

## **Electric equipment to commercial lawn care operators**

Avenal Chimes, Tuesday, Aug. 29, 2012

Commercial lawn care operators are invited to participate in a pilot program to use and evaluate zero-emission lawn and garden equipment.

The Valley Air District is accepting applications through Sept. 20 for the new Cordless Zero-Emission Commercial Lawn and Garden Equipment Demonstration Program. The pilot program is open only to commercial lawn care operations located in the Valley air basin and must be used in non-residential applications.

Participating companies can choose from a list of approved vendors offering battery-operated equipment that includes commercial rated, self-propelled and cordless lawnmowers, sweepers, blowers, chain saws and trimmers. An Air District grant program will fund the demonstration equipment for companies and public agencies selected for the program.

Right now, zero-emission equipment is limited in the commercial sector. The demonstration will give participants hands-on familiarity with the equipment and help further improve the use of clean technologies.

"Through everyday use of this cutting-edge equipment, companies will be able to evaluate its performance," says Seyed Sadredin, the Valley Air District's executive director and air pollution control officer. "We hope this study will accelerate acceptance of clean-air equipment and build upon the progress already made in the residential sector."

Eligible applicants are public agencies that have their own lawn care maintenance teams and private, professional, licensed landscape businesses, including those that contract with public agencies.

Applications are available at

[http://www.valleyair.org/Grant\\_Programs/GrantPrograms.htm#CordlessLawnMachine](http://www.valleyair.org/Grant_Programs/GrantPrograms.htm#CordlessLawnMachine) and will be accepted by mail or in person only.

For more information about the Cordless Zero-Emission Commercial Lawn and Garden Equipment Demonstration Program, visit [weberip@valleyair.org](mailto:weberip@valleyair.org) or call District staff at 559-230-5800.

## **Fresno Co. supervisors nix Jesse Morrow mine plan**

By Kurtis Alexander, staff writer

The Fresno Bee, Tuesday, Aug. 28, 2012

The decade-old push to mine Jesse Morrow Mountain came to an end Tuesday night when the Fresno County Board of Supervisors shot down a proposed quarry on the prominent Sierra foothill.

Board members took to heart the concerns of a well-organized opposition that has argued that rural Highway 180, which serves as a popular gateway to Sequoia and Kings Canyon National Parks, was no place for a mine.

"It's a long-term decision. It's a decision that will live long past our lifetime, and I'm having difficulty with it," county Supervisor Susan Anderson said.

The proposal failed when supervisors couldn't muster enough support to approve the mine's environmental impact report. Although the project didn't reach a final vote, Anderson was joined by Henry Perea and Debbie Poochigian in voicing opposition.

Hundreds were on hand for Tuesday's nine-hour hearing. Most were against the mine.

The decision leaves the applicant Cemex, one of the world's largest purveyors of construction

material, with limited options. It could sell the land or resubmit the application with a different project to pursue.

Company officials said it was too early to know what their next move would be.

"We're, of course, disappointed," said Cemex spokeswoman Sara Eng-dahl. "We felt like the project, and we still do, had a lot of benefits."

The proposed sand and gravel mine stirred up one of the area's biggest environmental firestorms in recent history.

Opponents attacked the project as blight against a scenic mountain backdrop that would bring unwanted dust and exhaust to a region already marred by air pollution. Proponents cast the mine as a boon for the economy, citing the need for mined rock to build schools, roads and other infrastructure.

The often-testy debate culminated with a media blitz before this week's final hearing that hit radio, newspaper and even roadside billboards. Both sides spent a chunk of Tuesday trying to fend off accusations made by their opponents.

"It's unfortunate that so many people are confused," said Cemex attorney Patrick Mitchell, referring to ads depicting a mountain leveled by mining.

Mitchell said the company was proceeding with a more gentle hand.

The need for mining materials in Fresno County is undisputed. State estimates indicate that the county has permitted mining for less than 100 million tons of aggregate when 629 million tons will be needed over the next 50 years. Whether other projects or imported material could meet that demand, though, remains at issue. The Jesse Morrow Mountain quarry had been expected to yield about 1.5 million tons of aggregate annually for 50 years.

