

Conservation Watch

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Federal Budget Concerns Dominate Washington NAL Meeting

"What you sow determines what you reap."

(Dr. Colien Hefferan Director of the U.S. National Arboretum)

The 2011 National Affairs and Legislation Washington D.C. Annual Meeting can be very empowering for the delegates who convene from all over the country. We hear United States Senators, Congressmen and government administrators speak to us about environmental issues that we have studied and written about in our quarterly reports and are supported by seven GCA Position Papers. This year was the 28th year that the NAL and Conservation committees convened in the nation's Capitol. We were there to advocate for responsible environmental and energy policies. Our forces were strong, committed, and highly respected.

We are gardeners who care about the earth and its plants and creatures. And it matters that we discuss the toxicity of the food we eat and the way we get around every day. It isn't worth a thing if we aren't turning around and engaging with our world to make it a better place to call home. The news about how we are fouling our planet has grown impossible to ignore. Many of us are becoming overwhelmed with thoughts about what kind of world we are leaving behind for our grandchildren - and what are we doing to help, or hurt?

Part of the purpose of GCA is to "improve and protect the quality of the environment". The garden is the perfect place to understand this. You can create a paradise, rising up out of the earth the seemingly infinite variety of shapes and colors and textures of plants with which we are blessed. But, as you watch your tender shoots wilt and burn in a sun that has grown too hot or destroyed by destructive practices, you realize that you cannot shut out the world. And then it is time to go out and fight for all we love.



U.S. Congress on the day a budget was finally passed - April 14, 2011.

We hope you will enjoy reading the following reviews from GCA members who were delegates to our legislative meeting this year. They tell the story of the ongoing presence of GCA in Washington and what we learned there. We encourage you to consider being part of that effort in the future; being influential is a forceful experience!

(Photos from google images.)

*Nancy McKlveen, Des Moines (IA) Founders G.C. – Zone XI
GCA National Affairs and Legislation Committee Chairman*

Why Do We Go to Washington?

*Martha Phillips, Litchfield (CT) G.C. – Zone II
GCA NAL Committee – Editor, Legislative Update*

Every year in the first week of March, several hundred garden club members travel to Washington D.C. from all across the nation for the annual legislative meeting of the Conservation and National Affairs and Legislation Committees. This year there were 120 attending for the first time, in addition to 180 who had participated before. The first-timers were impressed with the quality of the speakers who brought us up to speed on current legislative issues and amazed at the warm reception we received in the halls of Congress when dignitaries whose names are "household words" queued up to get a chance to address us. Very flattering, indeed, and quite a heady experience.

But that is not why we go to Washington. No, our true mission is not to hear *from* the legislators or the cabinet officials. Just the reverse. We are there to tell *them* how much we value particular programs and how important those federal efforts are to our local areas and regions.

We are always there at the beginning of the annual budget cycle. Don't yawn! Budgets are not just dry, boring numbers. They set priorities and reflect values. The money our nation is willing to spend on national parks, on saving pristine eco-systems from development and exploitation, on protecting endangered species, and on cleaning our air, water and land of harmful toxic substances indicates how much our nation cares about these things.



Delegates in the Cannon Caucus Room. (Photo by Pat Wall.)

The competition for scarce dollars inevitably narrows down as broad objectives are refined into appropriations bills and finally into specific spending decisions. If we fail to speak up at the beginning of the process—if we are silent—then the voices our legislators hear are the angry shouts from those who want to develop, pave, and pollute without restraints, who see the inconvenience and expense of protecting the environment as a detriment to business. By the time the final spending decisions are made, our silence will have lulled our legislators into thinking that the noisy crowd reflects the majority opinion. And the programs we care most about will receive little or no funding.

If we are silent, our elected officials will hear from those who want to:

- blow off mountain tops to get at the coal beneath;
- continue putting agricultural wastes and fertilizer runoff into the Chesapeake, Everglades, Mississippi and Gulf of Mexico;
- keep running dirty mercury-emitting plants to manufacture cement;
- pile up coal ash outside coal-burning power plants;
- drill in coastal waters off Alaska's North Slope, in deep waters in the Gulf of Mexico, and off the East and West Coasts; and
- fill in wetlands so they can be "improved" through development.

Therefore our true mission in Washington each year is to make sure that our legislators learn that there are well-informed, interested and concerned garden club members in their own states and congressional districts who care deeply about protecting clean waterways, who want to see national parks expanded and enhanced, who are appalled at what our nation is doing to our natural heritage in the name of extracting oil, natural gas and coal so that we can enjoy "cheap" power generated from those sources. We are there to tell them that, actually, we are willing to pay a little more if that is the price of making sure the environmental treasures we value will be around for our grandchildren to enjoy. We want to be part of the solution, not contribute to the problem.

Our mission is most emphatically NOT to present both sides of the argument in an even-handed exposition of pros and cons. Our legislators are hearing plenty from the other side. We garden club members are often the only ones in D.C. to advocate for plant species, to speak up for forceful EPA regulation to prevent emissions of smog, soot, particulates, toxic chemicals and greenhouse gases, and to promote environmental protections.

Some of our legislators already agree with our positions, and our job is to help them in any way we can to achieve the goals we share. Some of our legislators are intransigently opposed to anything other than full-speed-ahead development regardless of environmental impact. In that case, our mission is to let them know that at least some of their constituents disagree and that we are going to continue to advocate respectfully for our values.

And some legislators are cross-pressured, hearing competing voices from their constituents. Here is where our most important work can be done. It is our job to "make it safe" for these legislators to vote in favor of protecting the environment and to find ways to promote business and industry without destroying our natural heritage and public health.

We leave copies of the GCA position papers with our legislators. When we get back home, we follow up to remind them at critical moments that we are following their votes and hope they will support the programs and protections we value.

That is why we go to Washington.

GCA President Joan George, Dr. Colien Hefferan, Dir. of the U.S. National Arboretum, Sally Fairbanks, and Barbara Shea.

(Photo by Angie Moore.)



Garden club members enjoy a taste of spring at the U.S. Botanic Garden. Holly Shimizu, Executive Director and Honorary GCA member, fourth from left.

(Photo by Angie Moore.)



Delegate Ann Green McComish of our newest GCA club, the Marin G.C. gets advice from legislative aid Michael Conathan of Sen. Cardin's office. (Photo by Diana Fish.)

Iowa delegates Brenda Mouw, Carolyn Lynner, and NAL Chair Nancy McKlveen. (Photo by Sharon Blackburn.)



Zone XI dinner at Founding Farmers, a LEED restaurant using local foods and sustainable practices. (Photo by Sharon Blackburn.)



20+ year delegates: Connie White, Ann Coburn, Katchen Coley, Betsy Nottingham, Leslie Pierpont, and Jane Henley. (Photo by Angie Moore.)

USA Today's "Snapshot" for April 14, 2011 reports that 60% of the U.S. population feels the government is spending too little on the environment.

Do We Need More Proof?

Suzanne Booker-Canfield, G.C. of Winnetka (IL) – Zone XI
GCA NAL Committee – Vice-Chair, Climate Change

Kicking off our GCA Washington meeting, author Bill McKibben, one of the world's leading environmentalists, gave the keynote address via Skype from his home in Middlebury, Vermont. Though 500 miles away, McKibben held the audience rapt as he discussed the enormous rapidity with which climate change is occurring. Described by *Time* magazine as "the world's best green journalist," McKibben, since the publication of his 1989 book *The End of Nature*, has long been considered the pioneer in making the public aware of climate change.

With his Skype call visible on two large screens, McKibben cited 2010 as a good template for climate change. The warmest year on record, 2010 saw nineteen nations hit new record highs, including Pakistan's smoldering 129 degrees. The Arctic melted more rapidly than it has in the past four years. The Russian heat wave and drought caused the price of wheat to soar by seventy percent. Floods in Pakistan left four million homeless. In fact, he noted that because warm air holds more water vapor than cold, the atmosphere is now charged with 4.5 times more moisture. As a result, the world has experienced six mega-floods in just the past three months. In fact, insurance companies such as Munich Re see in their data "the advancing face of climate change," he said.

The frightening reality of climate change, he reflected, is that "all this is happening with raising the global temperature one degree." Scientists assure us, he emphasized, that unless we get off carbon, we will see a four-to-six degree increase before the end of the century.

The current atmospheric concentration of 390 parts per million continues to climb. Because 350 parts per million is the concentration at which the climate can remain relatively stable, McKibben founded **350.org** to announce a sustainable climate goal to which people around the globe should aspire. In 2009, 350.org organized 5200 simultaneous climate change demonstrations in what *Foreign Policy* magazine called "the largest ever global coordinated rally of any kind."



(Photo by Elva Busch.)

