



Award Winning

Malibu Rotary Club Surfwriter

January 21, 2009

Official Newsletter of the Rotary Club of Malibu
Malibu Rotary Club President Bow Bowman

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Malibu Rotary Website: <http://groups.msn.com/maliburotary>

Rotary International Website: www.Rotary.org

Rotary District 5280 Website: www.rotary5280la.org

Rotary District 5280 "Rotarians Doing Business With Rotarians" Website: <http://yp5280.org/>

[RI President \(2008-2009\) D.K. Lee](#)

Rotary District 5280 Governor (2008-2009): Chuck Anderson

Park Blair of Geo Source Foundation Explains How to Reduce Your Ecological Footprint and Save on Building's Heating and Cooling Costs



At the January 21st meeting of the Malibu Rotary Club **Parke Blair**, Chairman of GeoSource Foundation, explained how his organization designs cooling and heating systems for buildings to most efficiently use and create energy, using geothermal, solar, wind, and other "green" technologies to reduce the properties ecological footprint. Parke had just returned from Washington, DC, where he had already been in contact with Barbara Boxer, who is the Obama economic advisor, before the inauguration. He expects that Obama's promise to create jobs using renewable energy will help his industry. The federal government has mandated that the military spend 50% of its utility budget "going green" and using renewable energy sources. Despite the fact that there are many reasons to "go green", including long term

cost savings, energy conservation, and reduction of global warming, most fortune 500 companies and nearly everyone else seems resistant to change.

Blair explained that while California leads the nation in many areas, such as physical fitness, banned smoking on the Third St Promenade and Malibu's ban on plastic bags, the state gets a very poor grade when it comes to producing efficient energy and what is known as reducing the *ecological footprint* and *carbon footprint*.

The fact is that there currently are only three installations in California that use sustainable energy:

1. The Santa Barbara Public Library
2. A Middle School in Hollywood
3. The Dreamworks studio

Blair, who is from California, has long been interested in energy and the environment, and had taken special classes on the subject when he was in college. After he graduated he worked on Wall

Street, and later worked as a commercial real estate developer buying rundown strip malls and fixing them up to be profitable. While doing this he noted that the first expense he encountered was upgrading mechanical systems. He was thinking about alternative energy before it came into vogue. Alternative energy is now called “going green.” There is a large upfront cost in building a sustainable “green” energy system, much greater than building traditional systems, but once it is in place, the future monthly costs for energy are much less, and sometimes utility companies actually pay the former energy consumer as an energy supplier producing a future source of income—causing a negative cash flow to become a positive one. Long term finance for building the initial infrastructure of the system is the key and Parke says he can do this by tapping into financing from Fallbrook Capital, which specializes in tax advantaged building projects, with a capital of \$2 billion and funding minimum \$25 million projects.

Parke is now in negotiation with the LA Unified School District for developing a green energy system for LAUSD. Parke points out that the LAUSD has 1800 campuses—in fact nobody is sure the exact number of buildings the school district has—and is the world’s largest school district.

Although GeoSource Foundation’s website at Geosource.org is still under construction some of the concepts that Parke was talking about are defined on the web:

At www.footprintwork.org we find that *The Ecological Footprint* is a resource accounting tool used widely as a management and communication tool by governments, businesses, educational institutions and NGOs to answer a specific resource question: How much of the biological capacity of the planet is required by a given human activity or population? Often, the word ‘footprint’ is used generically to refer to human impact on the planet, or to a different research question. For example, the term ‘carbon footprint’ often refers to the number of tonnes of carbon emitted by a given person or business during a year, or to the tonnes of carbon emitted in the manufacture and transport of a product. There is a carbon component to the Ecological Footprint. It measures the amount of biological capacity, in global hectares, demanded by human emissions of fossil carbon dioxide.

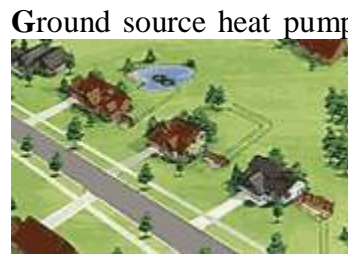
Installing solar panels can produce electricity and heat, and possibly cause your electric meter to turn backwards, if supply more electricity than you use. Parke said that a downside to solar panels is that it takes a large carbon footprint to create solar panels. Although Parke utilizes energy from solar panels and windmills, it is the utilization of GeoThermal heating and cooling systems that his organization draws on special expertise and designs for large projects. Much information about GeoThermal heating/cooling systems can be found at: www.reddawn.com:

GEOHERMAL HEATING/COOLING SYSTEMS

The application of geothermal heating/cooling, also known as ground source heat pumps, has been named "the most energy-efficient and environmentally sensitive of all space conditioning systems", by the Environmental Protection Agency. The system's basic concept takes advantage of the earth's constant temperature, approximately 55 degrees, to heat and cool a building. By tapping this steady flow of heat from the earth in the winter, and displacing heat in the earth in

the summer, a geothermal heat pump can save homeowners 40 to 70 percent in heating costs and 30 to 50 percent in cooling costs compared to conventional systems.

