



The Lake Effect

Great Salt Lake
Resource Conservation
and Development
(RC&D) Council, Inc.

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Volume 3, Issue 1

Rooted in Our Past,
Reaching into the
Future!

WE'RE ON THE WEB!

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The Great Salt Lake RC&D Council is an Equal Opportunity Provider and Employer

Great Salt Lake RC&D Dues: 2007

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Mail to: **Great Salt Lake RC&D Council, Inc.**
5370 S. 1030 W.
Murray, UT 84123-5437

Dues Schedule

Circle the appropriate membership category

Associate/Student	\$10
Individual	\$25
Nonprofit Org.	\$50
Business	\$50
Foundation	\$75
Town	\$75
City	\$100
County	\$200

Please mail this form with your check. We do not release our mailing list to any individual or group. It is for the use of the GSLRC&D only.

Calendar of Events:

- **April 9th: Bonneville CWMA meeting at Murray NRCS Office, 9am.**
- **Myrtle Spurge Exchange: April 14 & 21, 2007 at REI 3300 S. 3200 E. Bring in your Myrtle Spurge to exchange for a variety of native plants.**
- **April 18th: Ogden Valley Septic System Workshop, Huntsville Library auditorium, 6:30pm.**
- **May 11, 2007: Great Salt Lake RC&D Council Meeting, 250 N Redwood Rd (come from I-215 on the north and exit at Redwood Rd), North Salt Lake, Davis County, 9am.**

Spring 2007

Rapid Watershed Assessment

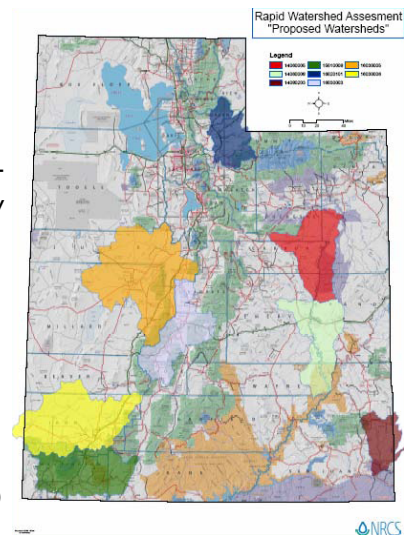
In order to quickly assess where conservation efforts would best address the needs of the public organizations and private landholders, the NRCS has instigated the rapid watershed assessment program. These assessments are made by teams that visit each watershed and meet with the involved parties. Through this discussion and with existing data, conclusions can be drawn as to current resource conditions, possible conservation efforts, and possible funding opportunities.

The assessment, led by an experienced NRCS team leader, has the

benefit of being quick and inexpensive. Though this program is not as detailed as a complete study and plan, it can be used when its parameters are adequate and also to determine when more in depth study is necessary. These plans should enable landowners and communities to discuss concerns openly and cooperate in deciding on the best use of available resources for conservation efforts.

The state of Utah has eight watersheds that are slated to be evaluated by summer 2007. Comments, questions, or concerns should be addressed to Norm Evenstad, (801)

524-4569,
norm.evenstad@ut.usda.gov.



Ogden Valley Septic System Workshops Scheduled

The Utah Division of Water Quality, Utah State University Extension, Weber Soil Conservation District, and the Weber-Morgan Health Department are conducting a Septic System Training and Maintenance Study in Ogden Valley. This project is funded with Congressional Earmark 104(b)3 funding. The goal of the project is to reduce phosphorus and nitrogen loading of the Pineview Reservoir from septic systems through homeowner training coupled with a financial incentive to assist in the cost of septic system clean out and maintenance.

In November and December 2006, Ogden Valley homeowners were invited to participate in one of two septic system education seminars taught by Judy Sims of Utah State University Extension. Brian Cowan, Waste Water Specialist from the Weber-Morgan Health Department, was available to answer questions. Those that participated qualified for a \$100 rebate on septic system clean-out. Additional seminars will be held this spring in the Huntsville Library auditorium on April 18 at 6:30 pm.

