

**SWANA
INTEGRATED SOLID WASTE MANAGEMENT GOLD EXCELLENCE AWARD
2008**



**The Resource Recovery & Waste Management Division,
County of Santa Barbara Public Works Department
Santa Barbara, California**



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APPENDICES



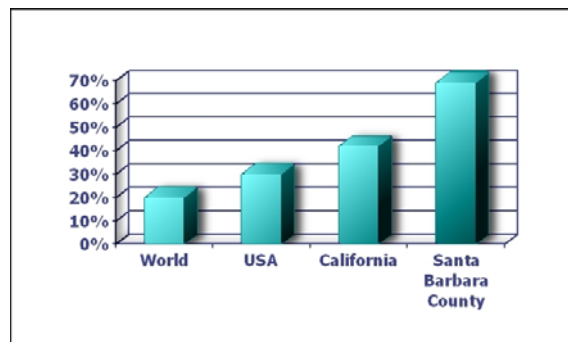
1.0 OVERVIEW OF THE SYSTEM AND SYSTEM PERFORMANCE

1.1 Introduction

The RRWMD has established its leadership in the field of solid waste management through excellent diversion programs that are created collaboratively and in proactive anticipation of regulations and that work in tandem with facilities that are operated with the highest degree of efficiency and safety.

As a leader of waste diversion in California, the RRWMD has achieved and consistently maintained a diversion rate well beyond the State mandated 50%, despite the challenges of increasing costs and minimal population growth (unlike other parts of the state and country) to maintain a revenue base to offset increased diversion.

The RRWMD's current rate of 69% places it in the top 10% in California, and in the forefront of the country's diversion efforts.



The RRWMD has staff members who, along with the RRWMD Deputy Director, take great pride in the high standards expected and achieved in the programs and facilities that comprise the inter-related elements of its waste management system, and function together to accomplish the RRWMD's mission: *"To protect the public health and environment of our community by efficiently managing waste products and utilities with a focus on resource conservation."*

Because it is a public agency, the RRWMD is accountable to the rigorous expectations of a highly-involved citizenry and environmental regulators, yet operates as a business, vigilant of cost efficiency and long-term effectiveness of each decision. Finding and maintaining a balance among these sometimes competing factors has, in fact, become the very means by which the RRWMD has become an effective leader in innovative environmental stewardship and waste diversion.

Forward Thinking Requires New Thinking

In 2001, the RRWMD led the creation of a regional initiative which brought together representatives and elected officials from cities, the County, regulatory agencies and special districts, to discuss long-term waste management issues. The group's purpose was to collaborate on long-term solid waste management plans for each watershed in the County to ensure the safety and longevity of the Tajiguas Landfill. Several subgroups were formed to address specific issues, including Special Waste and New Technologies. In 2004, the group's plans were released and approved by all jurisdictions.

That same year, the administrative staff's physical move to a new building provided the impetus for a contextual move: redefining "waste" as *resource*, the division name was changed from the Solid Waste & Utilities Division to the Resource Recovery and Waste Management Division, refocusing its responsibilities as far more than safely disposing of waste, but of managing waste as a valuable resource.

The emphasis on resource recovery and maximization instigated a perspective that *all* aspects of the system are resources, and that *sustained excellence which advances a closed loop of industrial ecology* would be the RRWMD's bottom line. "Cost" became more than merely "bottom line money spent now" but inclusive of the long-term: cost in terms of impact to the environment, long-term cost to worker and resident health, impacts of present-day stewardship choices that will affect future residents and other regions. "Leadership" became defined as engaging all participants as partners in creating forward thinking solutions through innovation and consensus.

Anticipating both needs and regulations, redefining the problem and its component parts, and actively engaging partnerships both local and regional to ensure comprehensive, long-term solutions is what guides the integration of elements of RRWMD's MSW system. This system promotes the continual achievement of excellence that the residents and partners who collaborate with the RRWMD have come to expect.



1.2 Elements of the System

The RRWMD's waste management system consists of its award-winning diversion and outreach programs, the operations of four recycling and transfer stations, one household hazardous waste collection center, the nationally-recognized Tajiguas Active Landfill, ten closed landfills, and the Laguna Sanitation District Wastewater Treatment Plant in the North County. (See Appendices for RRWMD Sites Map) In addition, the RRWMD is responsible for administering the franchise agreements for the collection of solid waste materials from residents and businesses in the unincorporated areas of the County, as well as the enforcement of local solid waste management ordinances. The programs and facilities function together to create the mechanisms and operations that support residents in understanding and doing their part to maximize reuse, diversion and recovery efforts for the MSW materials generated in the County.

1.2.1 Elements: The Diversion/Recycling Programs

Eight Collection & Materials Management section staff members create and manage the programs, working with residents and a variety of local and regional partners to provide outreach programs that allow for grassroots changes in residents' perceptions and behaviors regarding the waste materials that they generate. By waste type, the programs are:

- Source Reduction Reduce, Reuse Campaigns
- Composting Backyard Composting
- Recycling/Diversion Commingled Recycling
Mandatory Commercial & Multi-Family Recycling
School Recycling
Household Hazardous Waste Program – including Used Oil, Sharps and
Community Hazardous Waste Collection Center
Electronics Recycling
Construction & Demolition Waste Recycling
Mulch Program (Greenwaste, Woodwaste Recycling)
Recycling Market Development Zone
Illegal Dumping/Abandoned Vehicles Program
- Energy Recovery Conversion Technology Initiative

COMMINGLED RECYCLING PROGRAM FOR SINGLE FAMILY RESIDENTIAL CUSTOMERS

The RRWMD had initiated recycling efforts prior to the enactment of California's AB939, which called for 25% recycling by 1995 (the County achieved 28%) and 50% by 2000 (59% was achieved that year; County is currently at 69%).

In 1997, the RRWMD re-negotiated franchise agreements with the haulers, with the long-range plan of creating increased recycling habits by making the service as easy for customers as possible. Collection service was streamlined for all customers to once a week trash, once a week green waste, and every other week recyclables that could be commingled into one container. By implementing this expanded, more convenient program, the RRWMD has seen a 260% increase in the tons of recyclables collected since the inception of the program.



MANDATORY COMMERCIAL AND MULTI-FAMILY RESIDENTIAL RECYCLING PROGRAM

The RRWMD launched its Business Recycling Program in January 1999. Based on extensive outreach efforts, over 200 businesses added cost-effective recycling programs or improved their existing ones. But despite these efforts, the commercial/industrial sector still generated approximately 55% of the County's total waste with less than 30% of that being recycled. In 2002, although the overall County diversion rate was well above the 50% state-mandated rate, the Board of Supervisors made a condition of its approval for the expansion of the Tajiguas Landfill that the RRWMD consider expanding existing recycling programs and/or developing new programs. The development of mandatory multi-family and commercial programs was raised as a possibility due to RRWMD research that showed such a program:

- Could be implemented with existing infrastructure, budget, and staff without expending new capital
- Could potentially divert an additional 7,500 tons (3% diversion) from unincorporated areas, thereby saving valuable landfill space; and
- Could maximize diversion by encouraging other jurisdictions in the Tajiguas Landfill waste shed to adopt a mandatory program as well



The program was developed with—and had the unanimous consensus of—various stakeholders such as rental property groups, chambers of commerce, environmental groups, franchise waste haulers, and other jurisdictions. Implementation began in September 2003.

The RRWMD offered three options to comply with the disposal ban, provided a grace period, and outlined the anticipated means of ensuring compliance and enforcement. Included was a rigorous stipulation: If a business owner refused to recycle or had unacceptably high levels of contamination in his/her recycling container, a non-compliance fee of 20% of the trash service rate would be imposed. They were, however, given the opportunity to request a waiver or exemption if they could demonstrate that the requirements of the program would result in "undue or unreasonable hardship."

If denied an exemption, they could request an administrative review hearing. A customer-friendly protocol was developed, and RRWMD staff emphasized their commitment to working very closely with owners to address any difficulties and help ensure that their recycling programs were successful. The RRWMD additionally offered individual business consultations and waste audits.

As of September 2005, only 5 of 1,465 commercial customers had not established a recycling program. Further, the franchised waste haulers reported collecting 100 tons more recyclables per month than they were prior to the implementation of the program. The diversion rate increased 2% from (FY) 2002-03 to FY 2003-04 and an additional 1% from FY 2003-04 to FY 2004-05. (Note: A percentage point is equal to about 3,100 tons). Success is ensured through an ongoing process requiring periodic follow-up with waste haulers and commercial customers.

SCHOOL RECYCLING PROGRAM



The future stewards of resource recovery are the more than 70,000 students and 7,500 school staff members throughout Santa Barbara County public schools. The County services approximately 19 private schools, some with multiple campuses, and over 50 public schools (some share campuses) in 21 school districts. More than 8,000 tons of waste are estimated to be generated each year by this group. Up to 80 percent of their waste could be diverted. Since the program's inception in 1999, the RRWMD staff members have been helping schools save money and educate students on environmental stewardship.

It is important to note that many of the school districts, especially the larger ones, have "joint custody" between a city and the county, so RRWMD staff members strive to cultivate strong working relationships among all parties, so that all are aligned toward joint action for maximum results and follow-through.

The RRWMD offers a variety of services to schools in the unincorporated areas of the County that want to start, improve, or expand their recycling programs, including:

- Performing Waste Audits to identify how much a school could be recycling
- Making schools aware of "holiday reduced service" options and other strategies that will help them save money so it can be spent directly on education
- Providing both indoor and outdoor Recycling Containers and accompanying Bi-Lingual Outreach Materials
- Funding recycling and composting education by contracting with Art From Scrap, a local nonprofit devoted to diverting waste from the landfills.
- Providing articles to the Santa Barbara County Education Office (SBOE) newsletter, distributed to all schoolteachers in the County.
- Providing pamphlets designed to address Faculty and Administration concerns and issues
- Developing Recycling Frameworks so that every school in a district is aware of their recycling requirements and money saving options

Through the efforts of school officials who used RRWMD staff's waste audits, Goleta Union School District tied recycling rates to annual principal performance evaluations and the principals took the districts initiative to heart: the District saves an estimated \$47,000 to \$71,000 per year by increasing their recycling rate to around 50 to 67% of their waste stream.

