

**LAKE CRYSTAL ENERGY FORUM**

This workshop will inform the community of the status and options of a community for improving their energy efficiency and consideration of renewable energy technologies, led by Rich Huelskamp of SMIF-REDI. The forum will take place at Lake Crystal Wellcome Memorial School District on March 31, 2009 (Tuesday) at 7:00 PM in the Secondary School Cafetorium.

Click here for more info: <http://www.isd2071.k12.mn.us/lcwm/site/default.asp>

**Earth Day Event – “From Energy Foolishness to Energy Independence”. A community discussion sponsored by Carver County Environmental Services, the MN Landscape Arboretum and TCW Railroad.**

Carver County is pleased to announce an Earth Day event [April 22, 2009] focused on one of the most important social and environmental topics of the day – Energy. The County, and local civic and business sponsors including the Minnesota Landscape Arboretum and TCW Railroad, have organized an event designed to promote local discussion of energy issues such as alternative fuels and energy conservation. This event is hoped to be the beginning of a series of similar events on issues effecting the residents and businesses of Carver County. The inaugural event features author, business man, and engineer Mr. Joe Shuster and his presentation - “From Energy Foolishness to Energy Independence.”

Mr. Shuster recently authored a book titled *Beyond Fossil Fools – The Roadmap to Energy Independence by 2040*. Shuster will present his road map to steer the United States and the world away from dependence on fossil fuels such as oil, natural gas and coal by the year 2040. The presentation follows the format of his book by detailing current problems, describing new and existing energy sources that contribute to a solution, and lastly describing the transition to energy independence.

Shuster is both a Chemical Engineer with more than 50 years of experience and a business man who has founded or co-founded eight companies. This presentation is one of many Shuster has given on energy issues including testimony before Congress and the Argonne National Laboratory. Shuster recently spoke to a standing-room-only crowd of over 500 people at the University Of Minnesota Institute Of Technology. Mr. Shuster will be available for discussion of his presentation and to sign copies of his book. *Beyond Fossil Fools – The Roadmap to Energy Independence by 2040* will be available from the MN Landscape Arboretum gift shop before and after the presentation.

The presentation will begin at 7:00 PM on Earth Day, April 22 at the Landscape Arboretum’s Oswald Visitor Center, 3675 Arboretum Drive, Chaska MN 55318. There will be no charge for the presentation or admittance to the Arboretum. **Space is limited and prior registration is required.** Online registration is encouraged via the Landscape Arboretum’s On-line event registration system - <http://www.arboretum.umn.edu/exhibitsandevents.aspx>. Phone registration is available by calling Carver County Environmental Services at 952-361-1800.

Carver County and other sponsors do not necessarily endorse Mr. Shuster’s views or the information contained in his book. The event is organized and sponsored as a means of stimulating and fostering local discussion of an issue that obviously impacts every resident and business in Carver County.

**Experiments in Alternative Energy**

ROCHESTER — “Everything’s an experiment,” exclaims Norm Erickson of Rochester when asked about his hazelnuts.” We’re even playing music to them.” Erickson is firm in his belief that most of the available oil in the earth has already been found. He is equally firm in his belief that the solution to the problem lies in farm fields of the nation. “Hazelnuts have a bright future, just

like soybeans did 75 years ago.” He said, “They provide habitat, filter waterways, hold soil and they’re beautiful too.”

Erickson is completing a solar-powered greenhouse to grow them in. The idea is to raise hazelnuts and vegetables during the winter for local use. He is even delving into dehydrating vegetables grown in the winter for re-hydration at full-flavor and marketing them. The hazels can go out into commercial plantings or parks and fields, he added.

The greenhouse is about 28-feet by 75-feet and 12-feet high. Peak sunlight will reach the back of the 18-foot-long growing tables he said. The structure is built into an earth berm, uses double layer glass and thermal energy storage. . A second system will eventually have panels to store energy in the ground, he explained, and will heat the floor in the office end of the greenhouse. “It will heat water and keep the floor about 60 or 70 degrees; that’s the goal,” Erickson noted.

Hazelnuts and solar energy are certainly sustainable as third-crop alternatives in Erickson’s opinion. He prefers using organic and permaculture growing principles to avoid harming the land by introducing foreign materials that deplete the soil. He is trying to keep the soil in good shape. Hazels do not like to compete so he uses mulch, a fertilizer tablet, and something called hydro-gel to increase the water holding capacity of the soil. He picked his first nuts the third summer after planting and some bushes are now about seven-feet tall. Others are smaller, but produce so many nuts they cannot stand.

