

*Learning Green, Living Green*

$$E=(LG)^2$$

Fracking  
in Your Backyard

Sustaining  
Women's Rights

Green Gadgets

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# $E=(LG)^2$ Staff



## Front Row

Katie Nash, Beth Petrovich, Celina Szymanski, Kelli Wilhelm, Madison Martin, Jukka Hietala, Eric Morris

## Back Row

Pooja Pradhan, Malaika Moore, Rita Peacock, Ashley Burdin, Belesha Phillips, Becky Clevenger

Not pictured: James Knapp, Jaleesa Gregg

## Our Cover Photo

By Celina Szymanski

Energy is what we all need to thrive in this world. From plants to animals and everything in between, it is energy that makes the world go round. This magazine highlights one of the possible new forms of alternative energy sources— natural gas. However, another vital source could be wind energy from large-scale, industrial electricity-generating windmills. As students of Frostburg State University, we have all experienced the power of the wind. Imagine harnessing that power into a usable, clean form of energy.

We live in a beautiful part of Maryland; the pristine mountains should be treasured and respected. But maybe it is time we readjust our image of beauty. An abandoned mine site or stream with acid mine drainage is surely not pristine, and a mountain with the top of it removed for the extraction of coal is a painful eyesore. Comparatively, white windmills spinning gently against the blue sky is not such a terrible sight.

The staff of  $E=(LG)^2$  decided to highlight the beauty of windmills by using their images on the front cover of our magazine. This photo was taken by FSU student Jared Dickey. However, it was not taken somewhere close to Frostburg or somewhere in Allegany County. The reason is because the county has decided that windmills would be too much of an eyesore to bear and has made a county ordinance prohibiting them, except for on suitable private property. We all need energy to survive. It is time to harness all the power that the winds of Allegany County have to offer. ■

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# Focus on the Toxins!

## Safe Chemicals Act of 2011

- ◆ Frank Lautenberg, Delegate of New Jersey introduced the Safe Chemicals Act of 2011 on April 14
- ◆ The Toxic Substances Control Act of 1976 is so unhelpful that even asbestos, one of the most dangerous substances in existence, is unable to be banned under it.
- ◆ The Safe Chemical Act of 2011 will force companies to ensure the use of safe chemicals before products are produced and sold.
- ◆ There are approximately 15,000 chemicals that we heavily use.
- ◆ Hundreds of everyday products contain chemicals that the EPA currently lacks the authority to deem safe or dangerous.
- ◆ Studies show that chemical exposure is linked to 5% of childhood cancers and 30% of childhood asthma.
- ◆ Babies are born with hundreds of pre-polluted chemicals in their systems.
- ◆ "In 2009, the Environmental Working Group (EWG) released a report that showed that the public had no access to any information about 17,000 chemicals in EPA's inventory."
- ◆ "Since 1976, industry has claimed confidentiality of the chemical identity of nearly two thirds of the 20,403 new chemicals that came on the market."
- ◆ Source: <http://www.enviroblog.org/2011/04/sen-lautenberg-introduces-safe-chemicals-act-of-2011.html>

By Becky Clevenger

**F**ocus Frostburg is an all day event capturing current events or landmarks in environmental improvements and overall ecological knowledge. The panel "Compassionate Conviction: Women's Experiences in Social and Environmental Activism" touched on eco-feminism, toxins affects on people, mountain top removal, and women's roles in environmental organizations.

Nicole Mattis, Associate Professor in the Department of Theater and Dance at Frostburg State University, presented "Children and Toxic Exposure" which focused on mothers' reactions to the toxic exposure that their children were facing. Mattis discussed her struggles to identify a source of lead in her area. She said, "When you're trying to find out what is going on, the door just slams shut." Luckily, her situation was handled and no people were hurt.

Mattis also highlighted Lois Gibbs and her story of battling toxic exposure in the Love Canal. Gibbs lived in Niagara Falls, New York. She noticed her son Michael was constantly ill.



Photo by Becky Clevenger

Gibbs mistakenly blamed her son's illnesses on the school's playground.

According to Eckardt C. Beck from *EPA Journal* of January 1979, "I visited the canal area at that time. Corroding waste-disposal drums could be seen breaking up through the grounds of backyards... Everywhere the air had a faint, choking smell. Children returned from play with burns on their hands and faces."

Through the persistent protesting of families and mothers such as Lois Gibbs, it was discovered that the school and town sat on over 20,000 tons of chemical waste. The Hooker Chemical Company had previously owned the land in the 1950s and then sold the land to the city for one dollar.

Almost every family bore a child with at least one birth defect.

According to Beck, one girl was "born deaf with a cleft palate, an extra row of teeth, and slight retardation." All of the families eventually left, and the government put in place a complicated draining system.

It is concerning to think that the people of the Love Canal were ignorant to the fact that they lived on top of toxins. It is highly possible that there are other locations with hidden toxins.

Beck wrote: "Quite simply, Love Canal is one of the most appalling environmental tragedies in American history. But that's not the most disturbing fact. What is worse is that it cannot be regarded as an isolated event. It could happen again--anywhere in this country--unless we move expeditiously to prevent it."■



# Smoking Alternative

By Kelli Wilhelm

The current ecological trend that has swept across the nation has rendered such a health-risk habit as smoking unpopular. In the past, smokers have turned to quitting aides such as nicotine patches and nicotine gum with varying success. However, a new alternative has recently caught the attention of American smokers.

