



TDD/TTY 408-730-7501
sunnyvale.ca.gov

Office of the City Manager

456 W. Olive Ave.
Sunnyvale, CA 94086
408-730-7480

October 9, 2018

Ms. Amy Chan, Interim City Manager
City of Cupertino
10300 Torre Avenue
Cupertino CA 95014

Subject: Use of Sunnyvale's SMaRT Station Services by Cupertino – **Status Update**

Dear Ms. Chan:

This is to update you on the status of our joint exploration of Cupertino's future use of the Sunnyvale Materials Recovery and Transfer Station (SMaRT Station®) for processing of recyclables, organic materials and garbage. Sunnyvale is engaged in a process to determine how to adapt the facility to meet the material processing and diversion needs of future facility partners.

As a publicly-owned facility, SMaRT provides several benefits to its public agency partners.

- Transparent fiscal and operational management that keeps participants "in the know," with decision making that is focused on policy goals and stable customer rates, not generating profits.
- Proximity that makes refuse collection more efficient, minimizing transport costs and climate changing emissions as compared to more distant facilities.
- Guaranteed long-term capacity to meet material processing needs.
- Processing to address pending SB 1383 organics requirements, with tailoring to meet participant needs.
- A great regional option for free, full service resident drop-off for a wide range of recyclable materials and pick up of compost.

Mark Bowers, Solid Waste Programs Division Manager in our Environmental Services Department met on March 21st with Public Works Director, Timm Bordon, Assistant Public Works Director, Roger Lee and Environmental Programs Manager, Cheri Donnelly of Cupertino. Mr. Lee and Ms. Donnelly subsequently met with Mr. Bowers at the SMaRT Station. We also appreciate the expression of interest from members of the Cupertino City Council, and of the City's Sustainability Commission, which has toured the facility.

Sunnyvale is conducting initial conceptual planning for the future facility, identifying tonnage ranges and planning level costs for several options. One option assumes Sunnyvale alone utilizes and operates the facility, upgrading the facility as necessary to meet its own needs. Other options will incorporate participation by interested cities including Cupertino. Once the results are available in December 2018, we will share them with Cupertino, and with the other cities.

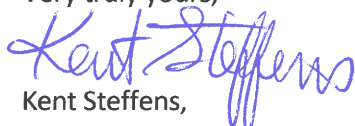
We look forward to sharing the results of the initial planning process with you. If these results indicate, as we think they will, that the SMaRT Station continues to be an attractive option for Cupertino, subsequent steps will be as follows.

1. A Cupertino Council resolution in early 2019 endorsing Cupertino's participation in discussions with staff from Sunnyvale and other interested jurisdictions of the scenarios arising from the conceptual planning described above. While non-binding, our expectation is that the resolution will reflect serious interest in exploring future use of the facility, with a commitment to provide a moderate level of effort by city staff.
2. A Council resolution of intent to enter into an MOU with Sunnyvale based on Sunnyvale's ability to meet defined service and tonnage capacity guarantees. We currently anticipate this occurring in the latter half of 2019.
3. Execution of a binding MOU between Cupertino and Sunnyvale. We currently anticipate this occurring in the third quarter of 2020. We believe this timing will work well, based on our understanding of the timing necessary to meet Cupertino's facility needs as discussed above.

The attached schedule indicates our general understanding of timing issues related to Cupertino's future facility needs, with the assumption that Cupertino would seek to have future collection and source separated processing arrangements in place by the fourth quarter of 2020, one year prior to when the source separated processing arrangements would become effective. The SMaRT Station will be ready to accept Cupertino materials other than MSW in early 2022, and MSW in early 2024. However, Sunnyvale is flexible about timing for initial delivery of each stream.

This letter is intended to be an update on the process and to communicate directly with you on this critical project. I look forward to discussing this opportunity with you if you have any questions for me. You can contact Mark Bowers at (408) 730-7421 or MBowers@sunnyvale.ca.gov if you have any specific questions regarding the process.