The decision against the mine could bode well for another nearby project. The proposed Carmelita mine, pursued by Fresno-based Gerawan Farming, would provide an estimated 1.25 million tons of aggregate annually over 100 years, helping make up for the shortfall. That project is scheduled to go before the Board of Supervisors on Oct. 16.

These two mines are the latest of several recent proposals in the Kings River bottom area about 20 miles east of Fresno, where mining companies have increasingly set their sights. The San Joaquin River, long ground zero for mining, has begun to dry up.

Opponents of the Jesse Morrow Mountain project, who made up the bulk of the roughly 300 people at Tuesday's hearing, protested on several fronts. Some identified the foothill as sacred Native American land that should not be touched. Others worried about Valley fever, an infection that comes from fungus released when soil is disturbed. But environmental concerns reigned supreme, with independent reports confirming unavoidable harm to air quality in the form of particulate matter and nitrogen oxides.

"We live in one of the most polluted air basins in the world, and here we are doing something to make the air worse," said speaker Gerry Bill of Fresno.

Nearby residents have long worried about the cumulative effects of the mining projects in the area.

"This is not West Virginia, and I would hope that you don't turn it into West Virginia," said Reedley resident Jim Compton-Schmidt.

Cemex had scaled back its original proposal in an effort to appease opponents. Company officials agreed to not blast the top of the mountain, leaving the ridgeline intact, and reduce the size of the proposed quarry from more than 400 acres to less than 200. The project, which included an asphalt plant and other processing facilities, would have spread across as many as 824 acres. Tuesday's hearing came after Cemex appealed the Planning Commission's rejection of the project in May.

Supervisor Judy Case recused herself from the debate because of a potential conflict of interest. Supervisor Phil Larson was the only board member on Tuesday to express support.

"We're talking about some new jobs and some new opportunity," Larson said.

Several dozen Cemex supporters donned blue and orange jerseys reading "Vote Yes on Jobs." Company officials said the mine would offer at least 30 full-time positions paying up to \$100,000 a year. Several dozen other jobs, they said, would indirectly result.

"There's many people here who would kill to have a job at Jesse Morrow Mountain," said speaker Jess Harper. "We desperately need this mine."

## **Tulare plant exploring algae for jet fuel**

Written by Ben Keller

The Business Journal Tues., Aug. 28, 2012

The wastewater from Tulare County dairy operations may soon be used to power jets zooming overhead thanks to a brand new facility converting moist algae into biofuel.

Recently, the City of Tulare leased four acres next to its large wastewater treatment plant for the operation, which will use CO<sub>2</sub> and other gases generated from the site's adjacent fuel cells to grow the algae in large tubs of water. The lipids, or oils, the algae produces as it grows can then be extracted and refined for use as a low emitting jet fuel.

The plant is the joint venture of Pacific Algae Oil consisting of the nonprofit association Algae International Group and Huntington Beach-based Pacific Oil Products. According to Pacific Oil's CEO David Gair, the facility is currently in a pilot-scale phase, with the capacity to produce around a half a million gallons of the fuel annually. But given the right equipment and enough gases, he said, as much as 6 million gallons a year could be pumped out each year.

"I would like to give it 30 days before we get a commercial project underway," said Gair, who started Pacific Oil Products in 2008 selling presses and other equipment to extract plant oils. "To use all our resources will take until the end of the year in order to get centrifuges, oil presses, ponds, green houses."

Most of the project's \$2 million price tag will be privately funded, although Gair said he is waiting to hear back on a grant application from the California Energy Commission. Another grant may come in the way of the Title 3 program by the U.S. Department of Education in light of plans to open the site up to field courses that will train college students for jobs in the biofuel industry.

"Biofuel is a lot cleaner and makes more energy," Gair said. "It has the same amount of energy and 80 percent of the weight. The best plant, like perennial tree seed oil, is going to yield about 1,000 gallons per acre per year in the best conditions," he added. "Algae is a different game altogether, but if cultivated correctly, it's capable of 125,000 gallons per acre per year, so it has a lot more to work with and a lot less work to do."