This alternative is the electronic cigarette, or e-cigarette. Containing batteries that last for three months and can be charged at a computer, these cigarettes heat a liquid allowing it to be vaporized into a smoke-like vapor. The liquid, according to *The Vapor Room*, an online business based in Frostburg which markets electronic cigarettes and related products, consists of “water, flavor, trace amounts of nicotine (varying in strength), and a safe food additive called Propylene Glycol”; the resulting vapor would be of the same makeup as the liquid and smell like the chosen flavor. Flavors range from cigarette smoke to cotton candy to Mountain Dew. At the same time, the user is able to regulate his or her nicotine intake depending on the strength of liquid being used.

Due to the use of this liquid in e-cigarettes, none of tobacco smoke’s harmful contaminants would be released into a smoker’s surrounding environment or to nearby non-smokers. Smokers are permitted to use e-cigarettes in nonsmoking areas. The cigarettes come with a card explaining their difference from tobacco cigarettes, as well as their allowed use in places where smoking is generally not permitted.

A federal appeals court ruled in December 2010 that electronic cigarettes are to be regulated as tobacco products, instead of drug devices, by the Food and Drug Administration, despite the product’s complete lack of tobacco. This does give the FDA control over the marketing of the product. E-cigarettes are not permitted to be marketed as a way to quit smoking. Josh Grapes, co-owner of *The Vapor Room* and a 10 year pack-a-day smoker who quit smoking in 3 days by using an electronic cigarette, comments that despite this advertising barrier, “We feel that the e-cigarette’s benefits over the alternative are obvious.”

Grapes dates the existence of these cigarettes back to 2004 when they were introduced to the market in China. “Exporting to the US did not catch on until around 2006,” says Grapes. It is rare to see this new gadget locally, but awareness is rapidly increasing. E-cigarettes may soon replace traditional cigarettes as they take their place among smokers’ necessary electronic devices and help to promote the health of people and their environment. ■



Photo by Kelli Wilhelm

“Due to the use of this liquid in e-cigarettes, none of tobacco smoke’s harmful contaminants would be released into a smoker’s surrounding environment or to nearby non-smokers.”



Photo by Eric Morris

# Green Gadgets

By Madison Martin

When it comes to environmental sustainability, there are two types of people in this world: those that are excited and proactive about saving the environment and those who are pessimistic and skeptical about saving the environment. Little do those that are pessimistic and skeptical know, saving the environment is a lot less complicated than it would seem. Small, inexpensive changes can make a world of difference, and there are several “green gadgets” that more people should be aware of.

There are a wide range of gadgets that can make a household environmentally friendly. Cuisinart, for example, makes a green gourmet non-stick pan set from recycled steel. Real Goods makes an energy efficient ergonomic desk lamp. Legare Furniture has an eco-friendly work desk that anyone can purchase on their website for roughly \$279.00. Why not purchase a blender with a rechargeable battery? One can save a little electricity and take his or her blender anywhere.

One can also make his or her bathroom green by purchasing a timer that can monitor showering time. This particular gadget, called the Stop in Time Timer,

will cling to any shower wall and is only \$3.00 on [greengadgets.com](http://greengadgets.com). In addition, there are multiple showerheads that are eco-friendly and allow one to save water when showering.

Nowadays even children’s toys are environmentally friendly. [Greengadgets.com](http://Greengadgets.com) provides a full selection of such toys. The website offers a kids’ paper recycling kit that comes with all the tools that enables a child to make his or her own paper from products around the house. Another toy that is as fun as it is environmentally friendly is the HaPe Bamboo and Solar Sunshine Doll House. This dollhouse is made from natural organic rubber woods and sustainable bamboo and equipped with fully operational solar panels that power its LED lights. The dollhouse is fun and teaches children the importance of the



Photo by Becky Clevenger

environment.

There are multiple websites that offer a wide range of environmentally friendly products. Anyone who is interested in helping to save the environment by making slight changes to their everyday household items can check out [greengadgets.com](http://greengadgets.com), a user friendly website with inexpensive, environmentally friendly items. ■

Another green website: [www.etsy.com](http://www.etsy.com)

By Katie Nash

This site offers items from shops all over the world that are handmade, vintage and made from recycled materials. These items include:

- A clock made from an old bike wheel
- Pencil holders and lights made from old floppy discs
- Make-up made from all organic materials
- Handmade clothing, shoes, and accessories

# The Electric Car

By Madison Martin

In the Twentieth Century, the electric car was introduced. The electric car, also called EV for electric vehicle, is powered by an electric motor or energy that is stored in rechargeable batteries. The batteries can be recharged by common household electricity. The electric car is powered exclusively by electricity; however, EV's have not been widely adopted due to limited driving range, long recharging times, and lack of commitment from automakers to produce and market electric cars that have all of the same comforts of gas powered cars.

According to the documentary *Who Killed the Electric Car?*, the electric car first came about in the 1990's in California. The first electric car was the General Motors EV, a car that runs entirely off of a battery that charges when you plug it in at home. The EV was a slick vehicle that was smooth to drive and could accelerate up to 100 miles per hour; however, car companies slowly began to stop producing these cars. There is speculation that the government teamed up with oil companies in the recall of the EV which was discontinued shortly after it

came out. The car companies were able to recall the EV due to the fact that the EV was never available for purchase, only lease.



