



# Annual Report 2011-12

Salinas Valley Solid Waste Authority



*Promoting A Future Without Landfills*





New Wheel Loader  
(Page 4)



Community Outreach  
(Page 19)



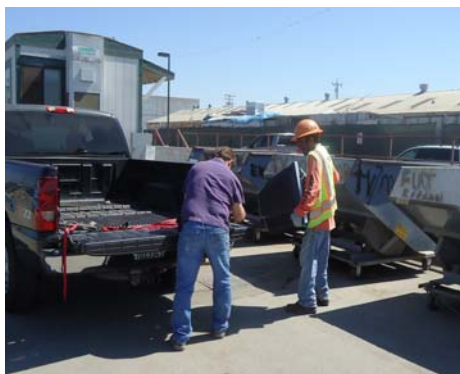
RecycleRama  
(Page 19)



Recycling (Page 18)



Crazy Horse Landfill Closure Project (Page 16)



Electronic Waste  
Recycling (Page 18)

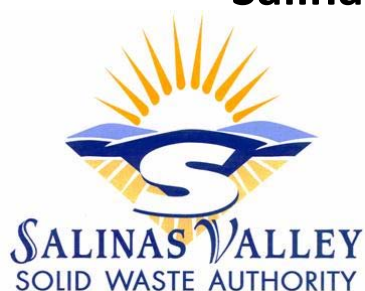


Community Outreach (Page 19)



Authority Staff (Page 5)

## Salinas Valley Solid Waste Authority



[www.svswa.org](http://www.svswa.org)

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# Table Of Contents

Message from the General Manager .....	1
Board of Directors / Mission, Vision, & Values.....	3
2011-12 Board Highlights .....	4
Long Term Waste Management Plan 75% Diversion Goal .....	5
Marketing .....	7
Authority Staff .....	8
Tonnage Information.....	9
Diversion Information .....	10
Operating Budget .....	11
Innovation at its Best! .....	12
HHW Safe Disposal and Recycling.....	13
It Pays to Recycle.....	14
Steam Autoclave .....	15
Crazy Horse Closure Project.....	16
What Happens to E-Waste.....	17
Recycling Programs / Grants.....	18
Outreach to Schools and Communities.....	19
Thank you .....	20

# Letter from the General Manager



The Salinas Valley Solid Waste Authority (Authority) continues to exemplify small and efficient government by focusing on private sector partnerships and local economic development to support and grow our vision of a *"Future Without Landfills"*. The size of our agency compared to the population and large geographic area we serve is the direct result of our Board's leadership and staff's innovative approach to solving challenges. Even with our small and innovative staff, we saw our regional waste diversion levels for our five Salinas valley cities continue to improve with a new high of 71% for the 2011 calendar year. Work is underway to memorialize reporting of our regional recycling rate (instead of by individual city), so we can all equally share in the benefits of our collective hard work.

This annual report highlights the Authority's many public service and education program accomplishments. In support of our vision to promote responsibility for the waste we produce, the Authority continues to reach out to residents and businesses across the Salinas Valley to educate and engage the public on a wide variety of recycling and resource recovery programs. Recycling at our homes and businesses is the first and most effective way to keep trash out of our landfills, through use of existing Authority services and curbside recycling programs. We participated in or lead many public events across the region, focusing on our message of reducing, reusing, and recycling and how the efforts of all our customers are so important to a *"Future Without Landfills"*.

## Fiscal Challenges

Fiscal year 2011-12 year was challenging for all agencies in Monterey County. The deep economic recession, combined with our increased recycling and waste reduction efforts, continues to affect our disposal tonnage, further highlighting the need to move away from funding operations primarily on revenue from landfill disposal. This old, outdated model of funding recycling and waste reduction efforts with revenue from waste disposal is not a sustainable model and is in conflict with our vision of a *"Future Without Landfills"*. Further progress was made this fiscal year in defining a new rate model that reflects the future of our business. Our overarching goal is to reduce our need to bury trash in a landfill as the primary way we raise revenues to fund recycling programs designed to keep refuse out of the landfill (see the conflict?). Future rates must be based on the full complement of recycling and resource recovery services provided to the public, and not on declining landfill disposal.

Importing waste from outside the county to support revenue needs is another fiscal challenge for the Authority. Importing waste for a limited time was intended to raise money for capital improvements, but it is now being used to support day to day operations due to ever rising regulatory costs and environmental obligations. Owning four landfills and two transfer stations that support services for over a quarter million residents and businesses spread across 2,500 square miles of service area is challenging. Costs for long term environmental care and debt service for three of our landfills, that are now closed, are running nearly \$3.0 million per year, or 19% of our operating budget. These environmental, regulatory, and service obligations inherited by the Authority are the reason our rates have and will continue to be historically higher than those of the Monterey Peninsula Landfill. Our historical reliance on landfills is catching up to us and is the reason the Authority continues to pursue new technology options to replace landfills and create new green job opportunities for our residents.

Changing how we finance our non-landfill waste recovery programs and planning to end importation of waste into the Salinas Valley by 2017 are the top two priorities for the Authority in the coming year.

## Program Successes

This fiscal year also brought many successes including breaking ground on our first landfill gas-to-energy project with our project partner Ameresco at the Johnson Canyon Landfill. Landfills create methane gas as buried garbage decomposes. Methane is a very potent greenhouse gas. Collection and treatment of this gas emitting from our landfills is an unfunded Federal and State requirement. The good news is we will soon begin to receive revenue from our partnership with Ameresco (energy developer) for sale of our landfill gas. The project will start operation by the end of 2012. A second landfill gas-to-energy project at the closed Crazy Horse Landfill is set to start in 2013 with a new project owner SCE. The two projects combined will provide new revenues to the Authority of \$300,000 to \$500,000 per year for the next 20 years, and



create up to 4.3 Megawatts of power (enough for 4,500 homes). The two projects are a sample of the many projects under consideration to help raise revenues outside of landfill disposal.

Crazy Horse Closure Project is nearly complete and will be a showcase for the industry as we utilize a new innovative cover system that will reduce our long term maintenance costs for the site over the next 30 years. Staff has taken on much of the work associated with this project in order to save money and provide better oversight of this critical agency project. We are projecting to be at least \$2.7 million under the lowest bid received for this project.

An expanded and improved organics management program was started with our newest private sector partner, Vision Recycling, including a compost and mulch sales center at the Sun Street Transfer Station. Vision Recycling is also working closely with staff to recover and process portions of our construction and demolition waste stream. Vision is also using the finished organics products in a new venture to produce erosion control products and absorbents for storm water improvement projects across the region. This is another great example of sustainability, where recovered waste is being used to produce beneficial products for our region.