Ground source heat pumps work in a similar manner as air source heat pumps, minus the high cost. A typical household can save \$1500 a year or more. This can give most systems a payback period of three to five years. GSHP's are more than three times as efficient as the most efficient fossil fuel furnace. By moving heat that already exists in the earth, instead of burning a combustible fuel, GSHP's deliver three units of energy for every one unit used to power the heat-pump system.



Ground source heat pumps work by circulating water or a water/antifreeze solution through a closed loop of polyethylene pipe that is buried in the ground or set beneath the water. GSHP systems can be laid out in different orientations, depending on the situation. A closed loop system, the most popular, can be laid out either vertically in 50 -250 foot deep holes drilled like a well, or horizontally in 3-6 foot deep trenches. The less common open loop system circulates a constant source of ground water and dispels the water back to its origin, such as a stream, well, or pond.

The principle action of a heat pump moves heat from lower temperature location to a higher temperature location. This principle can be witnessed in an air conditioning window unit, or air source heat pump, where cold air is blown into the house and warm air is released out of the back of the unit. A ground source heat pump works in a similar manner, except that its heat source is the warmth of the earth. The process of elevating low-temperature heat to over 100 degrees F and transferring it indoors involves a cycle of evaporation, compression, condensation and expansion. A refrigerant, like freon, is used as a heat-transfer medium which circulates within the heat pump.

The cycle starts as the cold, liquid refrigerant passes through a heat exchanger (evaporator) and absorbs heat from the low-temperature source (liquid from the ground loop). The refrigerant evaporates into a gas as heat is absorbed. The gaseous refrigerant then passes through a compressor where the refrigerant is pressurized, raising its temperature to over 180 degrees F. The hot gas then circulates through a refrigerant-to-air heat exchanger where heat is removed and pumped into the house at about 100 degrees F. When it loses the heat, the refrigerant changes back to liquid. The liquid is cooled as it passes through an expansion valve and begins the process again. To work as an air conditioner, the flow is reversed.

The ductwork is no different than that of a conventional forced-air system. The difference is found in the temperature of the air flowing from the registers in the winter. With a conventional air source heat pump, the air flow is seldom warmer than 80 degrees. But because water transfers a greater volume of heat than air, the Ground source heat pump is able to deliver warmer air, typically about 110 degrees F.

Another benefit of a ground source heat pump can be found when teamed with a desuperheater. This component skims residual warmth from the compressor to heat water. Which means that in

the summer, when the system is working to get rid of heat, the desuperheater can provide practically free hot water. And since most systems are oversized, there is usually enough warmth left over for low cost hot water in the winter too.

While GSHP's require a small amount of electricity to concentrate the energy and circulate it through the system, most systems derive approximately 70 percent of their energy from a clean, renewable source- the earth.

Other advantages of GSHP's include the fact that all components of the unit are housed inside the building, thereby reducing the wear and tear on the unit by Mother Nature, and also eliminating the fear of vandalism or theft. GSHP's do not require a flue, and since there is no on-site combustion, there's less chance of fire, and no chance of carbon monoxide infiltrating the home. GSHP's also carry the Environmental Protection Agency's Energy Star Label, which is used to designate energy-efficient equipment. Often homeowners may find tax benefits, lower mortgages, or utility rebates.

Other News and Guests from Last Malibu Rotary Club meeting

There were several guests at the last Malibu Rotary Club meeting. **Park Blair**, who is the chairman of the GeoSource Foundation, brought with him two other principals from the organization: **Eric Kale**, who is GeoSource Foundations Director of Electrical Systems, and **Elmore Fowlie, AIA**, an architect that specializes in sustainable architecture planning and interior design. Other guests included **Babara Jo Conklin**, who is believe was from the Thousand Oaks Rotary Club, and regular visitor **Tom Bos**, past district governor from Holland, MI.