Photo by Jaleesa Gregg

*"Chevrolet has created an iPhone application that enables one to check the bat-*



Photo by Beth Petrovich

*"The Volt fully recharges in approximately 10 hours..."*

Recently a new electric car has emerged: the Chevrolet Volt. The Volt is the first electric car to be produced since the GM EV that was released in the '90s and was supported by famous actors Mel Gibson and Tom Hanks. The Volt was just released in the beginning of 2011, and its starting price is a little over \$38,000. Similar to the EV, the Volt is only available for lease, which means that technically one does not actually own the vehicle. The Volt has three different modes that enable it to be tailored to any driver, and it can run off of gas or an electric charge. The Volt fully recharges in approximately 10 hours, and Chevrolet has created an iPhone application that enables one to check the battery on his or her Volt at any time.

Overall, the Chevrolet Volt appears to be an excellent vehicle, similar to the General Motors EV. The only issue with the Volt is the fact that the Volt is only offered for lease and that the cost of the Volt is rather expensive for a standard vehicle for daily driving. ■



# Sustaining Women's Rights

By Beth Petrovich

Women's rights over their own bodies have progressed since 1873, when the Comstock Law made it a crime to publish information about or provide birth control. In 1965, it was ruled in the *Griswald v. Connecticut* case that married couples had the right to purchase and use birth control; this right was extended to single women in 1972 in the *Eisenstadt v. Baird* case. Today, women take access to and use of birth control for granted, due in large part to Planned Parenthood Federation of America. Planned Parenthood's funding is under attack though, and so are women's rights.

Since 1916, Planned Parenthood has provided services for women, men, and teens. While they are widely known for providing birth control, Planned Parenthood also provides breast exams, pap tests, gynecological exams, STI testing, pregnancy tests, and prenatal care. Those are only some of the services that they provide for women. Planned Parenthood also provides services for men, including testicular cancer screenings, prostate cancer screenings, male infertility screening and referral, urinary tract infection testing and treatment, jock itch exam and treatment, and erectile dysfunction services (including education, exams, treatment, and referral). Beyond reproductive health services, Planned Parenthood provides cholesterol and diabetes screening, flu vaccines, high blood pressure screening, and help with quitting smoking.

Some Planned Parenthood clinics provide access to abortions, but only 3%

of Planned Parenthood's entire funding pool goes towards abortion services. Some people cannot see past that 3%, though. Representative Mike Pence of

Indiana introduced an amendment to the House of Representatives in February that would prevent Planned Parenthood from receiving any federal funding, including funds from Title X. The House voted 240-185 for the amendment.



Photo by Jared Conaway

Indiana introduced an amendment to the House of Representatives in February that would prevent Planned Parenthood from receiving any federal funding, including funds from Title X. The House voted 240-185 for the amendment.

"Title X is a program which provides federal funding for family planning services. The law prohibits the use of Title X funds to pay for abortions," stated Senator Barbara A. Mikulski. Although the law already forbids the use of federal funds for abortion services, Pence argues that the federal funding Planned

Parenthood receives makes funds from other sources readily available to cover abortion services. Defunding Planned Parenthood would not only hurt those seeking an abortion, but those who lack health insurance, financial stability, and those who want to practice safe sex. Sex education varies from state-to-state, but Planned Parenthood provides a constant source for information and contraception. According to the Planned Parenthood Federation of America Fact Sheet, "As of January 2011, our more than 800 health centers are operated by 84 affiliates, which have a presence in all 50 states and the District of Columbia." Many states, including Connecticut, Massachusetts, and Maine, are not required by law to provide sex education in schools. For many states, if a school district chooses to include sex education, they must include a message of abstinence until marriage. Abstinence-only sex education has been proven ineffective; though, research shows abstinence-only sex education only delays sex for a year or two, and does not increase awareness on how to prevent sexually transmitted infections (STIs).

Because of the different approaches to sex education state-by-state, it is no wonder that the United States has one of the highest rates of unintended pregnancy among Western nations. "Each year, half of the more than 6 million pregnancies in this country are unintended. Access to family planning services, such as contraception, prevents unintended pregnancy and the need for abortion," said Senator Mikulski.



The Senate rejected the House-approved legislation for defunding Planned Parenthood, but the attack on women's rights is not over. According to a press release on [prochoiceamerica.org](http://prochoiceamerica.org), "Women's access to family-planning services remains in jeopardy as Congress now must compromise on a final CR

(continuing resolution) that will fund the federal government through the remainder of the fiscal year." The push to defund Planned Parenthood is a thinly-veiled attack on women's bodily autonomy. Regardless of a person's personal opinions concerning contraception and abortion, the choice for

women to access such services should remain open. By proposing to defund Planned Parenthood in the first place, Pence and like-minded representatives show their lack of concern for women's choices and for those who use Planned Parenthood's other valuable services. ■

## Women Fighting Mountain Top Removal

By Katie Nash



Dr. Kara Rogers Thomas speaks about Maria Gunnoe, winner of the 2009 Goldman Award. More information can be found at [www.goldmanprize.org/](http://www.goldmanprize.org/). Photo by Dr. Lutz.



