



# CRC's GREEN SCENE

*A bimonthly newsletter of the Sustainability Committee at Cosumnes River College*

## CRC Earth Week: April 22-26, 2013

The main events for CRC's Earth Day 2013 will be held on Monday, April 22. On the quad from 10 am to 1 pm, you will find the usual wide variety of displays provided by governmental agencies, non-profit groups, CRC students and clubs, and faculty committees, along with musical entertainment and art displays.

Also on Monday, at 1:30 pm, Dr. Bruce Winterhalder, UC Davis Professor of Anthropology, and Dr. Martha Macri, UC Davis Professor of Native American Studies, will deliver the keynote talk on their work linking decades of extreme weather

patterns with the collapse of the Mayan civilization. You can preview their ideas in an audio clip (clip 3b) from Capitol Public Radio's Insight program available at <http://archive.org/details/Insight-121113>.

Other events during the week include films, tours of the Winn Center (being built to LEED Platinum standards of Green Building Design and Construction), and a trash audit by Prof. Debra Sharkey's students.

Check posters and future emails for specific times and places to find these and other Earth Week 2013 events. ♦



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## Sustainable Destinations

### First in a series: The Freeport Water Intake Facility



*John Ellis reports...*

If you are looking for an educational local hike or bike trip, try parking at Garcia Bend Park in Greenhaven and heading south for a couple of miles along the Sacramento River on the recently completed Pocket Area Bike Trail. At its end you will come to the Freeport Water Intake Facility, which provides a new source of drinking

water for Sacramento County and the East Bay Municipal Utility District.

Up to 185 million gallons of river water are pumped daily at the facility, 85 million to Sacramento residents for drinking water, and 100 million to the East Bay for use during droughts in 3 out of every 10 years.

*(See Freeport, Page 2)*



## Freeport Water Intake Facility – A Treat Awaits Visitors

*(From Page 1)*

For visitors, the facility provides viewing platforms looking up and down river as well as a grand plaza bordered by artist Paul Kos's River Wall, a relief structure that serves as a grand canvas for prose and poetry celebrating water. What a treat!

Amongst the memorable selections, Toni Morrison's words resonate: "All water has a perfect memory and is forever trying to get back to where it was" – as do these anonymous ones: "Tug on anything at all and you'll find it connected to everything else in the universe."



I am sure this thoughtful installation will prompt you – as it did me – to rethink your water use habits and conservation strategies. ♦

## Sacramento Opens Nation's Largest Food-Waste-to-Energy Digester



*Debra Sharkey reports...*

According to the U.S. EPA, Americans throw out 40% of the food they buy, the equivalent of 33 million tons of waste. Sadly, most of this now ends up in landfills, where in the absence of oxygen, it decays and generates methane, a greenhouse gas 23 times more potent than carbon dioxide.

What if we could instead harness the energy in this discarded organic

waste and put it to productive use? Well, now Sacramento can do this because it has the largest biodigester in the country, thanks to a unique public-private partnership including Clean World Partners, Atlas Disposal Inc., UC Davis, the State of California, Sacramento County, City of Sacramento, and others. This new way of processing organic waste uses technology developed by UC Davis engineering

professor Ruihong Zhang and commercialized by Clean World Partners.

This year, in its initial phase of operation, the biodigester can process up to 25 tons of food waste per day (nearly 10,000 tons per year) from sources such as supermarkets, restaurants, and schools, converting the material over a 10-to-12-day cycle into two outputs: organic fertilizer for use on farms, and biogas, a carbon-neutral fuel chemically identical to natural gas and 100% compatible with Compressed Natural Gas (CNG) combustion engines. During this first year, the facility is expected to produce up to 500 gallons of biofuel per day.

Atlas Disposal has built a fuel station at the biodigester, where it plans to fuel its waste disposal trucks, selling the balance to power county vehicles, school buses, and

*(See Biodigester, Page 3)*

## Biodigester: A Win for Sacramento

(From Page 2)

the like. By this time next year, the facility's capacity will quadruple, enabling it to handle up to 40,000 tons of organic waste per year and to produce up to one million gallons of biogas (equivalent to the electricity needed to power 400 homes).

The biodigester represents several 'wins' for Sacramento including the following:

1. diversion of organic waste from landfills (eliminating up to 5,800 tons of methane emissions);
2. production of renewable energy;
3. creation of 16 permanent jobs at the facility;
4. reuse of a location near the old Army Depot that had fallen into disuse;
5. \$1 million in additional tax



revenue for Sacramento County;

6. money savings for local businesses that divert food waste from landfills.

Encouraged by the potential of this facility to eventually process residential food waste, City Council member Kevin McCarthy announced a pilot food waste collection program to start next year.

Clean World Partners hopes to further expand use of this technology by licensing it to cities throughout the U.S. Indeed, in the near future, a biodigester will be opening at UC Davis as part of the planned net-zero-energy West Village housing development.