HOUSEHOLD HAZARDOUS WASTE PROGRAM

The Household Hazardous Waste (HHW) program is comprised of several programs that address specific waste types, temporary HHW events, and the Community Hazardous Waste Collection Center (CHWCC). Initiated in 1991, the program's purpose is to divert HHW from disposal at the landfill by providing the public with disposal methods that are convenient, safe, and environmentally sound. Approximately 48% of the total hazardous waste received at RRWMD facilities is recycled through the RRWMD's programs. Since 1993 when the CHWCC began operation, the program has served approximately 110,000 residents and small businesses in the County's unincorporated areas and in the Cities of Santa Barbara, Goleta, and Solvang.



Beginning in 2002, the RRWMD convened a subgroup of locally elected officials to discuss long term waste issues, whose ongoing purpose is to identify regional challenges and develop comprehensive approaches for the appropriate management and disposal of special regulated wastes. The Subgroup provides a forum for information-sharing among participating jurisdictions and facilitates coordination of regional public education/outreach campaigns, and created a regional planning document entitled "Hazardous and Universal Waste Management Plan for Santa Barbara County" which is regularly updated to include recent regulations.

- **HHW PROGRAM: HHW COLLECTION EVENTS.** To accommodate residents who are not able to utilize the CHWCC due to transportation challenges, the County holds one-day collection events annually at the New Cuyama Transfer Station and biannually at the Santa Ynez Valley Recycling & Transfer Station (SYVRTS). In FY 2006/2007, residents dropped off 71,034 pounds of hazardous waste at these events. (This does not include another 33,918 pounds of electronics that were also collected at the events.)
- **HHW PROGRAM: HOUSEHOLD BATTERY COLLECTION.** This program originated as a partnership between RRWMD and a local non-profit, but the RRWMD subsequently took over administration of it, at a cost savings. Twenty-seven local retailers serve as satellite collection sites where residents can drop off household batteries at no charge. These retailers then bring their batteries to the CHWCC for free. In FY 2006/2007, approximately 1,000 pounds of batteries were collected from these sites.
- **HHW PROGRAM: USED OIL RECYCLING.** The RRWMD manages this California EPA-recognized regional program in partnership with the California Integrated Waste Management Board and the Cities of Buellton, Goleta, and Solvang. The program provides free and convenient opportunities for the public to safely recycle their used motor oil and filters. The RRWMD funds a curbside collection program for oil, filters, and latex paint, and has arranged for nine certified used oil collection centers to accept oil from the public at no charge. These centers include automotive supply stores, quick lubes, automotive repair shops, and a recycling buy-back facility. In FY 2006/2007, approximately 11,000 gallons of oil and 2,600 filters were collected from Do-It-Yourselfers at these sites. The RRWMD has also developed a special used oil recycling program for the agricultural community. In partnership with Health Sanitation Service/Waste Management, the County operates two "ag oil" collection facilities – one in Buellton and one in Santa Maria. During FY 2006/2007, over 3,000 gallons of oil were collected from local growers.
- **HHW PROGRAM: ABOP COLLECTION.** The RRWMD operates an ABOP (antifreeze, batteries, oil and paint) program at the SYVRTS, and the South Coast Recycling & Transfer Station (SCRTS) accepts batteries and fluorescent tubes.
- **HHW PROGRAM: SHARPS.** Because sharps (e.g. needles, syringes, lancets) are not accepted at any RRWMD facilities, the RRWMD partnered with the County's Public Health Department to develop a program in which residents can drop off sharps at five County health clinics. Under this program, residents can pick up free sharps collection containers at the clinics and return them once they are full. In anticipation of California's SB1305, which prohibits the discarding of sharps as of September 1, 2008, the RRWMD is working to expand the number of collection sites and establish stronger relationships with hospitals to increase participation in the program.

ELECTRONICS RECYCLING PROGRAM

In 2001, anticipating legislation passed in 2003/2004 to address the growing stream of electronic waste, the RRWMD implemented a regional electronics collection program to divert electronic equipment of all types from the County's Tajiguas Landfill. Initially part of the HHW program, the program has continued to evolve, and has included annual collection events, daily collection at County facilities for a fee, and eventually daily collection at no charge to residents. This program serves a number of jurisdictions including the Cities of Santa Barbara, Goleta, Solvang and Buellton. The total population of the service area is approximately 262,526 based on year 2000 census data. Currently, the RRWMD accepts electronic equipment at four transfer stations and at one-day HHW collection events. The quantity of electronic waste collected through these programs has steadily increased from 72.5 tons in 2001 to 379.8 tons in 2007.



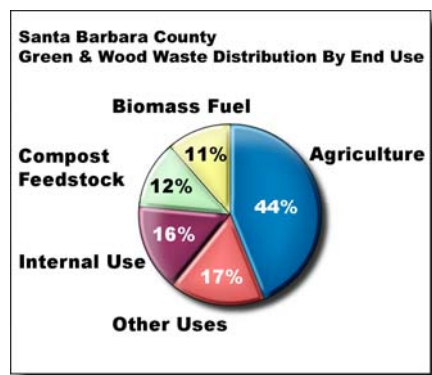
The RRWMD contracts with an electronics recycling company to manage all of the collected material. The company was chosen after considerable research into the ultimate destination of the electronics to ensure that they are dismantled in a manner that protects worker and environmental safety. Furthermore, the chosen recycler has an excellent reputation in "assured destruction," so residents and businesses can rest assured that their computer hard drives are destroyed in a manner that protects privacy.

In anticipation of the growing trend toward policies that require the creators of electronic equipment to take greater stewardship of their products at end-of-life (known as "producer responsibility"), the RRWMD supports initiatives by participating on the California Product Stewardship Council, an organization consisting of primarily local government agencies.



MULCH PROGRAM

At one time, the County's greenwaste was used regularly as Alternative Daily Cover at the Tajiguas Landfill—as is done in many California landfills. It was considered a means of practicing the principle of “reuse”. However, a re-evaluation of both public service opportunities and potential markets for revenue led to a significant change.



Now only used as ADC at the Landfill during major rainstorms, the greenwaste, processed to mulch at RRWMD facilities, is either donated to community organizations or sold at a minimal cost to cover transportation expenses. This approach is considered an investment in the community as it increases awareness and allows water conservation. In the past 4 years, the program has benefited approximately 800 individuals, groups, and businesses, including:

- Highly visited parks such as the nationally-known Lotusland, Alice Keck Park Memorial Gardens, and various city parks
- Non-profit organizations such as schools, churches, 4H clubs, the Veterans Administration
- A broad range of businesses, including cemeteries, ranches, landscapers, orchards, nurseries, and vineyards

COMPOSTING PROGRAM

The RRWMD's website, lessismore.org, offers step-by-step instructions for residents who want to do backyard composting and vermicomposting. The RRWMD conducts workshops on home composting every spring, and also offers workshops to participants in the County Water Division's "Green Gardener Program." RRWMD contributes funding for this program as well. To encourage the practice of composting, RRWMD offers for sale a high-quality backyard composter called "The Earth Machine," at a 50% discount to residents. Residents receive with their purchase a congratulatory letter/contract, which encourages their commitment to use the machine. RRWMD staff members follow up immediately after purchase and again six months following the purchase to ensure customer satisfaction.

CONSTRUCTION & DEMOLITION (C&D) MATERIAL RECYCLING PROGRAM

The management of C&D is an increasing concern across the state of CA, and as of 2007, C&D waste accounts for 31% of all waste generated by the communities in the unincorporated areas of Santa Barbara County. Construction, especially associated with remodeling and demolition, is a thriving business in Santa Barbara County, and represents a great challenge to maintaining existing diversion rates. C&D materials that are most frequently recovered and recycled in Santa Barbara County are wood, concrete, asphalt, and metal. Gypsum wallboard, carpet, and carpet padding are also being processed and recycled in the area. Success in this program has been measured by the fact that 76% of all C&D is recycled: wood is used for woodchip, concrete/asphalt is ground up and used as roadbase, gypsum board is ground up and used as soil amendment, metal is recycled, and carpet and carpet padding are recycled when markets exist.

Processing of C&D material is conducted by both public and private sectors. In 2000, the RRWMD identified an opportunity to partner with a private company that has enabled the construction of one of the State's best C&D recycling facilities. At that time, RRWMD was approached by one of the franchised solid waste collectors and the hauler of the majority of C&D waste in the County with a proposal: in exchange for extending the length of their franchise agreement, they would construct a state of the art C&D processing facility. RRWMD conducted an analysis to determine the number of tons that would have to be recycled to equal the value of the agreement extension. Following the analysis, the RRWMD negotiated with the franchiser to ensure the interests of the community ratepayers were protected, and the agreement allowed construction of the C&D recycling facility to occur.

To continue expanding C&D diversion efforts, a new C&D Recycling program was approved in November 2007 that will include an umbrella recycling requirement of 50% of all C&D waste generated, a requirement for large development projects to prepare a solid waste management plan that includes waste generated during construction as well as during occupancy, and provisions in unscheduled hauler permits requiring the recycling of 50% of waste collected.

In addition, language regarding ideal C&D measures has been provided by RRWMD staff to the County Planning & Development Department for new development projects, and these measures have often been included as recommended environmental mitigation measures on smaller projects or as required measures on larger redevelopment or new development projects.

The RRWMD offers free assistance to companies wishing to develop their own C&D recycling plan.



THE RECYCLING MARKET DEVELOPMENT ZONE (RMDZ)

The RRWMD participates in the RMDZ, a three-way regional partnership among businesses, local government, and the California Integrated Waste Management Board (CIWMB). With the goal of helping recycling-based businesses to start and prosper in California, the RMDZ Program provides incentives to businesses that use secondary materials from the waste stream as feedstock for their manufacturing processes. One RRWMD staff member serves as the Zone Administrator, and works with the CIWMB and staff from participating cities to offer technical assistance, marketing assistance, and below market rate loans.