#### A Future Without Landfills

We continue to be recognized as an industry leader and have been asked to present our path towards a *“Future Without Landfills”* at many conferences and events across California, United States and Mexico. The goal to our future success requires two key steps, first to implement our advanced waste recovery technology referred to as Autoclaving. The Autoclave technology owned by Global Organics Energy has been a major research effort by the Authority for over 5 years and is designed to recover both organic materials (food waste) and cellulose (paper products) from the mixed waste stream currently being landfilled. These two materials make up over 60% of our landfilled waste. The Autoclave technology is proposed to be included as part of the facilities relocation project and would serve all Authority jurisdictions. The new facility would no longer be a transfer station for moving trash around, but would be focused on materials recovery both through the Autoclave technology and expanded public and commercial recycling services. This project would bring in \$10s of millions in new technology investments, create green tech jobs, and take the Salinas Valley forward in a more sustainable path for long term waste management.

The second and final step in a *“Future Without Landfills”* is to find a more beneficial way to handle the waste left over after all the recycling and waste recovery projects are in place, and to end landfilling as we know it today. After years of technical study and review of projects world-wide, the Authority has selected Plasma Gasification as an energy production technology to replace our last remaining landfill. The project proponent, Plasco Energy, has proposed to utilize our waste processing residue to create electricity through their patented plasma gasification technology. Gasification is a very old technology that has been modified to create a clean-burning, low-carbon fuel from garbage that would in-turn be used for creating electricity by fueling engines on common electrical generators. Other recovered by-products from this process would include metals, slag, sulfur, salts and water all of which can be utilized in other beneficial ways.

Faced with many challenges in 2011-12, staff rose to each and every challenge, expanded and improved public services, exemplified small government innovation, and most importantly continued to focus on our vision of a *“Future Without Landfills”*. On behalf of staff and all our community partners, we want to thank the public, our member agencies and the Authority Board of Directors for all their support, recognition, leadership and dedication to creating a sustainable recycling and resource recovery program for the entire Salinas Valley.



R. Patrick Mathews  
General Manager / Chief Administrative Officer



# Board of Directors



Fernando Armenta  
President  
Executive Committee  
County of Monterey  
Since 1997



Liz Silva  
Vice President  
Executive Committee  
City of Gonzales  
Since 2010



Dennis Donohue  
Alternate Vice President  
Executive Committee  
City of Salinas  
Since 2007



Gloria De La Rosa  
Past President  
Executive Committee  
City of Salinas  
Since 2001



Lou Calcagno  
County of Monterey  
Since 1999



Robert Cullen  
City of King  
Since 2008



Jyl Lutes  
City of Salinas  
Since 2010



Annie Moreno  
City of Greenfield  
2003-04,  
2007-10, 2012



Richard Perez  
City of Soledad  
Since 2010

## Mission Statement

"To manage Salinas Valley solid waste as a resource, promoting sustainable, environmentally sound and cost effective practices through an integrated system of waste reduction, reuse, recycling, innovative technology, customer service and education."

## Vision Statement

"To reduce the amount of waste by promoting individual and corporate responsibility. To recover waste for its highest and best use while balancing rates and services. To transform our business from burying waste to utilizing waste as a resource. To eliminate the need for landfills."

## Values

Innovation \* Integrity \* Public Education \* Efficiency  
Fiscally Prudence \* Resourcefulness  
Customer Service \* Community Partnerships

## Strategic Goals

- Develop and Implement a Sustainable Finance Plan
- Promote Authority's Role and Value as a Resource Recovery Agency
- Achieve 75% Diversion by 2015
- Enhance Existing Facilities, Equipment and Public Services
- Promote and Maintain a High Performance, Efficient, and Flexible Workforce

# 2011-12 Board Highlights

## **Funding Agreement with USDA for Biomethane Research**

The United States Department of Agriculture agreed to provide \$66,000 in federal funding for on-going biomethane fuels research. The research project will focus on utilizing the Autoclave's cellulose output for biomethane fuel production. This project will help improve market opportunities for the autoclave's outputs.



Example of a closed landfill with solar panels

## **Crazy Horse Solar Project**

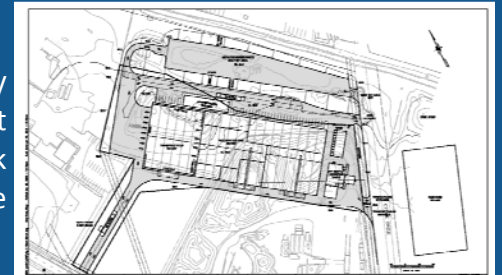
The Authority was selected to receive up to \$35,000 in technical assistance in the form of a feasibility study for the Crazy Horse Landfill Renewable Energy Project, from both the U.S. Environmental Protection Agency and the Department of Energy's National Renewable Energy Lab. These studies are necessary in order to understand the economics and cost effectiveness of the infrastructure upgrades required to connect to PG&E's system.

## **Crazy Horse Landfill Closure Project**

The project is on schedule for completion later this year, as well as staff's projection to save \$2.7 million by performing some of this work in-house. To continue making progress, the Board authorized further supplies and equipment, as well as temporary employees. All procurements will be handled according to established procedures.

## **Sun Street Transfer Station Relocation**

Staff presented an update on the future Salinas Area Materials Recovery Center, of which the Autoclave Pulp Recovery & Energy Generation Plant would be a key component. The preferred site being considered is the Work Street Industrial Park. Staff will be inviting the Board to attend an Autoclave test run in the near future.



Work Street Design Plan

## **Autoclave Process Technology**

The Board committed to allocate \$100,000 in its budget to support the future development only if a successful project can be finalized including: financing and ownership structure, project location, completion of environmental review and permitting, and securing markets for sale of the paper pulp products. The Autoclave technology has proved to reduce 60% of waste volume. This project has the potential to achieve the Authority's 75% diversion goal and the State's 75% diversion target by 2020.



New Wheel Loader

## **Purchase of New Equipment for Sun Street Transfer Station**

The Authority purchased a new loader and transfer truck. Both pieces of equipment were needed to replace aging equipment. The purchase of the new equipment will improve the facility's efficiency.

# Long Term Waste Management Plan

## 75% Diversion Goal

The Board of Directors began investigating alternatives to landfill disposal of solid waste in February 2005 with a series of study sessions leading to adoption of a goal to achieve 75% diversion from landfills by 2015, and development of the Long Term Waste Management Plan, approved in January 2007. This summary provides the elements of the Plan and the current status.

**Defining the method to measure progress on meeting the 75% Diversion Goal including conducting a Waste Composition/Generation Study to identify baseline commodities and quantities.** Measurement is based on the annual AB939 compliance reporting depicted here for Salinas Valley tonnage in 2011.