McKibben also stated that in addition to the financial influence of the immensely powerful fossil fuel industry, the U.S. Chamber of Commerce is the single biggest financial force in Washington, drawing about 55 percent of its budget from sixteen companies. McKibben called it a “radical proposition” that rather than these relatively few major corporations’ attempting to reduce their carbon emissions, their actions imply that instead “humans should just adapt their physiologies.” McKibben, a supporter of the local Chambers of Commerce, urged the audience to deliver the message, “Don’t confuse the U.S. Chamber with those of us back on the ground.” He called environmentalists “preeminent conservatives,” whereas the radicals are the ones altering the world through environmental recklessness.

A Methodist Sunday School teacher, McKibben sees our responsibility to change our habits as a moral one: those who have done least to create the problem are the ones who are already paying the highest price, such as the outbreak of Dengue fever, a vector-borne illness carried by mosquitoes, in Bangladesh. With a population of 140 million (roughly half that of the United States), Bangladesh emits only a small amount of the greenhouse gases that cause climate change, yet their lives are imperiled by the new environmental reality.

The message of the Gospels is to love our neighbors, McKibben stated. Drowning our neighbors, burning their crops, and spreading disease defy that morality. He charged us to change the odds of our climate’s spiraling out of control “without any guarantee that we’ll succeed.” The only downside to the use of Skype was that as McKibben concluded, he could not get a full view of the standing ovation given by the 300 delegates gathered.

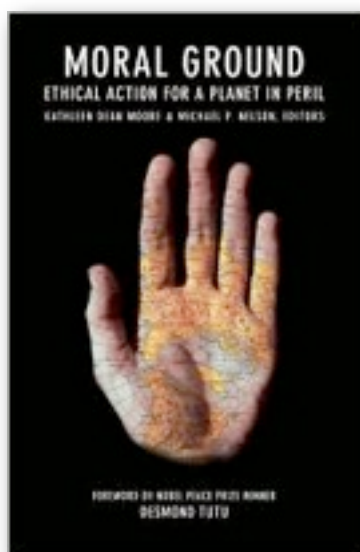
Book Review

Moral Ground: Ethical Action for a Planet in Peril

Edited by Kathleen Dean Moore and Michael P. Nelson, Foreword by Desmond Tutu

Here is the summary provided by the publishers:

“An anthology bringing together the testimony of over eighty theologians, religious leaders, scientists, elected officials, business leaders, naturalists, activists, and writers to present a diverse and compelling call to honor humans’ moral responsibility to the planet in the face of environmental degradation and global climate change.”



When a friend who works at Trinity University of San Antonio, Texas, where this book is published, mailed me a copy of *Moral Ground* I became very excited – then I read it cover to cover. Why do I like this book so much? First of all, there are lots of “friends” within the covers of *Moral Ground*, writers for whom I have the highest personal regard and professional respect. Bill McKibben, who spoke to us at the NAL meeting in Washington, D.C., is one of the book’s many contributors. Other contributors I was happy to discover for the first time. They hail from various parts of the globe and speak for diverse cultural traditions. Each was invited by the editors to contribute their best moral arguments for why we need to act now to save our Earth as we know and love it, not only for ourselves, but also for future generations. One can open the book at random and find moving, personal entreaties whose intent is to awaken in each of us a heightened ecological and spiritual ethical awareness. What will it take to get us to act? We know either intellectually or intuitively what we need to be doing, so why don’t we do it? I can promise you these moral arguments will move you – and then you will want to act – now.

(We have) a moral obligation . . . to the people of the future (and) the impoverished people of the present who will bear the heaviest burden despite having caused none of the trouble (of climate change.)

Bill McKibben in ***Moral Ground***

[If you order your copy of *Moral Ground* directly from Trinity University Press, editors' royalties will be donated to climate change advocacy organizations. Contact the Press at books@trinity.edu or at 210-999-8884. Price is \$24.95.]

*Mary Wallace, Conservation Committee Chairman
Founders G.C. (Dallas, Texas) – Zone IX*

GCA Members Tour the U.S. Botanic Garden

Nestled on the National Mall adjacent to the U.S. Capitol and nearly as old as Washington, D.C. itself, the U.S. Botanic Garden is the Nation's oldest. (USBG website)

*Sharon Blackburn, Loveland G.C. (NE)
GCA Zone XI Conservation/NAL Representative*

The scent of flowers greeted winter-weary arrivals to the 2011 GCA/NAL Meeting in Washington, D.C. GCA delegates entered the doors of the United States Botanic Garden (USBG) to view the plant collections and to learn about the conservation work being done there. Holly Shimizu, Executive Director and Honorary GCA member, welcomed the delegates to the USBG. Since 1820 their mission has been to educate the public, to conserve plant collections, and to fulfill the Founding Fathers' desire for our nation's garden. The renovated glass conservatory is the centerpiece of the Garden. Members of the Conservation and Sustainability staff of the USBG were stationed throughout the Conservatory to answer questions and provide in-depth information about the various areas as delegates toured.



The view greeting GCA members upon opening the Garden's doors.

A hands-on station in the *Economic Plants and Conservation* area containing the *Theobroma cacao* plant told the story of chocolate. The *Medicinal Plants* area showed the practical uses for many plants. On temporary exhibit was a display of photographs of beautiful gardens in Scotland. The exhibit, *Close: A Journey in Scotland*, was inspired by Scotland's pronouncement that its most important work of art is a garden! The photographs prove the point.

Conservation work is a high priority for the Garden, and their many collaborations broaden their scope. One such collaboration, with Botanic Gardens Conservation International, works to assess and identify which endangered plant species are being maintained in collections. See the USBG website (www.usbg.gov) for more information, especially helpful for GCA Partners for Plants projects.

At the *Landscapes for Life* station, delegates heard about the interdisciplinary effort by the American Society of Landscape Architects, The Lady Bird Johnson Wildflower Center, and the USBG to transform land development and management practices by encouraging sustainable landscaping. This Sustainable Sites Initiative is developing guidelines for the sustainable use of water, the conservation of soils, wise uses of vegetation and materials, and design that supports human health and well-being.

In the *Gardening With Native Plants* area, interactive activities and manipulative learning materials give visitors an understanding of invasives and examples of “plant this, not this.” While addressing the issues of biodiversity, desertification, and climate change, USBG staffer Christine Flanagan summed up with the comment that every time we lose a piece of land to unsustainable development or abuse, we reduce earth's ability to support us.



Colles Larkin and Marsha Merrell view a conservation exhibit.

Viewing the nation's plant collections was a reminder to delegates of what the NAL Meeting is all about – being a voice for the voiceless – plants, animals, our environment – and the need to protect plants in their natural surroundings as well as in our nation's garden. The small green United States Botanic Garden buttons that GCA NAL Chair Nancy McKlveen passed out for delegates to wear to their meetings with legislators packed a big message, “Plants are not optional.”

(Photos by Sharon Blackburn.)

How Green Was My . . . Capital?

Delegates to this year's NAL meeting are always interested in how we can be part of the solution and not part of the problem in the "greening" of America. Besides our meeting once again being a "carbon free" meeting*, additional efforts have been made in this regard. The planners of this year's meeting used "go green paper" made of 10% post-consumer waste and 30% recycled paper for our notepads. The printer (Granite Graphics in Montana) also used soy/vegetable based inks and Zero VOC solvents for this printing job. Each delegate also received a GCA pen to use. This product comes from the Ecodot company and is made from recycled paper with a reclaimed wooden clip and biodegradable plastic plunger and tip. No plastic water bottles were available at the meeting; instead, pitchers of water and reusable glasses were provided by the host hotel.

What steps is our federal government doing in D.C. to help the environment? We were told by the Green Ambassador program office that the Cannon Caucus Room where we hold some of our meetings will be renovated soon with more energy efficient lighting. The U.S. Capitol complex power source was switched recently from coal to natural gas in order to reduce carbon emissions. More information about the "Green the Capitol" initiatives can be found at this link:

<http://cao.house.gov/GreenTheCapitol/>

During our time in Washington, the official caterer for the U.S. House of Representatives used products made from recycled materials and/or fully compostable materials. All trash in the Capitol was separated and sorted for recycling to reduce waste (including plastic, glass, aluminum, paper, as well as electronics). We were most dismayed to learn shortly after our meeting, that this program was discontinued. In a cost-saving move, or so we are told, the House has returned to using plastic forks and Styrofoam cups. Rep. Earl Blumenauer (D-OR), one of our speakers at the meeting, was quoted as saying about this action, "If you look at the best companies to work for, nobody is questioning things like composting and recycling."

Rep. Dan Lungren (R-CA), chairman of the House Administration Committee, who moved to end the recycling, stated that composting "failed to produce significant savings in carbon emissions." He claims that the program cost "\$475,000 a year for additional cost for the materials, labor, and for hauling the refuse out properly." Lungren's spokesperson said, "We suspended the costly program based on the undisputable fact that it wasn't working. Is it environmental mediocrity at any price?" The good news on the horizon is that one of the Congressional building cafeterias will soon begin to use reusable dinnerware and plans to send all solid waste to incinerator plants to create energy, rather than to landfills. Stay tuned . . .