Erickson first became interested in hazelnuts as a fuel oil and eventually there will be a use for hazel oil for that purpose, he thinks. But now with culinary hazelnut oil going for about \$128 per gallon, it will be a while. With fossil fuel depletion a big problem looming on the horizon, it certainly will happen. “The Ag industry is too dependent upon cheap fossil fuel and it’s not going to last,” Erickson said. “Renewable energy is the only thing that is sustainable in the long run.” Biofuels also have potential, Erickson says. He is so certain of it he purchased equipment, including an oil press and filters, to make biodiesel himself and plans to start picking up waste oil in the spring to try it out.

For now, Erickson will keep experimenting with his hazels and greenhouse, hopefully coming up with a plan that can be duplicated elsewhere. “This stuff is doing extremely well and we want to find out why,” he said.

Rural Advantage is a nonprofit corporation based in Fairmont, Minnesota. Their mission is to promote the connections between agriculture, the environment and rural communities in order to improve ecological health, economic viability and rural vitality. Their work centers around efforts to reduce agricultural nonpoint source pollution with major programming focused on the 3<sup>rd</sup> Crop Initiative, ECoPayPack development and building the Madelia Model concept. Contact them at 507-238-5449 or visit their website at [www.ruraladvantage.org](http://www.ruraladvantage.org) for more information.

### **Job Opportunities:**

#### **Hydrologist with MN Department of Agriculture**

This position is responsible for providing hydrological expertise to the Monitoring and Assessment Unit through the development and implementation of protocols and procedures for ground and surface water quality monitoring studies, analysis and reporting of water quality data and information, and the general assessment of the impacts of agricultural chemicals on water quality.

For more information, <http://mavdisk.mnsu.edu/kudels/hydrologist2agriculture.pdf>

#### **Urban Outreach Specialist – Faribault County SWCD**

This position is under the general supervision of the Faribault County District Manager and performs a wide variety of urban educational and outreach activities as outlined in the Faribault County Local Water Management Plan and various project work plans. Additional urban water

resource activities will occur as defined by the PARTNERS Group, which consists of the Faribault and Martin County Soil and Water Conservation Districts (SWCD), the Greater Blue Earth River Basin Alliance, and communities.

For more information, <http://mavdisk.mnsu.edu/kudels/faribaultstormwater.pdf>

### **Events:**

March 29<sup>th</sup> (Sunday) is the **Chaska to York Factory in 49 Days presentation** at 7:00 p.m. at the Treaty Site History Center (1851 North Minnesota Avenue) just north of St. Peter on U.S. Hwy 169. Sean Bloomfield and Colton Witte will talk about their adventure last summer paddling the entire Minnesota and Red rivers all the way to the Hudson Bay. For more information call 507-934-2160 or [museum@nchsmn.org](mailto:museum@nchsmn.org)

March 30<sup>th</sup> (Monday) is the **Shallow Lakes Forum VI – Development and Implementation of Shallow Lake Management Plan** at the Oak Ridge Conference Center in Chaska. For more information, <http://www.shallowlakes.info/>

March 31<sup>st</sup> (Tuesday) is **Global Warming Solutions Action Night: Clean Cars** starting at 6:30 p.m. at the Blue Earth County Library (100 East Main Street) in Mankato. Join Sierra Club members and the public to learn more about global warming solutions and Clean Car Standards, which reduce greenhouse gas pollution and help consumers save money at the pump. Bring your favorite energy tips to share! Refreshments will be served and win a free energy efficient light bulb! For more information <http://northstar.sierraclub.org> or 612-659-9124.

April 7<sup>th</sup> (Tuesday) is the last of three **Conservation Drainage Sessions** starting at 6:00 p.m. at the Best Western Hotel in Mankato. For more information, <http://mavdisk.mnsu.edu/kudels/conservationdrainageflyer.pdf>

May 7 – 8 (Thursday & Friday) is the **2009 Lakes and Rivers Conference** at the Mayo Civic Center in Rochester. Choose from more than 50 informational presentations on a variety of topics. For more information or to register: [www.minnesotawaters.org](http://www.minnesotawaters.org)

**Check out additional upcoming events and workshops on the Minnesota River Calendar at:** <http://mrdbc.mnsu.edu/calendar/index.html>

### **Water Quality Articles**

[Food and agriculture form a cornerstone of Minnesota's economy](#) (MinnPost). As the second-largest industry in Minnesota, agriculture serves as the cornerstone of our state's economy, creating jobs, generating business and supporting other industries.