### Achieving the 75% Diversion Goal

	Fiscal Year Tonnage	2011 AB 939 Diversion Rate
<b>Total Tons Generated</b>	<b>548,884</b>	<b>100.0%</b>
<b>Tons Diverted</b>	<b>(381,941)</b>	<b>69.6%</b>
<b>Tons Landfilled</b>	<b>166,943</b>	<b>30.4%</b>
<b>75% Diversion Goal</b>	<b>411,663</b>	<b>75.0%</b>
<b>Tons Diverted</b>	<b>(381,941)</b>	<b>69.6%</b>
<b>Tons Remaining to Goal</b>	<b>29,722</b>	<b>5.4%</b>
<b>Tons to Landfill</b>	<b>137,221</b>	<b>25.0%</b>

The Waste Composition Study was completed and presented to the Board in December 2008.

### **Implementing a comprehensive construction and demolition (C&D) recycling program.**

Staff met with each Building Official to encourage adoption of an ordinance requiring reuse or recycling of demolition or construction materials. Provided samples of all forms for customer and City use in determining compliance. Developed and distributed a C&D recycling brochure in English and Spanish. C&D totals have increased 4% from 2008 to 2011, with a peak of 5,278 tons in 2009. Vision Services salvages usable wood from construction debris which is recycled into wood chip products.



Recycling Concrete at the Johnson Canyon Landfill

### **Enhancing the public education process to further promote the reduce, reuse and recycle message.**

Increased Resource Recovery Technicians to two positions. Added a Contracts and Grants Administrator position. Attended community events to provide public outreach and education. Secured grant funding for promotion of recycling bottles and cans, as well as litter abatement, and free disposal of tires. Conducted on site waste assessments and provided recommendations on waste reduction and recycling implementation or enhancements. Initiated recycling stations in classrooms and on school campuses. Funded interactive school assembly program called RecycleRama.



Mandy leading a tour at the Sun Street Transfer Station

### **Working closely with large agricultural and commercial businesses to increase diversion.**

In collaboration with waste collectors, Authority staff has conducted Waste Assessments and provided recommendations leading to an increase in recycling services and a decrease in trash amounts for several businesses including Fresh Express, HSBC, River Ranch, Kmart, and Taylor Farms. Educating key individuals in these organizations has resulted in successful long term waste reduction programs.



### **Implementing the steam autoclave pilot project.**

Initiated in 2005 after relocation of the autoclave to the Crazy Horse Landfill in partnership with the US Department of Agriculture. Based on the analysis of the test runs and acquisition of the technology by a vendor prepared to advance commercial production, an Autoclave Process Technology Agreement Term Sheet was approved by the Board on May 2, 2012.



Autoclave system testing at the Crazy Horse Landfill

### **Evaluating other Conversion Technologies.**

A four-member Conversion Technology Commission was formed in 2007 to research a non combustion based technology suitable for processing municipal solid waste. A procurement process was launched in January 2008 to secure qualified vendor proposals. From the initial nine proposals received, four were further analyzed including 3 thermal processes, and 1 anaerobic digestion project. The top ranked technology was offered by Plasco Energy Group of Ottawa, Canada based on its diversion potential, per ton cost, revenue sharing opportunity, modular ability to increase or decrease processing capability, reduced impact on greenhouse gas, and pre-certification from the CA Energy Commission as an energy eligible for renewal portfolio standards, allowing the electricity produced from the Plasco synthesis gas to command a higher price. This certification was based on the November 2010 decision from CalRecycle, the state department responsible for solid waste and recycling oversight that Plasco's technology would be considered gasification under California law. The environmental review for the steam autoclave and the Plasco technology was authorized by the Board in January 2011 and commenced in October. Progress on the Environmental Impact Report for the Plasco project was suspended following the announcement that CalRecycle reversed its 2010 decision and the status as a renewable energy was put on hold.

### **Increasing organics diversion.**

The diversion of organic waste (yardwaste, woodwaste and foodwaste) increased more than 15% between 2008 and 2011 resulting in 113,600 tons of reusable material that was screened, ground and chipped and applied for soil enhancement or landscaping.



Compost and woodchip piles created from the organics program

### **Implementing Self-haul Materials Recovery Center.**

Development of Materials Recovery Centers were completed at both the Sun Street Transfer Station and Johnson Canyon Landfill, accepting electronic waste, cardboard, paper, appliances, metal, plastic, glass and mattresses.

### **Facilitating member agency programs.**

Authority staff worked collaboratively with Cities, County, and Gonzales Grows Green representatives to implement recycling programs in city facilities including providing containers, attending community events on request, communicating with franchise collectors, coordinating and attending community clean up events, working with the Central Coast Recycling Media Coalition to promote recycling of beverage containers and litter abatement, representing cities on the Integrated Waste Management Task Force, participating in the 5 year review of the Integrated Waste Management Plan, periodic review of the Source Reduction and Recycling Element and Household Hazardous Waste Element.



Estela teaching students about the values of recycling

# Marketing

One of the Authority's goals is to promote public awareness about the services the Authority provides to the community. Reaching out to such a large area can become challenging. Staff has utilized every option available to promote its vision of a future without landfills. The Authority utilizes various tools to reach every member of the community, from Facebook, to newspaper articles and ads, to TV and radio ads to promote events, and the recycling resources available to the community.

The goal of the Authority is to promote its role as a community partner in providing economic, and environmental health through sustainable energy and resource recovery. This goal is based on long-term education to create an understanding among the target audiences that inspires environmental stewardship.

## Special Media Campaigns

### Tire Recycling Campaign

- Radio ads on KPRC and KDON
- Newspaper ads in El Sol, Salinas Californian, South County newspapers and Auto Shopper
- Radio ads on KDON, KPRC, KRAY, KMJV, KTGE and KLOK
- Press release and on-site event with Radio Tigre

### Household Hazardous Waste Recycling Campaign

- TV spots on KSBW, KMUV, KSMS, KION and KCBA
- Radio spots on KDON, KPRC, KLOK, KRAY, KMJV and KTGE

### "Stay Local" Branding Campaign

- TV ads on KION, KCBA, KSMS, KMUV and KSBW
- Radio ads on KDON and KPRC

### Holiday Tree Recycling Campaign

- Newspaper ads in El Sol, Salinas Californian and South County newspapers
- Radio ads on KDON and KPRC

### Public Notice Rate Increase Campaign

- Newspaper ads in El Sol, Californian, and South County newspapers
- Radio ads on KTGE, KMJV, KLOK, KRKC, KDON, KPRC and KRAY
- Press releases

### "Plug or Play" Recycling Event

- TV media on KSMS, KMUV, KSMS KION and KCBA
- Radio media on KLOK, KRAY, KMJV, KTGE, KPRC
- Newspaper columns and Web ads
- Interviews and news segments on KION News