Late Breaking News: Holmes R Osborne III is Malibu Rotary Club President-Elect



Bill Wishard tells us that at the meeting of the Malibu Rotary Club Associates

Committee on January 23rd it

was confirmed that **Holmes R Osborne III**, who had recently returned from his honeymoon, and had shown leadership skills

in organizing the Malibu Rotary Rotary Club Host Event for the 2008 Rotary International Convention, as well as this year's Malibu Rotary Club hosting event for the Malibu Chamber of Commerce on the Malibu Pier, has agreed to be the Malibu Rotary Club President of record for 2009-10. Holmes is the nephew of Anson Phillips, a 95 year old retired realtor who was a member of the Malibu Rotary club in the 1970s. Anson worked on the original donation of the



Adamson Family Malibu property to Pepperdine University, the land that is now the main campus of the University in Malibu, and where the Malibu Rotary Club meets. Holmes is a private money manager, founder of investment newsletter StockRoyalty.com and frequent author of financial columns. More about Holmes and his work can be found on his website at www.holmesosborne.com. He will attend PETS (registration being sent this week) in March and the 2009 Rotary International Convention in Birmingham, England, June 21-24 representing the Rotary Club of Malibu and has been a member of the Malibu Rotary Club since January, 2007. It is appropriate that one of the club's youngest members will representing the Malibu Rotary Club for the 2009-10 RI International theme "The Future of Rotary is In Your Hands."

Malibu Rotary Middle and High School Singing Competition—January 29th at Malibu High School

Geoff Ortiz has been in contact with the new choral director at Malibu High School—Amy Lock. He has confirmed we will be conducting our annual Malibu Rotary Middle and High School singing competition on Thursday, January 29, 2009 at 7:00PM at the Malibu High School Auditorium. Malibu Rotarians will vote on the winners. As in previous years awards of \$250, \$150, \$100, for the 1st, 2nd, 3rd voted finishers in the high school and middle school groups will be awarded.

What is unique about this year's event is that because we are having in January (as opposed to June in previous years) the winner of the Malibu Rotary High School music competition can advance to our Rotary District 5280 2009 Governors Music Award Competition. The entry must be submitted by FEBRUARY 1, 2009. The Malibu Rotary Club will pay a \$50 entry fee for the Malibu High School winner to advance to district. Auditions will be held on March 21, 2009, and the Awards ceremony will take place on May 2nd, 2009 at the Rotary District Conference at the Westin Hotel, South Coast Plaza. Winners at this level receive \$1,000 for first, \$500 for second, and \$250 for third place.

La Estanzuela, Honduras Water Project

The Malibu Rotary Club is one of the clubs joining with the Century City Rotary Club to bring clean water to the Village of La Estanzuela in Honduras. There wasn't enough time to complete funding of this project during the past Rotary year. We are hoping to complete the project this year with a Rotary Foundation Matching Grant

Calendar .

- **January 28th 7:30 a.m.: Bob Brager, Head of Public Works Dept, City of Malibu at Malibu Rotary Club Meeting at Fireside Room, Pepperdine University.**
- **January 29th, 7:00 p.m.(Thursday): Malibu Rotary Middle and High School Singing Competition—January 29th at Malibu High School**
- **February 4th 7:30 a.m. Carol Cousineau, Pontiac Michigan Rotary and Drs Allison and Mathew Richard (ER doctors from Thousand Oaks) on volunteering life saving training to refugees from Myanmar (formerly Burma) who are fleeing to Thailand because of ethnic cleansing from their government at Fireside Room, Pepperdine University**
 - **February 11th, 7:30 a.m. : “Alternative Fuels”**
 - **February 18th, 7:30 a.m. :Bob Syvertsen, Craft talk**
 - **February 25th, 7:30 a.m.: Jim Thorsen, City Manager, speaking on “Legacy Park”**

Join Malibu Rotary's MSN Group Website

The Malibu Rotary website at <http://groups.msn.com/maliburotary> is updated weekly. You can go to it and see

our calendar of events, pictures of our speakers and activities, and past issues of our weekly bulletin, the illustrious *Malibu*

Rotary Club Surfwriter. Contact information for the club, e-mail addresses of the club officers and other club information is also there. If you go to the site and become a member of the site (which you can do whether or not you are a member of the Malibu Rotary Club) then you can post items on the site, and have access to [documents](#). Directions for becoming an *on-line group member* are available on the website. To join the online Maliburotary group as an online member you must sign up for a free MSN passport, fill out an on line form with a name (which can be an alias), an e-mail address, and agree to the rules of membership. You can view most of the site

without signing on as a member, but as an online member you can post information on the site, including the calendar and bulletin board, view [documents](#), and participate in the on-line interactive chat room.

John W. Elman, Editor_The Malibu Rotary Club Surfwriter is sent weekly to members of the Malibu Rotary Club and friends of the Malibu Rotary Club, those interested in the work of Malibu Rotary. This e-mail is sent to you at no charge. If you wish to opt out of our mailing list send an e-mail to maliburotary@hotmail.com with the subject: Take Me Off Your Mailing List