Left to right are Professors Kara Rogers Thomas, Joy Kroeger-Mappes, Julie Hartman, and Nicole Mattis. Photo by Dr. Mary Anne Lutz

On Wednesday, April 20, 2011, Dr. Kara Rogers Thomas presented a speech about two powerful women in the Appalachian region who have been fighting against Mountain Top Removal (MTR): Maria Gunnoe and Julia Bonds. MTR involves removing more than 500 feet of the mountain in order to get to the mines beneath. First the vegetation is cleared away, sometimes being burned or dumped into valley fills. Then the summit is blasted away using millions of pounds of explosives. Next, coal companies used massive 22 story machines called

draglines to dig into the earth, which displaces the need for hundreds of jobs. The coal is then washed and treated before being taken away. Finally, the companies are supposed to stabilize and re-vegetate the mountain top, but most sites just get a dusting of grass seed and are left to fend for themselves.

Maria Gunnoe and her family have lived in the Appalachian Mountains for over a century, but after her home was flooded seven times with toxic coal sludge, she was forced to take action. Since the 2004 flood, her family has been forced to use bottled water on a

day-to-day basis. She then joined the Ohio Valley Environmental Coalition (OVEC) and won a lawsuit in order to revoke illegal mining permits.

Similarly, Julia Bonds was forced to move after her home of six generations became unsafe due to MTR. She then created the Coal River Mountain Watch which works to promote wind energy. Both women were awarded the Goldman Award, Gunnoe in 2009 and Bonds in 2003. This award acknowledges grassroots environmental heroes. ■



Photo by Kelli Wilhelm

# Fracking in Your Backyard

By Celina Szymanski

**O**n Wednesday, March 2, 2011 members of the surrounding community gathered at the Palace Theater in Frostburg to discuss an important issue of our time: hydraulic fracturing. In the old-timey renovated theater, only one baby cried and only three children were present. I wondered about this town back in its heyday, before it started declining in population. Back when old Coal was king. Could it be that natural gas could bring the area back to its glory day by providing jobs and opportunity for people? Or is this all just a joke perpetrated by the gas companies to earn a quick buck without concern for people of the community?

The goal of the meeting was to have a civic discussion between two experts on the topic and the group of concerned citizens. Sponsored by the Maryland Humanities Council, with the help of FSU's Learning Green-Living Green Initiative, the program led to discussions about private property rights, public health, and the first amendment.

Hydraulic fracturing, or "fracking" was the important issue

at hand. Simply put, fracking is the process of shooting a mixture of water and chemicals into the earth to release natural gas. The natural gas can then be used to heat America's homes and provide electricity and power to thousands of people. Conveniently enough, much of Western Maryland, Pennsylvania, Ohio, and West Virginia are located above a gigantic natural gas shale deposit. This is known as the Marcellus Shale: the largest untapped natural gas deposit in North America.

As you can imagine, the debate about whether to allow natural gas drilling in Allegany and Garrett Counties is a heated and controversial one. To help sort through the facts were two panelists: Gregory Wrightsone and Josh Fox. Representing the pro-drilling side of the issue, Gregory Wrightsone is the Director of Geology for Texas Keystone, Inc., an oil and gas drilling company based out of Pittsburgh.

As a Petroleum Geologist, Wrightsone wanted citizens to hear the facts about fracking. He insisted that the practice was



safe and did not contaminate the groundwater. While he admitted that accidents could happen, he did not falter from the fact that they operated in an “environmentally safe manner.” Josh Fox, the second panelist, produced the Oscar-nominated film *Gasland*, which investigated the impacts of natural gas drilling. His film strongly suggests that the chemicals used in the fracking process have the potential to contaminate the groundwater which citizens drink. The film showed a number of citizens who suffered serious health affects, allegedly from living in *Gasland*.

As with any issue, politics play an important role. At the community meeting, questions were raised about why this should even be a community discussion. Wrightstone argued that this is a private property matter and it should be up to the individual landowners whether or not they want to sell their mineral rights to the gas companies. On the other hand, Fox argued that this is not a private property issue, but rather a civil rights issue because the general population’s drinking water could become contaminated. It is a public health concern, and a serious one at that.

As the civil debate raged on, the feeling in the audience shifted. People became fidgety and started whispering to their neighbors.

Then Mr. Wrightstone, in a moment of exasperation, asked the seemingly rhetorical question, “Are you suggesting

that Garrett ban drilling?” The eager crowd responded with an overwhelming shout of “YES.” The crowd was anxious -- they had heard enough. Then the moderator stood up to try to bring the debate back to “civility.” People didn’t want civility; they were angry and wanted their voices to be heard. Fox made a fist and banged on the table, voicing “There is nothing uncivil about clapping and standing up for your rights.” The meeting was an incredible example of the power of citizens coming together to discuss such an important issue. This was truly a local and personal demonstration of political might.