## Public Events

Natividad Creek Return of the Natives  
El Grito Parade and Event Salinas  
Natividad Music Summit Salinas  
El Día del Trabajador Agrícola Greenfield  
Health and Safety Fair Gonzales  
Harvest Festival Greenfield  
Parade of Lights Salinas  
Farm Day Salinas & King City  
Career Extravaganza Boys & Girls Club  
Environmental Work Shop King City  
Dia Del Nino Event Salinas  
Earth Day Mixer McShane's Nursery Salinas  
Monterey County Cleanup Day  
Rava Annual Safety & Health Day King City  
Día del Niño Celebration Gonzales  
Salinas Valley Fair King City  
McKinnon School Girl Scout Day Salinas  
Healthy Kids Fair Soledad  
Healthy Community Day Salinas  
Día de la Familia Salinas  
Gonzales Clean Up Day  
Aquarium Day  
America Recycle Day



Jose participating in a TV interview to promote recycling



Plug or Play Recycling Ad on a local TV station



Jose, Blanca, Monica and Guille participating in a recycling event

**Fact:**  
**[www.svswa.org](http://www.svswa.org)**  
**Receives 200 visitors**  
**each day**

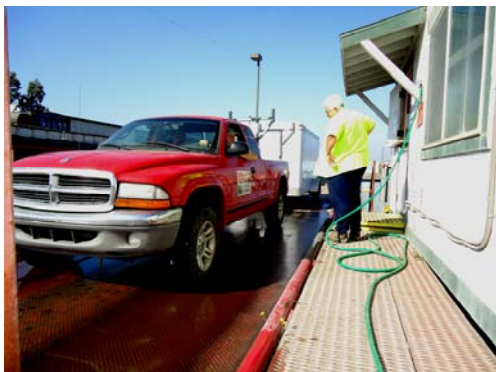
### Top 3 searches on the [www.svswa.org](http://www.svswa.org)

1. Recycling projects for students
2. Information on Authority Projects
3. Locations for recycling and disposal



# Authority Staff

The Authority staff provides several services throughout the Salinas Valley. From assisting customers in finding the appropriate location for recycling, to promoting recycling at schools and organizations, and ensuring that all the materials that are received at our facilities are handled safely. The Authority staff always strives to provide great customer service to keep customers satisfied and returning to the Authority's facilities.



Mary Ellen receiving customers at the Scalehouse



Lorena assisting a customer sort his recyclables



Patrick leading a tour at the Johnson Canyon landfill



Estela teaching students how to recycle



Roberto providing information at a meeting on rates



Fernando preparing for his first trip of the day to Johnson Canyon

## Promotions & New Employees



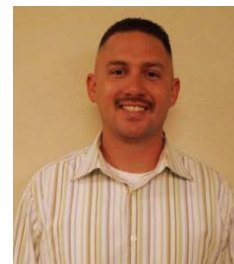
Guillermina Gutierrez  
Promoted to  
Resource Recovery  
Technician