Perhaps it is time to contact our legislators about how they regard their own work place.

[Sources: <http://cao.house.gov/GreenTheCapitol/>

Jameson, Jennifer (Perennial G.C.) and Shelley Gilligan (Hillsborough G.C.) – Washington NAL Meeting Planners.

Steinhauer, Jennifer, "Fight waged with forks is rejoined in Congress," *New York Times*, March 16, 2011.]

* See a report on what a carbon free meeting is in the Spring, 2010 issue of *Conservation Watch* (page 16), still available on the GCA website.

*Elva Busch, Santa Fe (NM) G.C. – Zone XII
GCA Conservation Watch Editor*

D.C.'s Electric Car Charging Stations



(Photo from greenwashingtondc.net)

Our nation's Capital is doing its part to insure that the charging infrastructure will be in place for the electric vehicles rolling out of dealer parking lots soon. Drivers of the Nissan Leaf, Chevrolet Volt, Tesla Roadster, and Model S, CODA, and the Ford Focus Electric have charging stations in the District. They have been built thanks to Department of Energy grants that will eventually make possible 4,600 charging stations around the country.

The Obama administration is touting a goal of 1 million plug-in electric hybrid cars by 2015. While this goal might seem lofty, first-year sales of the Chevy Volt may reach 25,000. However, this is a small dent in the number of cars and light trucks on our roads today that use gasoline – 240 million. But it is a beginning. Oil isn't going quietly into the night. We need to contain our addiction, even if we can't end it.

While attending the NAL meeting in Washington, delegates noted a Chevrolet Volt being charged in front of the Longworth Office Building. Cambridge (MA) Plant & Garden Club member Liz Adams Lasser captured this photo of the charging taking place.



Legislator after legislator who addressed the garden club members in Washington stressed the importance of creating new jobs in the energy efficiency sector of our economy. They also reminded us that we need to start making investments to improve our aging infrastructure. As Rep. Tim Bishop (D-NY) stated, "We have a 20th century economy sitting on a 19th century infrastructure." Rep. Earl

Blumenauer (D-OR) reminded garden club members that we are Americans who represent fundamental values and that we must carry these messages to our legislators.

*Elva Busch, Santa Fe (NM) G.C. – Zone XII
GCA Conservation Watch Editor*

[Source: http://www.greenwashingtondc.net/2010_11_01_archive.html]

The Latest on Genetically Engineered Crops

*Helen Elkins, The Gardeners (PA) – Zone V
GCA NAL Committee – Vice-Chair, Agriculture*

Helen Elkins shared her study of the current trends in genetically modified crops during a presentation at the NAL meeting. Here are some of her remarks.

January 27 of this year, Secretary of Agriculture Tom Vilsack announced the deregulation of genetically engineered (GE) alfalfa, also called Round-Up ready alfalfa, for unrestricted planting. This issue is a very critical one for the future of agriculture. Vilsack set aside a controversial, but novel plan, that would have tried for “co-existence” of GE alfalfa with organic and other non-GE crops by having geographic restrictions - mostly protecting the large western area where alfalfa is grown for seed. This plan recognized the clash of GE crops and the rapid expansion of demand for organic and other non-GE crops. But there was strong Congressional support for production, which unquestionably helped the plan to be saved.

Alfalfa is the fourth largest crop in the U.S., with a value of about \$8 billion. Currently about one percent is organic. It is important to realize, however, this issue is not just about organic vs. GE crops. Conventional crops also lose from contamination. Some alfalfa growers sell to Saudia Arabia, the European Union, Japan, India, China - all of whom have legislation and strict regulations. Vilsack says his decision is about the right to choose. But what about contamination taking away rights from organic and conventional farmers? How have we arrived at this impasse?



(Photo from gmfree.org.)

Andrew Kimbrell, Director of the Center for Food Safety, who advocated against GE alfalfa all the way to the Supreme Court, reviews the history of seed. After its founding in 1862, the U.S. Department of Agriculture gave seeds away to farmers and travelled the world to find seeds suitable for specific ecosystems. Farmers saved seeds. Congressmen were actually given seeds to distribute - a good way to get reelected! The 20th century saw seed become a commodity. The USDA seed giveaway ended in 1924. The development of hybrids to get better yields, was highly rewarded in 1936 when hybrid corn was developed. It is very productive its first year, then no yield. Farmers had to buy this seed every year. This is an enormous break in the history of seeds - from a system developed and controlled by farmers that was resilient, sustainable, and fit the local ecosystem to a system in which the seed is no longer sustainable, but designed for high yield and high profit, and controlled by companies.

Control was further secured in the 70s and 80s when companies looked to further crop yield by genetic engineering. Monsanto saw that one could avoid hurting crops with herbicide applications if a crop was herbicide resistant. Two of their scientists noticed greens growing in the effluent of a glyphosate (Round-Up) factory and set out to get the DNA of those plants. They were successful and today over 80% of GE seeds are glyphosate-resistant.

Enormous consolidation in seed ownership has taken place. Five big companies today - including Monsanto, the biggest, Syngenta, and Dupont - own over 57% of seeds. Seeds can be patented as confirmed by a Supreme Court ruling case brought by a farmer against Dupont. A plain seed cannot be patented - you have to do something to it. Genetically engineered seeds opened the doors for seeds to be patented. But thousands of hybrids are patented also.

Once you have the patent if your seeds escape into another field, that farmer violates your patent. These cases are documented by The Center for Food Safety. Several hundred cases have been brought against farmers, seed savers, and seed cleaners by Monsanto.

With some 80 - 90% of soybean, cotton, and corn crops now being Round-Up ready, the farming landscape is flooded with Round-Up. With Round-Up, as with any herbicide, there will be species of plants with just enough genetic variation to survive. The *New York Times*, "Rise of the Superweeds", and the *Farm Journal*, "Weeds Gone Wild", illuminate the extent of round-up resistant weeds. If you have these weeds you can now apply more Round-Up, or till it into the soil, doing away with the no-till advantage. Biotech companies have two new herbicide resistant seeds due to be ready for approval in 2013. They are 2-4D and Dicamba - less environmentally friendly herbicides. 2-4D is a component of agent orange and Dicamba is highly volatile in heat, and can travel a half mile as a gas and is highly destructive to specialty crops, cotton and vineyards. The promise of a technology that would mean using fewer herbicides, in reality, leads to greater use of herbicides.



Monsanto researchers tend to a soybean crop. (NYTimes photo.)

For herbicide resistance only one gene had to moved. To produce a more nutritious or drought resistant plant more genes are involved, which is proving to be an enormously complex task. These seeds are not here yet, although we are told of their promise to better feed the world. Something good might come of these efforts, but herbicide-resistance seeds are the wrong way to go. Further, we do not adequately understand contamination or how gene flow takes place. How one acre of unapproved GMO rice contaminated over 700,00 acres of rice in Alabama and Louisiana in the early 80s is still being studied. Those farmers lost their exports and hundreds of thousands of dollars. What about mistakes? Quoting Susan Schneider, an agricultural law professor at the University of Arkansas, “All this talk about science and science-based analysis on the part of proponents of GM crops is very misleading. The science is we cannot contain GM crops without significant restrictions. The policy issue - the real issue here - is whether we care.”

Alternative methods of weed control, the effects on buffer areas, the effects on their floristic and insect diversity, all of which are often beneficial for agriculture, are being ignored.

Sources:

Center for Food Safety, cfs.org.

Greenwire, January 28, 2011.

National Sustainable Agriculture Coalition, February 7, 2011.

New York Times, May 4, 2010.13

Farm Journal, January, 2011.

Susie



Chesapeake Bay Clean-up: Working Toward a Healthier Chesapeake Bay

*Susie Wilmerding, G.C. of Philadelphia (PA) – Zone V
GCA Conservation Committee Chairman*

The Chesapeake Bay is a national treasure worth over \$1 trillion dollars. The bay watershed is home to 17 million people. It is spread over 64,000 square miles and 6 states: New York, Pennsylvania, Delaware, Maryland, Virginia, West Virginia and the District of Columbia.

In 1999 a Federal Court ruled that the bay states had 10 years to clean up their water pollution so that the Bay would no longer be listed officially as “impaired”. If not, under the authority of the Clean Water Act, the federal government would be obligated to implement a mandatory pollution budget for the watershed states. In 2009, after the states missed that deadline, the Chesapeake Bay Foundation and several partners, brought suit against the Environmental Protection Agency (EPA), charging that the Agency had not adequately enforced the Clean Water Act, as it is required to do.

The Chesapeake Settlement

When eighteen months later the Chesapeake Bay Foundation reached a binding, out-of-court settlement, it was considered a huge victory, a sea shift. After at least 30 years of largely voluntary efforts to control pollution entering the Chesapeake, now there was a chance for a new approach to pollution reduction.