Very truly yours,



Kent Steffens,
City Manager

Cc:

Timm Bordon, Director of Public Works, City of Cupertino
Roger Lee, Assistant Director of Public Works, City of Cupertino
Cheri Donnelly, Environmental Programs Manager, City of Cupertino
Ramana Chinnakotla, Director, Environmental Services Department, City of Sunnyvale
Mark Bowers, Solid Waste Programs Division Manager, City of Sunnyvale

Enclosures:

Letter of February 14th to City of Cupertino
SMaRT Station Brochure

FY 16-17 Annual Report
Milestone Schedule



February 14, 2018

Mr. Timm Borden
Director of Public Works
City of Cupertino
10300 Torre Ave.
Cupertino, CA 95014-3202

SMaRT Station
301 Carl Road
Sunnyvale, CA 94088-3707
TDD/TYY 408-730-7501
sunnyvale.ca.gov

Re: Invitation to Explore Future Use of the SMaRT Station

Dear Mr. Borden:

The City of Sunnyvale owns and oversees contract operation of the Sunnyvale Materials Recovery and Transfer Station (SMaRT Station®), located at 301 Carl Road in Sunnyvale. The SMaRT Station has served the communities of Sunnyvale, Mountain View and Palo Alto since it began operating in 1993 by providing recyclables, organics and solid waste processing and transfer services. The facility has been renovated over time to meet materials recovery and diversion goals, including installation of a \$16 million processing equipment system in 2009, with further updates in 2015. A copy of the SMaRT Station brochure is attached for reference.

The City is beginning a long-term planning process to determine how the facility should further change to meet new recycling and solid waste diversion challenges and fill municipal material processing needs. We are seeking additional partners to join us beginning in 2021.

We invite the City of Cupertino to consider this unique opportunity to explore the benefits of participating as a SMaRT Station partner. Among the benefits are:

1. Transparent fiscal and operational management.
2. A "seat at the table" for facility oversight.
3. Assured compliance with state regulatory diversion mandates, including SB 1383 organics requirements.
4. Proven experience in meeting the challenges of recyclables export markets.
5. Participation in selecting the contract operator.
6. Guaranteed long-term capacity to meet your processing and residue disposal needs.

Current SMaRT Station services to its partner cities include:

- Receipt of garbage collected within the SMaRT cities.
- Recovery of recyclable materials and compostable organics from the garbage, with an MSW diversion rate of over 30%.

- Source-separated curbside recyclables prepared for shipment and sale to recycling markets. (The SMaRT Station successfully sold material through the 2007-2009 downturn and the 2013 Chinese "Green Fence" era, and is poised to meet the requirements of China's "National Sword" program.)
- Processing yard trimmings and shipping them to a compost facility.
- No-charge distribution to residents of finished compost.
- Providing SMaRT City residents and businesses with an attractive, paved facility for self-hauled waste and recyclables.
- Drop-off of Universal Wastes, paint, hypodermic needles and other "sharps."
- A popular beverage container redemption center.
- Confidential document shredding events for residents.
- Receiving and processing for commercial and residential source-separated food scraps and shipment to a contracted food waste processor, who produces a pelleted animal food product.

The City has retained HDR Engineering and HF&H Consultants, LLC to assist in the planning process described above. Consultant staff will be contacting you to arrange an initial meeting to discuss how the SMaRT Station might meet your future waste diversion and recycling needs. If you have any questions in the meantime, please feel free to contact me at 408-730-7421 or mbowers@sunnyvale.ca.gov.

Very truly yours,



Mark A. Bowers,
Solid Waste Programs Division Manager
Environmental Services Department

Cc:

Mr. Roger Lee
Assistant Director of Public Works
City of Cupertino
10300 Torre Ave.
Cupertino, CA 95014-3202

Ms. Cheri Donnelly
Environmental Programs Manager
City of Cupertino
10300 Torre Ave.
Cupertino, CA 95014-3202

Enclosure: SMaRT Station Brochure

Services Provided for Partner Cities at SMaRT

- Drop-off site for non-hazardous garbage for the cities' franchised garbage haulers and residents.
- Process and market curbside recyclable materials delivered by the cities.
- Sort, recover and sell marketable materials from the garbage delivered.
- Transfer nonrecyclable portions of garbage to Kirby Canyon Landfill.