Mandy Brooks  
Promoted to  
Recycling  
Coordinator

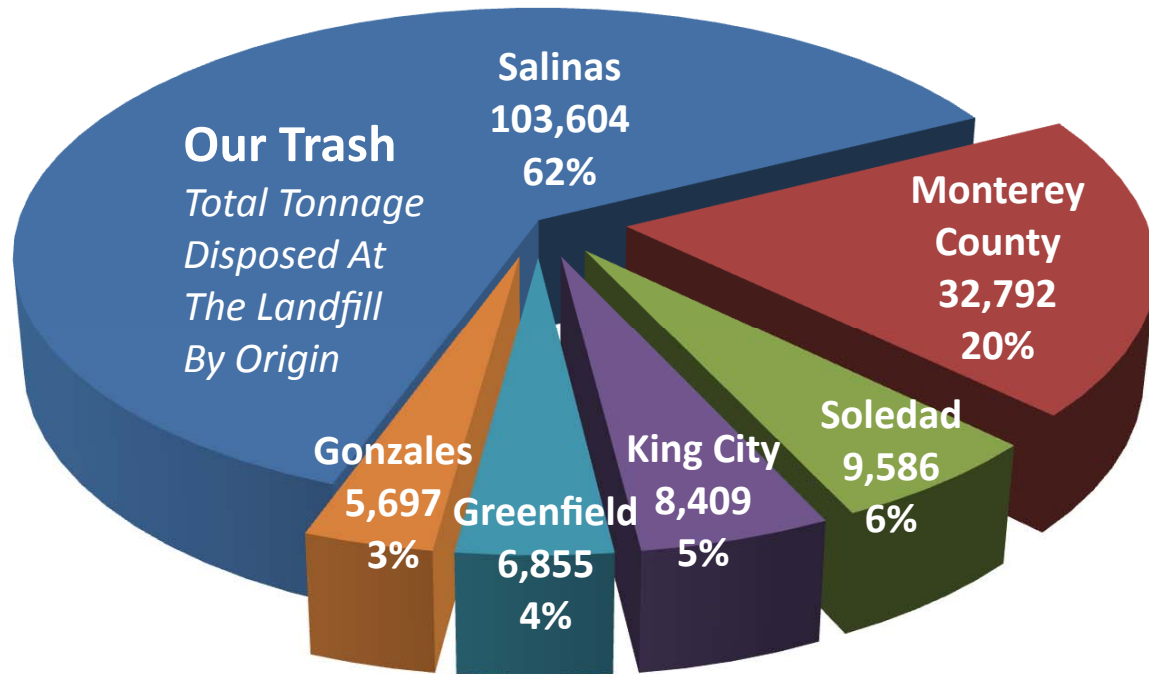


Jenny Mitchell  
Promoted to  
Contracts &  
Grants Analyst



Jason Guillen  
New Hire  
HHW Maintenance  
Worker II

# Tonnage

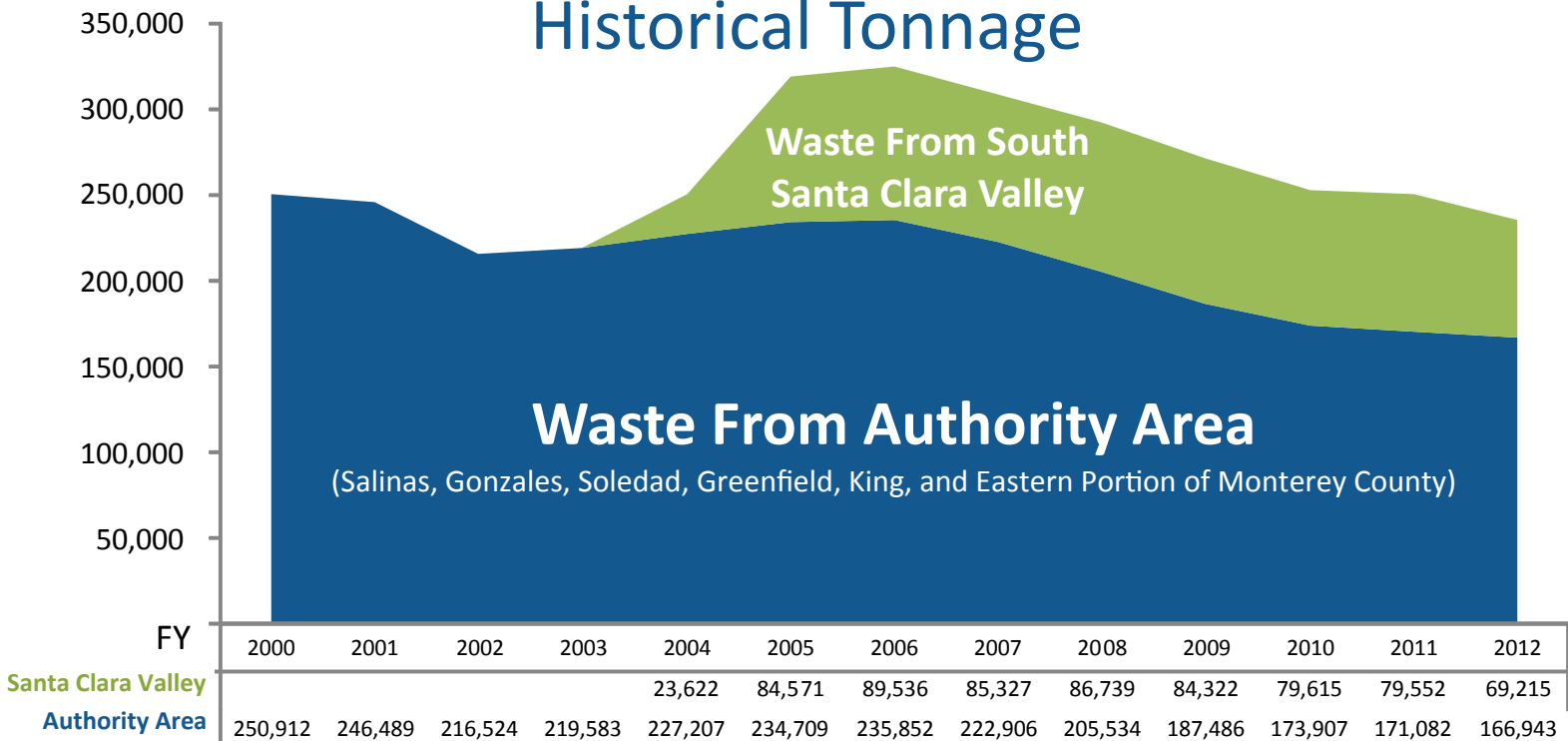


## Landfilled Tonnage FY 2011-12

Authority Area: 166,943 Tons  
 Santa Clara Valley: 69,215 Tons  
 Other: 89 Tons  
 Total Tons Landfilled: 236,247 Tons

*Each day residents in the Salinas Valley add more than 458 tons of trash to the landfill*

## Historical Tonnage





# Diversion

## Annual Diversion Rates

CITY	2005	2006	2007	2008	2009	2010	2011*
Salinas	60%	61%	64%	70%	69%	71%	71%
Gonzales	45%	40%	62%	64%	62%	62%	61%
Soledad	54%	50%	55%	59%	60%	59%	63%
Greenfield	23%	24%	55%	56%	54%	50%	52%
King City	78%	78%	76%	79%	80%	81%	84%
Unincorporated Monterey County	63%	54%	54%	53%	62%	58%	62%

*The Authority's regional diversion rate increased to 71% for the five Salinas Valley Cities in the calendar year 2011*

\* 2011 rates are still preliminary.



Recycled wood at the Sun Street Transfer Station



Glass recycling at the Sun Street Transfer Station



Compost piles at the Johnson Canyon Landfill

## Diversion at Authority Facilities FY 2011-12

	Salinas	Monterey County	Soledad	King City	Greenfield	Gonzales	Total
<b>Tons Received</b>	<b>125,398</b>	<b>40,939</b>	<b>14,287</b>	<b>10,173</b>	<b>8,748</b>	<b>7,305</b>	<b>206,849</b>
Diverted Greenwaste	16,462	4,375	1,544	1,261	1,400	1,115	26,157
Diverted C&D	926	3,142	43	45	12	43	4,210
Diverted Biosolids			2,526				2,526
Diverted Concrete/Asphalt	1,080	260	397	82	395	203	2,417
Diverted Other	3,327	369	191	376	86	247	4,596
<b>Total Tons Diverted</b>	<b>21,794</b>	<b>8,147</b>	<b>4,701</b>	<b>1,764</b>	<b>1,893</b>	<b>1,608</b>	<b>39,906</b>
% Diverted	17.38%	19.90%	32.90%	17.34%	21.63%	22.01%	19.29%
<b>Tons Landfilled</b>	<b>103,604</b>	<b>32,792</b>	<b>9,586</b>	<b>8,409</b>	<b>6,855</b>	<b>5,697</b>	<b>166,943</b>

# Operating Budget



Sun Street Transfer Station  
Opened in 2005



Johnson Canyon Landfill  
Opened in 1976



Jolon Road Transfer Station  
Opened in 1997



Jolon Road Landfill  
1977-1997

<u>Revenue</u>	Actual FY 20010-11	Actual FY 2011-12	Budgeted FY 2012-13
Tipping Fees	\$ 12,271,112	\$ 12,272,036	\$ 12,681,900
South Santa Clara Valley	2,211,254	2,243,315	2,340,900
Investment Earnings	320,583	63,257	80,200
Sales Recycled Materials	428,466	419,614	572,500
Grants & Other Revenue	340,020	139,214	177,000
<b>TOTAL REVENUE</b>	<b>\$ 15,571,435</b>	<b>\$ 15,137,436</b>	<b>\$ 15,852,500</b>

## Expenditures

Administration	\$ 2,356,135	\$ 2,102,079	\$ 2,363,160
Resource Recovery	2,029,357	2,116,629	2,308,290
Scalehouse Operations	321,688	318,113	342,490
Landfill Operations	3,415,697	3,519,181	3,569,290
Transfer Stations Operations	2,511,658	2,643,365	2,724,680
Environmental Control System	659,460	802,511	973,670
Closure Costs	296,939	303,192	277,000
Debt Services	3,138,188	3,139,651	3,140,120
<b>TOTAL EXPENDITURES</b>	<b>\$ 14,729,122</b>	<b>\$ 14,944,721</b>	<b>\$ 15,698,700</b>

## How your \$67 Tipping Fee is Spent

<b>Transfer of Waste</b>	\$10.61	Transferring of the waste received at the Sun Street and Jolon Road Transfer Stations to the Johnson Canyon Landfill.
<b>Legacy Liabilities</b>	\$17.33	Repayment of bonds used to close landfills and perform needed improvements when the Authority was formed; maintaining the Crazy Horse, Jolon Road, and Lewis Road closed landfills.
<b>Public Services Operational Costs</b>	\$39.06	Operating the Sun Street Materials Recovery Center, Johnson Canyon Landfill and providing diversion services and administration.
<b>Total Tipping Fee</b>	<b>\$67.00</b>	



Crazy Horse Landfill  
1934—2009



Lewis Road Landfill  
1947—2002



# Innovation at its Best!

The Authority is constantly looking for opportunities to be more cost effective. As more Agencies outsource projects and personnel to reduce costs, the Authority has taken a different approach by utilizing current staff with the experience and skills to think of innovative ways to reduce costs or create savings. Below are some examples of how staff has worked to reduce costs and make every dollar count in this tough economy.

