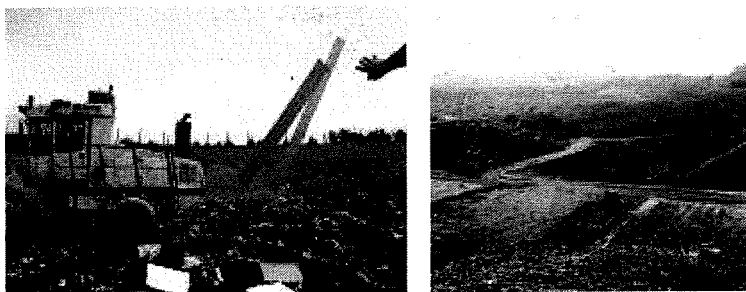


## Plans on hold for 'EcoPark' waste facility

Kurtis Alexander - Sentinel Staff Writer

12/04/2008



WATSONVILLE -- Plans to build the Zero Waste EcoPark, a grand garbage facility that would replace the aging Buena Vista Landfill with the means to recycle all but the hardest of trash scraps, are on hold.

County officials say they've run out of time to pursue the eco-friendly project before the landfill reaches capacity, and need to change course. The weak economy, which has left the \$30 million-plus plan short on cash, also contributed to the decision. "The idea of the whole EcoPark going ahead is something that we're going to have to delay until we absolutely see the need and can afford it," the director of the county's Public Works Department, Tom Bolich, said this week.

Instead, Public Works officials plan to move forward with just one element of the EcoPark plan, a giant enclosed transfer station that will sort and ship trash to recycling centers, composters and landfills elsewhere.

Absent will be the proposed composting complex that would have expanded the local breakdown of food and wood scraps, a recycling facility for plastics, metal and paper and a resale center that would have sold discarded furniture, appliances and building materials. "We hope to get back to some of these facilities in the future," said Kasey Kolassa, the county's recycling and solid waste services manager.

For now, the county will have to haul more of its trash, perhaps up to twice as much, to Marina, where the county has a three-decade agreement to bring its waste. And when the landfill at 1231 Buena Vista Drive closes, which Public Works officials expect to happen within four years, even more trash will be hauled that way.

The landfill and a county-run transfer station in Ben Lomond currently take in about 600 tons of waste each day, mostly from the county's unincorporated communities. Bolich, the head of Public Works, acknowledged plans for the EcoPark were probably too ambitious, particularly the timeline.

The project called for buying 26 acres of agricultural land next to the landfill site and would need permission to operate from the California Coastal Commission -- all by 2012, when Public Works officials hope to close the landfill to all but emergency debris, like remains from fires.

There was also concern from Watsonville area residents about the location of the EcoPark, which assured protest and a drawn-out review process. "Why every time they want to do one of these waste management facilities do they pick South County?" said Watsonville City Councilman-elect Luis Alejo, who opposed the project site. "It's a great concept for Santa Cruz County, but a lot of people here wondered why we have to have it." The EcoPark proposal surfaced two years ago in the wake of opposition to plans for another landfill.

The cost of the EcoPark was another reason for its suspension. The county budget is tight this year and landfill revenues are down. Public Works officials say fewer people are paying to come to the landfill, because they're recycling more, and the market for recyclables, where the county normally cashes in, has weakened with the economy.

Bolich said construction of the pending transfer station at a cost of about \$4 million, while not the preferred option, will deal with the county's trash needs, at least in the foreseeable future. He hopes when the county revisits the EcoPark, new technologies will have emerged to make the facility even more efficient and more environmentally responsible. The Public Works Department expects to seek the official OK to delay the EcoPark project from the Board of Supervisors later this month.

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## County dumps plan for waste-to-energy plant at Buena Vista

Kurtis Alexander

Santa Cruz Sentinel

11/14/2008

WATSONVILLE -- A much-hyped plan to vaporize the county's trash with an unprecedented waste-to-energy technology is likely off the table for good.

County officials in discussion with Southern California-based AdaptiveArc say the company has failed to provide assurances that its technology is safe and effective. The county Public Works Department is expected to ask county supervisors to release them from negotiations next week. "We think it's time to allow the company to try to install their hardware elsewhere," said Public Works Director Tom Bolich.

The move to end discussions with AdaptiveArc removes hope of a quick fix for the county's lingering trash problem. The landfill, at 1231 Buena Vista Drive, is expected to fill up within the next two decades, perhaps sooner, and county leaders have yet to identify an alternative for waste disposal.