Because of this settlement, EPA has established the Total Maximum Daily Load (TMDL) and given each state the maximum amount of nitrogen, phosphorus, and sediment that it can discharge. The TMDL



Chesapeake watershed map courtesy of Chesapeake Bay Foundation.

requires that the reductions will be achieved by 2025, with 60% of the necessary programs in place by 2017.

Each state and the District of Columbia have written their own uniquely tailored plan to achieve their maximum pollution load. These plans are called Watershed Implementation Plans, and they describe what actions the states will take, such as upgrading sewage treatment plants, or fencing cattle out of streams. The plans were submitted to EPA for approval late last year.

Where the plans are not sufficient, EPA has encouraged the states to make improvements and promised to use its regulatory authority to require further action. The EPA and the states are expected to use adaptive management to reach their goals.

Agriculture's role

About half the pollution entering the Chesapeake comes from agriculture, the other half is from storm water runoff, municipal and industrial wastewater treatment systems, and from the air, power plants, and vehicles.

The single cheapest way to eliminate a pound of pollution flowing into the Chesapeake is through changes in agriculture. In 2010, the independent World Resources Institute looked at the 5 most effective agricultural conservation practices and estimated that reducing a pound of pollution costs between \$3 and \$5. In striking contrast, reducing a pound of pollution by upgrading sewage treatment facilities costs between \$15 and \$47. Stormwater is even more expensive - between \$92 and \$200+ per pound for reduction.

The majority of farms in the Chesapeake region are less than 200 acres. Significant funds are available to help farmers achieve their pollution reduction goals through the U.S. Dept. of Agriculture, the state departments of agriculture, and county conservation districts. When farmers enter these conservation programs, they often have to contribute only 20% of the cost.

Under the Clean Water Act, EPA has very little regulatory authority over agriculture, other than over confined animal feeding operations (CAFOs). The states can require agricultural action, but EPA's options are very limited. In their plans, most of the states did pledge to seek pollution reductions from agriculture. The cost of controlling storm water runoff is largely borne by towns and cities. Governments and ratepayers cover most of the cost of upgrading sewage treatment locally.

The Chesapeake Bay settlement is exciting for several reasons. First, after decades of ineffective plans, it looks like this agreement has real hopes of success. In addition, many who have followed the legal action and settlement believe that the Chesapeake can be cleaned up, through actions of the EPA in cooperation with the six states and the District. If successful, the model could be replicated in other estuaries such as the San Francisco Bay and the Mississippi Delta.

Fracking - The Dirty Truth About the New Natural Gas

At the NAL meeting, two of GCA's Conservation Vice-Chairs taught the group about hydraulic fracturing, or "fracking." Here are summaries of their remarks.

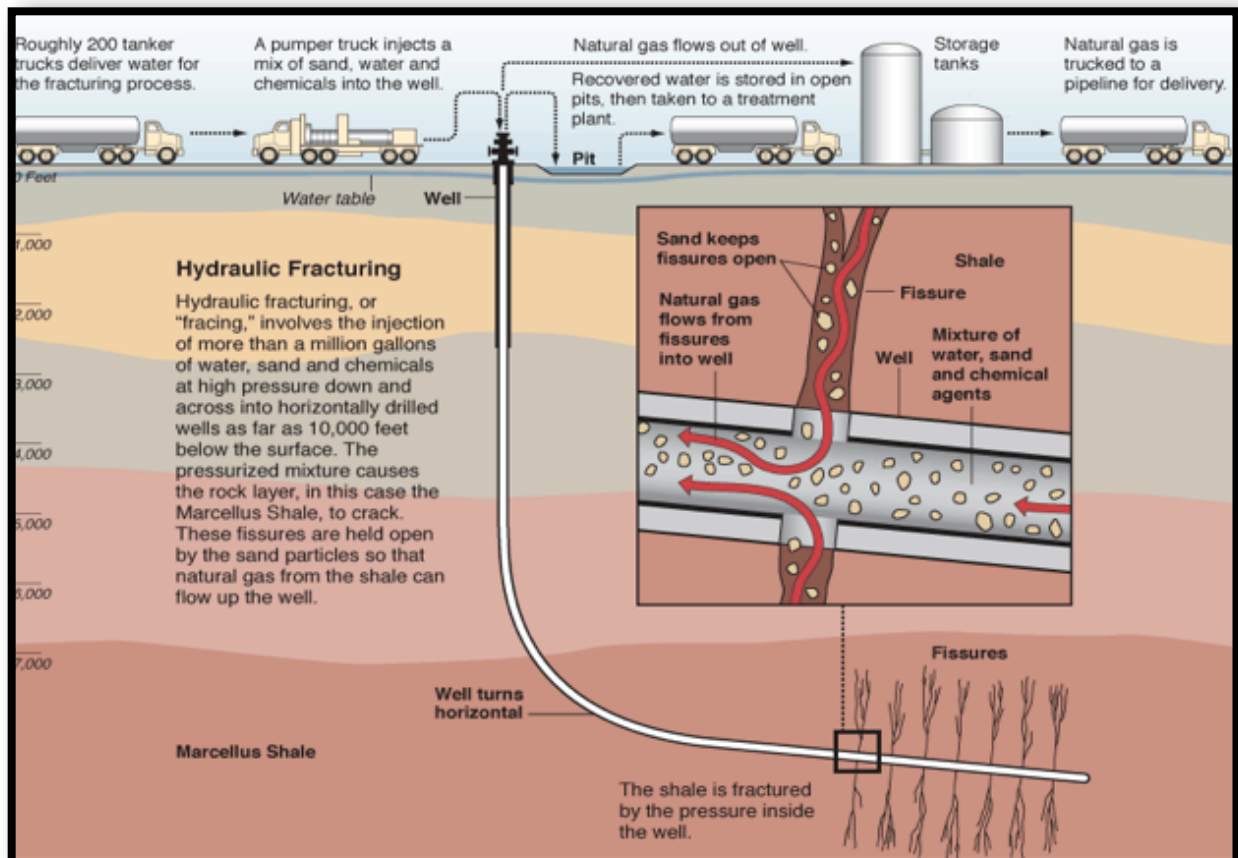
Fracking 101

Gretchen Downs, Country G.C. (OH) – Zone X
GCA Conservation Committee – Vice Chair for Water, Wetlands, and The Great Lakes

We all have seen the headlines or have heard the stories about natural gas reserves that will provide fuel for 100 or more years. But, how can this be? Less than three years ago gas prices were spiraling up and we were warned that oil production was near its peak and we would soon be facing energy shortages. So what happened to change this?

Several factors have greatly impacted U.S. energy reserves. First, improvements in horizontal drilling and hydraulic fracturing have made drilling in shale formations, once cost prohibitive, more attractive. 3-D seismic technology enabled engineers to monitor drilling. And, lastly, in early 2008, two geoscientists, Terry Englander and Gary Lash, surprised everyone with estimates that the Marcellus might contain more than 500 trillion cubic feet of natural gas. Thus the race to harvest natural gas from shale formations was on. In the United States over one million sites have been hydraulically fractured.

Not all shale has high natural gas content, but areas like the Marcellus Shale in the Northeast and the Barnett Shale in Texas contain black, low density, organic rich shale. These formations are a mile or more below the surface of the earth. This chart shows how hydraulic fracturing works.



First, a two-acre pad is constructed on the site and a drilling rig is erected. In this first stage, a hole is bored to below the surface water level. Then a steel casing is inserted. Concrete is forced into the ground to encase the tubing. After the water supply is isolated, drilling begins again. At about 6000 feet, the drilling begins to curve until a horizontal line is established. Again, the steel casing is encased in cement. Perforating guns are inserted. Perforating guns do the initial fractures. The rig and perforating guns are replaced with fracturing equipment. Water and chemicals are mixed and sent into the well. Supercharged pumps can inject fluid at pressures of up to 15,000 pounds per square inch. The water pressure causes fissures in the shale. Now proppants* are added to the fluid to keep the fissures open so that natural gas can flow up the pump. Between 40 to 60% of the fluids will be recovered. The fracking waste is then recycled.

Fracking is a very water intensive process. Water arrives at the site by three different methods. It is pumped from a nearby lake or stream, it is trucked in, or a reservoir is built on site. The process takes well over one million gallons of water for each fracking. A given well can be fracked several times. The fracking solution is approximately 98.5% water, 1% sand, and 0.5% chemicals. The exact solution depends upon the site. Chemicals are added to increase the flow of natural gas and the sand or proppants are added to keep the fractures open. Many of the chemicals that are used are on the lists of hazardous substances. Up to 60% of the water that is sent into the well returns to the surface, bringing with it salt, radioactive material, and carcinogens. Wastewater is stored on site in a reservoir with an industrial strength liner, or it is trucked out to be recycled. Often recycling consists of nothing more than filtering out the large particles and dumping the remains in a nearby river or lake.