Sufficient grant funding exists to pay

rebates for 200 more homeowners. To qualify for the rebate you must: own a home with a septic system in Huntsville, Eden, or Liberty; participate in one of the seminars and complete pre-knowledge and post-knowledge surveys; have (had) your septic system cleaned out anytime between January 1, 2006 and June 30, 2007; and submit a copy of the receipt for reimbursement before August 15, 2007. For more information on the program please contact Kari Lundeen at the Utah Division of Water Quality (801) 538-6760.

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Focus on Small Wind By Trudy Forsyth, National Renewable Energy Laboratory

"Can I use wind energy to power my home?" People across the country are asking this question as they look for affordable and reliable sources of electricity that will also help preserve our precious natural resources for future generations. Small wind electric systems can make a significant contribution to our nation's energy needs, and now consumers can choose from a wide variety of turbines. In addition, more incentives are available to consumers than ever before.



A typical small wind electric system exemplifies a simple, rugged design comprised of only two to four moving parts that results in little required maintenance. The system is comprised of three elements: the blades that are aimed into the wind by the tail, a generator, and a controller.

The system is housed atop either a guyed tower (supported by guy wires); a tilt-up tower, which can be lowered for maintenance or extreme weather events; or a self-supporting tower, which uses a smaller section of land and no guy wires. Small turbines

should be installed at a height of two times the tallest obstacle in the prevailing wind direction. This extra height will increase the energy production and reduce fatigue damage by getting the turbine into cleaner, less turbulent air.

Are Incentives Available to Fund Small Wind Systems?

Residential small wind incentives are offered by the federal and state governments and local utilities. You can access a comprehensive online listing of all available incentives that promote renewable energy and energy efficiency in the Database of State Incentives for Renewables & Efficiency more info at: <http://www.dsireusa.org>

Special incentive opportunities are available for agricultural and rural businesses. The U.S. Department of Agriculture is incenting the use of renewables through its 9006 grant program. Rural business owners or agricultural producers can receive 25% off their small wind systems by submitting a grant application (due May 18, 2007). This grant application is evaluated by specific criteria identified in the Notice of Funds Availability, or NOFA (see

www.rurdev.usda.gov/rbs/farmbill/index.html). The National Renewable Energy Laboratory (NREL) created a Simplified Technical Worksheet to help applicants prepare the technical section of the grant application, which can be found at

www.windpoweringamerica.gov.

Where Can I Buy a Small Wind Turbine?

Consumers can choose from a wide variety of small wind turbines, including turbines from the following six manufacturers: **Southwest Windpower** at www.windenergy.com, **Abundant Renewable Energy** at www.abundantre.com, **Bergey Windpower** at www.bergey.com, **Windward Engineering** at www.windwardengineering.com, **Lorax Energy Systems** at www.lorax-energy.com, and **Entegritty Wind** at www.entegrittywind.com.

How Can I Learn More?

Many resources are available to consumers interested in learning more about small wind electric systems. Here are three good places to start:

- The Wind Powering America Web site offers a wealth of wind energy information, including a small wind section (www.windpoweringamerica.gov/small_wind.html).
- The American Wind Energy Association has a small wind section on its Web site (www.awea.org/smallwind) that includes frequently asked questions and permitting information.



Pictures of small wind systems courtesy of the NREL

Cellulosic Ethanol Provides Future Possibilities

Corn based ethanol is an alternative energy source that is quickly becoming a common additive in automobile fuel. Ethanol production and use generates a 20-30 percent reduction of greenhouse gases over gasoline. The production process frees up the simple sugars found in corn and other grains and ferments them into ethanol.

A similar process that is coming to the forefront is cellulosic ethanol production. Instead of using the edible, easily accessible sugars in grain, cellulosic ethanol extracts the sugars that are tightly bound in the cellulose of the

inedible portion of the plant. This refining process involves breaking down the complex polysaccharides with either water or enzymes and then separating the usable sugars to be fermented. In contrast to grain based ethanol, cellulosic ethanol has an 80% reduction of greenhouse gases in comparison to gasoline because by products of the cellulosic ethanol refining process can be used to fuel the process.

Possible sources of cellulosic ethanol include plant residues from agricultural crops, manufacturing leftovers,

such as sawdust and wood pulp, cellulose specific energy crops such as switchgrass, and some forest residues. In addition to the environmental benefits of reduced greenhouse gases and a possible reduction in waste, using these agricultural and manufacturing byproducts could give these farmers and businesses an added source of income. Additional information about cellulosic ethanol can be found at <http://www.ethanolrfa.org/resource/cellulosic/>.