Additional Services for the Public and Partner Cities

Recycling Drop-off Center

Residents and businesses of any community may drop off the following materials for recycling at no cost.

- Aluminum cans, foil and food containers
- Tin, steel, metal food and beverage containers
- Corrugated cardboard
- Glass bottles and jars
- Newspapers
- Mixed paper including "junk mail"
- Plastic containers #1 through #7
- Scrap metal - including metal pots and pans, small metal appliances

Beverage Container Redemption Center

Consumers can redeem and receive cash for beverage containers labeled with "California Refund Value" (CRV) or "CA Cash Refund."



E-Waste, Universal Waste, Special Products Recycling

The SMaRT Station provides a location for residents of Mountain View, Palo Alto and Sunnyvale to drop off wastes that are prohibited from being disposed in the garbage and require special handling.

- Alkaline and other household batteries
- Rechargeable batteries
- Fluorescent light bulbs and tubes
- Mercury thermometers/thermostats
- TVs, computer monitors, and electronics
- Automotive batteries
- Used motor oil and oil filters
- Antifreeze

"Sharps" Recycling

Residents of Santa Clara County may drop off the following items at the Recycling Drop-off Center. They must be placed in a specially marked red biohazard container, with a secure lid, before being placed in the bin.

- Needles
- Syringes
- Lancets

It is a violation of state law for a resident or business to place sharps in garbage or recycling containers. Improper disposal of sharps can create dangers for workers on collection routes, for sorters at the SMaRT Station and employees at landfill.

Compost and Mulch Pick-up Site

Yard trimmings collected at curbside are turned into mulch and available for pick up by residents of Mountain View, Palo Alto and Sunnyvale at no cost.

Finished compost may be available to residents of the partner cities at no cost.



A partnership of the cities of Mountain View, Palo Alto and Sunnyvale operated by Bay Counties Waste Services.



The SMaRT Station®
301 Carl Road
Sunnyvale, CA 94089

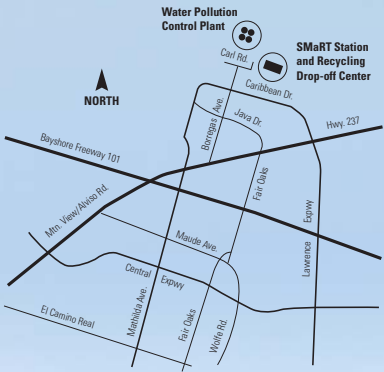
For more information
call 408.752.8530

Printed on recycled paper
09/2009

Hours of Operation

Open to public from
8 a.m. – 5 p.m.
7 days a week

Closed Thanksgiving Day,
December 25 and January 1.



Welcome to the
SMaRT Station®

The Sunnyvale
Materials Recovery
and Transfer Station –
a SMaRT® approach
to reducing waste,
reusing materials,
and protecting the
environment.



Serving the communities of

- Palo Alto
- Mountain View
- Sunnyvale

The SMaRT Station

Serving the Community in Resource Recovery

Created through a partnership between the cities of Mountain View, Palo Alto and Sunnyvale, the Sunnyvale Materials Recovery and Transfer (SMaRT) Station is one of the largest and most efficient materials recovery facilities (MRF) in the United States, with capacity to process 1,500 tons of solid waste per day. Since it began operation in October 1993, the SMaRT Station has diverted more than 514,000 tons of recyclable material that would have otherwise ended up in the landfill.

Recovered materials from the SMaRT Station are sold to local and international markets to be converted into a variety of recycled goods and materials. The revenue produced returns to the partner cities and helps offset the cost of providing the service.

Today, the SMaRT Station stands at the forefront of sustainable waste management efforts. Its operating efficiency has attracted the attention of officials from as far away as Italy, India, South Africa and China. In 2009, the installation of new, state-of-the-art materials recovery technology allows for even greater waste diversion - providing safe, environmentally sound, and cost-effective waste management and recycling services for more than a quarter of a million residents. Now that's *SMaRT*.



SMaRT Design for Today and Tomorrow

The SMaRT Station itself features sustainable elements and is designed to serve the community for the next several decades.