There are many environmental issues with hydraulic fracturing such as: risks to the underground water supply, contamination of lakes and streams, and water depletion. Gas drillers continue to improve their ability to capture ever greater swaths of acreage; some wells now extend laterally nearly two miles. One technology that shows promise in reducing water consumption and leakage of contaminants into the ground water is drilling with a closed loop system. This system allows the wastewater to be pumped directly into trucks, recycled and used in future drilling sites. In theory, the polluted water will never touch the surface around the drilling site.

In today's environment, the need for energy is clear. We cannot free ourselves from carbon based fuel sources overnight. The hope of increasing nuclear energy is uncertain at best, given the recent problem in Japan. Natural gas is gaining popularity as a cleaner alternative to coal and oil. At this point, it is necessary to develop natural gas but it should only be developed under strict regulation. The regulations should include monitoring the chemicals that are used, oversight of the waste products, and the use of the closed loop system. It is imperative that natural gas be viewed as a bridge solution to better forms of energy in the future and there is urgent need for regulation and oversight of this process.

[proppant - Sized particles mixed with fracturing fluid to hold fractures open after a hydraulic fracturing treatment.]

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Hydraulic Fracturing: Ensuring the Safety of our Drinking Water

Jane Whitaker, Cherokee G.C. (GA) – Zone VIII

GCA Conservation Committee – Vice-Chair, Land Use/Sustainable Development

At first glance natural gas appears to be one of the cleanest forms of energy yet. It has a very small carbon footprint and has created jobs and additional income for property owners who lease their land for drilling. However, there is a disturbing side to this energy. The method of extracting the natural gas from shale formations, known as hydraulic fracturing or “fracking”, has come under scrutiny. There is growing evidence that this extraction method is contaminating our water supply.

Over the past four to five years, numerous incidents of contaminated water and resulting health problems have been reported from areas near fracking sites. Diesel fuel and carcinogenic chemicals have been found in the wastewater.

The amount of water used in fracking is enormous: up to 7 million gallons of water each time a well is fracked, and a well can be fracked as many as 18 times. As a result, there is a shortage of places to store and to clean this wastewater. And the storage and transporting of this wastewater opens the possibility of contamination from leaks and spills.



Fracking pond photo from dearsusquehanna.blogspot.com.

Safeguards have been created to ensure clean drinking water. The Safe Drinking Water Act of 1974 is the principal federal law governing this issue. It charged the Environmental Protection Agency (EPA) with setting standards for drinking water quality and gave it jurisdiction over all states, localities, and water suppliers who implement these standards. Included in this authority was the oversight of injection wells. However, in the 2005 Energy Act a clause was inserted that exempted injection wells from EPA oversight. This clause has been loosely called the “Halliburton loophole” because it came at a time when the federal government was closely aligned with the energy companies in pursuit of more abundant and economic forms of domestic energy.

At that point, with the lack of any oversight, the states and local municipalities and regional commissions had to step in and assume the responsibility of ensuring water safety. This regulation has not been done in an organized and uniform way. Of the 34 states with fracking wells, only 21 have laws specifically overseeing it and only 10 require some sort of disclosure of their data. There has been ample room for error.

In 2009, a bill called the FRAC Act (short for Fracturing Responsibility and Awareness of Chemicals Act) was introduced in both the U.S. House and Senate with the purpose of overturning this exemption and giving the authority to regulate clean water back to the EPA. It also asked for public disclosure of the chemicals in the fracking fluid. Unfortunately these bills never made it out of committee, largely due to pressure from energy company lobbyists. This bill was recently reintroduced by Representatives Jared Polis and Diana DeGette from Colorado and by New York’s Maurice Hinchey. With growing public concern, the chances are more hopeful that the bill will make it to the floor this time. Please don’t hesitate to contact your congressmen and let them know your thoughts on this issue.

In March 2010 the EPA announced that it would conduct a 2-year comprehensive study to investigate all aspects of the fracking process. But, with the drilling industry growing at such a fast clip and no oversight in place, concern is mounting. The public is demanding more transparency and assurance that water is safe.

More Troubling News About Our Oceans

*Jennifer Fain, Hancock Park G.C. (CA) – Zone XII
GCA Conservation and NAL Committees – Vice-Chair, Oceans*

Sandra Whitehouse, consultant and policy advisor to the Ocean Conservancy, and wife of Senator Sheldon Whitehouse of Rhode Island, spoke to delegates on the issues threatening our oceans. Dr. Whitehouse shared with the group that she is a new gardener and is concerned about invasive species – not only on land but also in the sea. Often invasive species are introduced in the ballast water of tankers.

Another problem facing oceans is the litter and marine debris on our beaches and in the water. Sea creatures are harmed when they ingest trash and when they become entangled in nets, plastic bottle holders, and other debris. The Great Pacific Garbage Patch, 1,000 miles north of Hawaii, is a sea of mostly plastic debris that is thought to be twice the size of Texas. Coastal clean-up is an international effort and we need to continue to educate people about marine litter. Cigarette butts are the most common refuse left on beaches.

We’re just now learning about the biodiversity that exists in the ocean. The possibility to tap pharmaceuticals from the ocean has not been fully explored. The newly released Census for Marine Life raised the estimate of known marine species from about 230,000 to 250,000. Scientists believe that



Great Pacific Garbage Patch.
(Photo courtesy of ecosumoblog.com)

there may be as many as three times that number yet to be discovered and named. A positive step in protecting marine habitat has been the establishment of marine protected areas.

[See Ms. Fain's article, "Biodiversity Loss in Our Oceans," in the Winter, 2010-11 issue of *Conservation Watch*.]

Dr. Whitehouse stated that the oceans are a source of renewable energy. We have yet to harness the energy from ocean waves and currents and we need to develop the technology to do so. Wind, which is concentrated in the Great Lakes and off shore, has yet to be converted to an energy source. Comprehensive land use plans do not include oceans. Currently uncoordinated sectorial management with no comprehensive planning has hindered the development of wave and offshore wind energy sources.

Last summer President Obama issued an executive order instituting a National Ocean Policy that is based on eco-system management and will primarily be concerned with restoring, maintaining, and protecting large marine ecosystems. An ecosystem-based management system considers the effects of our activities on all critical components of coastal and ocean ecosystems. The National Oceans Council will coordinate policy decisions, based on science, regarding coastal and marine spatial planning. The policy will also provide for adaptive management to climate change and resulting ocean acidification. The ocean has absorbed half of the carbon that has been released into the atmosphere since the Industrial Revolution. The ocean is now 30% more acidic than it was just thirty years ago. Sea ice is shrinking faster than the worst of predictions. This is causing a "positive feedback" loop where the shrinking sea ice is making the ocean surface darker, causing it to absorb more heat. As it gets warmer, sea level rises which leads to storm intensification.

Dr. Whitehouse encouraged us to let our legislators know that we are concerned about our oceans and that the National Ocean Policy is important to us. It should be codified in statute and should be funded.

A Primer on Coal

Coal: Fossilized Time Bomb

Melissa McAdams, Knoxville (TN) G.C. – Zone IX
GCA NAL Committee – Vice-Chair, Energy Sources

Melissa McAdams reviewed the problems associated with the use of coal during her presentation at the NAL meeting.

Coal, the most carbon-intensive fuel, will be with us for years to come. (1) Coal is abundant. The United States, China, Australia, Russia and India have the largest reserves. Coal is cheap, in large part because its price does not include the cost of the health and environmental havoc it wrecks. Coal burning will continue because no great improvement on running a turbine to produce electricity has been made in centuries. While America's demand for energy has shrunk slightly with the recession, the developing world, especially the emerging economies of China and India, is racing to catch up. Fifty percent of the world's electric supply comes from coal-fired plants. This infrastructure will not be changed quickly, and



(Photo courtesy of cleantechnica.com.)

meanwhile the global number of coal-fired plants is increasing daily – China's planned **new** coal generating capacity through 2030 exceeds the current capacity of the United States, the European Union, and Japan together.(2) According to the U.S. Energy Information Administration, global carbon emissions from burning coal will increase by 56 percent by 2035.(3)

In order to meet the new worldwide demands for energy, coal must be used in a more sustainable, less damaging way. The greatest threat from the use of coal comes from its carbon emissions, which are the highest of any fossil fuels'. For every ton of

coal burned, 3.6 tons of carbon dioxide are released into the atmosphere. These greenhouse gas emissions are driving climate change, literally smothering the planet and suffocating the earth. Dozens of other valid pollution and health reasons exist to stop extracting and burning coal, but climate change is the global clincher.