ILLEGAL DUMPING/ABANDONED VEHICLE PROGRAM

Illegal dumping on private lands costs property owners and the County thousands of dollars in cleanup costs every year. Illegal dump sites pollute waterways, clog creeks and cause flooding, impact animal habitat, create hazards for humans, and negatively affect tourism. RRWMD Refuse Inspectors use a variety of options to work with residents to achieve compliance with county codes, and treat each case with a respectful and service-oriented approach. Refuse Inspectors take extra steps to ensure environmental protection in the following ways:

- If a vehicle is abated, it is taken to a company with whom the RRWMD has contracted; the company first removes any hazardous materials (such as oil) and properly disposes of them.
- If hazardous materials are found on a site that has been given a citation, the owner must provide the RRWMD Refuse Inspector a receipt from the HHW Collection Center proving that the materials were handled properly and not simply dumped elsewhere.

1.2.2 Elements: The Diversion/Recycling Facilities

The Facilities work in tandem with the Programs, providing the operational aspect for diverting or processing the County's waste materials into marketable commodities, considered a resource for both the County and its residents. The operations of the Community Hazardous Waste Collection Center and the four transfer and recycling stations ensure that waste is diverted from Tajiguas Landfill, extending its life and preserving its environmental safety. Additionally, RRWMD manages a wastewater treatment plant that serves a portion of the North County.

COMMUNITY HAZARDOUS WASTE COLLECTION CENTER (CHWCC)

The CHWCC is a public/private partnership between the County of Santa Barbara and the University of California, Santa Barbara (UCSB), whose purpose is to divert household hazardous waste from disposal at the landfill by providing the public with a disposal method that is convenient, safe, and environmentally sound. In 1993, UCSB's newly-completed hazardous waste management facility had excess capacity, so the RRWMD was able to co-locate its community collection program with UCSB's internal collection program. Initially, a local non-profit helped run the CHWCC; currently, there is one full-time RRWMD staff member who oversees the administration of the program and site. The four full-time and several part-time UCSB employees who staff the site are trained in hazardous materials handling and are responsible for receipt and handling of all incoming materials.



The facility serves residents in the South County; there is no cost to residents, and nonprofit organizations are eligible for a 25% discount. This is seen as an investment in changing residents' behavior toward the disposal of these wastes. Specified small businesses are eligible to use the site for a fee. Through the Materials Exchange Program's "Exchange Cart," products are placed on the cart for local residents and businesses; upon signing a release, they can take home a variety of high-grade materials at a significant cost savings.

The inter-relatedness of the HHW program and the CHWCC facility is a strong example of how all RRWMD's programs and facilities work together to achieve success: in the first year of the CHWCC's operation (FY 1993/1994), 260,000 pounds of material were collected compared to 658,873 pounds in FY 2006/2007—a 150% increase.

SOUTH COAST RECYCLING & TRANSFER STATION (SCRSTS)



The SCRSTS, conveniently located in Santa Barbara, opened in 1967 and serves as a central collection point for a large portion of the non-hazardous waste generated in the South County and can process up to 550 tons of waste per day. The SCRSTS receives commercial roll-off containers, as well as waste brought in by residents and small, non-franchised haulers (e.g. landscapers). HHW is not accepted at the SCRSTS, but is redirected to the CHWCC.



Our dedicated staff ensures safe and effective daily operations of recovering recyclable materials, mulch conversion, and highway transportation of materials to recycling centers and end users. To ensure maximum capturing of materials that can result in diversion and revenue, the SCRTS has a dedicated labor crew that pulls out recyclables. The Mulch Program has its base operations at the SCRTS, and has distribution sites located at the other transfer and recycling stations. SCRTS staff and crew members continually seek ways to achieve excellence in operational efficiency as well as regulatory compliance. Oftentimes, this dedication results in cost-savings as well. (*Specific examples are discussed in both Cost Effectiveness (3.3) and Regulatory Compliance (1.3) sections.*)

Operational efficiency is supported at all facilities by the use of Performance Measures (PMs):

- PMs are used to monitor diversion rates. In 2007, the PM was to divert 61% of all incoming waste; SCRTS staff exceeded the PM and achieved 68 %.
- A PM is used to monitor the distribution of processed green and wood waste to beneficial end uses (not including County facilities) at 85% of annual production or higher; this PM is being met as well.

In 2008, the layout of the SCRTS will be revamped to increase operational efficiency. The reconfiguration will enhance efficiency of managing the commingled recyclables, which are a source of revenue to the RRWMD. In preparation for the reconfiguration, SCRTS staff conducted noise studies and related research prior to purchasing a new mobile greenwaste grinder to replace the stationery grinder for production of mulch. Completion of a noise-absorption berm will be done as an extra measure to ensure good relations with our neighbors.

The SCRTS also shares the efficiency of its excellent mechanics, who are often “loaned out” to other County departments—Sheriff, Fire, and Parks, for example—because of their abilities, ingenuity and technical savvy with equipment. One case in point – the large clock on the clock tower of the historic Santa Barbara Court House was in need of repair and parts had to be made (machined) in order to get it to work. Our mechanics achieved the desired result. →



TOURS

To encourage the stewards of tomorrow, tours of the SCRTS operations are given, with an emphasis on hands-on learning for the youngest. Visitors learn about how their waste is processed and the basics of industrial ecology, in order to strengthen the message that they are participants in conserving resources and prolonging the life of the Tajiguas Landfill. Success in this arena is reflected in the enthusiastic thank you letters received from 90% of the visitors.

SANTA YNEZ VALLEY RECYCLING & TRANSFER STATION (SYVRTS)

The SYVRTS, formerly operated as the Foxen Canyon Landfill, serves residents of the Santa Ynez Valley. This facility can process up to 212 tons of waste per day, and is the site of the semi-annual Household Hazardous Waste and Electronics Collection Day. It is also the site of a greenwaste program that targets valley ranches and agriculture. To optimize recycling operations, a dedicated crew similar to that at SCRTS is employed to pull out recyclable materials.

NEW CUYAMA AND VENTUCOPA RECYCLING & TRANSFER STATIONS

These two Recycling and Transfer Stations process under 100 cubic yards of waste per day, and serve local residents only. There are no tipping fees. Waste containing a high percentage of recyclables is taken to the SCRTS for processing. The Ventucopa Transfer Station is sited at a former landfill that the RRWMD clean-closed in 1998.

LAGUNA SANITATION WASTEWATER TREATMENT FACILITY

This facility, located in the North County, serves Orcutt, an unincorporated area of the County. It is managed by the Utilities section of the RRWMD, which also provides engineering support and administrative support to the County's underground utilities program and the County-administered wastewater, water and street lighting districts located throughout the unincorporated areas of the County.



1.2.3 Elements: Tajiguas Landfill



Tajiguas Landfill, the cornerstone asset in RRWMD's waste management system, is a nationally-recognized Class III landfill that has been operating since 1967. The landfill is located 26 miles west of the City of Santa Barbara, and currently serves the South County, and the Santa Ynez and Cuyama Valleys in the North County. The landfill is permitted to process up to 1,500 tons of waste per day.

Maintaining the longevity of the landfill is a key component in the RRWMD's waste management approach of identifying opportunities to achieve a sustainable closed loop using principles of industrial ecology. Such longevity is being achieved in two ways: 1) In 2002/2003, an Expansion was approved/permitted for a total of 23.1 million cubic yards,

which provided 15 years of additional landfill capacity 2) Due to the success of RRWMD's inter-related diversion programs and transfer and recycling station operations, the Landfill's remaining capacity has continued to extend into the future beyond that initial 15 years.

Immediately to the east of Tajiguas is Baron Ranch, a 1,083 acre working ranch (avocados and cherimoyas) purchased by the RRWMD in 1991 to act as a physical buffer to the Landfill. In addition to providing a buffer to the Landfill, the Baron Ranch is integral as a mitigation site for landfill activities and may provide public access trails on the Gaviota Coast.

The Landfill is operated with the highest standards of excellence and innovation, and the many visitors who come for tours – including kindergarten classes, grammar school classes, scouts, high school classes, the local community college and UCSB graduate environmental classes, and community groups—witness these standards firsthand. Visitors observe in action the Falcon Program that has made Tajiguas a state leader in innovative solutions (see *Section 1.3, Technology*), learn about how landfill gas is converted to energy at the co-generation plant, and are shown the environmental protections that are in place to ensure the safety and longevity of their landfill.

1.2.4 Elements: The Closed Landfills

CLOSING THE LOOP: THE LIFE CYCLE OF A LANDFILL

The RRWMD's Engineering/Permitting section is responsible for the safe and cost-effective closure of landfills, and for monitoring and maintenance of all closed landfills currently or previously owned by the County. (*The ten closed landfills managed by RRWMD are shown on the RRWMD Site Map in the Appendix.*)

Through RRWMD's ongoing programs to restore the land to its natural beauty for the community to enjoy, old landfills are seeing new life and are now seen as valuable community assets rather than long-term liabilities. The following exemplify the RRWMD's success as leaders in reclamation and restoration:



FOXEN CANYON CLOSED LANDFILL

Turning a requirement into an opportunity, RRWMD staff partnered with the Santa Barbara County Agricultural Commissioner's Office on a project that engages the next generation of environmental stewards in closing the loop on the life of this landfill. To mitigate for the loss of oak trees due to the construction of the landfill, RRWMD is required to plant several hundred replacement trees.



Through the Commissioners Office's High School Planting Program, locally collected acorns are brought to area high schools. Students grow the acorns into seedlings and return the seedlings to RRWMD for planting on and around the closed landfill. About 120 trees have been planted, and are caged for protection and monitored for several years to ensure their survival.

The partnership is a win all the way around: the trees are native to the area and so have the best chance of survival, the costs of the mitigation are reduced significantly, and the students enhance their understanding of their local environment and become part of a project that benefits their community.



FOOTHILL CLOSED LANDFILL

This closed landfill is located between the cities of Santa Barbara and Goleta, and served the south coast of Santa Barbara County before Tajiguas Landfill opened in 1967. The site is now valuable urban open space and houses two non-profit organizations: Hearts, a therapeutic riding program for children and adults with disabilities and Growing Solutions Restoration Education Institute (Growing Solutions), a non-profit nursery specializing in native plant propagation. RRWMD also has given Biofuel innovator Russell Teall the use of an area at Growing Solutions to grow jatropha plants, whose seeds hold great potential as a viable County alternative fuel source.