- The 110,000 square foot facility on 10 acres serves a combined population of 280,000 from the cities of Mountain View, Palo Alto and Sunnyvale.
- The buildings are framed with a high percentage of recycled steel.
- In the main building, recycled content plastic was used for the partitions in locker rooms and restrooms and the floor tile is made from recycled glass and scrap tile.
- Carpets are made from recycled plastic bottles.
- Recycled water from the adjacent Sunnyvale Water Pollution Control Plant is used to flush toilets and water the landscaping.

Recycling... *with* Results

Since opening in 1993, the SMaRT Station has processed **3.4 million tons** of material and generated revenue from the sale of recyclable material.

As of 09/2009 figures



The SMaRT Station helps protect the environment by taking reusable material out of the garbage

While the SMaRT Station is located near the site of the closed Sunnyvale landfill, it is NOT a landfill. It is a sorting and transfer station. All material that arrives here will leave again. In fact, its purpose is to prevent valuable resources from ending up in the landfill – and to provide services that encourage conservation, waste reduction and recycling.

Curbside Recycling

At the SMaRT Station, processing recyclables prevents waste from ending up at the landfill. Every bottle, can, jar, piece of cardboard, junk mail or newspaper that residents of the partner cities keep out of their garbage and set out for curbside recycling reduces the amount of trash that ends up at the landfill. The recyclable materials that are collected curbside from the partner cities are received and prepared to ship to market.

Yard Trimming Recycling

Yard trimmings often make up 20-30% of a typical household's weekly trash. Recycling yard clippings significantly decreases the volume of garbage. Yard clippings are processed at the SMaRT Station and shipped to a composting facility.

Materials Recovery from Garbage

Recyclable material is also pulled from garbage brought to the SMaRT Station (see *Inside the Materials Recovery Process*).

By serving both the community and the environment, the SMaRT Station plays a critical role in meeting state waste diversion mandates while laying the groundwork for a more sustainable future.

Inside the Materials Recovery Process

The SMaRT Station is able to divert up to 25% of all garbage received from Mountain View, Palo Alto and Sunnyvale. Here's how:

Garbage Pre-sort

1

Each day, hundreds of incoming loads of garbage are dumped onto the tipping floor. Heavy materials are removed and the rest of the waste stream is conveyed up to an enclosed pre-sort room.



2

During the pre-sort, the waste stream is visually scanned by workers who remove bulky items, and drop them into chutes for recycling.



3

After the pre-sort the remaining waste is fed into a set of trommels – 70 foot long rotating drums containing screens to separate objects of different sizes. The trommels are equipped with knives to break open bags so materials can be separated.



Trommel Separation

4

The first set of screens separates "fines" through 2-inch holes. These fines pass under a magnet that captures ferrous materials and are transported by a series of conveyors into storage containers located outside the building. The fines, which are rich in organic material, are transported to an off-site facility for composting.



5

A second set of screens separates material between 2 and 9 inches. This material is conveyed to the primary disc screen (480 discs on 30 rotating shafts) to separate materials smaller than 5 inches (i.e. cans) from flat materials (i.e. paper and cardboard). Smaller materials drop down to magnets that pull steel cans and ferrous metals. Eddy-current separators repel and remove the aluminum cans.



Post-sort

6

The larger material that does not pass through the trommel screen holes, called "overs" (materials over 9 inches such as wood, corrugated cardboard and mixed paper), is fed to conveyors where recyclables are manually removed by sorters.



TO LANDFILL

Residue materials that are not recovered for recycling are moved by a 450-foot conveyor to be loaded onto a tractor-trailer transfer truck, compacted into a 23-ton bale, and delivered to the Kirby Canyon Landfill, 27 miles southeast of Sunnyvale. In a typical weekday, 30-40 loads are transferred to the landfill.



TO MARKET



Curbside recycling and yard trimmings are processed on different conveyors not shown

SMaRT FACTS

Economy of Scale

Approximately \$25 million were initially invested by the cities of Mountain View, Palo Alto and Sunnyvale to develop and construct the SMaRT Station. An innovative partnership between the three cities provides each with a long-term solution for solid waste management at a significantly lower cost than it would for the cities to run comparable individual programs.