AdaptiveArc, a privately funded startup with about two dozen employees, had put forth a plan earlier this year to operate, at no cost to the county, a trial plasma-arc gasification facility at the county landfill. The proposal, largely untested in the municipal setting, would use the intense heat of an electrical "arc" to break down trash into a synthetic gas that could generate electricity. If county leaders were pleased with the operation, they could choose to expand it.

The plan, however, stumbled as questions emerged about its feasibility and potential air emissions.

A San Francisco environmental group that equates the technology to incineration helped organize a small group of local protesters, the Pajaro Valley Coalition for Environmental Justice, to draw attention to possible cancer-causing pollutants. Meanwhile, requests for additional data by the county and the local air board, which would need to sign off on the proposed facility, went mostly ignored by AdaptiveArc.

"They started by saying there were no emissions at all, and we should just issue them a permit. But that wasn't realistic," said Mike Sewell, air quality engineer for the Monterey Bay Unified Regional Air Pollution Control District. "There are emissions from everything."

Kris Skrinak, a managing partner with AdaptiveArc, conceded the company's information fell short of the regulatory demands, but said he had hoped there would be more leniency for a new and promising technology. "It's a little bit sad," Skrinak said of the county's plan to pull out of negotiations. "It's not like this technology is not needed."

Skrinak said AdaptiveArc has a list of 60 other agencies interested in working with the company. AdaptiveArc operates a plasma-arc facility in Monterrey, Mexico, though local engineers haven't seen evidence that the plant runs successfully.

While there are no comparable plasma-arc gasification plants in California, Santa Cruz hasn't been alone in considering the technology. The city of Sacramento is in discussions with a waste-to-energy company, though it is encountering similar information problems.

The county Public Works Department's request to end negotiations with AdaptiveArc is expected to be approved by the Board of Supervisors on Tuesday.

"We're thrilled to hear this news," said Bradley Angel, the head of San Francisco-based Green Action for Health and Environmental Justice, which protested this project and has opposed similar ones. "We think the health and environment of Watsonville and Santa Cruz is going to be better off for it."

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## As We See It: Green garbage sent packing

Santa Cruz Sentinel

12/05/2008

The new Obama administration's promise to move the nation toward a greener future might be confusing to Sentinel readers who have been following the failed proposals to deal with our county landfill.

After all, weren't county leaders trying to use alternative technology and recycling as the twin pillars of a new way of dealing with trash?

One idea was to use a \$15 million "waste-to-energy" plant that would break down garbage using electrical "plasma arc technology" from a Southern California firm into a synthetic fuel that would in turn be used to produce electricity.

The other was to turn the Buena Vista landfill into an "EcoPark" that would essentially convert it into a massive recycling center for almost all garbage that was dumped there. What could be more green and more forward-looking than that? So why did both projects fail?

Regarding the plasma-arc gasification facility, the technology, as presented, was not ready and Santa Cruz County did not want to submit itself to the industry's growing pains, including potentially harmful emissions and a process that simply didn't yet work in breaking down trash, or worse, one that was dangerous because of high temperatures and faulty machinery.

The EcoPark was an admirable attempt to set up a super recycling center that would have meant recycling or re-using more trash, and hence less garbage to bury here or send elsewhere.

The initial idea was to use the EcoPark to sort out every scrap of reusable trash and put the rest in the plasma-arc machines to break down, meaning essentially no leftover trash.

Great, and green, idea, but with the "waste-to-energy" plan off the table, the county says it simply doesn't have the money in these recessionary times to pull off the EcoPark before officials want to close the landfill, which is eventually going to run out of capacity.

Now, with both projects off the table, Santa Cruz County will be sending a lot more waste to the city of Marina in Monterey County.

This, in turn, reflects political realities. Some South County residents have vociferously opposed new plans for the Buena Vista Landfill, arguing that the rest of the county is only too happy to have unsightly and smelly garbage dealt with near a community where people are relatively well less off and thus less prone to activism and protest.

But protests did coalesce, and, for officials trying to figure out how to deal with the rapidly approaching deadline to do something about Buena Vista, it's easier just to send the garbage out of county. Is this a cautionary tale for communities that want to grow greener? Yes and no. Yes, the technology wasn't there. The money isn't there. And there were a host of environmental issues, not to mention political ones that were too tough to overcome in the relatively short time remaining.

The "good" news, however, is that the county plans to construct a giant transfer station at Buena Vista that will sort and ship trash to recycling centers -- and landfills somewhere else.