Anyone interested in public health, science, geology, the environment, film, politics, or the First Amendment, learn more about this vital issue. There are currently two fracking bills before the Maryland legislature: one that would put a moratorium on fracking in the state altogether, and one that would give two years to the MD Department of the Environment to further study the issue. As members of the voting population, we have a responsibility to learn as much as we can about the world around us. This is an issue, not only of today, but also of the future. As problems in Libya and the Middle East escalate, the fact becomes clearer that we cannot rely on the finite resource of foreign petroleum forever. Could the Appalachian Mountains become the next Saudi Arabia? ■

## Local Fracking News

By Rita Peacock

According to the Huffington Post Online, a fracking spill of chemicals occurred in rural Pennsylvania, Tuesday, April 19<sup>th</sup>. The spill led to the evacuation of eight families, and affected local creeks and farmland. However, local officials are assuring residents that the areas affected by the spill will be cleaned and efforts will be made to contain the chemicals to prevent their spread. Officials say that the effects to local waterways are minimal. This event occurred during the wake of controversy regarding the safety and impacts of drilling in the Marcellus Shale for natural gas. At Frostburg State University (FSU), during the annual Focus Frostburg event, Wednesday, April 20<sup>th</sup>, a presentation on “Drilling for Energy in Marcellus Shale” was presented by Dr. Robert Larivee, professor of Chemistry at FSU. Dr. Larivee presented the benefits of drilling for natural gas, including lower prices and convenience due to the depleting amount of petroleum. However, his presentation stirred much debate among audience members who were not convinced that drilling in the Shale will leave a minimal impact on the environment. The issues of fracking are currently being considered by Allegany County officials and residents. ■



Photos by Zelig Mae Collison

# LOCAL PAPER MILL TAKES STEPS TO REDUCE CARBON FOOTPRINT

By Eric Morris

NewPage Corporation is the largest manufacturer of coated paper in North America, and one of its ten paper mills is located less than 20 miles from Frostburg State University. NewPage's Luke mill is located in southwestern Allegany County in Luke, Md., and spans the Potomac River into Beryl and Piedmont, W.Va. The mill is the second largest employer in Allegany County, retaining nearly 1,000 local workers.

NewPage bought the Luke mill in 2005 from MeadWestvaco and has since incorporated sustainability and environmental procedures into its business practices. The corporation relies heavily on renewable, natural resources. They help take care of these resources by supporting responsible forest practices and using several third-party certified, chain-of-custody systems which ensure that sustainable practices are being utilized and that forest resources are well managed.

Since 2005, New Page has worked to lower its ecological footprint in a variety of ways. Besides being capable of producing nearly half of its energy requirements from renewable biomass sources, the corporation also works to minimize solid and hazardous waste, improve water quality

and conservation, reduce air emissions, and lower greenhouse gas emissions. More than half of the fiber re-

watershed following wastewater treatment. In 2009, the corporation was able to decrease its energy consumption 13% while maintaining product output and sales. In the past five years, they have also greatly reduced their CO<sub>2</sub> emissions by 20%, the amount of solid waste by 41%, and hazardous waste by 95%.

On a local level, the installation of a high-efficiency baghouse at the Luke mill cut mercury emission by two thirds from 2007 to 2008. In 2011, U.S. Wind Force, LLC will be carrying out a wind energy project on Green Mountain in nearby Mineral County, West Virginia. The project will include 23 wind turbines, six of which will be located on NewPage property near its Luke mill. The project will generate power for more than 14,000 households annually.

Additionally, NewPage has partnered with the World Resources Institute to create positive environmental, social, and economic change on a global scale, including a large investment in Project POTICO (Palm Oil, Timber, Carbon Offsets) to preserve endangered rainforests in Indonesia.

The most important aspect of NewPage – its paper – is offered in a wide variety that contains ten to 30 percent recycled content. This sustainability sentiment can be found in many aspects of the corporation's work, even right here in our area.■



Photo by Eric Morris

quired for papermaking is obtained from certified and recycled sources, and NewPage returns more than 90 percent of all water used back to its original



# Treasure From Your Faucet

By Karla Ralda

People everywhere are converting to drinking water from the tap. In a society where the everyday individual is exploited by giant commercial industries, Earth's most precious natural resource, water, is exploited. Consumers have the power to protest plastic bottles to reduce environmental impact.



Photo by Madison Martin

In 2009 the company Nestle, one of the largest suppliers of bottled water, launched a new "eco-shape," bottle. The new design was supposed to help reduce the amount of plastic waste. According to Emmy Favilla, author of *Turn on the Tap* for Natural Health magazine only a mere 12 percent of

Americans recycle plastic and roughly 2.5 million bottles [are used] every hour. Considering that the average American recycles a limited amount, companies like Nestle cannot compete with the consumption of plastic water bottles.

A prominent businessman, Benjamin Gott, introduced America's consumer market to an alternative to bottled water—boxed water. Gott's product has received a lot of attention from the media, including *The New York Times Magazine*.

Basically, most companies sell you

water that comes straight from your tap that has just been bottled for your convenience.

In her article "Boycotting the Bottle" Janet Larsen, writer for *USA Today*, describes a progress with "tap water promotional campaigns" that are spreading throughout the nation.

If you do not like the taste of tap water then do not fret, there are solutions out there for you. There are certified filtration systems for the home, and you can always purchase a reusable bottle to carry water.

The movement towards ridding our environment from plastic bottles is quickly expanding and gaining momentum as individual cities are looking for ways to reduce their usage. ■

**Water Facts:** [www.discountmugs.com](http://www.discountmugs.com) offers a wide variety of water bottles, even customizable water bottles that are priced at as cheap as 90 cents. REI also offers a wide variety of water bottles, specifically ones that can fulfill all of your sporting supply needs. Did you know if you drink one bottled water a day that you are spending close to 550 dollars a year on water?

## S.E.R.F Frostburg

By Pooja Pradhan

Frostburg State University has always been interested in renewable sources of energy. This interest led FSU to get involved in WISE, "Wind and Solar Energy." The Fuller House has a system to generate electricity from wind and solar energy.