Carbon capture and sequestration (CCS) is the goal to keep the carbon resulting from coal combustion out of the atmosphere and store it permanently underground. China's rapid deployment of coal-fired plants makes it the proving ground for this evolving technology. The United States must stay engaged in this process for several reasons, the obvious one being that carbon emissions do not recognize national borders. Also, control of carbon releases from coal-fired plants may help lead to the ability to capture and store the carbon released when other carbonaceous fuels, such as biofuels, natural gas, and oil, are burned, whether in electricity generation or other industrial applications.

The investment of billions of dollars and the cooperation and sharing of knowledge and technology with the Chinese, who are building new plants as fast as they can, will hopefully make CCS commercially available on a larger scale. However, carbon capture and storage may not, and many contend likely will

not, prove to be a viable universal solution for handling the carbon released when coal is burned. At least twenty-five percent more coal is required to be burned to provide the energy to separate and capture the carbon. Locating extremely large underground storage sites, transporting the carbon, and ensuring the safety of the process creates additional cost, logistical, regulatory, legal and social hurdles. To keep all energy options open for development around the world while trying to slow climate change, CCS must be pursued.



Coal mining in Mongolia.

(Photo courtesy of images.businessweek.com.)

Advocating for policy and spending in favor of CCS in a tight economy is difficult. Arguably, scarce resources and research dollars should go to more sustainable forms of energy

production. In order to keep the lights on, factories running, and modernization reaching under-developed nations as affordably as possible while mitigating the carbon load on earth we need to explore all the possibilities – expansion of solar, wind and geothermal power, efficiency gains, use of natural gas and biofuels, more nuclear plants, and so forth. This future is not business as usual; energy, from whatever source, will cost more.

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Coal Ash - One More Hidden Cost of Coal

*Annie Ager, French Broad River G.C. (NC) – Zone VII
GCA Conservation Committee – Vice-Chair, Air Quality/Toxic Substances*

Continuing with our discussion of coal as an energy source at the NAL meeting, Annie Ager reminds us of another problem created by coal usage.

In 2008, when the towering mass of coal ash stored at the TVA coal fired power plant near Kingston, Tennessee spilled from the containment area and covered over 300 acres with a toxic gray sludge, we all woke to the reality behind “clean” electricity. On Oct. 7, 2010 CNN reported on a 1000-acre lake of coal ash in Western Pennsylvania called “Little Blue.” Residents of the area, originally convinced by industry promises of a beautiful lake in the valley, even sail boats on a blue lagoon, are concerned by the possibility of arsenic in the drinking water and the growing toxic lagoon. On March 29th, 2011 ABC News reported on a mound of coal ash six stories high in Bokoshe, Oklahoma where a company aptly

named “Making Money Having Fun” dumps up to 80 truckloads of coal ash a day. Of the twenty families in the area, fourteen have cases of cancer and half of the children in the public school have asthma.

Coal ash is a product of coal-fired power plants. The ash contains numerous heavy metals, such as arsenic, lead, cadmium, hexavalent chromium and others. All of the minerals are present in coal in small amounts naturally. Burning the coal concentrates the minerals in the ash. Coal-fired power plants produce 136 million tons of coal ash a year on average. Where are we going to put it?

About one-third of the ash produced is recycled. Beneficial uses include making cement (making cement with coal ash uses less electricity than the conventional method so it is “LEED” certified), supplying gypsum for sheetrock, and as soil amendments (which may or may not prove beneficial). The utility companies would like to recycle all the ash. There is a “Coal Ash Association” trying to bring vendors and buyers of coal ash together. Unfortunately, tons of ash are piling up because there is too much to recycle and there are real concerns about the toxins in the material. The ash is stored in “containment” areas around power plants, abandoned quarries, and landfills – basically wherever is the cheapest place for the utility company, like the pond in Pennsylvania or the pile in Oklahoma. The ash is currently considered “non- hazardous” by the EPA and regulation of disposal is left up to the states. Some states (such as Iowa) have lax regulation and accept coal ash from other states.

Disposal of the ash is another “cost” for coal-fired utilities, just as carbon in the atmosphere is a cost to everyone. These costs are not borne by the utilities or the consumers. The EPA is considering designating coal ash as a hazardous waste. Utility companies strongly oppose the designation claiming it would slow recycling efforts and add cost. The environmental community and many of the communities plagued by coal ash dumps are asking for the designation. The EPA held hearings all last year and promised a decision by December, 2010 but so far no ruling has been made.



Coal ash pond photo from peakwater.org.

Meanwhile the ponds, piles, and containment areas continue to grow. The utility companies in the present political atmosphere can lobby for less regulation rather than face the true costs of producing electricity. We as consumers are also unwilling to face the hidden costs of cheap electricity.

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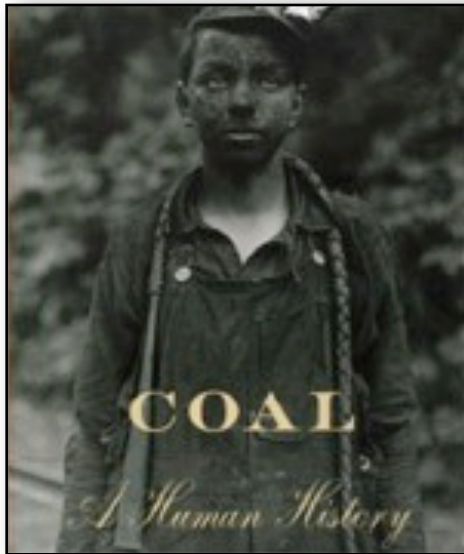
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Book Review

Coal: A Human History by Barbara Reese



Coal is not a subject that immediately comes to mind when looking for an entertaining and quick read, but Barbara Reese adeptly manages to turn the history of a “lump of coal” into something of a page-turner. The book’s nine chapters follow the history of coal first in England where it was the main power source fueling the Industrial Revolution, then to the United States where it did the same only with an American twist, and on to China where they are currently undergoing their own “revolution”. This book contains many interesting and fun facts about what life was like in various English and U.S. cities at different periods. While it is clear that Ms. Reese is fully aware of the environmental and social problems that have been and continue to be major problems with the use of coal as an energy source, she is also clear-eyed about where coal has changed human history for the better. The author shows how coal has not only caused major issues, but has moved society to a level that it probably could not have achieved without it. This small 248-page book is easily portable with print that is easy on “more mature” eyes.

*Sara O’Connell, Connecticut Valley G.C. (CT)
GCA Zone II Conservation/NAL Representative*

New York Times Reporter Offers Dim View of Current Legislative Climate

*Sharon Malt, Beacon Hill G.C. (MA)
GCA Zone I Conservation/NAL Representative*

John Broder of *The New York Times* Washington, D.C. Bureau for Energy and Environment returned to the 2011 NAL Meeting and presented a comprehensive overview of the status of federal climate change legislation and the challenges he has encountered covering environmental news in the absence of legislative action – both nationally and globally.

In the 113th Congress, the influx of so many new freshmen legislators (89 this session), so many Tea Party lawmakers, and denial of the relevancy of climate change science (fueled by the lobbying efforts of the fossil fuel industry), has resulted in legislative paralysis. In addition, opponents of the EPA’s regulatory authority are threatening to strip the EPA of its mandate to enforce the “Endangerment Finding” that links emissions to public health. Mr. Broder cited statistics that showed that reporting in the media on climate and conservation issues was down precipitously in 2010. Perhaps because of this media vacuum, “the environment” scored a lowly 20 in a 2010 PEW Research Poll that found that barely one percent of the American public ranked it as a societal/political priority.

Mr. Broder was able to balance the bad news with some degree of optimism, but this hope came with caveats. IF the Obama administration can muster Congressional support of the EPA’s legal right to regulate green house gas emissions through the Endangerment Finding - and maintain a budget to do so;

IF the global community continues to advance cooperative means to monitor and control CO₂ emissions; IF the United States does not abandon recession-generated investment in clean energy technology and rewards energy efficiency, then environmental protection could gain some positive traction in the media and in the public and political consciousness.



Mr. Broder answers questions from Nancy Howard and Barbara Shea.
(Photo by Diana Fish.)

When asked by an NAL delegate what we could do as gardeners to play a part in climate change reporting, Mr. Broder recommended that we start to document and report to local news outlets and through the GCA the changes we encounter in our gardening practices as we adapt to new climatic conditions. Then we, like him, will have a voice in the rocky but fertile climate change story.