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# MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

*Home of the Last Chance Mercantile*

December 5, 2008

Santa Cruz Sentinel  
1800 Green Hills Road, Suite 210  
Scotts Valley, CA 95066

Sent via email to [dmiller@santacruzsentinel.com](mailto:dmiller@santacruzsentinel.com)

To the Editor:

Today's (December 5<sup>th</sup>) opinion column, Green Garbage Sent Packing, incorrectly states that Santa Cruz County will be sending more waste to a landfill in the City of Marina. The Monterey Regional Waste Management District (MRWMD) operates the Monterey Peninsula Landfill in unincorporated Monterey County 2 miles north of the City of Marina. The MRWMD is a public agency with an infrastructure for waste reduction, reuse, recycling and safe disposal. The Monterey Peninsula Landfill presently has more than 100 years of capacity remaining and for 25 years has had an award winning Landfill Gas-to-Energy Program now producing 5 megawatts of renewable energy. We appreciate Santa Cruz County's aggressive 75% diversion goal and their pioneering work to reduce waste. We are pleased to work cooperatively with the County to make disposal capacity available for residual waste. MRWMD staff is also working with the County and other agencies to explore opportunities to develop a regional compost facility to process landscape materials and other organics such as food waste. The MRWMD is fortunate to have the space, permits, infrastructure and operational experience to help make regional partnerships such as these possible.

Yours truly,

William Merry, P.E., BCEE  
General Manager

## **Sacramento trash-to-energy plan raises red flags**

**The Sacramento Bee**

**Published Monday, Nov. 17, 2008**

Presented with a controversial and highly technical proposal to vaporize garbage into energy, Sacramento City Council members earlier this month wondered what other cities had found – and whether those lessons were being considered in Sacramento.

The plan's chief proponent, Councilwoman Lauren Hammond, said Friday that while she remains committed to working on a viable waste-to-energy plan for Sacramento, she believes the vetting process by the city's upper management was "done wrong." "If we have to start all over, we start all over," Hammond said.

On Dec. 9, the council is scheduled to vote on whether to bind itself for decades to a company that vows to zap Sacramento's trash at the same price it would cost to bury it in a landfill.

Under the proposed deal, Sacramento-based U.S. Science & Technology and a consortium of energy and engineering companies would build a "plasma arc gasification" waste-to-energy plant at no cost to the city, then sell the energy for profit.

But a Bee review of two other municipalities that have considered the same technology – and evaluated proposals from companies involved in the Sacramento deal – raises several red flags:

- The effort is faltering financially in St. Lucie County, Fla. The developer there, GeoPlasma of Atlanta, has scaled back the proposed project by at least 80 percent.
- Los Angeles County rejected GeoPlasma's pitch at the outset, saying financial details and performance data were lacking.
- Environmental experts in both locales have questioned whether toxic metals would be filtered from the waste gas produced for sale to various energy buyers.

### **Process touted as clean, safe**

The technology is alluring, scoring high in "gee-whiz" value and as an alternative to filling landfills. Gas heated to temperatures approaching those on the sun's surface vaporizes trash, producing a synthetic fuel. Also, the residual molten glass and metals can be sold as filler for road and building construction.

U.S. Science & Technology has told Sacramento the technology has been used for decades in steel plants. The group portrays the process as safe and cleaner than many other alternatives.

"We don't just want to build a facility in Sacramento to address the problem on municipal waste," the company's president, William Ludwig, said recently. "We want to give Sacramento the opportunity to be in a leadership position solving environmental problems."

The deal before the City Council would have Sacramento relying on the company to process waste at a steady flow of 2,100 tons per week.

GeoPlasma, the energy company that would build and operate the St. Lucie County plant in Florida, told officials there that the process would empty the landfill in 20 years.

### **Troubles with Florida contract**

That promise fell through before construction even began. Initially, the plant was to process 1,000 tons of garbage daily, gradually ramping up to 3,000 tons a day. In September, two years later, GeoPlasma announced that it would vaporize only 200 tons a day, said Chris Craft, a St. Lucie County commissioner.

The St. Lucie team also includes Alter NRG and its subsidiary, Westinghouse Plasma Corp., which would design the plant. (Alter NRG and Westinghouse are part of the Sacramento deal, and GeoPlasma once was listed as a partner here, too.)

Craft said revenue troubles, not technological ones, were rocking the deal there. For instance, he said, a plan for GeoPlasma to sell steam from the facility to a nearby Tropicana juice plant didn't materialize.

Now GeoPlasma is scrambling to find more customers for the energy and recyclable leftovers, Craft said, to keep its promise not to charge the county more than it pays for sending its trash to a landfill.