RRWMD staff applied for and received two grants to conduct an ambitious revegetation/restoration project, and the project is being conducted as a partnership with the Community, RRWMD and a local non-profit organization.

At community planting days sponsored by RRWMD, neighbors are invited to participate in the restoration of their neighborhood open space. Students from a local community college horticultural program have also participated in the restoration providing them with a “hands on” learning experience. Almost 5,000 plants have been installed to date through this effort. The community events foster a shared stewardship of this resource—once a valuable community landfill, now a valuable community open space.



1.3 Environmental Protection/Regulatory Compliance

In alignment with the County Board of Supervisors Strategic Plan’s Goal No. 2, *A Safe and Healthy Community in Which to Live, Work, and Visit*, the RRWMD has established a goal to “Meet or Exceed all Regulatory Requirements at Each Solid Waste and Utilities Facility.” As a result of operational excellence, pro-active communication and attention to worker health and safety, all RRWMD sites are in compliance with regulatory requirements. Specifically:

- ✓ **Operational Excellence.** Staff members at each facility employ specifically-outlined Best Management Practices that are beyond the minimum requirements, to ensure that the goal of meeting or exceeding regulatory requirements is consistently met. An example of going above and beyond the standards is reflected in that Standby Operations personnel are available to staff the Tajiguas Landfill on Sundays or holidays if an emergency arises.
- ✓ **Pro-active Communication.** RRWMD engineers, program staff, and operations personnel have cultivated positive, pro-active relationships with the representatives from each of the regulatory agencies who oversee all our resource-handling facilities. This is accomplished both through telephone contact between inspection visits and permit/compliance report submissions and through regular meetings held to discuss facilities operations and compliance strategies. The feedback that comes from these ongoing discussions provides the springboard for some of the efforts that are above and beyond regulations.
- ✓ **Worker Safety.** The top priority at each RRWMD facility is worker safety. An RRWMD health and safety officer trained in industrial and hazardous waste safety conducts and oversees safety-related programs such as CPR/First Aid, Bloodborne Pathogens, Refrigerant Removal, Operator Qualification, Forklift Certification, Fall Protection, and Respirator Medical Evaluation and Fitness. All RRWMD staff members are required to attend safety-related informational meetings. Workers at each facility receive training, attend bi-weekly tailgate meetings, and are required to read applicable material if workload prevents attendance. Personnel who handle hazardous waste receive a forty-hour course in hazardous waste handling and annually receive an eight-hour refresher course.

In addition to being in compliance with regulations, RRWMD facilities and programs have been recognized for their pro-active excellence in environmental stewardship:

AWARDS/RECOGNITION

1991	Challenge Award Grand Prize, awarded by County Supervisors Association of CA to Santa Barbara County for the Toilet Recycling Project
1993	San Diego/Southwestern Area Emmy Award Outstanding Achievement/Public Service Announcements: “Do More, Use Less” Campaign
1994	San Diego/Southwestern Area Emmy Award Outstanding Achievement/Public Service Announcements: “Do More, Use Less 1994” Campaign
1994	California Resource Recovery Award for Innovation in Government, for the County of Santa Barbara’s Community Household Hazardous Waste Collection Center
1995	San Diego/Southwestern Area Emmy Award Outstanding Achievement/Public Service Announcements: “Oil Recycling Wizard” Campaign
2001	SWANA (Solid Waste Association of North America) Silver Award for Landfill Management Excellence, awarded to the County of Santa Barbara for Tajiguas Landfill
2002	Cal EPA Program Excellence Award for Household Hazardous Waste/Used Oil Program



1.4 Technology

The RRWMD's commitment to utilizing technology and processes to maintain the system's excellence has established its reputation as a leader in employing technology to achieve innovative solutions:

➤ *State-of-the-Art Technology + Ancient Art = Innovative Solution*

In 2000, County environmental groups, concerned about high bacteria counts that impacted Arroyo Quemado beach, ½ mile away from the landfill, pointed to the landfill as the source of the contamination. RRWMD worked with the community, and proposed to fund and undertake a state of the art DNA study to help identify the source of the contamination and help lead to solutions.



The study revealed that the source of the bacteria was the gulls that nest at islands off of the Santa Barbara Coast and are attracted to the Gaviota Coast for a large number of reasons including the presence of the landfill. Unfortunately, as is the case at many coastal landfills, the gulls became accustomed to the standard deterrents used at Tajiguas and used the lagoon at Arroyo Quemado as a resting place.

The RRWMD's solution: the Falcon Program. Initiated in 2002, the program uses falcons (a natural predator) to scare seagulls away from the Landfill. The result: no longer do large numbers of gulls (4,000 gulls at the peak) congregate at the landfill, which has led to immediately improved water quality at local beaches and improved working conditions for landfill personnel.

The Falcon Program has gained national recognition, and it is a key--and extremely popular--element of the Landfill's Public Education Program.

➤ *Landfill Gas-to-Energy Technology*

The Landfill Gas-to-Energy system safeguards the landfill by collecting landfill gas that can be a hazard and removing contaminants that could enter into the groundwater beneath the landfill. The system also uses landfill gas to power an internal combustion engine to turn a generator which makes electricity as a "Green Energy" project; the amount of green electricity generated can power up to 2,500 homes per day.



➤ *Supporting Bio-Technological Advances*

Bio-diesel fuel innovator Russell Teall has been given use of land at a native-plant nursery located on RRWMD's Foothill Closed Landfill, to initiate development of the use of the *jatropha* nut, which holds great potential as a viable local alternative fuel source.

➤ *Establishing an Equipment Replacement Plan*

The RRWMD operations staff established a Five Year Equipment Replacement Plan which is updated every year, and consists of upgrading/replacing more polluting equipment with less polluting equipment. This improves air quality at the operation, which is good for workers as well as the environment. Examples include:

- With the support of grant funding, SCRTS mechanics retrofitted diesel particulate filters (DPFs) on almost all on-road trucks (semis, rollofs, dump trucks). This insures much cleaner exhaust air.
- A grant to help replace a 1993 scraper has a condition that the old scraper be destroyed (scrapped). Although the frame can be recycled for its metal and other recyclable content, RRWMD staff members are seeking out other municipalities with similar equipment to investigate the possibility of being able to transfer the equipment to another agency to replace their worst-polluting equipment.



1.5 Design Strategies and Long-Term Availability

Achieving long-term excellence has always been at the forefront in design decisions regarding the RRWMD's integrated system:

- Environmental protection and the end-use of the landfill were key community concerns that guided the original choice of Cañada de la Pila as the site for a regional landfill. Much of the canyon is underlain by massive shales, siltstones and claystones of the Rincon Formation, which provides a natural protective liner and also provides readily available economically accessible source of low-permeability soil cover. Additionally, the elevation and topographic characteristics of the project site easily isolate and minimize potential project-generated visual impacts from Highway 101, allowing the visual qualities of the scenic Gaviota Coast to be preserved. The landfill is largely screened from public view, and most passersby who are enjoying the Gaviota Coast are not even aware that the landfill is there.
- Baron Ranch, adjacent to Tajiguas Landfill, was purchased as a buffer, but it also has potential for other uses: to provide future public recreational opportunities, and as a possible restoration site to work in conjunction with the Landfill. Large portions of the site that have not been converted to orchards contain native vegetation-providing habitat to a wide range of sensitive plants and wildlife, and this has provided an opportunity to create a cost-saving and value-added Reconfiguration/Restoration project that is being launched in 2008.

Redefining Problems as Opportunities: Designing for the Future

Both the Reconfiguration/Restoration Project and a Conversion Technology Initiative exemplify the RRWMD's design approach for long-term system availability:

Tajiguas Landfill Reconfiguration/Baron Ranch Restoration Project. This project is an innovative approach that RRWMD staff members have proposed to address sediment management issues, reduce environmental impacts of the permitted landfill expansion, and reduce project costs, while implementing extensive restoration and conservation activities on the adjacent Baron Ranch. Both the landfill and Baron Ranch have breeding populations of the Federally-threatened California red-legged frog. However, due to the quality and availability of habitat, Baron Ranch supports a significantly larger population of frogs. In this project, frogs from Tajiguas will be relocated to Baron and the valuable riparian resources at Baron would be restored, enhanced and placed under a permanent conservation easement. Additionally, the project will significantly reduce grading requirements, which will reduce associated air emissions, noise and costs at Tajiguas Landfill.

The RRWMD will work with various regulatory agencies to ensure the success of the project: Water Quality Control Board – Central Coast Region (RWQCB), California Integrated Waste Management Board (CIWMB), Army Corps of Engineers, U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

Conversion Technology (CT) Initiative. The RRWMD, with its regional partners, is leading an evaluation of constructing a CT facility to service the South County to ensure better utilization of resources still being buried, conservation of valuable landfill space, and effective planning for the communities' future solid waste management needs. The CT initiative is illustrative of the RRWMD's approach to designing new programs and/or facilities:

Designing the Project: Re-defining the Problem

The RRWMD has aggressively implemented source-separation programs since 1989 and made commercial recycling mandatory in 2003. Despite these efforts, valuable resources continue to be thrown in the trash. Included in all conversion technologies is the ability to further sort MSW before it is converted. This will allow the County to collect recyclables as well as gain the value of these marketable commodities and increase diversion.

Designing the Project: Anticipating Community Need and Regulatory Requirements

Given that the RRWMD's Tajiguas Landfill is currently the regional service provider for solid waste management, the RRWMD believes it is imperative to extend the life of the region's landfill to maximize its value and use. The possibility of a CT-based facility has been discussed, in view of the fact that if such a facility is not constructed, the County will need to expand its existing landfill, site a new landfill, or find an alternative disposal site.

The RRWMD has consistently tracked the tipping fees charged as well as the disposal capacities for landfills within central and southern California. Landfill capacity is decreasing and tipping fees are on the rise. The RRWMD believes that it can provide greater operational and financial stability by developing its own facility rather than relying on external facilities to provide waste management services.

A CT facility would provide an upfront extensive sorting and converting process that can reduce incoming waste by 75%. If a facility of this type were operational by 2014, the proposed project could meet the communities' solid waste management needs for the next 40 years. This could be accomplished by integrating new innovative technologies into the existing infrastructure.