Proof of Climate Change

*Jennifer Fain, Hancock Park G.C. (CA) – Zone XII
GCA Conservation and NAL Committees – Vice-Chair, Oceans*

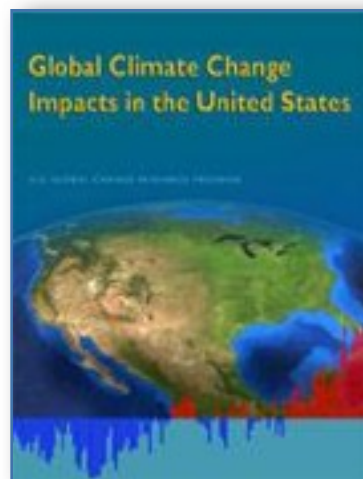
“Climate is what we expect, weather is what we get.” Mark Twain

Dr. Thomas Karl, Director of the Climatic Data Center for the National Oceanic and Atmospheric Administration (NOAA) and Chair of the Subcommittee on Global Change Research, spoke to GCA delegates in Washington. Dr. Karl outlined the evidence of climate change and what NOAA is doing to anticipate adaptation strategies for the future. Every year we put pollution in the atmosphere the equivalent of 5,000 Deepwater Horizon spills. We have experienced extreme weather events that have caused enormous damage. Since 1980 there has been more than \$750 billion damage as a result of extreme weather events.

NOAA collects data on climate change from 10,000 worldwide weather stations located on land, sea and in the air. It also collects data from tree rings, lake sediment, and ice core drilling. In 2009 the subcommittee on Global Change Research issued a report, compiling data from 48 countries. The results clearly indicate climate change. There was a dramatic increase of extreme precipitation, temperatures have increased an average of 1.5 degrees in the last 50 years, and sea levels have risen.

In addition, Dr. Karl tells us that oceans absorb 93% of the earth's heat; the remainder is left in the atmosphere. Warming has occurred in the top 6,000 feet of the ocean. Depths below 6,000 feet have rarely been explored. NOAA is proposing technology that will allow us to study the oceans to greater depths.

NOAA is establishing guidelines to accommodate to the new climate "normal". Plant hardiness zones will change. This has implications for tree planting where consideration must be given to a tree's long lifespan, as well as for agriculture and horticulture. It will also affect standards for our infrastructure. For example, dams will need to be higher, storm water runoff systems will need to accommodate extremes in precipitation, and coastal communities will need to plan for rising sea levels. Dr. Karl gave the delegates much to ponder about the future of a changing planet.



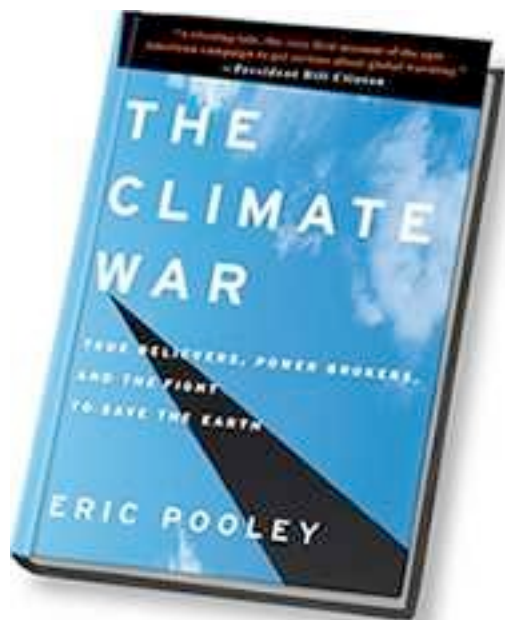
To see the full report of climate change impacts, go to www.globalchange.gov/usimpacts. A hard copy of *Global Climate Change Impacts in the United States*, is available at: www.cambridge.org.

Book Review

The Climate War:

True Believers, Power Brokers, and the Fight to Save the Earth by Eric Pooley

If you want to learn more about the politics and players in the struggle to control carbon emissions, read this book. Eric Pooley's access to Jim Rogers, CEO of Duke Energy; Fred Krupp, President of the Environmental Defense Fund; and Al Gore; and his extensive experience as a political correspondent and editor make his book a picture window onto why the United States climate policy is mired in "do-nothingism" and why the stakes are high and the fight worth waging. The author explains clearly the legislative attempts to address climate change and the difficult compromises that have been reached – and breached – in the past decade. Both the green groups' inner workings and the big-moneyed companies' hired propagandists are detailed. *The Climate War* highlights the difficulty of effecting fundamental system change when entrenched interests fight for the status quo. We are left to wonder whether our federal government is up to the task of addressing the multilevel energy, economic and climate crises and the resultant impacts of species extinction, sea level rise, and climate refugees.



Melissa McAdams, Knoxville (TN) G.C. – Zone IX
GCA NAL Committee – Vice-Chair, Energy Sources

EPA Under Fire

*Barbara Geltosky, The Gardeners (PA)
GCA Zone V Conservation/NAL Representative*

Gina McCarthy, Environmental Protection Agency (EPA) Assistant Administrator of the Office of Air and Radiation energized and motivated the NAL delegates during our visit to Capitol Hill. Much has changed since her electrifying presentation last year. Now the EPA is fighting for its very existence. Ms. McCarthy explained that she wanted to arm us with facts to help us to understand why we should apply historic events to what might happen in the future regarding the EPA and the Clean Air Act. She stated that in order to understand the importance of the EPA and why we must fight for its survival, we must first look back in history 40 years to the Nixon era when EPA began.

We were reminded that in the 1960s there was no national agency regulating clean air and water. Our skies were polluted, our rivers were fouled and emissions threatened the health of our citizens. Over the last 49 years standards were set and regulations were enacted that had the net result of cleaning up our air and waterways and vastly improving our quality of life.

Then in 1990, The Clean Air Amendments mandated that EPA require regulation of toxic air pollutants. The Current EPA Benefit Study released in March 2011 shows that The Clean Air Act has had tremendous public benefit since the amendments were passed. The amendments of 1990 kept people working and healthy by reducing premature mortality risks, and saving 13 million lost workdays from hospitalization, as well as producing a gain of 3.2 million school days not lost due to respiratory disease. Despite predictions of lost jobs due to such regulation, the Gross Domestic Product grew 202% and the economy has grown 64% while air quality was being improved. We gain two trillion dollars in public health benefits for a cost of 65 billion dollars, or, for every dollar spent we get thirty-nine dollars in return.

The EPA issued a landmark finding in 2009 that greenhouse gases were hazardous to human health. This was extremely significant as EPA moved forward to set regulations controlling emissions to reduce greenhouse gases. But unfortunately, two years later, the EPA and Clean Air Act are under attack as the current legislature tries to eliminate funding for the EPA and shut it down, portraying it as “taxing business” and driving gas prices higher. Ms. McCarthy stated that enforcing regulations already on the books does not cost money - it can create jobs at a time when the economy is just starting to recover. The loss of funding for the EPA and the inability to regulate greenhouse gas would be devastating for everyone. “EPA has based its decisions on science, obeying the laws that are set by Congress, while maintaining transparency,” stated Ms. McCarthy. This message echoed one of the memorable moments of 2009's NAL Meeting when EPA Director Lisa Jackson received a standing ovation from the delegates as she announced that the EPA would be going forward with “transparency and policy based on science,” a departure from policy during the previous administration.



(Photo courtesy of ecojoes.com)

Ms. McCarthy asked the crucial question, “If the EPA does not do the job, who will?” Congress did not enact any significant climate change legislation in the last session due to factors such as timing and the loss of key votes as elections neared. Without a functioning EPA there is no mechanism for enforcement of regulations concerning emissions, and the “tipping point,” if not already reached, will be that much nearer. Will we once again have polluted air we can see and rivers on fire?

Ms. McCarthy emphasized that funding for the EPA must be preserved in the upcoming budget proposals; significant reductions will make the EPA unable to perform its core mandate. Budget reduction amendments to prevent the EPA from regulating greenhouse gas emissions continue to threaten. As gardeners and citizens of the world, we must unite behind the EPA to urge our legislators not to strip it of its power and ability to keep our skies and waterways clean for the next generation.

National Arboretum Collections Saved

*Barbara Shea, Green Springs Valley G.C. (MD) – Zone VI
President, Casey Tree Farm
Chairman, Friends of the National Arboretum Planning Committee*

Colien Hefferan became Director of the U.S. National Arboretum (USNA) in December of 2010. Her main responsibility will be to develop a strategy for the long-term sustainability of the USNA. Immediately upon her arrival at USNA, Dr. Hefferan was enveloped in a firestorm created by a decision to destroy the azalea and boxwood collections due to limited resources. The Azalea collection draws a larger number of visitors to the Arboretum than any other attraction and the Boxwood Collection is the only collection at USNA certified as a National Collection by the North American Plant Collections Consortium. Dr. Hefferan was asked to address the recent NAL meeting on both the fate of the threatened collections and the future of the National Arboretum.