A study last year by the Department of Energy's Pacific Northwest National Laboratory found that American-grown algae can produce 21 billion gallons of algal oil by 2022 consistent with the advanced biofuels goal set out by the Energy Independence and Security Act of 2007. That amount could replace 17 percent of the petroleum that the U.S. imported in 2008 for transportation fuels, and it could be grown on land roughly the size of South Carolina.

Algae are relatively new to the biofuel game, said Gair, pointing out that cultivation technology didn't really become optimal until last year. He added that there seems to be a greater need and demand for biofuel as an additive in jet fuel, satisfying federal government goals for clean fuels in its military operations.

"It's not expensive stuff but the petroleum jet fuel is not well refined and it's polluting," said Gair. "And I think the price is going to get down to petroleum price with this project because if you run it 24/7, the costs go down."

Researchers also noted that algae can produce more than 80 times more oil than corn per hectare a year and, unlike corn, is not a resource people rely on for food. As well, the water required for the process is roughly equivalent if not less than what would be needed to grow corn or other crops for ethanol.

There's no shortage of that at Tulare's industrial wastewater treatment plant, located at West Street and Paige Avenue just southwest of the city. With an expansion project completed in 2009, the facility, one of two wastewater treatment plants in Tulare, now treats 12 million gallons of day of industrial wastewater, primarily flowing in from six large milk processing facilities nearby.

The plant is one of the largest in the nation, using a combination of biological processes, a dissolved air flotation unit, and six sequencing batch reactors to remove fats, oils, organics and other impurities.

Since 2006, the city has added four fuel cells using methane and other emissions from the facility's anaerobic biomass digester to generate 1.2 megawatts of power, reducing the plant's electricity bill by more than \$1 million every year.

The byproducts of that process are carbon dioxide, nitrates and phosphates that will be used to help the algae flourish. In the end, the breakdown of those gases produces oxygen while the algae is netted and dried on racks before it is squeezed for its rich oils.

Lew Nelson said the new addition is the latest step in the city's effort to become the most efficient in its handling of wastewater. Last December, a 1.7-megawatt solar system went online near the plant to further supplement its energy needs while the city recently signed a contract to install an advanced energy storage device that will be able to supply up to 2 megawatts of power for two hours if needed.

"We're shooting to be the waste water management center of excellence," Nelson said.

[Fresno Bee Earth Blog, Tuesday, Aug. 28, 2012:](#)

### **\$500 million in road funds in jeopardy?**

By Mark Grossi

The next air-quality crisis involves a half-billion dollars for building freeways and roads around the San Joaquin Valley.

The federal road-building money could eventually be frozen for eight Valley counties if the local air district cannot come up with a plan to clean up tiny bits of soot, diesel, moisture and chemicals called PM-2.5.

These pollution specks are considered more dangerous than summertime ozone. They are known to trigger asthma and heart problems. Researchers have confirmed they cause early death. The Valley's PM-2.5 problem is one of the worst in the country.

The San Joaquin Valley Air Pollution Control District had a cleanup plan earlier this year that leaders thought would work. But they learned this summer that new roads and traffic in the next few years will add more pollution than they anticipated.

They are scrambling now. The district board was scheduled to vote on the plan in October. The vote has been postponed until December -- the same month as the federal deadline for the plan.

A public workshop scheduled for Wednesday has been postponed as the district fine-tunes pollution estimates from the road projects.

"We can no longer use ballpark estimates, as we have in the past," said district executive director Seyed Sadredin. "We need to make sure all the projects have been evaluated with the most up-to-date emission models."

If the district cannot meet the federal deadline in December, it will have 18 months to come up with an acceptable plan. If the district fails, there will be federal sanctions -- the biggest being a temporary freeze on the \$500 million in federal funding.

Look [here for updates](#) and workshops in the next several weeks.

I mentioned one of the bigger features of the plan a few weeks ago. The district probably will propose a stricter threshold for ordering wood-burn bans -- meaning Fresno, Bakersfield and other larger cities would see twice as many burning bans.

If that proposal becomes part of the plan, it would not begin until 2017 or 2018, Sadredin said.