Given the sobering statistics cited by the U.S. EPA – “in California alone, private citizens, businesses, and public organizations landfill approximately 16 million tons of organic waste every year at an average cost of \$40 per ton or roughly \$640 million per year” – we should celebrate the arrival of the Sacramento and any future biodigester.

According to information from Clean World Partners, “Diverting all of the food waste in the U.S. from landfills to anaerobic digesters would ... power 600,000 homes and have the same environmental benefit as ... removing 8 million cars from the road or planting 9 million acres of pine forest.” ♦



TREE Tip ~ by Ann Rothschild

### Eat Outside and Discourage Mosquitoes, Ants

*Editor's Note: English Prof. Emeritus Ann Rothschild shares tips for living sustainably, originally printed in her church's e-newsletter. TREE, Trinity Respecting Earth and Environment, is Trinity Episcopal Cathedral's environmental ministry group.*

**Here's an easy home remedy for mosquitoes and ants.**



**Mosquitoes:** To deter the critters, fill a 4-oz spray bottle with original, medicinal Listerine (it can be the Dollar Store version, too) and spray the deck and grass area around where you are sitting.

This works around playgrounds and picnic areas too. Take your little spray bottle with you—no need for Deet and other nasty repellants. You can even rub some on your skin: the thyme in Listerine repels mosquitoes.



**Ants:** The mint-flavored mouthwash works on ants.



## Architecture Student Builds Sustainability Ideals

*Editor's Note: In this series, we spotlight CRC students with an interest in sustainability issues.*



Originally from St. Paul, MN, Moua Mo Thao moved to California during his elementary school years and fell in love with the sunshine, sandy beaches, green forest – and fishing the local rivers for a nice dinner.

Born to two great Hmong farming parents, Moua remembers spending time as a child in their two-acre garden. While he hated the labor involved in picking up rocks and pulling weeds, he slowly came to realize the benefits of their hard work. His parents' passion for gardening prevailed in each fruit and vegetable they cared for.

Fast forward about 15 years, and he is still helping his mother to

plow and harvest corn, but he also has made his own garden. Today he realizes how much healthier and more sustainable it is to grow one's own food organically – with no chemicals or force-ripened foods. And the best part is it tastes great!

Having worked for a national wood company, Moua has also seen how sustainable practices in forestry and building have raised awareness. "It is an exciting time to be alive and able to make a difference," he declares. "I believe it is just a matter of time before we change the culture completely into a greener and more sustainable society."

You won't be surprised to hear that Moua loves to spread awareness wherever and whenever he can. A few months ago, he bought a recycle bin for his family and soon learned what an amazing amount of material can be recycled by simply giving people the option.

Moua has also taken extreme measures to make his childhood home more energy efficient and environmentally sustainable through planting fruit trees in key areas for shade (and a nice bite every now and then), reducing watering through xeriscaping and other means, adding insulation to the attic to prevent heat and cooling loss, revamping the AC/

HVAC units to be more energy efficient, installing CFL and LED lighting, re-caulking windows, fixing weatherstripping at doors, and more. All the while, he has educated neighbors, family and friends, and even passers-by about the need for and benefits of sustainable and energy-efficient living.

Today Moua is working towards an architectural degree and eventual LEED certification in green building design. In addition to aiding the Sustainability Committee, he looks forward to participating in the CSI (Construction and Specifications Institute) and AIAS (American Institute of Architecture Students) clubs, which deal closely with sustainability efforts in the building industry. Currently, he is working with Professor John Ellis and UC Davis Studio 30 designing a carbon-neutral Eco City for 2050.

Moua remembers watching the movie *Fight Club*, directed by Chuck Palahniuk, in which a character states, "We have no Great War. No Great Depression. Our Great War's a spiritual war. Our Great Depression is our lives." In the same way, Moua believes that future generations, and history books, will remember this time, and his generation, as the one that chose to do something about sustainability: "Our great war is a green war. Our great depression is a global warming depression. And I believe we can and must do something about it now." ♦



## Basic Rules for Recycling on Campus

To combat the confusion regarding recycling on campus, follow these simple guidelines:

Belongs in the Trash (i.e. Landfill) Bin	Belongs in the Recycle Bin	Belongs in the Compost Bin (available only in the cafeteria)
<ul style="list-style-type: none"> <li>• Straws, plasticware, and coffee stir sticks.</li> <li>• Styrofoam of any kind, even if it has a chasing arrow. (Very few recycling companies accept Styrofoam as it is not profitable to recycle.)</li> <li>• Wrappers and bags from candy, chips, and other snacks – unless marked with a chasing arrow symbol.</li> </ul>	<ul style="list-style-type: none"> <li>• CRV glass, plastic, or aluminum containers.</li> <li>• All paper waste (EXCEPT when contaminated with food).</li> <li>• Anything that has the chasing arrows recycling symbol.</li> <li>• Plastic coffee-cup and soft-drink lids.</li> </ul>	<ul style="list-style-type: none"> <li>• All food waste.</li> <li>• Any paper products that pass the tear test (see * below), including napkins, paper plates, cups, and bowls.</li> <li>• Paper cups that are wax lined.</li> </ul> <p>* tear a portion of the paper product and look closely at the fibers that stick out at the tear site. If you see any plastic pulling apart at the tear site, it is NOT compostable.</p>

