option 2. Taking these actions would increase General Fund revenues, put downward pressure on refuse collection rates for existing customers and assure that community standards for operating hours, truck/container appearance, wages and other standards can be effectively enforced. A measure to maximize AB 32's environmental benefits by expanding commercial recycling requirements to include food waste is currently being reviewed. The City will be better poised to meet future, as yet undetermined, reporting requirements with these proposed changes, as well as contribute to the General Fund.

Appendix C

Additional Diversion Analysis

- Source Separation Programs
- SMaRT Station Mixed Waste Processing

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Appendix C

Additional Diversion Potential Analysis
(Source Separation Programs)

	Single Family				Multi-Family				Commercial				TOTAL Source Separated Programs			
Existing Programs	Tons		Additional Diversion Potential	Current Capture Rate	Tons		Additional Diversion Potential	Current Capture Rate	Tons		Additional Diversion Potential	Current Capture Rate	TOTAL Tons		Additional Diversion Potential	Current Capture Rate
	Diverted	Available			Diverted	Available			Diverted	Available			Diverted	Available		
Multi-Material Recycling Program	6,965	4,059	1.6%	63%	1,359	2,980	1.2%	31%		3,400	1.3%		8,324	10,439	4.0%	44%
Yard Waste Program	14,683	798	0.3%	95%		2,049	0.8%			3,040	1.2%		14,683	5,887	2.3%	71%
Commercial Cardboard									2,525	899	0.3%	74%	2,525	899	0.3%	74%
Commercial White Office Paper									154	606	0.2%	20%	154	606	0.2%	20%
Total Potential Additional Tons	**21,648**	**4,857**	1.9%	**82%**	**1,359**	**5,029**	1.9%	**21%**	**2,679**	**7,946**	3.1%	**25%**	**25,686**	**17,832**	6.9%	**59%**
Increase Diversion through Existing Programs		Tons	Additional Diversion			Tons	Additional Diversion			Tons	Additional Diversion			Tons	Additional Diversion	
Dual-Stream Recycling Program		**2,030**	**0.8%**	**50%**		**1,490**	**0.6%**	**50%**						**3,520**	**1.4%**	**50%**
Yard Waste Program		**399**	**0.2%**	**50%**										**399**	**0.2%**	**50%**
Commercial Cardboard										**450**	**0.2%**	**50%**		**450**	**0.2%**	**50%**
Commercial White Office Paper										**303**	**0.1%**	**50%**		**303**	**0.1%**	**50%**
Total Projected Additional Diversion		**2,428**	**0.9%**	**50%**		**1,490**	**0.6%**	**50%**		**753**	**0.3%**	**50%**		**4,671**	**1.8%**	**50%**
Implement New Programs		Tons	Additional Diversion			Tons	Additional Diversion			Tons	Additional Diversion			Tons	Additional Diversion	
Commercial Multi-Material Recycling Program										**1,658**	**0.6%**	**50%**		**1,658**	**0.6%**	**50%**
Multi-Family & Commerical Yard Waste						**1,025**	**0.4%**	**50%**		**1,520**	**0.6%**	**50%**		**2,545**	**1.0%**	**50%**
Total Projected Additional Diversion						**1,025**	**0.4%**	**50%**		**3,178**	**1.2%**	**50%**		**4,202**	**1.6%**	**50%**
Add New Materials to Existing / New Programs		Tons	Additional Diversion			Tons	Additional Diversion			Tons	Additional Diversion			Tons	Additional Diversion	
Misceallaneous Plastics		431	0.2%	50%		331	0.1%	50%		643	0.2%	50%		1,405	0.5%	50%
Miscellaneous Metals		222	0.1%	50%		20	0.0%	50%		422	0.2%	50%		663	0.3%	50%
Textiles		311	0.1%	50%		163	0.1%	50%		236	0.1%	50%		710	0.3%	50%
Total Projected Additional Diversion		**964**	**0.4%**	**50%**		**514**	**0.2%**	**50%**		**1,301**	**0.5%**	**50%**		**2,779**	**1.1%**	**50%**
Implement Mixed Organics Programs		Tons	Additional Diversion			Tons	Additional Diversion			Tons	Additional Diversion			Tons	Additional Diversion	
Food Waste		3,814	1.5%	50%						3,457	1.3%	50%		7,271	2.8%	50%
Compostable Paper		750	0.3%	50%						1,316	0.5%	50%		2,066	0.8%	50%
Total Projected Additional Diversion		**4,565**	**1.8%**	**50%**						**4,773**	**1.8%**	**50%**		**9,338**	**3.6%**	**50%**