## In-Sourcing Projects

Due to many fields relating to the solid waste industry requiring specialized expertise and knowledge, outsourcing contracts tends to be more expensive. A solution to this problem has been to utilize Authority staff to handle various projects that were previously contracted out. Below is a list of projects in-sourced.

- Completing the Crazy Horse Closure Project with internal staff. Savings: \$2,700,000.
- Utilized Authority staff with heavy equipment experience to complete winterization preparedness at sites. Savings: \$10,000.
- Permit modifications and updates for Authority sites. Savings: \$70,000.
- Landfill and Transfer Station maintenance and improvements such as storm water improvements. Savings: \$35,000.
- Used Authority staff to update human resource software instead of utilizing outside vendor. Savings: \$18,000.
- Utilizing Authority staff for translating services, marketing & design work usually contracted out. Savings: \$10,000.

## Reducing Expenses

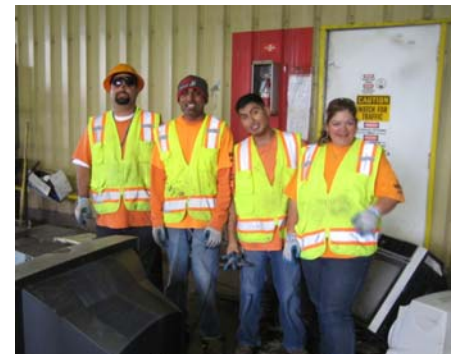
As all public agencies know expenses tend to only go up. The Authority is negotiating with vendors to keep expenses stable as possible or in some cases even reduce costs to the Authority.

- Received grants totaling \$177,000 for various projects, reducing the amount the Authority required from the landfill rates.
- Negotiated a decrease per unit in the cost of recycling mattresses.
- Extended the RecycleRama contract for school assembly programs at no additional cost.
- Negotiated the same hourly rates for marketing services as the previous contract.
- Negotiated with oil recycling hauler to collect used oil at no cost to the Authority and negotiated an arrangement to receive payment for non-contaminated used oil. Added CDs and cell phones to the list of materials the Authority is compensated for.

## Creating partnerships

As the Authority moves forward, we are constantly looking for new opportunities to create partnerships that will reduce expenses and build community partnerships.

- The Authority is participating in the Paint Stewardship program, which will accept the latex and oil base paints collected at Authority facilities at no cost. Estimated annual savings: \$44,300.
- Located a recycler that would accept video cassettes at no cost, compared to the previous vendor's cost of \$0.25 per pound.
- Working with the Authority's financial software vendor to become a beta site at a greatly reduced cost. Being a beta site also allows the Authority to have input during the software development phase.
- The Authority has a long standing partnership with Hope Services, providing employment opportunities for community members with developmental disabilities.



Hope Service employees preparing TVs for recycling

# HHW Safe Disposal and Recycling

Since 1997, the Authority's Household Hazardous Waste (HHW) program has provided residents and small businesses with a safe and convenient solution for disposal of HHW. Everyday household products contain dangerous chemicals that must be disposed of properly.

Before collection programs were available, options for managing HHW were limited to disposal in the trash, pouring down the drain, or storing the waste indefinitely, all of which were unsafe, dangerous and even illegal.

The Authority not only strives to provide safe disposal of HHW material, but also tries to reuse and recycle as much material as possible to reduce costs and to promote sustainability within the community. The Authority recycled 90% of the HHW material that is brought to our facilities. Residents can even pick up paint or other common household products that have been recycled at the Sun Street Household Hazardous Waste collection facility.



Araceli assisting a customer dispose of her used motor oil



HHW Collection FY 2011-12	
Material	Pounds Collected
Flammable Solids / Liquids	6,825
Oil Base Paint	58,950
Poisons	14,950
Acid	3,950
Base	11,150
Oxidizer	780
PCB	393
Antifreeze	7,920
Auto Batteries	4,922
Latex Paint	77,250
Motor Oil & Filters	75,525
Mercury containing	75
Fluorescent Lamps	15,334
Household Batteries	11,750
Electronic Waste	351,759
Universal Waste	494,365
Medical Waste	1,259
Gas Cylinders	2,765
Other Materials	10,125
<b>Total Pounds Collected</b>	<b>1,150,047</b>
<b>Total Customers for 2011-12</b>	<b>8,716</b>

## HHW Location & Hours

139 Sun St. Monday—Saturday  
Salinas, CA 8:00 AM—5:00 PM  
(831) 424-5520

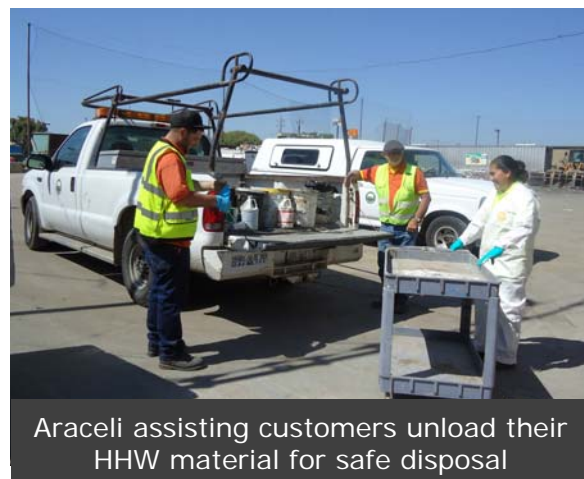
### Facts:

The Authority received 1,150,047 lbs. of household hazardous waste in 2011-12 FY

90% of the household hazardous waste material received was recycled.