Designing the Project: Regional Partnerships/Planning

In June 2001, a Task Group comprised of elected officials from all County jurisdictions and a representative from the Sanitary Districts was formed for the purpose of providing a forum to discuss and plan long-term solid waste management programs and facilities for the County. A sub-group was tasked with the evaluation of technologies that further recover recyclables from the wastestream and convert the remaining trash into marketable products such as synthetic fuels or electricity thus reducing future dependence on landfills and providing a local green energy source. An extensive evaluation of CT technologies was performed, and included facility costs and revenues, demonstrated ability, and capability of meeting health, safety and environmental standards. In 2004, the Task Group unanimously approved a conceptual long-term solid waste management plan for the County, which included a recommendation for the development of a waste conversion facility to serve South Coast jurisdictions. All of the participating jurisdictions subsequently approved the Plan.

In 2007, regional elected officials moved forward on evaluating the construction of a CT facility at the county-owned Tajiguas Landfill. The RRWMD took the lead and developed an RFP to select a consultant to take the project to the next step by updating the data collected to reflect recent changes in the industry, and issue a report of findings. This report is pending, and there is growing interest among members of the community to pursue this project.

Designing the Project: Environmental Stewardship

The following goals for the proposed project were developed and approved by area elected officials: increase diversion of post-recycled MSW for affected jurisdictions; reduce environmental impacts of landfilling MSW; provide financial feasibility and sustainability; produce green energy and other marketable products; provide a humane work environment; result in a long-term waste disposal plan.

Several of the appealing aspects of the proposed project that were integrated into the project's goals are associated with more efficiently using resources and protecting the environment. With CT, following the processing and converting of waste products, a residual material will still need to be landfilled. This material will be relatively inert and have significantly less potential for affecting water quality and generating air emissions.

Designing the Project: Technology

Within the County of Santa Barbara there is an interest in being energy independent and the potential for generating energy from trash has been identified as a contributing source. Most of the technologies being evaluated do generate a synthetic fuel or other type of green energy.

Designing the Project: Community Relations & Public Education/Outreach

As is the standard process for raising community awareness of new or potential programs and facilities, the Division has made over twenty-five presentations to community environmental, business and civic organizations, other agencies, and jurisdictions that may be interested in using the future facility. The purpose of the presentations was to solicit feedback from the interested parties on the proposed project goals as well as provide foundation information on the concept of conversion technology and the potential benefits to our community. Concurrent with stakeholders meetings, a dedicated website, www.CONVERSIONTECHNOLOGYSTUDY.com, was created and launched. Once the evaluation has been completed, the RRWMD will conduct additional outreach targeting those that have continued interest in the project.



1.6 Customer Service

The RRWMD has a unique approach in its definition of “customers” which allows consistent excellence to be achieved: all the people with whom we do business are considered *partners* whose participation is critical to our continued integrated resource recovery and waste management success. There are several different kinds of partnerships, based on what community need or issue is being addressed:

Community Program Agreement Partners – these partners include other jurisdictions (cities) to whom RRWMD provides a range of residential community services, such as the Coastal Cleanup day and Hazardous Waste disposal.

Contracted Assistance Partners – these are public and private partnerships such as collection service providers, commingled recycling processors, and non-profit organizations that support our outreach.

Facility Users – those who utilize the facilities provided by RRWMD, whose disposal habits are targeted by the RRWMD Programs, and to whom RRWMD must provide excellent and cost-effective services in order to stay competitive and keep their business.

Further, RRWMD staff view all interactions as an opportunity for excellent service and outreach, making customer service and community relations as inextricably related as the programs and operations themselves. The following examples are ways that the RRWMD serves its customers/partners:

- Subsidizing and investing in community: many programs have begun with low or no cost to the user, both as a service and as a grass-roots outreach strategy to help cultivate new habits that will ensure longevity of the waste management system.
- Providing technical assistance in achieving program compliance.
- Conducting periodic audits on waste haulers to ensure they are fulfilling their part of the partnership and providing customers with optimal service.
- Offering discounts at the Transfer Stations for clean loads.



- Providing convenience: residents can obtain mulch at two convenient locations, the SCRTS and the SYVRTS. Residents can also have mulch delivered for a nominal charge based on volume requested. If it is picked up by the resident, there is no fee.
 - Valuing customers' time: RRWMD staff now use a new time-saving GIS-based database system for residents who use the CCHHW.
 - Supporting local non-profits: Hearts Adaptive Riding Program, which serves mentally and physically challenged young people and adults, is not charged for the use of land at the Foothill Closed Landfill where their stables and riding corrals are located. Over 50 riders come weekly to use the center.
- Supporting County Customer Service initiatives: As a Division of the Public Works Department, RRWMD is part of the ACE (Accountability, Customer-focus and Efficiency) program, a County Board of Supervisors initiative that promotes a customer-service culture and which includes established performance planning and annual performance objectives linked to business priorities and service delivery.
 - Conducting a Customer Satisfaction Survey: in three separate surveys conducted between 1997 and 2007, residents have consistently given Recycling Convenience and Protection of Environment very high marks.



2.0 COMMUNITY RELATIONS

2.1 Public Education and Outreach Programs

Throughout the years, the RRWMD has used an array of strategies to engage the public in a shared stewardship of waste-related resources and the preservation of the landfill. Both the Public Education and the Outreach processes RRWMD has developed are, essentially, change management tools that utilize partnerships, resources, and awareness to achieve a sustainable closed loop of industrial ecology.

Public Education and Outreach strategies include:

- **Campaigns as Change Management.** Waste-specific campaigns have been created for a variety of media:
 - Newspaper ads
 - Brochures in English and Spanish are provided for general distribution at events, facilities, and points of purchase
 - Flyers in hauler newsletters
 - Radio and television spots
 - Ads on movie theatre screens, to reach the broadest possible audience
 - *What's Recyclable* Posters (English and Spanish) for display in common areas of the workplace; downloadable from the lessismore.org website



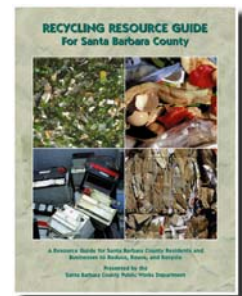
Some examples of Program-specific efforts are:

- **Electronics:** outreach includes partnerships with agencies such as the Agricultural Commissioner's office to promote the program to farmers.
- **Universal Waste:** a social-based marketing approach was used to inform the Spanish-speaking community by tabling at community events and producing and airing two television ads on Spanish television that featured a highly recognized Spanish-speaking representative from the community.
- **Greenwaste/Mulch:** An RRWMD staff member came up with an innovative approach to bring visibility to the program—he wrote a song that features a singing yardwaste container. [A link to the site with the song is: http://www.lessismore.org/Current%20Activities/current_activities1.html] The song will be used in a public education campaign launched in Spring 2008. Included in the campaign will be a Spanish version of the song to target the large Hispanic population in the County, a printed mailer and active partnering with local vineyard owners and landscapers to attain maximum outreach.



- **RRWMD's LessIsMore.Org Website.** A constantly evolving website presence has updated information and announcements about upcoming events, as well as ongoing information.

- **Recycling Resource Guide.** A comprehensive guide printed both in English and Spanish; an electronic version is posted on the lessismore.org website. →
- **Coordination of Recognition Events.** The RRWMD helps coordinate the *Green Awards/Green Business Awards* program which presents awards to local organizations or businesses who exemplify excellence in waste management practice.
- **Attendance at Special Events.** RRWMD staff members attend annual such as Earth Day, where they reach at least 8,000 attendees, primarily families, and Cinco de Mayo, which offers outreach opportunities to the Hispanic community.



3.0 FINANCIAL AND BUSINESS MANAGEMENT

3.1 Financial and Operational Goals of the System and Community

Santa Barbara County's Strategic Plan provides an overarching guide to defining and measuring the expected outcomes of County government services by holding the values of Accountability, Customer Focus and Efficiency as its guidelines. RRWMD has established four key goals within its Five Year Strategic Plan with these values in mind:

1. Maintain a Minimum of 15-Year Disposal Capacity
2. Meet or Exceed all Regulatory Requirements at all RRWMD Facilities
3. Continue to Increase Diversion (currently at 69%)
4. Pursue Additional Revenue Sources and Reduce Costs

The RRWMD has made significant progress in implementing these goals:

- The County Board of Supervisors approved the Landfill Expansion Project in 2002, which provided an additional 8.2 million cubic yards of capacity (at least 15 years of life).
- The Tajiguas Landfill was given national recognition for exemplary operation.
- The diversion rate of 69% put the County in the top 10% of the State.
- Two internal tools initiated in FY 2001/02, the Cost of Service Analysis and the Long Term Financial Forecast, have helped identify areas for cost savings well in advance of need.
- A Reserve Policy has been established for landfill closure, capital expansion, capital equipment, and 60 days of working capital. These reserves represents a long-term commitment to the community to provide funding for future waste management options including landfill expansion, waste conversion technology, or other long-term options.
- The RRWMD pursued the marketing of all diverted materials.

Long Range Solid Waste Strategic Business Plan

The RRWMD has included four steering principles as criteria to guide the development of a new 20-year strategic business plan, initiated in 2002. While addressing changing market conditions and the issues facing the solid waste industry, the principles to be included are 1) regionalization, 2) local control, 3) increased diversion, and 4) monitoring of emerging technologies to ensure longevity of the Tajiguas Landfill. RRWMD will, with its local and regional partners, develop system options and present those options to the community for input regarding service level and cost.

3.2 Planning and Forecasting

RRWMD is an Enterprise Fund, operated and managed as a business with a focus on customer service and competitive pricing. RRWMD revenue comes from Tipping Fees, Program Fees and Franchise Fees. Prior to 2001, the Tipping Fee supported both operational and program costs. (See Section 3.4, *Change Management*)

- Haulers in unincorporated areas pay a Program Fee equal to 8% of their net customer sales (a pass through cost to rate payers). This fee offsets the cost of programs provided to the rate payers within the various unincorporated areas of the County.
- Cities pay fees directly to RRWMD based upon costs of programs provided to their jurisdictions.