Collaborative Management

The SMaRT Station has been operated by Bay Counties Waste Services since January 1, 2008. The owner of the facility, the City of Sunnyvale, provides an on-site liaison with the contract operator. Cities contribute to the operational budget in proportion to the amount of refuse each city delivers and receive revenues from the sale of recyclables to offset their costs.

Alternatives to Local Landfills

For Mountain View and Sunnyvale, the SMaRT Station and the disposal contract with Kirby Canyon Landfill completely replace city-owned landfills that are now closed. Palo Alto will continue to operate and dispose of a small amount of waste at their landfill until 2010-2011.

Helps Meet State Law

In conjunction with the curbside and commercial recycling programs, the SMaRT Station is a key element for all three cities in meeting and exceeding the waste diversion mandates of the California Integrated Waste Management Board.

SMaRT Station® Annual Report 2016-2017

SMaRT Partners — Mountain View, Palo Alto and Sunnyvale



Cities Plan Future Facility and Services Needs

As the SMaRT Station approaches its 30th anniversary in 2023, the initial “memorandum of understanding” (MOU) that describes the roles of the three Participating Agencies will expire in 2021. The Sunnyvale City Council moved ahead with a recommendation by SMaRT Cities staff to select HDR Engineering to plan strategic updates for the facility.

The project will:

- Determine which of the Participating Agencies wish to continue/renew the MOU relationship after 2021 and evaluate the potential for new partners
- Define a collective vision among the cities as to the facilities and services the SMaRT Station should provide to further their strategic goals
- Describe methods by which costs and revenues can be shared among participants

After the cities reach tentative agreement on the updated partnership and the collective vision, the vision will guide the design of a new MOU and new physical and operational features of the SMaRT Station.

There are many reasons for city interest in SMaRT Station participation, including using the SMaRT Station’s innovative sorting capabilities to increase solid waste diversion, complying with new state mandates imposed on cities (AB 341, AB 1826 and AB 1383), providing a convenient public recycling and dumping location, and providing a location to dispose of Universal Waste Items (i.e., electronics, paint, batteries, auto fluids, fluorescent tubes, etc.).

The outcome will be a renewed or revised municipal participant group and an updated SMaRT Station that provides facilities and services that meet the needs articulated by the participating cities.



Mike Sartor
Public Works Director
City of Palo Alto



Michael A. Fuller
Public Works Director
City of Mountain View



Sunnyvale

Melody Tovar
Interim Environmental Services Director
City of Sunnyvale

Costs, Revenues and Diversion 2016-2017

Financial Summary of Costs and Revenues

	Mtn. View	Palo Alto	Sunnyvale	Totals
Population by City	78,396	68,134	148,948	295,478
Cost Sharing Percentage	31%	15%	54%	
COSTS (in thousands)				
Operating costs	\$4,485	\$2,220	\$7,978	\$14,683
Landfill Fees and Taxes	\$2,438	\$1,916	\$5,292	\$9,646
Yardwaste Recycling costs	\$86	\$16	\$179	\$281
Capital Replacement Fund	\$59	\$54	\$140	\$253
Host Fees to General Fund	\$245	\$121	\$423	\$789
Total Costs	\$7,313	\$4,327	\$14,012	\$25,652
REVENUES (in thousands)				
MRF Recovered Recycling Revenues*	-\$65	-\$32	-\$116	-\$213
Source Separated Recycling Revenues	\$444	\$0	\$548	\$992
Public Haul Fees collected	\$327	\$162	\$582	\$1,071
Total Revenues	\$706	\$130	\$1,014	\$1,850
NET COSTS (in thousands)	\$6,607	\$4,197	\$12,998	\$23,802

*MRF recovered recycling revenues are negative representing a net "cost" to recycle