Entheos Charter School goes Solar

Rocky Mountain Power is dedicated to renewable energy and gives customers the option to enroll in the Blue Sky Program which allows them to buy their power from an environmentally friendly source, generally wind power. The Blue Sky program also has grants available to people and organizations that wish to generate renewable energy on a small-scale, community level.

One of these grants was awarded to Entheos Charter School in Kearns to install photovoltaic solar panels to the roof of the school. The project went online on

January 29, 2007 and Entheos became the first public school in Utah to use solar power. The 2.4 kiloWatt system was installed by Renewable Synergy LLC with south facing panels which have generated over 650 kWh since coming on line. In addition, this project is providing excellent science and math learning opportunities to the students at the school.



Entheos Charter School with a close up of the photovoltaic solar panels on the roof of the school. Photos taken by Brian Smith, Renewable Synergy, LLC.

Biodiesel for Utah, by Andre Shoumatoff, Director, Utah Biodiesel Cooperative

In the last few years, Utah Biodiesel Cooperative has researched possible benefits that biodiesel can play in Utah. Biodiesel is a type of diesel fuel that is derived from plants that yield vegetable oil crops. As an additional benefit, emissions are greatly reduced, the fuel is renewable, aside from the other political and environmental benefits from not using petroleum based diesel fuel. Biodiesel also offers a nearly 80% reduction in greenhouse gases because crops used to produce the fuel consume CO₂, in addition to simply being better for diesel engines.

All this makes biodiesel "the Lexus of diesel fuels" because it significantly overcomes some of the major disadvantages that petroleum diesel fuel

has. This means that we must find a solution to these issues fairly soon. Luckily, the biofuels industry is growing as much as 400% a year, but is still only a drop in the bucket of the total diesel fuel used daily.

One of the greatest local benefits derived from biodiesel is a new source of revenue for local farmers. Currently, most biodiesel comes from soy crops harvested in the Midwest. However the amounts needed can be an economic challenge to make it feasible in Utah. Canola and Safflower crops have decent yields and grow in Utah which make them an option for biodiesel plants coming on line in Utah, which could generate revenue for rural Utah growers.

Secondly, there has been significant

growth in the local biodiesel supply with its associated benefits. There are nearly 20 retail stations with many people unknowingly using and enjoying the benefits of biodiesel. Growth and support of biodiesel, particularly from three large fuel distributors, has been beneficial, and most of the biodiesel in Utah seems to be relatively inexpensive as well.

For more information about the Utah Biodiesel Cooperative and biodiesel related issues, contact Andre Shoumatoff at:

www.utahbiodiesel.org,
(435) 649-0316 Office,
(435) 631-0021 Cell

Wasatch Integrated Waste Management District's Landfill Gas to Energy

The Wasatch Integrated Waste Management District, comprising Davis and Morgan counties, is committed to reduce the environmental impact of the waste that it manages. Their integrated waste management program uses a number of strategies to reduce and recycle waste and its by-products. One aspect of this program is a landfill gas to energy facility.



The facility, which went online January 13, 2005, was the first of its kind in the state of Utah. Landfills give off greenhouse gases, most notably methane, and this project traps the gas at the Davis County landfill given off by the almost three million tons of garbage that has been collected since the landfill opened. The methane is refined and piped a short distance to Hill Air Force Base where it is used to fuel two large generators.

This project was a cooperation between

This is a picture of an internal combustion engine that runs on landfill gas and generate electricity.

several organizations including Hill Air Force Base, Wasatch Integrated Waste Management, the US Department of Energy, Ameresco, the Utah Energy Office, and PacificCorp. This project also helps Hill Air Force Base meet energy efficiency standards enacted by a presidential executive order.

In addition, the Wasatch Integrated Management District recently joined the Chicago Climate Exchange, a greenhouse gas emissions allowance trading system. Wasatch has made a legally binding commitment to lower greenhouse gas emissions 6% at their facilities by 2010. Any additional emissions reductions can be traded or sold to other members on the exchange.

Have Your Own Project Idea?

This year's grant application submission deadline is at 5 pm on May 1st. Information, application forms, and eligibility requirements can be found at <http://www.rockymtnpower.net/Article/Article72035.html>.