Edwin preparing a barrel of HHW material for recycling



Araceli assisting customers unload their HHW material for safe disposal



# It Pays to Recycle



## Greenfield High School

### \$12,922 Annual Savings

Due to continued budget cuts, the Greenfield High School was looking for methods to reduce expenses where possible. The Authority staff, in partnership with Maury Treleven from Tri-cities Disposal & Recycling, toured the High School facilities to conduct a waste audit to create a school-wide classroom mixed recycling program, administrative office recycling program, and

an expanded kitchen recycling program to reduce its expenses on disposal. Although the school previously had a recycling program in place, it was under utilized and the High School continued to pay \$3,403.86 per month for disposal services.

Tri-cities provided containers to create a Classroom Recycling Center in each classroom. Additional containers were provided to establish recycling programs for batteries and printer cartridges. Students were given additional containers to promote their current recycling program for CRV material. Both staff and students received training on utilizing the new recycling program.



Savings—Students coordinating the bottles and cans recycling program are utilizing funds from recycling to sponsor a field trip to Disneyland. With positive support from staff and students, the High School was able to reduce its annual disposal expenses by **\$12,922 annually**.

The Authority performed 36 waste assessments & recycling outreach visits for local schools, business and multifamily complexes

Napa Gonzales  
Growers Express  
Steinbeck School Salinas  
Jesse Sanchez School Salinas  
Salinas Point Apartment  
Greenfield Library  
Kamman School Salinas  
Natividad School Salinas  
University Park School Salinas  
Gabilan elementary School in Soledad  
Monterey Park in Salinas  
Lincoln School Salinas  
Main St. Middle School In Soledad  
Loma Vista School in Salinas  
Four School in King City  
El Primo Western Wear Salinas  
Medinas Bridal Salinas  
Novedades Salon De Belleza Salinas  
Bob Van Zile Salinas  
El Zacatecano Restaurant Salinas  
King City School District Offices  
King City Art Charter School  
Santa Lucia School King City  
Del Rey School King City  
Chalone School King City  
Misionero Veg Gonzales  
City High School  
Roosevelt School in Salinas  
Estancia Winery Soledad  
Fresh Express Salinas  
Trujillo Income Tax Salinas  
Salinas Surgery Center  
Napa Auto Part Services Salinas  
Estancia Vineyard Field Yard Soledad

## Jalisco Market

### \$1,000 Annual Savings

Authority staff completed a waste audit to determine what recyclable materials were being discarded in the four cubic yard weekly trash container. Although Jalisco Market was previously recycling corrugated cardboard, most other recyclables were not being recycled. To promote recycling, employees received free training on what materials could be recycled. Additionally, several recycling containers were located throughout the establishment to promote recycling by customers and employees.

Savings—Employees reduce by half, the waste going to their trash containers. The store was able to switch to a smaller trash dumpster, which resulted in a savings of **\$1,000 annually**.

Would you like to have the Authority perform a free waste assessment at your office, business, or school? Please call us at 775-3000 to schedule an appointment.

# Steam Autoclave

The Authority is currently conducting tests, utilizing a steam autoclave to transform municipal solid waste into a usable product that may be used for ethanol production or to generate renewable energy. The autoclave is a rotating pressure vessel with a 2 ton capacity that receives solid waste from a feed conveyor. High and low pressure steam is applied as well as recirculating hot oil. The result of this process is an organic pulp and inorganic residual which is transferred to a conveyor that feeds a trommel screen where the material is separated. This technology is unique in that it uses temperature, pressure and vacuum to sanitize municipal solid waste, clean recyclables and converts much of the organic fraction into pulp. The pulp can potentially be converted into ethanol and energy.

The operation of the steam autoclave system has allowed the Salinas Valley Solid Waste Authority to test various blends of municipal solid waste, food and greenwaste, manure, etc. for determination of volume reduction, recovery of recyclable materials. Possible end uses for this test project include gasification, anaerobic digestion, composting feedstock, refuse derived fuel, and biogas production. Testing is currently being performed at the Crazy Horse landfill. Plans are being developed to incorporate a commercial scale autoclave system capable of processing up to 600 tons of solid waste daily when the Salinas Area Materials Recovery Center is relocated to Work Street in Salinas.



Autoclave rotating vessel



Waste being loaded into Autoclave



Waste before it is treated by the Autoclave



Waste after it has been treated by the autoclave



Waste being fed into trommel screens for separation



Residual organic pump



# Crazy Horse Closure Project

The closure of Crazy Horse Canyon Landfill will be the most complex and expensive project that the Authority will undertake since the Agency was formed in 1997. The landfill site has been operating since 1934. The Closure project is unique, as it also includes a top cover layer of closure turf. This provides a protective layer while eliminating the need for large amounts of soil to be added.

## Cost Savings

The project was initially placed out for vendors to bid, but the lowest bid submitted was \$12.7 million. The Authority staff was confident it could complete the project at a much lower cost than the bids that were received. Staff has taken the following steps to reduce or eliminate some of the costs involved in the project.

**The Crazy Closure Project is currently scheduled to be completed \$2.7 million under the lowest bid submitted**

- By in-sourcing all the work associated with a general contractor such as staffing, accounting construction support process, procurement, and project management. Savings: \$264,800
- By using Authority owned equipment instead of renting equipment. Savings: \$24,000
- By revising plans on module 1. Savings: \$75,000
- By having Authority staff complete portions of the parking lot pavement work. Savings: \$40,000



Liner rolls being installed over the top soil to prevent water from entering the ground



Unloading sand to the turf. Over 300,000 cubic yard of sand will be placed



Sand is raked into the turf to weigh it down



Aerial view of Crazy Horse Closure Project showing the liner (black) and the turf (green)



A helicopter was used to carry the large rolls of turf to the top of the landfill due to no large equipment being allowed to drive directly on top of the liner

# What Happens to E-Waste

Have you brought your television, computer, or monitor to recycle at the Sun Street Transfer Station or any of our facilities or recycling events? Ever wondered how or where it's recycled?



Electronics are received at our facilities free of cost



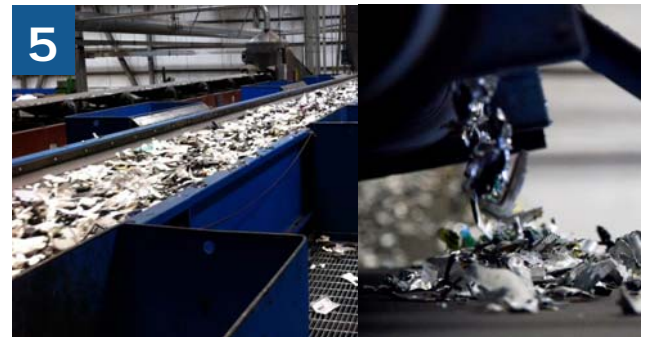
Electronics are separated by type and shrink wrapped for safe transportation



Electronics are shipped to ECS Refining in Stockton, CA for recycling



Electronics are dismantled and high value components are harvested for reuse



Materials are shredded and sorted using magnets, sorting lines and shaker tables



Materials are sent to smelters to be melted into base form: plastic, aluminum, steel, copper and others

## Question:

When I dispose of an old computer at an Authority facility, what happens to the hard drive? Is my information safe?