SMaRT Station Diversion Summary

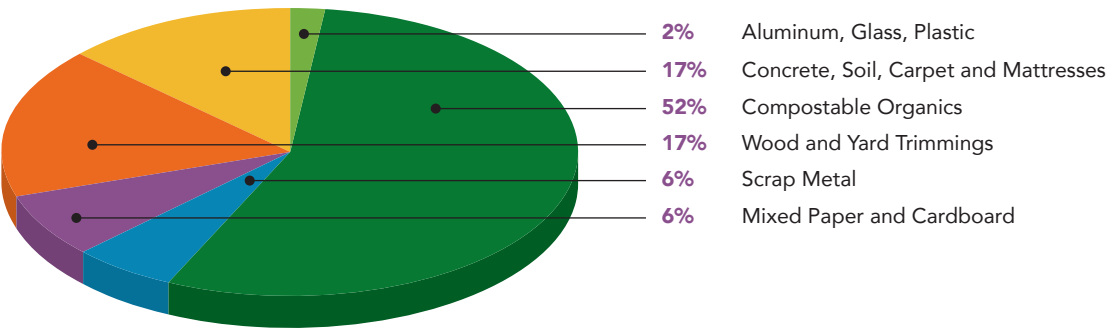
(in tons)	Mtn. View	Palo Alto	Sunnyvale	Totals
City Population	78,396	68,134	148,948	295,478
MSW** delivered to SMaRT Station	55,217	27,347	98,262	180,826
MSW Public haul	2,539	2,114	15,158	19,811
Total MSW Delivered to SMaRT	57,756	29,461	113,420	200,637
MSW disposed at Kirby Canyon landfill	42,529	21,073	75,632	139,234
MSW disposed at other landfills	7,020	20,522	22,286	49,858
Total MSW disposed	49,549	41,625	97,918	189,092
MSW material diverted from the landfill at the SMaRT Station	15,227	8,388	37,788	61,403
Yard trimmings brought to SMaRT Station	7,106	1,319	14,677	23,102
Recyclables brought to SMaRT Station	10,706	0	13,082	23,788
Total Delivered	75,568	30,780	141,179	247,527
Total amount of material delivered to the SMaRT Station and diverted from the landfill	33,039	9,707	65,547	108,293

**MSW = Municipal Solid Waste

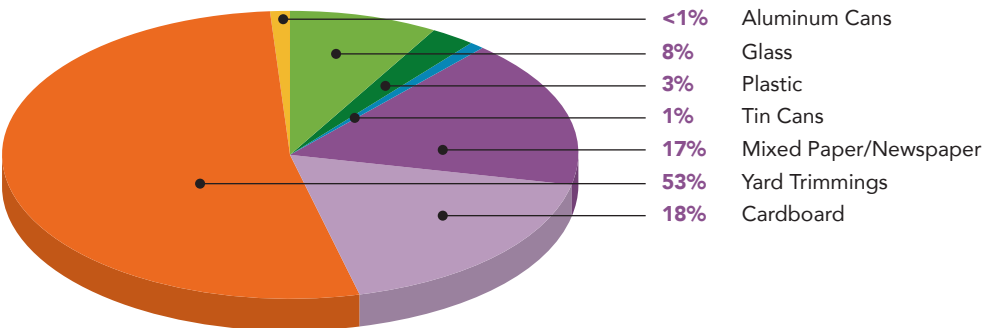
Marketing Success

Percentages shown on these charts for diverted and marketed materials reflect material weight.

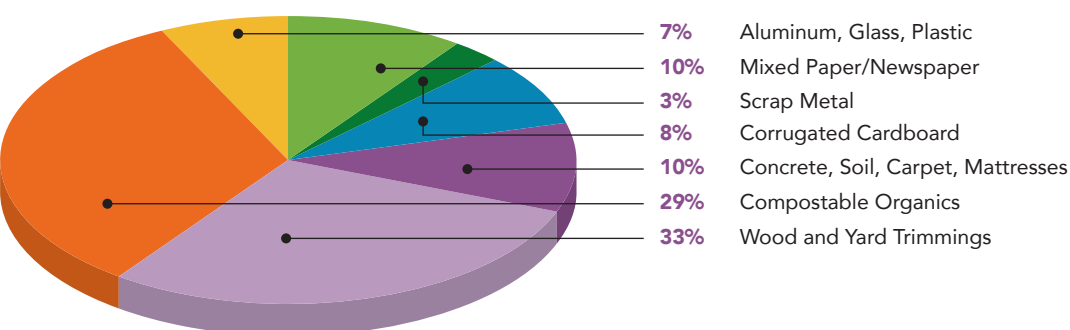
Materials Diverted from MSW



Materials Marketed from Curbside Collection



SMaRT Station All Materials Marketed



Partners in Leadership 2016-2017

CITY OF SUNNYVALE

Mayor Glenn Hendricks
Vice Mayor Larry Klein
Councilmember Gustav Larsson
Councilmember Jim Griffith
Councilmember Russ Melton
Councilmember Nancy Smith
Councilmember Michael Goldman