### **Lack of details sends up 'red flag'**

In Sacramento, financial details have not been shared with the city. U.S. Science & Technology said it would not divulge that information until the council had approved a binding agreement – a demand City Councilman Steve Cohn, an attorney, recently called a "red flag."

Officials in Florida said they, too, have been in the dark, though they have not pressed for financial details.

"We don't care how they pay for it," Craft conceded. "They have to own it and finance it and operate it for 20 years. They've kept their cards close to their vest about this."

How thoroughly Sacramento city staff members have vetted U.S. Science & Technology's proposal is being probed by the City Council. After The Bee raised questions about financial ties between experts who testified before the council and companies behind the project, council members told Jim Rinehart, the city's economic development manager, to provide unbiased information.

Last year, the city issued a call for waste-to-energy proposals. A panel with members from the city and California State University, Sacramento, and University of California, Davis, evaluated the responses and focused on plasma arc gasification. Officials from the City Manager's Office, staffers from the Economic Development Department and City Council members viewed a small-scale plant in Japan, although that facility does not vaporize only garbage.

City Manager Ray Kerridge was not available Friday for an interview regarding the city's vetting process. Nor was Rinehart, who is acting as the city's point person on the project. In the past, Rinehart has said his staff has "absolutely" done thorough due diligence.

Councilman Rob Fong said that with more information to be presented, he believes the city is on the right track. "We're very excited about the possibility of figuring out a clean way to get out of the landfill business – but we've got to do it right," Fong said. "In a perfect world, there would have been more discussion upfront. But the good news is that's happening now."

### **Firm's proposal too fuzzy for L.A.**

Fuzzy financing was what kept GeoPlasma from advancing its pitch in Los Angeles County, according to Coby Skye, a county engineer who has analyzed a variety of alternative technologies.

On a scale of 0 to 100 set up by those reviewing the proposals, Skye said GeoPlasma scored 0 on "economics," 25 on "operational experience," 25 on "engineering the complete system" and 50 on "supplier credibility."

"The economic data supplied to us was not well detailed or supported," Skye said. "They had limited, pilot-scale experience managing municipal solid waste using their technology."

Over four years, Los Angeles County evaluated 28 suppliers of alternative waste technologies before settling on four of them to build pilot waste-to-energy plants, each using a different technology. Officials also selected potential sites for the plants and identified prospective energy buyers – all in preparation for county supervisors' vote on the plan, anticipated early next year.

The county sent no fewer than six representatives to inspect each of the four companies' pilot projects in Japan, Israel, Poland and England. Unlike Sacramento city officials' tour of a Japanese plant earlier this year, the Los Angeles delegation was all technical experts and no politicians. "We looked at each stage of the process for potential breakdowns, how they prevented the operation from creating a public nuisance, and what they might need to do differently if they built in Southern California," Skye said.

They also required independent verification of air pollution data based on actual, not predicted, emissions. U.S. Science & Technology officials have not made their emissions data public, and Ludwig did not provide comment on Friday.

### **Disagreeing on potential dangers**

Environmental concerns extend beyond what comes out of the plant stack to the safety of the gas produced for sale, said Thomas Cahill, an air pollution expert and retired UC Davis atmospheric physics professor.

The combination of super-high heat, chlorine-rich paper and plastics waste and metals in an oxygen-poor environment creates a particularly toxic gas that Cahill likened to what wafted off the smoldering World Trade Center. Cahill analyzed emissions in the aftermath of 9/11 in a groundbreaking scientific report.

When that gas is sold to be burned, say at a power plant, it could emit ultrafine particles of nickel, lead and other toxic metals that can lodge deep in the lungs, enter the bloodstream and raise the risk of a heart attack, Cahill said. "If you were near a power plant that burned this, you would be in serious trouble," he said.

U.S. Science & Technology officials, however, disputed Cahill's conclusions, saying that references to the World Trade Center are "completely inappropriate."

Plasma gasification operates at higher temperatures in a controlled environment. Synthetic gas created by the process would be cleaned, so it is equivalent to natural gas in purity, said Nick Narsavidze, a company vice president, in an e-mailed statement. "These details will be heavily scrutinized by experts through the environmental permitting process," Narsavidze said. "We will work through the environmental processes to ensure that all aspects of the process are safe for our neighbors and the community at large."

But in a 2007 evaluation of plasma arc gasification, Florida state environmental officials also noted that the high temperatures could "increase the concentrations of volatile metals" in the resulting gas. The Florida report said the technology shows promise but falls short on data to determine its viability or safety. "There is insufficient information available to know if this technology will be successful treating large volumes of (trash) on a continuous basis," the report concluded.