There are three key internal planning and forecasting tools that RRWMD uses to create and maintain a balanced budget:

1. *Cost of Service Analysis.* An internal evaluation is done annually on all Programs and Cost Centers. This document gives RRWMD the means to determine what the true costs are for each of the facilities and program services. The analysis also gives the Division the opportunity to identify any trends or areas that could benefit from operational changes.
 - A similar analysis was previously prepared by an external consultant, but in 2000, it was decided that for cost-effectiveness and efficiency, as well as quality assurance of the final product, it would be done in house. A team of RRWMD staff members as well as representatives from both the Auditor Controller and Executive Offices were brought together to develop a document that was specifically representative of the RRWMD. The final document was reviewed by R.W. Beck & Assoc., an outside consultant, who determined that it exceeded industry standards. (See *Appendices for Letter from R.W. Beck*)
 - Quarterly Performance Measures are prepared as a checkpoint to be sure the analysis is on track.
 - This tool helps RRWMD give back to the community. When revenues are received, such as CRV value on recycled beverage containers from the State, they are used as an offset for jurisdictions' costs for educational and diversion development programs.



2. *Long Term Financial Forecast.* An internal planning tool created in 2000 with the consultant R.W. Beck as a complement to the Cost of Service Analysis. This model begins with two years of historical Actual Revenues and Expenses, includes the current year budget and the proposed budget of the upcoming year, then projects 15 years of Division budgets.
 - This planning tool takes into account the RRWMD five year capital plan, inflation, and historical and current trend factors that will affect revenue and costs on which rates and fees are based.
 - It is RRWMD's goal to set rates to be both stable and competitive. This enables the community to continue choosing to maintain local stewardship of their trash (vs. shipping it out of County and making it someone else's problem).
3. *Reserve Policy.* A policy has been established that requires reserves to be set aside for landfill post closure maintenance, future capital expansion, capital equipment replacement, and sixty days of working capital.
 - Reserves for landfill post closure provides funding beyond the financial assurance mechanism required by the CIWMB. This provides a means to the community for funding the long term responsibility of maintaining the landfill it uses today, once it has been closed.
 - Reserves for capital expansion represent a long-term commitment to the community to provide waste management beyond the permitted life of the landfill. This assures the community that funding will be available whether the landfill is expanded, converted (CT) or other long-term options.
 - Reserves for capital equipment replacement allows RRWMD to minimize impacts on County rates as well as maintain cost effectiveness of operations with reliable and emission compliant equipment.
 - Reserves for working capital provides a sufficient cash balance that allows for continued operations for a minimum of 60 days in the event of an unforeseen emergency.

Looking toward the future, the RRWMD is identifying ways to build stronger regional partnerships.

Capital Planning and Project Tracking

Prior to every budget cycle RRWMD revises its Five Year Capital Plan. This planning document includes all active and planned capital projects within a five year period. Each project includes a full description of the scope of work from preliminary design and environmental work through post construction operations. Also included are the funding sources and costs anticipated per year as well as ongoing operational costs. The Five Year Capital plan lays the foundation for the annual capital budget and is revisited and revised, where necessary, just prior to the submission of the final budget. All projects appearing in the Five Year Capital Plan, as well as significant non capital projects, are monitored through a project tracking database. Project managers report on the status and progress of their projects throughout the year in a formal meeting before the County Administrator and Departmental Managers. (See *Project Tracking list example in Appendices*)

All these planning tools allow RRWMD to be responsive to changes that inherently occur with project planning and execution.

3.3 Cost Effectiveness

The RRWMD continually reviews all programs and operations for ways to improve worker efficiency, save customers' time, and achieve overall efficiency and cost effectiveness. But for the RRWMD, "cost" has a definition that goes beyond immediate financial implications. When RRWMD consider the "costs" involved with a program, we are taking into account the long-term costs as well as short-term outlay; the "costs" of subsidizing programs that are an investment in shaping a new future; the "costs" to the environment or to worker health and safety; the "costs" to future residents that are both environmental and financial. The following are examples of how the RRWMD achieves cost efficiency and effectiveness:

Electronics Recycling

- A Net Cost Report is submitted annually to the CIWMB. This allows for cost analysis review, as well as fiscal accountability to the regulatory commission.
- In 2006, the one-day South Coast collection event was offered for free for the first time – "Free" was considered an investment in changing behaviors at a grass-roots level. It was successful: the event yielded participation three times greater than any previous event. Households are no longer charged fees, in part due to funding provided by the state for "covered electronic devices."
- As of 2007, RRWMD staff have concluded that the best, most convenient and cost-effective option for residents to recycle their old electronics is at permanent collection centers such as the SCRTS and the SYVRTS. One-day events are limited to those that collect electronics in conjunction with general HHW.



Construction & Demolition Debris Recycling

- RRWMD staff negotiated an extension to the hauler franchise agreement in return for the hauler constructing a C&D debris processing facility and committing to a specific diversion level at that facility to ensure fiscal viability.

Household Hazardous Waste Diversion

- Staff applied for and obtained a CIWMB grant to purchase a mobile storage unit and dedicated forklift for the CHWCC to increase storage capacity and improve productivity.
- Staff coordinated with a local TV station (KEYT) and neighboring jurisdictions to run used oil recycling ads at considerable cost savings due to economies of scale and in-kind production support from KEYT.

The CHWCC

- Originally, a local non-profit organization partnered with RRWMD to manage the CHWCC, but in 2005, an opportunity occurred for the RRWMD to achieve a cost savings of approximately \$70,000 by internalizing administration. Currently, one full-time RRWMD employee coordinates the program.
- In FY 2006/2007, a total of 15,122 pounds of material were distributed back to the public through the Materials Exchange Program's "Exchange Cart," saving disposal costs of approximately \$10,000.

The SCRTS

- Discounts are offered for clean loads, both for processing efficiency and to encourage good recycling habits.
- RRWMD staff applied for and received a \$65,000 grant to replace diesel engines in two SCRTS front-end loaders with cleaner running ones. The old engines were destroyed to ensure their non-use.
- In 2006 RRWMD staff members applied for and received grant funding in the amount of \$83,266.51 to offset the costs of retrofitting diesel particulate filters on the on-road semi-trucks to ensure cleaner exhaust air. Rather than hire an outside vendor, RRWMD mechanics did the replacements at a cost savings of \$4,800.
- RRWMD applied for and received a \$184,000 CIWMB grant that enabled the purchase of three new forklifts to handle the increase in e-waste being brought to the SCRTS and to the CHWCC.
- The SCRTS staff palletize & shrink wrap electronics, which promotes excellent working relationships with the haulers and keeps the operation competitive--haulers give very positive feedback about picking up material at the SCRTS as they can get the maximum load in their trucks due to no lost space.
- 90% of SCRTS truck drivers are trained in-house to become heavy equipment operators.

The SYVRTS

- The facility has gone from being open 7 days a week to 5; for optimal customer usage, it is open the same days as the landfill.

Tajiguas Landfill

- RRWMD staff applied for and received a grant for \$958,988 to offset the costs of replacing a 1993 twin-engine scraper for a lower-polluting scraper.
- Operations staff use of Performance Measures to monitor the number of tons of waste handled at the landfill. By striving to increase the number of tons of waste handled per equipment hour, staff are increasing operating efficiency while not sacrificing waste density, which results in cost savings.

Ballard Canyon/Chalk Hill Closed Landfill

- RRWMD staff applied for and was awarded a CIWMB matching grant in the amount of \$382,000 to fund the landfill final cover.

Foothill Closed Landfill

- The Community Planting Days were made possible by grants for which RRWMD staff applied: \$30,000 from the County Planning Mitigation Fund and \$50,000 from the California Department of Parks & Recreation Habitat Conservation Matching Grant Fund.

Santa Ynez Airport Closed Landfill

- RRWMD staff applied for and was awarded a CIWMB grant for \$61,712 to fund a Landfill Gas Collection System at the closed landfill.

3.4 Change Management

The template for the RRWMD's approach to change management, whether the change being addressed is financial, operational, or programmatic, is to anticipate the need, redefine the focus of the problem and work collaboratively with all appropriate partners to ensure success of the change. Such a process was undertaken when the RRWMD began to charge Program Fees to cover costs associated with programs offered to the community that do not generate revenues. This represented a significant and important change for the RRWMD, as prior to 2001, the Tipping Fee paid for all the programs.



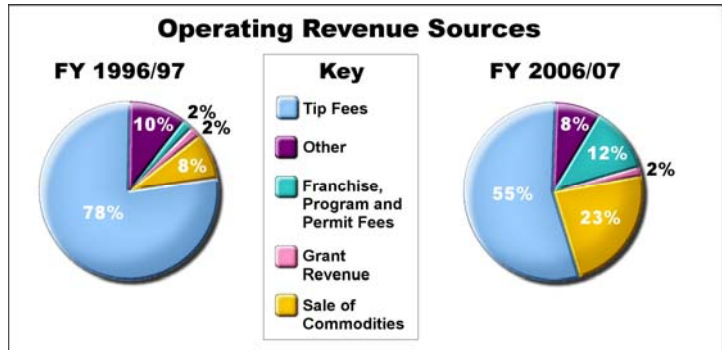
The change was essentially a result of the RRWMD's diversion success, coupled with low population increase in the County. The situation had created a financial challenge that would require both short- and long-term solutions that could be instituted with the acceptance of the community.

A County Solid Waste Project Team was formed to analyze issues, prepare recommended strategies and options, and develop regional cooperation and community consensus for the long-term management of solid waste in Santa Barbara County. The Team outlined a process and timeline for the development of a new Long Range Solid Waste Strategic Business Plan and developed short-term adjustments to solid waste fees and services in order to accomplish long-term goals.

The balanced approach of combining cost reductions and revenue enhancements included implementation of an 8% Solid Waste Program Fee rather than increasing the Franchise Fee. The fee was derived based on research conducted by an independent consultant, showing it to be consistent with fees charged in other communities similar to Santa Barbara, and was assessed on the gross revenues of the franchised solid waste service providers. Implementation of the fee did not affect fees charged at County facilities but did affect solid waste collection rates, as a pass-through charge to customers.