But Frostburg State University is involved in building something much more current: the *Sustainable Energy Research Facility* (SERF). The project is co-directed by Oguz Soysal and Hilkat Soysal at FSU's Department of Physics and Engineering. SERF is currently being built near the FSU Research Center and

will be generating its own electricity from wind and solar energy for heating and cooling the building.

The building is approximately 63,000 square feet and will house the *FSU Renewable Energy Center*. The SERF building will be a LEED certified green building that will use passive solar energy for its heating and lighting systems. However, solar thermal energy will be used for water and space heating, and geothermal energy will be used for heating and cooling the building. SERF will have battery and hydrogen fuel cells as an energy backup system.

There are three main purposes of this building. The first one is to give an example of an off-grid building for people in Western Maryland, or people in similar geographic locations, who are interested in renewable energy. Another purpose is to be able to do research or activities that educate people in renewable and clean energy. The third reason is to have a test center for future renewable energy products.

For more information on these campus sustainability efforts please visit [www.frostburg.edu/renewable](http://www.frostburg.edu/renewable). ■

# The Green Lantern of Frostburg

By Eric Morris

**T**om Kozikowski has been a Frostburg resident since 2005. He teaches environmental science at Mountain Ridge High School, where he also acts as the advisor of the school's Environmental Concerns Organization. During his time in Frostburg, Kozikowski has placed an emphasis on living a sustainable lifestyle and helping the environment.

"We recycle everything," Kozikowski said about practicing sustainability within his home. Bottles, cans, plastic, cardboard, and paper – it all finds the recycle bin. He bikes or walks to school every day, ardently attempts to reduce his electricity usage, and eats organic foods from local farmers' markets. He is a strong proponent of spending time outdoors, experiencing human interaction, and supporting local businesses. "When we're inside all the time, we lose touch with what's around us," says Kozikowski. "Using less does not mean a lesser quality of life."

In the classroom, Kozikowski works to initiate students into action. His "ECO" club at Mountain Ridge High School has participated in several environmental events in the local community. Over the past several years, Kozikowski and his students have been involved with tree plantings, trash pickups, and fundraisers for organizations like Heifer International. He gives students the opportunity to hear guests, including local organic farmers and home energy inspectors, speak about important environmental issues. The group's current focus is toward the hotly contested Marcellus Shale debate that is occurring within Maryland state legislature. "I try to get students actively involved in society," says Kozikowski, whose students have researched the issue and have written to their state government with their opinions.

Kozikowski has been involved with environmentalism since his time as a student at Goucher College, during which he joined an environmental movement. Humans could use half of

the resources that we are currently using without sacrificing the quality of life, says Kozikowski, who holds a master's degree in science education with an emphasis on environmental science. He believes we have the technology to improve the environment and live cleaner, but we must first practice conservation before

**"To live sustainably we have to use less. If every person lived like the average American, we would need five Earths."  
— Tom Kozikowski**

that technology can be implemented. "To live sustainably we have to use less," he says. "If every person lived like the average American, we would need five Earths."

Environmental sustainability isn't the only type of sustainability Kozikowski

works to achieve, however. Last year, Kozikowski helped sustain life in a different way: he saved a human being. In June 2010, he donated 60 percent of his liver to Patrick Barry, a family friend from Oregon, who was in need of a liver transplant. "It felt like what we were supposed to do," Kozikowski says of the decision to give up a portion of his liver to aid another human being.

Kozikowski believes that sustainability is about sharing the experience with others and getting others involved in the process. To achieve this, Kozikowski makes an effort to inform and encourage others to also live sustainably. "Ultimately, though, we're only responsible for our own actions," he says. "I'm doing it because I believe it's the right thing to do." Kozikowski says he isn't the only person living the sustainable lifestyle. "I'm just one of many who do this," he says. "There are a lot of people doing great things for the environment."■



Photo courtesy of Tom Kozikowski



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# A Small Way to Make A Big Difference

By Rita Peacock

With increased talk of sustainability, many individuals are growing increasingly “green.” While it may be easy to decide to recycle or opt against using plastic grocery bags, some individuals have made the ultimate sacrifice of downsizing their homes to reduce the toxins and energy they waste in their residences. Tortoise Shell Home’s motto is “Don’t just talk green, live green,” and some consumers are doing just that. They are moving out of three-story houses to live in homes that are about 10 feet by 12 feet. This is about half the size of the average family room. Tortoise Shell Home is one of many companies that sells mini homes.

struggling American citizen in a tough economy. A 2008 CNN report on “Tiny House Living” reveals that the average utility bill of a person living in a miniature home is about \$75 dollars per year. This annual total is less than some homeowners pay in one month for utilities. The homes are, without question, economical and green. Although the designs for the mini homes are quite simple and look almost like a shed or a child’s playhouse, companies such as Sustain Design Studio build mini homes with flair. One of their 500 square feet mini homes was awarded the #5 spot as Home Garden Television Network’s Top 10 Small Spaces.



Photo by <http://tinyhouseblog.com/>

The homes are mobile and feature essentials, including a full bathroom, kitchen, living area, and loft-style sleep area. The homes are constructed with green materials such as oak and bamboo. The homes featured on the Tortoise Shell Home website start at about \$4,500. However, the houses can cost an upwards of \$30,000 if steel framing and solar panels are used on the home. Tortoise Shell Home also sells floor plans and framing so that consumers can construct their own mini homes.



