

## TRASH INTO TREASURE

*By Sam Womack/Staff Writer for the Lompoc Record January 25, 2009*



Paul Winn, left, Shelbert Ford, middle, and Marcus Gomez of Sky Valley Associates sort through trash at the Tajiguas Landfill near Goleta. Santa Barbara County hired Sky Valley to survey what kind of trash is being brought to the landfill. //Mark Brown / Staff

After burying its waste at the Tajiguas Landfill for 41 years, Santa Barbara County could become a pioneer — converting trash into treasure.

At its current rate, the county-operated landfill will reach its maximum amount of waste in about 14 years, even though its acreage was nearly doubled in 2002.

Although recycling efforts have helped divert some of the garbage from the site on the Gaviota Coast, about 500 to 600 tons of refuse have gone into the landfill daily over the past 10 years.

“Despite the region’s aggressive and successful recycling efforts, space at the landfill is diminishing,” according to a county staff report.

Instead of burying the waste collected from South Coast and Santa Ynez Valley areas like a shameful secret, the county is looking at sharing that secret in the form of renewable energy.

“We could recycle or convert 85 to 95 percent of our waste, which will give the landfill a longer life and a smaller footprint,” said 1st District Supervisor Salud Carbajal, “and some day, we’ll be able to reclaim it and end the degradation of the coast.”

## GREEN ENERGY FROM GARBAGE

Santa Barbara County is on its way to becoming a pioneer in waste-conversion technologies in the United States.

The county is blazing the new trail to better manage about 200,000 tons of trash buried each year at the Tajiguas Landfill.

Conversion technologies are capable of converting unrecyclable solid waste into useful products, such as synthetic fuels and renewable energy.

“We’re taking something that’s waste, buried in a hole, and taking the opportunity to better utilize what we already have,” said Leslie Wells, program manager for the county’s Resource Recovery and Waste Management Division.

Come spring, the division will be before the Board of

Supervisors with a request to begin the bidding process on a new conversion facility.

County staff anticipates this type of facility would minimize the environmental impact of waste disposal, providing financial stability, maximizing recycling rates for participating jurisdictions and potentially generating green energy for the community.

Carbajal said he has worked to move this project forward because “it’s so appropriate and beneficial for us today and also for future generations to come.”

The eight companies hand-picked by county staff have claimed the ability to convert 70 to 100 percent of unrecyclable waste by accelerating the decomposition process through thermal or anaerobic digestion.

The contractors also have claimed to achieve waste diversion at a rate of less than \$100 per ton — the current cost per ton is under \$60.

There are no conversion-technology facilities currently operating in the U.S. that process municipal solid waste, although there are many facilities in Europe, Japan, Australia and Israel, Wells said.

Several communities in addition to Santa Barbara County are evaluating the possibility of siting a conversion-

technology facility, including the cities of Los Angeles, San Diego, Sacramento and New York, according to county staff.

The county is studying the amount and types of solid waste that could be processed through a conversion-technology facility.

From the study, the contractors will also be able to determine cost, energy production and facility plans, Wells said.

## SO FAR, SO GREEN

The unincorporated county and Goleta divert nearly 70 percent of waste through traditional recycling, including aluminum cans, junk mail, newspapers, bottles, glass, hazardous waste and electronic and green waste.

The county's South Coast and the Santa Ynez Recycling and Transfer Centers and transfer stations in New Cuyama and Ventucopa are used to divert the recyclables, but the solid waste and green waste ultimately end up at Tajiguas.

Approximately 40,000 tons of green waste is brought to the Tajiguas Landfill each year, which the county then turns into a mulch that is sold to local agriculture.

"We're really lucky to have the ag community nearby to take the green waste," said Wells, explaining that waste sites in

other jurisdictions can't give away their mulch.

The county has been collecting and making use of the methane and carbon dioxide that is released through the natural decomposition process of the waste buried within the hillsides.

By installing pipes into the trash-filled mountains, gases created from decomposition — methane and carbon dioxide — are collected and separated, and the methane is converted to enough electricity to power 2,000 to 3,000 homes.

The landfill actually supports its own operations through the sale of mulch, green electricity, cans and bottles and waste-disposal fees.

One of the current problems is that if a business or residence places all waste in the bin destined for Tajiguas, everything is buried and the recyclables are not sorted out.

With a conversion-technology facility, waste will be sorted and the stray aluminum cans or pie tins will be recycled before the solid waste is converted into energy, Wells said.

“It’s a win-win for the environment,” said Carbajal. “I consider this one of the most significant steps forward, environmentally, for communities across the nation.”

## Unseen green future

County officials said it's still too early to predict potential revenue generated by an energy-producing landfill or the costs injected into homeowners' garbage pickup fees.

But the county has offered up a plan on how to keep all the options open.

The idea is to allow a private company to design, build, own and operate the conversion-technology facility at the landfill, while the county would assume ownership at the end of a predetermined amount of time.

There would also be buyout conditions and strong contractual mechanisms, such as project labor agreements and operational oversight.

This public-private hybrid option would include individual contracts between local agencies and public participants.

No course has been set in stone.

The county has collaborated with city jurisdictions and environmental groups throughout the process to keep taxpayers' contributions and impacts to the environment at a minimum.

“We are at the cusp of doing something so unique and so

vanguard,” Carbajal said. “This innovative technology has such great potential that it will no doubt be one of the major milestones in solid-waste management for the country.”

Reclamation and a protected open space is his hope for the acres of balding, trash-filled mountains on the otherwise pristine Gaviota Coast.