Alternative revenue sources were also identified, and the RRWMD aggressively pursued the marketing of all recyclable materials. The revenue from these sales also contributed to the RRWMD's ability to stabilize fees.

These changes received positive acceptance from the community, and the fact that programs became self-sustaining strengthened the RRWMD's ability to continue creating and delivering excellent programs and services.



3.5 Employee Relations Program

There are numerous programs available and modes of appreciation for staff, both through the County and through the RRWMD managers and staff themselves:



Employee Recognition Awards. Every quarter, the RRWMD joins the other departments in the County Public Works Department to acknowledge and recognize an employee who has been nominated by peers, for having exemplified the values of the Department. The employee is given a plaque at a special awards ceremony, where family as well as co-workers attend.

Employees' University (EU). The County offers regular employees low-cost training programs at the EU that are designed to enrich employees' knowledge and skills and to provide information that is immediately applicable in the workplace.

Public Works Day. This is an annual event to recognize the efforts of all Division employees.

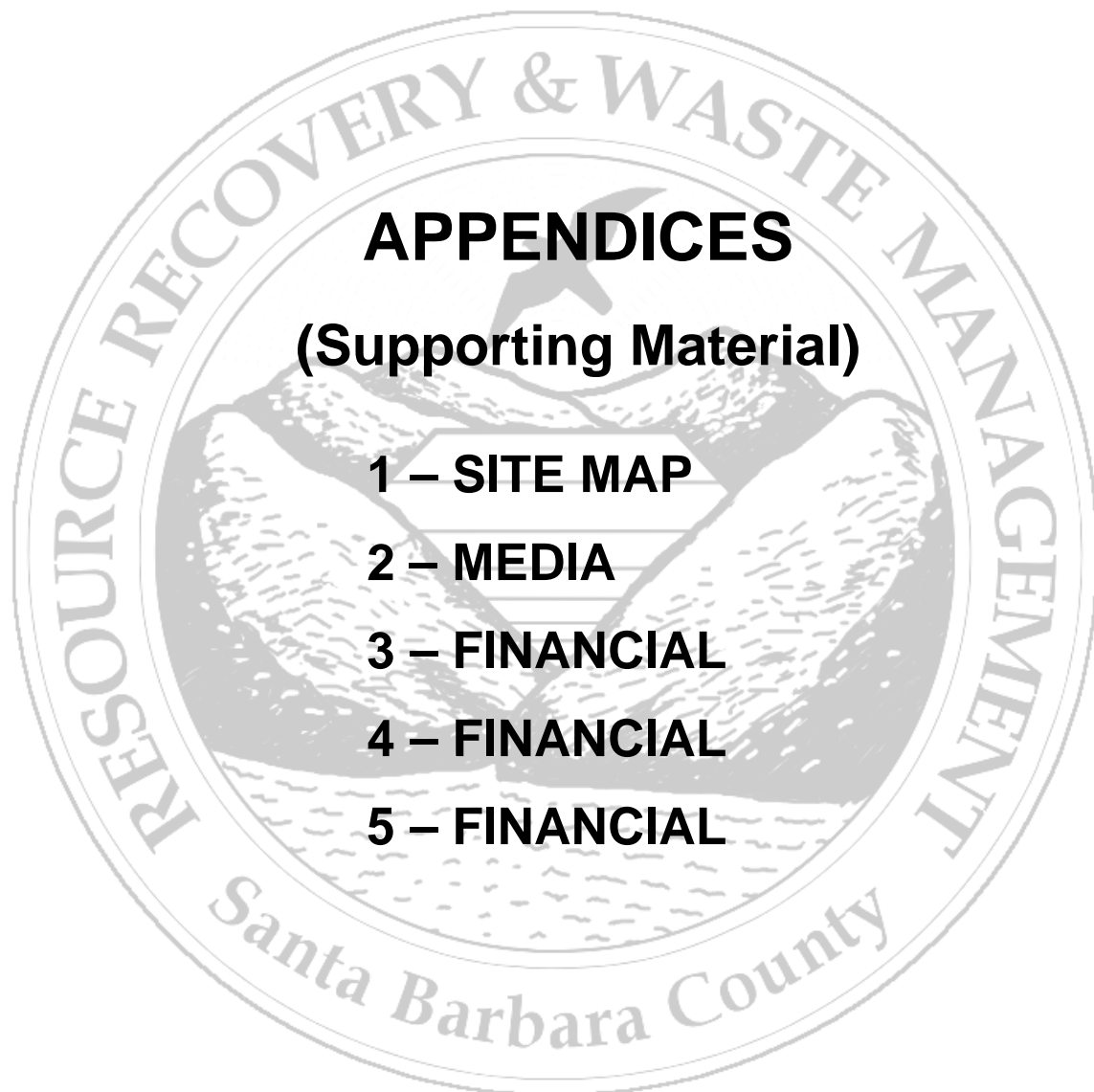
Telecommuting, 9/80 work weeks, and 4/10 work weeks. All employees can request these options.

Cultivating staff expertise. Within the RRWMD there is a concerted effort on the managers' parts to adapt assignments to interests as well as talents. This has aided in worker satisfaction and retention. Also, staff members are encouraged in their professional development via a dedicated budget item for attendance at workshops and conferences.

Success Measured

There is a very low turnover rate, and RRWMD staff members share a very strong camaraderie, gathering regularly to celebrate project successes, new employee hires, retirements, and the holidays.





APPENDICES
(Supporting Material)

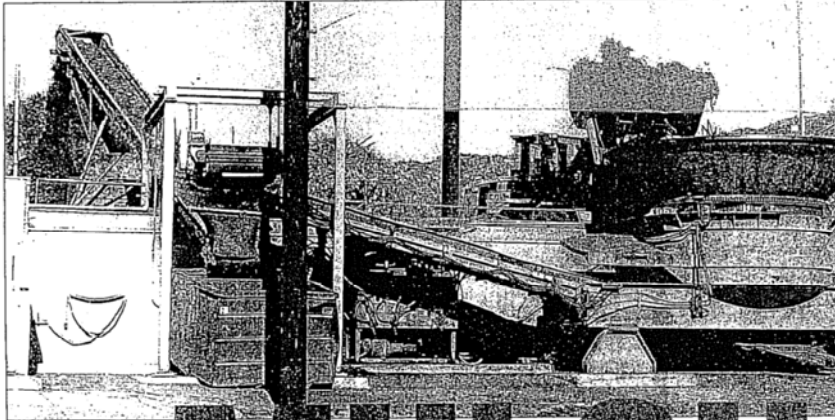
- 1 – SITE MAP**
- 2 – MEDIA**
- 3 – FINANCIAL**
- 4 – FINANCIAL**
- 5 – FINANCIAL**

HOME & Garden



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SATURDAY, DECEMBER 9, 2006



THANK YOU VERY MULCH

Organic trash becomes local growers' treasure

By BETHANY HOPKINS
NEWS-PRESS STAFF WRITER

Dead branches, wilted flowers and grass clippings — for many county residents, it's all fodder for the big green bin

some trash day. What they might not think about is how their organic scraps go to nurture the same plants they might find growing alongside the pathways of a nearby park or on a farmer's ranch on the edge of town.

On the South Coast, green waste has immediate benefits in the community, where most of it is ground up into a mulch that goes to local parks, gardens and, most often, to local farmers.

"We have these outlets — avocado orchards and botanic gardens and rose growers," said Leslie Wells, recycling program manager at the County of Santa Barbara Public Works. "We have a really thriving agriculture industry that values it. Other communities don't."

The ground-up mulch, which has a consistency finer than wood chips but coarser than fully decomposed material, provides multiple perks for landscaping and gardening. Laying it down around plantings can help retain moisture, suppress weed growth and control soil erosion. When it eventually does break down into compost, it helps provide the soil with much-needed nutrients.

The green waste bin has become a

staple of Santa Barbara streets on trash day — Ms. Wells estimates that of trash customers who are eligible for the collection, about 90 percent take advantage of it.

That level of community involvement is high for a young program. December marks 10 years since the county negotiated with garbage haulers to integrate green waste containers into curbside pick up.

"They're all required to provide it," Ms. Wells said. "It's built into the price."

The collection results have been promising: In 2005, the county processed 44,500 tons of green waste at its two grinders, located at recycling and transfer stations on Calle Real and on Foxen Canyon Road in the Santa Ynez Valley. Of that total, 46 percent went to agriculture. Avocado grower Glenn Parks of Parks Land and Cattle Company said he started putting mulch down around his trees about two years ago, when he heard about the advantages.

"I really like it — no noxious weeds," said Mr. Parks. He started his family-owned farm in Goleta's Las Varas Canyon 36 years ago.

He recalls one time before he used the mulch when he tried to use alfalfa straw for similar purposes.

"It had puncture vine and Russian thistle in it," he added — two particularly resilient types of weeds.

"We've been fighting it ever since." His daughter, Lynn Artell agreed that the mulch is worth the \$10 per ton it costs to procure it.

"It's quite stinky," she laughed, "but it's worked wonderful for what we're trying to do." She added that using the moisture-retaining mulch helps lower the cost of watering avocado trees and prevents "root rot."

Please see **MULCH** on D8



MIKE ELIASON / NEWS-PRESS PHOTOS

Glenn Parks walks among mounds of mulch containing new avocado trees at the Parks Land and Cattle Company. Top: A county skiploader fills a mulch grinder at a transfer station.

January 2, 2002



Mr. Mark Schleich
Department of Public Works
109 East Victoria Street
Santa Barbara, CA 93101

Dear Mark:

Task II of our scope of work involves a review of the County's recently completed Solid Waste cost-of-service study for FY 2000/2001. This study was conducted to categorize the Solid Waste & Utilities Division's cost of providing services. This year's study included a reallocation of certain expenses among the services provided to better reflect which services incurred the costs.

R. W. Beck's specific tasks included providing input as to the classification of services rendered and how these classifications compare to industry practice. We also included input as to the classification of direct and indirect costs and the methodology used to allocate indirect costs. Finally, we have provided comments and suggestions as to how to present the study to various stakeholder groups so that these groups could better understand the results of the study. Our review consisted of analyzing the cost-of-service as provided by the Solid Waste & Utilities Division (see Appendix A). We relied on the County accurately compiling the detailed documentation that supports the summary amounts used in the study.