Photo by <http://tinyhouseblog.com/>

The houses are inexpensive in comparison to rental or mortgage payments and provide economic relief to the

For more information on small homes visit:  
[www.tortoiseshellhome.com](http://www.tortoiseshellhome.com)

# Controlling E-waste

By Belesha Phillips

Recently, retailers such as Best Buy, Radio Shack, Sears and online giant Ebay have ramped up promotions to get consumers to recycle their old electronics. This sudden push to recycle electronics began after a growing number of states passed laws to control electronic waste (e-waste). Electronics include televisions, monitors, computers, audio and stereo equipment, VCRs, DVD players, video cameras, cellular phones, game consoles, and more.

According to the Environmental Protection Agency, more than 20 states have enacted laws to manage end-of-life electronics. In states such as Hawaii and Connecticut, there are laws that require manufacturers to

recycle. Recycling through retailers is a controlled way for manufacturers to ensure their products are properly recycled. California has implemented a fee to act as a deterrent from producing e-waste. Consumers on their own often neglect to recycle their old electronics. These electronics, many of which end up in landfills, often contain hazardous waste that gets dumped into the environment. With the help of retailers, electronics can be disposed of in a proper manner or recycled. This reduces the burden placed on consumers that simply do not have the time or the means to recycle.

Many retailers offer consumers cash for their old electronics, while others offer credit at their store for

traded-in items. Consumers are able to trade in old cell phones, for example, and receive credit towards the purchase of a new device. The depreciated value may not be much, but any money or credit is worthwhile for something you were going to throw in the garbage anyway. In addition to monetary incentives, recycling your electronics can reduce your carbon footprint and contribute to a greener planet.

Recycling your old electronics is a win-win situation. Consumers, retailers, and manufacturers benefit while protecting the environment. As a consumer, you can do your part to help protect the environment from unsafe disposal of electronic waste.■



Photo by Ashley Burdin



# Communication Technology: Effortless Isolation

By Ashley Burdin

When asked if someone has a cell phone or a computer most people will respond with a “yes.” In fact roughly 85% of people in the United States own a phone and 75% of people own a computer. This means that over three fourths of the nation have access to advanced technology. While this advanced technology is expanding communication between people and businesses, it is also lessening the face-to-face interaction among people. Brad Hunter published *The Subtle Benefits of Face-To-Face Communication*, which emphasizes the major role that the internet and cell phones play in peoples’ lives. Hunter also emphasizes the fact that people are no longer participating in community activities and clubs as much as in the past. Before Facebook and other networking sites, people had to network physically rather than electronically. People made friendships and connections by meeting people in person. In today’s society, if someone wants to schedule a meeting all they have to do is send an e-mail.

One point Hunter argues is that people are becoming reliant on the technologies that make their lives more comfortable. Student Dorie Gedridge claims “When I forget my cell phone I don’t know what to do with myself.” For a majority of the youth of today, their cell phones are not only their form of communication, but their watches, their calendars, their planners, and even their calculators. While these technological advances are making peoples’ lives more convenient, a neuroscientist at Oxford University argues that these technological advances are changing the way our brains work. He argues that our brains are malleable and impacted by not only early childhood, but life all the way up until early adulthood. Technology has already caused our attention spans to shorten, reduced personal communication skills, and reduced our ability to think abstractly. The bottom line is that these technological advances are changing the way people live their lives. In the lives of young people, Facebook is a perfect example of this. Just about everyone knows someone who *has* to check their Facebook pages before leaving the house. Even

“If I see a friend of mine across the library on Facebook, I will Facebook message them rather than get up and go talk to them.”  
-Dorie Gedridge

if someone does not check his or her Facebook page before leaving the house, then most likely that person has a smartphone and will be checking it various times while her or she is away from the computer. While technology is able to provide instantaneous information, connect people around the world, allow a social networking site to become a tool of rebellion, and automatically correct spelling mistakes, the simple practice of face-to-face interaction is becoming lost. Technology provides effortless isolation. People can shop, communicate, and even attend school without leaving home. As technology opens the door to information and international communication, it can also close the door to the person standing two feet away. Recognizing this newly sanctioned state of technological reliance and personal isolation seen in society today may help future generations to sustain certain communication and cognitive skills. One must, therefore, ask: are these technological advances really making today’s society more efficient? ■



Photo by Ashley Burdin

# How Sustainable Are You?

By Malaika Moore



Every Tuesday and Friday morning, my roommates and I take out the trash along with everyone else in the apartment complex. One Tuesday morning, we walked the trash to the curb, but this time we brought along a cardboard box filled with plastic bottles. A few hours later, I was surprised to find that the trash was gone, but the box was untouched. After taking out the trash, that same week, I informed the sanitation worker of his mistake. The sanitation worker angrily responded, "We don't take recyclables. Put it in some trash bags then I'll do something about it." His response sparked a light bulb in my head. I started to wonder, if recycling is so important to the environment, why isn't it more convenient?

One reason for the lack of sustainability is the lack of curbside recycling in every state. Curbside recycling is not available in every state because this program is fairly young. In Rebecca Kahlenberg's article "Curbside Recycling Proves An Easy Way to Go Green," Kate Krebs, executive director of the District-based National Recycling Coalition, states that curbside recycling is only 20 years old. In addition to being a young program, the economic strain this would place on local governments is also a worry. Areas with curbside recycling collect trash and recyclables once a week. Areas without curbside recycling collect trash two times a week.