Thank you all for your efforts to make CRC a more sustainable campus with regards to waste. The more we can divert from the landfills the better!

### Students for a Sustainable Future Club

## Projects Brewing for SSF Club

*Club President Veronica Vogan reports...*

This semester will bring some new and exciting projects for the Students for a Sustainable Future Club, as well as continue some ongoing ones.

We are sad to lose club member Donna Leiva, who has accepted a new job at Sac State. Donna selflessly spent hours collecting CRV containers from classroom recycle bins to raise money for sustainability efforts on campus. However, the club hopes to recruit enough volunteers to continue her

work and to expand to include collection at CRC home athletic events, which typically generate large amounts of discarded CRV containers.

We are excited about Earth Week and would like to follow ARC's lead in tying together plastic bags all over campus in order to raise awareness of the harmful effects that plastics have on the environment. As always, we will have tables with displays and information about the club. We

will also host movies that teach about the environment and what we can do to protect it.

All in all, we hope to have a fulfilling semester with lots of involvement and participation. Those interested in joining the club or volunteering to collect CRV containers should contact club president Veronica Vogan at [voganv@imail.losrios.edu](mailto:voganv@imail.losrios.edu) or club advisor Prof. Debra Sharkey at [sharked@crc.losrios.edu](mailto:sharked@crc.losrios.edu). ♦



**Cosumnes River College  
Sustainability Committee**

**Members:**

- Tamyra Carmona
- Steven Coughran
- Julie Elliott
- John Ellis
- Cindy Erickson
- Cath Hooper
- Julie Oliver
- Andrea Salmi (Chair)
- Susan Scott
- Debra Sharkey
- Thomasina Turner
- Linn Violet

**Student Members:**

- Moua Mo Thao
- Veronica Vogan

**Newsletter:**

- Cindy Erickson
- Cath Hooper
- Christina Ocran



*We're on the web!*

*Look for archived issues  
of the*

**GREEN SCENE**

*on the CRC Homepage*

## Conserving Water at the Winn Center

*John Ellis reports...*

CRC architecture students are currently working on a joint venture with UC Davis and PG&E to design several carbon-neutral prototypical residential and commercial developments in Davis, taking into consideration predictions for the year 2050. One of the major assumptions is that, even without climate change, California will be at high risk of encountering greater demand than available water.

With this in mind, the new Winn Center has incorporated several water

conservation concepts into its 'living laboratory' theme:

- a demonstration bio-swale that will take care of water runoff and direct it through a natural filtering system before redirecting it for beneficial reuse;
- rainwater collection barrels for watering landscape;
- drought resistant landscape;
- demonstration gardens;
- low-flow plumbing fixtures;
- drinking fountains with stations for refilling water bottles. ♦

## Surprise, Surprise... Gas Prices Rise! Can We Decrease Demand?

*John Ellis updates his December 2008 Green Scene article...*

Every time I see the gas prices start to rise, I think about trying to decrease demand. We can carpool, bike more often, or take public transportation – but if we can't give up our cars, then what?

Well, we can at least save 10 to 15 percent on fuel costs if we get regular tune-ups, avoid rapid starts and stops, drive the speed limit, and keep tires

properly inflated. According to the CRC automotive guys, tires lose about one psi per month, so we need to check tires (with the manufacturer's recommendations) at least every other month.

Thus, as fuel prices rise above the \$4 level, we can save ourselves at least a couple of hundred dollars a year, do something for global warming, and, just maybe, fight back a little against rising gas prices by decreasing demand. ♦



## News In Brief

### District-wide Collaboration Brewing

Faculty and staff from all four colleges got together on Friday, February 1 at Sacramento City College to discuss how we can work together to advance sustainability throughout the district. Individuals shared the successes they have achieved at their respective colleges and some of the challenges they have faced. There will be other meetings in the future. ♦

### Green Caps and Gowns Now Sold in CRC Bookstore

The CRC Bookstore is now selling new GreenWeaver caps and gowns made of 100% post-consumer recycled plastic bottles. After the ceremony, graduates can turn in their regalia to be recycled into new fabric. In addition, a percentage of every purchase will be donated to benefit sustainability efforts on campus. Kudos, CRC Bookstore! ♦