Overall, the comprehensiveness of the study met or exceeded industry practice. All utility revenue was accounted for and allocated among major services provided. These services are clearly defined and are segregated into three service categories. All utility expenses were also accounted for and were segregated between direct and indirect costs. Various categories of indirect costs were allocated such as administrative overhead, operations administrative overhead, engineering overhead, recycling administrative overhead, and materials management administrative overhead. The basis for allocating indirect costs is clearly documented.

Our comments and suggestions regarding the study consist primarily of ways to clarify the data that is going to be provided to the various stakeholder groups.

1. There are two generally accepted methods in determining cost of service. The first method, the cash needs approach, is based on the projected cash needs of the utility. The components include operations and maintenance expense, debt service expense and cash-financed capital improvements. In this method, depreciation as a non-cash item is not included in the analysis. The second method, the utility approach, involves the calculation of a rate of return on the utility's assets and also includes depreciation. For the most part, operations and



SERVICE DESCRIPTION

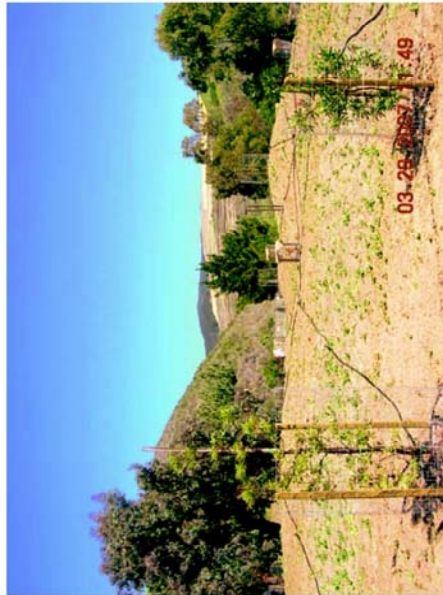
Provide for the safe collection, processing and disposal of solid waste and achieve state mandated diversion goals through solid waste management, engineering and operational services and provide for efficient wastewater and streetlight administration.

Significant Changes (FY 2006-07 Adopted to FY 2006-07 Estimated Actual)

Estimated Actual operating expenditures decreased by \$801,000 to \$30,102,000, from the Adopted Budget of \$30,903,000. This 3% decrease is the result of 10 vacant positions (\$714,700); reduced costs related to the Foxen Canyon Landfill Closure project (\$283,000); reduced landfill expansion costs (\$210,000); offset with an increase in depreciation expense (\$225,200); an increase in gasoline and utility costs (\$175,000); and an increase in other miscellaneous expenses (\$6,500).

Significant Changes (FY 2006-07 Estimated Actual to FY 2007-08 Recommended)

The Recommended Budget's operating expenditures will increase by \$2,403,000 to \$32,506,000, from the prior year's Estimated Actual of \$30,102,000. This 8% increase is the result of various projects at the Tajiguas Landfill including the Tajiguas Intersection Project, the Tajiguas Sedimentation Basin Maintenance Project and the Tajiguas Fuel Tank Relocation Project (\$813,700); funding 10 vacant positions (\$714,700); and cost of living adjustments, retirement cost increases and merits (\$699,700); rebudget minor structural projects deferred from prior fiscal year (\$195,300); an increase in liability insurance (\$122,000); an increase in gasoline and utility expenses (\$77,100) an increase in computer software and hardware (\$49,500); an increase in other miscellaneous expenses (\$13,400); offset with a decrease in principle and interest expenses due to the final payment of the 1997 COP debt for Laguna Sanitation (\$282,400).



Tajiguas Landfill Entrance - Native Revegetation Enhancement Project

Source: Santa Barbara County Website

PUBLIC WORKS
Resource Recovery & Waste Management (cont'd)

	Actual FY 05-06	Adopted FY 06-07	Est. Actual FY 06-07	Recommended FY 07-08
Recurring Performance Measures				
Operations				
Maintain the Tajiguas Landfill direct cost of operations at \$20.00 per ton.	\$25.64	\$15.50	\$20.00	\$20.00
Reduce the South Coast Recycle and Transfer Station direct cost of operations from \$60.00 to \$57.00 per ton.	\$53.63	\$45.50	\$60.00	\$57.00
Maximize the remaining capacity of the Tajiguas Landfill by achieving at least 1,000 pounds per cubic yard landfill density.	1,129	1,200	1,000	1,000
Reduce the impacts to cost of operations by maintaining the Tajiguas Landfill tons handled per heavy equipment hour at 20.0 tons/hr.	18.6	21.0	20.0	20.0
To help meet the requirements of AB939 and to conserve landfill space, divert for reuse or recycling 60% of the 74,000 tons of incoming waste at the South Coast Recycle and Transfer Station.	65% 49,720	61% 49,000	64% 47,360	60% 44,400
Achieve a direct cost of recycle operations at all County facilities of \$21.00 per diverted ton. This measure excludes the cost of processing commingled materials at private facilities.	\$60.96*	\$21.50	\$21.00	\$21.00
In addition to "daily cover", excavate and move 400,000 yards of dirt to stockpile per year.	429,510	400,000	400,000	400,000

D-323

www.CountyOfSB.org/ceo/pdf/budget/0708/054.pdf

* This performance measure was modified in FY06-07 to exclude processing costs occurring outside RRVWD operations.

**PROJECT TRACKING
PERMITTING AND ENGINEERING SECTION**

PROJECT	Project Manager	Project Type	CEO Proj. Report	CEO Proj. Report Date	Project Tracking Date	Project Tracking Date	CEO Proj. Report Date	Project Tracking Date	Project Tracking Date	Project Tracking Date	Project Tracking Date	Project Tracking Date	CEO Proj. Report Date	Project Tracking Date
													01/25/2008	02/28/2008
Tajiguas Landfill														
Fill Plan	Gaschler	Ongoing												
Main Access Road Improvements	Haines	CIP	Y											
380-Foot Deck Stockpile	Haines	Non-CIP												
Expansion Master Plan	Haines	CIP	Y	7/14/2006						5/10/2007				
Drainage Improvements	Pet	CIP	Y											
Leachate Management System	Zuber	Maintenance	Y	7/14/2006										
Water Management System	Pet	CIP	Y											
Gas Collection System	Gaschler	CIP	Y											
Sediment Management System	Haines	Non-CIP												
Improvements at Tajiguas/US 101 Intersection	Haines	CIP	Y											
Lower Pja Creek Restoration & Enhancement	Leipner/Zuber	CIP	Y											
Phased Closure	Pet/Zuber	Closure												
Coastal Zone Issues	Leipner/Cragin	Regulatory												
Tie V Permit Renewal	Cragin	Regulatory												
Wet Weather Preparedness Plan	Danza	Regulatory												
Remaining Capacity	Gaschler	Non-CIP												
Biological Mitigation Compliance	Leipner	Non-CIP			1/25/2007									
Above-Ground Fuel Tank Relocation	Danza	Non-CIP			1/25/2007	3/22/2007								
Operations Center Relocation	Gaschler	Non-CIP			1/25/2007	3/22/2007								
Front Entrance Landscaping	Zuber	Non-CIP	Y				3/30/2007							
In-Channel Sedimentation Basins Maintenance	Leipner	Maintenance				3/22/2007								
Winter Road and Green Waste Pad Paving	Haines	Non-CIP	Y			3/22/2007								
H2S Compliance Issue	Wilson	Non-CIP				3/22/2007			8/2/2007					
Landfill Reconstruction & Baron Ranch Restoration	Leipner	Non-CIP		3/28/2008										2/28/2008
Foxen Canyon Landfill														
Closure	Pet	Closure	Y		1/25/2007			5/10/2007	8/2/2007	9/27/2007	1/17/2008	1/25/2008		
Diesel Tank Site Clean-Up	Zuber	Non-CIP												
LFG Collection System	Danza	Maintenance												
Agriculture Preserve Non-Renewal	Leipner	Regulatory												
Wet Weather Preparedness Plan	Danza	Regulatory												
Generator Permitting	Danza	Regulatory												
Oak Tree Mitigation	Leipner	Non-CIP/Reg	Y					5/10/2007						
Waste Discharge Requirements	Zuber	Non-CIP/Reg							8/2/2007					
Santa Ynez Recycling and Transfer Station														
Greenwaste Asphalt Pad Extension	Pet	Non-CIP												
Electrical Supply	Pet	Non-CIP												
C & D Pad Buck Wat	Pet	Non-CIP												
South Coast Recycling and Transfer Station														
C & D Tipping Pad Concrete Slab Repair	Pet	Non-CIP												
Tunnel Scale Deck Reconstruction	Pet	Non-CIP												
Tipping Pad Concrete Slab Repair	Pet	Maintenance												
AC Road Maintenance	Pet	Maintenance												
Cover Structure	Pet	CIP	Y											
Santa Ynez Airport Landfill														
Landfill Closure	Wilson	Closure	Y											
Remediation	Zuber	Regulatory	Y			3/22/2007								
Ballard Canyon Closed Landfill														
Replacement Water System	Wilson	CIP	Y											
Pump & Treatment System	Wilson	CIP	Y											
Santa Maria Airport Closed Landfill														
Landfill Cover Grading Project/Mitigation Measures	Wilson/Leipner	Non-CIP												
Foothill Closed Landfill														
Re-vegetation & Enhancement Project	Leipner	Non-CIP												
Stockpile Management	Haines	Non-CIP												
Streambed Alteration Agreement	Leipner	Non-CIP												
Carpinteria Burn Dump														
LFG Assessment	Zuber	Regulatory						5/10/2007						
Regulatory Programs (All Sites)														
GW Monitoring Programs	Wilson	Regulatory			1/25/2007									
NPDES Programs	Wilson	Regulatory												
LFG Probe Monitoring Programs	Wilson	Regulatory												
Santa Barbara County Closed Landfills	Wilson	Regulatory	Y											
Tub Grinder - Mobile														
Emissions Permitting	Danza	Non-CIP/Reg						5/10/2007						
Conversion Technology	Johnston		Y									1/17/2008		