## Answer:

If your hard drive has more than 146 GB capacity it is tested and destined for re-use. Hard drives are wiped per Department of Defense Standards.

If your hard drive is less than 146 GB it is shredded and recycled into basic metals to build new products.



# Recycling Programs

## Electronic Waste

The Authority collected 856,045 lbs. of electronic waste for FY 2011-12. Residents and businesses can bring electronic waste such as TV's, microwaves, computers, monitors and many more items to any of the Authority's three facilities free of charge. To learn what happen to your electronic waste after you drop it off at our facility, see page 17.

## Tire Recycling

The Authority received a CalRecycle FY 2011-12 Local Government Waste Tire Amnesty Event Grant in the amount of \$60,864 to continue to hold free tire recycling events for residents of the Salinas Valley. The Authority hosted a series of events that rotated between each of the Authority's three facilities – Sun Street Recycling Center, Johnson Canyon Landfill, and Jolon Road Transfer Station. Last fiscal year the program collected and recycled 21,670 waste tires.

## Greenwaste

The Authority received 26,063 tons of greenwaste from the Salinas Valley for FY 2011-12. Greenwaste is reused or recycled for several purposes such as alternative daily cover for the landfill, and to creating compost for local gardens. Another creative option being implemented at the Johnson Canyon Landfill is to create sock filters with the recycled wood chips that can be used for erosion control or removing contaminants from stormwater runoff.



Electronic Waste Recycling at the Sun Street Transfer Station



Tire Recycling at the Sun Street Transfer Station



Woodchip socks can be used for soil erosion

# GRANTS

## Beverage Container Recycling —\$63,027

A grant was awarded to the Authority by CalRecycle Beverage Container City/County Payment Program for implementing beverage container recycling programs, litter clean ups, recycling education, advertising, promotional materials, and purchasing recycled content products on behalf of the Cities of Salinas, Gonzales, Soledad, Greenfield and King City.

## Biomethane— \$66,000

The Authority received a grant from the United States Department of Agriculture for research options for converting cellulose output from the Autoclave via anaerobic digestion into biomethane fuel.

## RE-Powering Feasibility Study— \$35,000

The Authority received a grant from the United States Environmental Protection Agency (EPA). The EPA provided technical assistance in the form of a feasibility study for the potential installation of Solar Photovoltaics at Crazy Horse Landfill.

# Outreach to Schools and Communities

The Authority is always striving to promote organizations to become more aware about reuse and recycling opportunities in the community. Forty four (44) recycling presentation were provided to different schools and organizations throughout the Salinas Valley. Each organization was provided with guidance and materials to improve their recycling programs.

## Recycling Presentations

Rotary Club Salinas  
Salinas YMCA  
ELA Gonzales  
La Gloria School Gonzales  
Martin Luther King School Salinas  
John Steinbeck School Salinas  
Jesse Sanchez School Salinas  
Marin Luther King School Salinas  
Frank Paul School Salinas  
Natividad School Salinas  
Gabilan Head Start Center King City  
Frank Paul Head Start Salinas  
Salinas Adult School  
Gabilan Elementary Soledad  
Gabilan Head Start King City  
Growers Express Salinas  
University Park School Salinas  
Green Academy Toro Park  
Madonna Del Sasso Salinas  
Monterey Park School Salinas  
Main Street School Soledad  
DLT King City

Jalisco Market Gonzales  
Canyon Creek Townhomes  
Head Start SCDC Salinas  
Washington Middle School Salinas  
Head Start First Steps Salinas  
Washington Middle School Salinas  
Tynan Village Salinas  
Head Start Front Street Salinas  
Santa Rita Head Start Center  
Head Start Sherwood Salinas  
Hartnell Environmental Class Salinas  
Head Start First Steps Salinas  
Head Start Sherwood Salinas  
John Steinbeck Library Salinas  
Little Friend Preschool Salinas  
Parents Head Start Gonzales  
Trujillo Income Tax Salinas  
Salinas Surgery Center Salinas  
Boys & Girls Club Salinas  
South County YMCA Soledad  
Short Term Crisis Salinas  
Environmental Science Class  
Frank Ledesma School Soledad



Wally Waste-not at a local recycling presentation



Residents learning to create compost

*Would you like to have the Authority perform a presentation at your business, or school? Please call us at 775-3000*



RecycleRama presentation at a local school

60 RecycleRama Shows were performed during FY 2011-12

## RecycleRama

RecycleRama is an outreach program that is sponsored by the Salinas Valley Solid Waste Authority, performing more than 60 shows for various schools and other organizations throughout the community. The program consists of promoting the three Rs, waste reduction, reusing items, and recycling. It is performed through a fun and interactive presentation to get kids involved and interested in recycling.

If you would like to have an event at your organization or school, please contact us at (831) 775-3000.



# Thank You

As the Authority continues to provide essential services to the community and promote a future without landfills, residents, students, teachers, and community members provide feedback to the Authority to thank staff for their dedication and services. Below are some of the letters the Authority has received.

I enjoyed learning about Recycling and how to save energy and water and to Recycle so we can Reuse the things we Recycle.

Estela & Bianca,

Thank you both very much for your participation in the Environmental Leadership Camp @ Toro Park. I enjoyed working with you and think the kids learned a lot. Keep up the great work!

David & Wesley

Estela,

Gloria Quintero has been sharing your projects with Head Start in Monterey County. Thank you for all you've done to get Recycling and Recycling Education into the centers. Your work is making a positive difference!

Thank you,  
Jennifer Mathak  
of the Splash Zone Team

Thank You So much for such a fun/informative opportunity. We enjoyed every minute of it. We hope to have you do future presentations with us again.

— Boys & Girls Club  
of Monterey County

Dear Mandy,

Thank you so much for the gift of your presence and inspiration at our Career Extravaganza Day.

You truly made a difference in the students who participated that day.

I was also a pleasure to have met you.

Gracias!  
Jose Maria

Dear Salinas Valley Solid Waste Authority:

Thank you for teaching

us the 3 R's. They are

Reduce, reuse and recycle. I like you.

Thanks for coming and informing us about plastics and animals!

—Jorge Smith

Thank you so much for talking to us!

—Monica DeLeon

Thank you so much! I learned a lot!

—Carayce

Thanks For the info! Really opened my eyes!

3

—Julio

Thank you for coming into our class and teaching us about our environment.

thanks for coming and giving that interesting powerpoint presentation to our class!

Thank You!



Thank you so much!



Helicopter flying over the Crazy Horse Landfill  
(see page 16)



## Salinas Valley Solid Waste Authority

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Salinas, CA 93901

(831) 775-3000



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