Former director of the U.S. Environmental Protection Agency's Office of Solid Waste, Michael Shapiro, confirms that recycling is more cost beneficial than trash removal. Shapiro states: "A well-run curbside recycling program can cost anywhere from \$50 to more than \$150 per ton...trash collection and disposal programs, on the other hand, cost anywhere from \$70 to more than \$200 per ton. This demonstrates that while

there's still room for improvements, recycling can be cost-effective." Not only is curbside recycling beneficial to the environment, but it also helps reduce waste in city and county landfills. In 2001 an Environmental Protection agency did a study on the amount of garbage Americans produce per day. According to Kahlenberg, in 2001 Americans produced 4.4 pounds of garbage per person, per day. Compared to the 1960's trash production, Americans have increased trash productivity by 2.7 pounds per person, per day.

Judy Hill, a longtime resident of



Photo by Malaika Moore

Buffalo, New York knows all about the trash problems, so she takes full advantage of Buffalo's curb side recycling program. Hill explains, "I use curbside recycle because it's the law, it's convenient, and it saves the environment." Each week for the past 10 years, Hill has carried her recycling containers out with her trash and can also be found taking bottles to the local buy back centers.

Not only does Buffalo, New York offer curbside recycling, but it also offers other convenient ways to recycle. According to Gary Carrel, the Erie County Recycling Coordinator, Erie County offers curbside recycling, buyback centers at local supermarkets, and reuse

businesses not limited to the Salvation Army, pawn shops, thrift stores, antique stores, Goodwill, Computers for Children, and the Buffalo Agricultural Salvage Committee.

Unfortunately, Frostburg, Maryland does not offer a lot of these services. The closest recycling department to Frostburg is the Allegany County Recycling Department in Cumberland, Maryland, which is 12 miles from Frostburg. Another recycling station is near the landfill on Route 36, but neither location is convenient for those who do not have a car. Frostburg State University, however, has made some attempts to make recycling more convenient and appealing to students. FSU became a member of the American College and University Presidents' Climate Commitment (ACUPCC) in April of 2007, and as a result of this, the university has dispensed multiple recycling bins around campus.

The ACUPCC's goal is to "accelerate progress towards climate neutrality and sustainability by empowering the higher education sector to educate students, create solutions, and provide leadership-by-example for the rest of society." In May of 2008, Frostburg State University introduced  $E=(LG)^2$ , the first student-run magazine on sustainability. In May of 2010, FSU created a new major for students interested in sustainability studies. Additionally, Frostburg State University competes in Recyclemania and in 2010 did fairly well by finishing in 7<sup>th</sup> place out of 223 institutions.

While Frostburg has dispersed recycling bins across campus, recycling is still a major issue for students who live off campus. If the city of Frostburg can work with Frostburg State University to create a curbside recycling program, recycling can be more sustainable for years to come. ■



# WWIII: Over Water?

By Celina Szymanski

Water, water, everywhere but not a drop to drink. You probably know that over three quarters of the earth's surface is water. But did you know that of all that water, 97% of it is saltwater and only 3% of it is freshwater, the kind we use to drink, cook with, bathe in, and live in? The issue is simple: people need water to survive.

In second grade, we all learned about the water cycle. I can still remember the teacher drawing those arrows on the board and then connecting them to make a large circle. Because of this idea, we all think that the water cycle is a continuous cycle that will never end and that never needs monitoring. And technically, that's true. The problem is that we are using up water faster than the natural cycle can replace it and that more and more water is running off into the ocean, where it becomes saltwater. A big culprit is large, industrial farming. These farms, often located in naturally dry areas, need thousands of gallons of water to keep the crops growing. The irrigation sprinklers draw from groundwater. Also, many of these farms use chemicals to treat the product they are growing. Unfortunately, some of these chemicals seep down and into the groundwater supply, polluting it forever. Throughout the world, humanity uses over 30 billion gallons of groundwater.

We have all heard by now that we should try to save water: brush your teeth without the water running and so on. But did you know corporations are now trying to buy up the remaining water? They understand that water is a commodity that won't be around forever and that a huge profit can be made by owning and controlling the water supply of billions of people.

Some people believe water is a common good and belongs to all citizens. Others think water would be better managed in the hands of private companies. When a private company attempted to purchase the



Photo by Celina Szymanski

Great Lakes, citizens came together and showed their government that they did not want the water in the hands of private companies. However, in poorer, less developed countries citizens either don't have the means or don't have the time to petition their government regarding issues surrounding water. Their lifeline is in the hands of a private company trying to make money.

Whether you believe water is a common good or a private commodity, water is necessary for life for all human beings everywhere. This article is not meant to scare you into not drinking any water and taking two minute showers. However, this issue is something to be aware of. For more information on this issue, check out the film *Blue Gold*, which is available at the campus library. The website [ourwatercommons.org](http://ourwatercommons.org) is a valuable resource as well. ■

## Facts:

- Waterborne illnesses cause 1.4 million children's death each year.
- More than 80% of sewage in developing countries is discharged untreated, polluting rivers, lakes and coastal areas.
- More people in the world have a cell phone than to access to a toilet.
- Agriculture is the largest consumer of freshwater by far: about 70% of all freshwater withdrawals go to irrigated agriculture.
- The water and sanitation crisis claims more lives through disease than any war claims through guns.

Source: [www.water.org](http://www.water.org)