City Manager Deanna J. Santana

CITY OF PALO ALTO

Mayor Patrick Burt
Vice Mayor Gregory Scharff
Councilmember Marc Berman
Councilmember Tom DuBois
Councilmember Eric Filseth
Councilmember Karen Holman
Councilmember Liz Kniss
Councilmember Greg Schmid
Councilmember Cory Wolbach

City Manager James Keene

CITY OF MOUNTAIN VIEW

Mayor Patricia Showalter
Vice Mayor Ken Rosenberg
Councilmember Chris Clark
Councilmember John Inks
Councilmember Mike Kasperzak
Councilmember John McAlister
Councilmember Lenny Siegel

City Manager Dan Rich

SMaRT Station Highlights

4.2 Million Cartons Recovered for Recycling

Since the addition of new sorting equipment in 2015, the SMaRT station has recovered and marketed an estimated 4.2 million aseptic and gable top containers, also known as “Cartons.” Shelf-stable and refrigerated cartons for products such as juice, milk, soy milk, egg substitutes, soup, broth and wine are found on the shelves and refrigerated section in grocery stores.

Cartons are recycled in one of two possible ways. At specialized paper mills, the fiber is extracted and separated in a machine called a hydropulper, which resembles a giant kitchen blender. The pulp that comes out is used to make paper products. Cartons go on to create everyday products such as paper towels, tissues, toilet paper and office and other writing paper. Another type of recycler uses whole cartons to make environmentally friendly building materials such as interior wall boards, roof cover board, ceiling tiles, exterior sheathing and floor underlayment.



Stormwater System Redesign

In 2014 the SMaRT partner cities commissioned a study to evaluate the feasibility of structural improvements to the stormwater management system for the SMaRT Station. This study was commissioned in anticipation of upcoming revisions to the State Water Resources Control Board (SWRCB) General Industrial Stormwater Permit effective July, 2015. The study recommended improvements that generally include segregation of runoff containing higher concentrations of pollutants of concern from the facility's industrial areas for diversion to the City's Water Pollution Control Plant for treatment. Runoff from non-industrial areas and building roofs will continue to be diverted directly to the existing stormwater outfalls. The system design has been finalized and construction is expected to begin in 2018.

China Imposes Restrictions on Low Quality Recyclables

In March 2017, China enacted a “National Sword” initiative which imposed severe restrictions on the import of recyclable materials. More recently, China announced its plan to essentially ban the import of 24 varieties of solid waste and recyclables, including mixed paper and plastics, beginning in March 2018. The action was based on Beijing's perception that recyclables shipped from North America and Europe look more like garbage than recyclables. For the remaining approved imports, extremely strict quality guidelines require less than 0.5 percent contamination, while previous guidelines allowed up to 2 percent, the industry standard.

The SMaRT Station operator, Bay Counties Waste Services, responded quickly by adding staff to the processing lines used to sort mixed paper collected by the dual-stream recycling programs serving Mountain View and Sunnyvale (Palo Alto has its single-stream recyclables processed elsewhere). As of June 2017, the operator had reduced contamination to roughly 1% and loads are being directed to other non-Chinese markets.

The Chinese limits on recycled materials is a serious issue that threatens to leave recyclers throughout North America and Europe without a “home” for recycled paper and plastics. While additional sorting at the SMaRT Station can help improve the quality of paper sent to market, residents and businesses are urged to recycle only the items listed on acceptable materials lists, so that recyclables can continue to make their way back into the economy as industrial raw materials.



A partnership of the cities of Mountain View, Palo Alto and Sunnyvale
Operated by Bay Counties Waste Services

City of Sunnyvale - SMaRT Station Repurposing Milestone Schedule, October 2018

[illegible]