[A wish list for wildlife](#) (Minneapolis Star Tribune). The Lessard Outdoor Heritage Council recommended that \$68.6 million be spent on 19 projects selected from more than 90 proposals.

[Prairie grass will 'tame' park areas](#) (Austin News). A native prairie grass project could soon be sprouting in two unused city parks. A partnership between Austin's Department Parks, Recreation and Forestry and Mower County's Soil and Water Conservation District plans to transform several unused acres of land in city parks into prairie land.

[Is it time to build up the Minnesota Conservation Corps?](#) (MinnPost). How do we create jobs, rebuild the country's crumbling infrastructure and reinvigorate the value of national service?

[Minn. ag commissioner backs higher ethanol cap](#) (Mankato Free Press). Agriculture Commissioner Gene Hugoson says raising the national cap on the amount of ethanol that can be

mixed with gasoline would create thousands of jobs in Minnesota and help the state reach its own goals for ethanol use.

[Minn. agency issues Big Stone transmission order](#) (Minneapolis Star Tribune). Minnesota regulators have issued their final written order for transmission lines for the proposed \$1.6 billion Big Stone II coal power plant in South Dakota.

[Oil refiner to obtain 7 VeraSun ethanol plants](#) (Minnesota Public Radio). A couple of traditional enemies in the energy field may be moving a little closer together. For the first time, an oil company will independently produce corn ethanol. Valero Energy, the nation's largest oil refiner, has won the right to buy seven bankrupt VeraSun ethanol plants, including one in Minnesota.

[State approves power lines for Big Stone II project](#) (Minnesota Public Radio). Minnesota has officially approved power lines to bring electricity into the state from a planned expansion of the coal-fired Big Stone plant.

[I-TEAM: Waterless Urinals Not In New Stadiums](#) (WCCO TV). Last year, the I-TEAM reported on Minnesota being the only state in the union to outlaw waterless urinals.

[Buckthorn biomass to be converted into electricity](#) (KARE 11). It was brought to the United States as a hedge and is now more of a nuisance.

[McKnight to join national battle on climate change](#) (Minneapolis Star Tribune). The Minnesota foundation intends to contribute \$100 million in the \$1 billion war against global warming.

[Ethanol levels could be on rise](#) (Morris Sun Tribune). Federal officials have until year's end to decide whether gasoline may contain more than the common 10 percent ethanol.

[Report: No PFCs in water](#) (Mankato Free Press). Testing has found firefighting foam usage from several years ago did not contaminate the city of North Mankato's drinking water.

[State DNR to see fringe benefits of federal stimulus plan](#) (Outdoor News). If state agencies that serve the outdoors of Minnesota see benefits from the American Recovery and Reinvestment Act, also known as President Obama's economic stimulus package, they're likely to be peripheral, at best.

[Judge denies request to halt Watson's legal action against vegetable grower](#) (West Central Tribune). A district judge has denied a request by Aziz Ansari to dismiss legal action against him by the city of Watson.

[On This Earth: A green world? Go for it!](#) (Morris Sun Tribune). This past week, several thousand protestors engaged in a peaceful demonstration at the site of the coal-fired Capitol Power Plant that provides steam heat and air-conditioning to the Congress of the United States.

[Turbines will soon churn in 11 Minnesota cities](#) (Minneapolis Star Tribune). Refurbished windmills will start to be set up this summer to meet a state electricity law.

[A call for new launch rules at Lake Minnetonka](#) (Minneapolis Star Tribune). The Lake Minnetonka Association is calling for emergency boat launch rules for the coming season to prevent the spread of zebra mussels into the lake.

*To cherish what remains of the Earth and to foster its renewal is our only legitimate hope of survival.* – Wendell Berry

**The Minnesota River Watershed Alliance (Watershed Alliance) is an organized network of citizens, public agencies, and private organizations dedicated to communicating the**

**benefits of an ecology healthy Minnesota River Watershed to others and are actively working towards its improvement and protection. We meet four times a year and encourage landowners and recreational users of the river to be part of the effort. For more information on the Watershed Alliance: <http://www.watershedalliance.blogspot.com>**

Please register at the Minnesota River Watershed Alliance's bulletin board at <http://mail.mnsu.edu/mailman/listinfo/mrwa> to receive regular updates on what is happening in the Minnesota River Watershed.

Thanks,

Scott

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