Dr. Hefferan assured GCA members that the decision to remove the azalea, boxwood, daylily, daffodil and perennial collections has been put on hold while new sources of funding are developed and the collection policy is reviewed. An anonymous donor has already pledged an endowment of \$1 million to go towards this effort and The Friends of the National Arboretum has begun a campaign to raise a

matching \$1 million. The USNA, like all arboreta and botanical gardens, faces a huge task in achieving long-term financial stability. In addition, it has other challenges due to the fact that it resides within a federal agency, the Department of Agriculture. Dr. Hefferan is determined to review all aspects of USNA’s mission, structure, programs and possible revenue sources in order to put it on a path to a sustainable future. She has begun to reach out to stakeholders in a series of meetings at which the GCA will be represented. She sees private partners as an integral part of any long-term solution to the health of USNA. Dr. Hefferan is a breathe of fresh air to all who have been concerned for years about the declining funding of the National Arboretum and the corresponding effect on its collections and programs.



Azalea photo courtesy of U.S. National Arboretum.
website: www.usna.usda.gov/

America's Great Outdoors

*Sarah Young, Broadmoor G.C. (CO) – Zone XII
GCA NAL Committee – Vice-Chair, National Parks/Public Lands*

Will Shafroth, Assistant Secretary, U.S. Department of the Interior, Fish Wildlife and Parks, described President Obama's America's Great Outdoors Initiative and the vision which has grown out of that effort. The initiative was an extensive effort by the administration to listen to citizens all over the country, especially young people, to find out what we as a country want for our public lands and National Parks. He noted the challenges facing our public lands such as climate change, oil and gas drilling, urban development and the fragmentation of the landscape. Mr. Shafroth attended most of the 51 listening sessions around the country and he described the principles and guidelines that have grown out of those sessions.

The first goal will be to **connect more people with the outdoors** by providing more service opportunities and more outdoor education. The Interior Department and the Forest Service will be trying to enhance recreational access and opportunities. They will work with our education system to infuse the value and benefits of the great outdoors.

The listeners at these sessions also heard a desire by many citizens to **conserve and restore our great outdoors**. This can be done in many ways, starting with full funding for the Land and Water Conservation Fund. The administration's goal is to protect public lands as well as forming partnerships with farmers, ranchers and other private landowners. They will especially try to protect rivers, lakes and streams and he noted the desire of most people to be near water and to preserve clean water. Secretary of the Interior Salazar and Secretary of Agriculture Vilsack believe that engaging individual communities and enlisting local input best accomplish all these goals.



President Obama rolls out America's Great Outdoors initiative on April 16, 2010.

Outdoor Recreation Opportunities Need a Predictable Land and Water Conservation Fund

*Marsha Merrell, James River G.C. (VA) – Zone VII
GCA Conservation Committee – Vice-Chair, National Parks/Public Lands*

The Land and Water Conservation Fund (LWCF) has been a legislative focus for GCA since its inception 45 years ago. Nine hundred million dollars are *supposed* to be set aside each year from the royalties of offshore oil and gas drilling to assist in acquisition, development and renovation of park, recreation or conservation areas. Rarely has Congress appropriated this amount. The money is instead sent to the U.S. Treasury and redirected to other federal activities. From 2001 until the budget proposal for 2010, there has been a steady decline in the appropriations for LWCF.

Leslie Kane Szynal, the Director of Outdoors America Coalition and former Vice President for the Trust for Public Lands, spoke to the importance of full funding for LWCF during the NAL meeting. She

thanked the GCA for our role in educating Congress and the public about LWCF. Ms. Szynal stated, "Money from the extraction of minerals from public oil and gas leases should be invested in other national resources. Actions deferred are actions often lost."

America is overwhelmingly supportive of LWCF. A recent poll shows that 86% of voters wanted to continue the use of offshore royalties for land and water conservation. In the past there has been a great deal of bipartisan support and all Presidents have used LWCF to advance public spaces. States have been dependent on the grants for building playgrounds and developing recreational areas. Up to 60% of LWCF may be used in a 50-50 matching program by states for such uses. Between 1965 and 2006, \$29 billion was placed into the fund for federal, state and local projects.

Ms. Szynal said that House Resolution I would reduce the funding for LWCF to \$58 million, which would only provide staff support. This comes at a time when 80% of state land bond issues passed last year. While states are willing to devote precious dollars to acquisitions and projects, there will be no matching federal funds should HR I pass in the Senate.



(Photo courtesy of waggonerguide.com.)

According to Ms. Szynal, every \$1 invested returns \$4 in benefits. Outdoor recreation contributes \$730 billion to the U. S. economy each year and provides 6.5 million jobs. Continued support for outdoor spaces and recreational facilities provides Americans opportunities to explore and enjoy our natural landscapes. Opportunities to acquire more public lands, once lost cannot be recovered. The speaker believes that success in persuading Congress depends on who delivers the message and that GCA is a very strong and effective messenger. We must encourage our elected officials to fully fund the Land and Water Conservation Fund.

Only the Beginning – Legislative Battles Ahead

Political wrangling over the budget is just a taste of what lies ahead.

*Martha Phillips, Litchfield (CT) G.C. – Zone II
GCA NAL Committee – Editor, Legislative Update*

As the nation struggles toward economic recovery, many politicians are pointing at clean energy as too expensive and say that regulations protecting clean air, clean water, endangered species, and public lands are troublesome and unnecessary drags on progress.

Just because language to roll back environmental protections was not attached to the bill to continue federal funding for the rest of the current year doesn't mean the issue has gone away. **Now is the time for concerned garden club members to stand up for clean air, clean water, and other environmental protections.**

Legislation to change course and remove these so-called "roadblocks" to a strong economy is moving. Here are some issues to watch out for.

- **Stop EPA's greenhouse gas regulations.** The big target of congressional wrath is the set of EPA regulations to limit greenhouse gases produced by power plants and other large industrial facilities. The House passed H.R.910 on a strong 255-177 vote on April 7, and the Senate vote on a similar measure barely failed on a 50-50 count. Expect more attempts in the coming months to roll back EPA's authority. Legislators say they are not hearing much from constituents on this issue, but they are hearing plenty from big business, energy, and manufacturing lobbies and contributors of election funding.
- **Next year's budget.** Even while Congress struggled with funding for the current fiscal year, it is time to work on the budget for the next fiscal year that begins October 1. Look for a replay of efforts to use appropriations bills to take major whacks at the budgets for EPA, NOAA, Land and Water Conservation Fund, National Parks and other environmental programs as well as renewed attempts to bar EPA regulation of greenhouse gases and other industrial emissions such as mercury from cement plants. Legislation to increase the public debt ceiling will be another vehicle for attaching "stop EPA" language.
- **H. R. 10 - Regulations From the Executive in Need of Scrutiny (REINS) Act.** Federal agencies issue regulations to spell out details of implementing broad laws passed by Congress. Under H.R. 10, proposed regulations with an impact of \$100 million or more would not take effect unless Congress gave approval within 70 legislative days. Thus Congress could vote for strong laws but then prevent agencies from carrying them out.
- **Mountaintop removal mining.** A battle is shaping up over the extent to which EPA should use the Clean Water Act to regulate mountaintop mining – blasting off mountain tops to get at the coal below and putting the "fill" into nearby stream valleys. H.R. 1375 was introduced by Rep. Pallone (D-NJ) and 54 cosponsors to ban this practice. Similar bills have failed in the past. S. 468, was introduced by Senators McConnell and Paul (R-KY), goes in the opposite direction. It would prevent EPA from retroactively cancelling Clean Water Act permits for coal-mining projects. About 80 projects are under review.
- **Surface transportation reauthorization.** On a positive note, a massive bill to reauthorize federal aid for mass transit, high-speed rail, highways and non-motor transportation is moving briskly with bipartisan participation. The goal is to pass it by August. Garden Club of America is interested in billboard controls, storm water runoff, prevention of urban sprawl, encouragement of alternative transit modes including walking and bike trails, air quality projects that reduce congestion and sensible and timely review of environmental impacts of proposed major transportation projects prior to construction.



(Photo by Architect of the Capitol.)



More Conservation News

GCA's Position Paper on Climate Change Undergoes Revision

*Maureen Ogden, Short Hills (NJ) G.C. – Zone IV
Advisor, GCA NAL Committee 2009 - 2011*

Despite the lack of legislative action at the federal level, the GCA remains committed to supporting strategies to address global climate change. In January of this year, GCA's Executive Committee adopted a revised and enhanced Position Paper that more accurately reflects the organization's position. The revision was written by members of the National Affairs and Legislation Committee under the leadership of Suzanne Canfield, Vice-Chair for Climate Change, and advised by the Garden Club of St. Louis member, Kathryn Kennedy, Director of the Center for Plant Conservation.

The major changes were the addition of three new categories: Funding, Adaptation and Education. Under "Funding" the recommendation is to develop strategies to protect biodiversity and address increased disease and invasive species. The "Adaptation" section calls for revegetation and reforestation of disturbed areas as well as proactive steps to manage our water supply as we face the challenges of climate change. An expansion of local systems of food production and consumption are recommended.

Under "Education" is a recognition that the public will need to be educated about the coming changes in hardiness zones for agriculture and horticulture as well as different migratory patterns for birds and insects. Amid the projected changing conditions of our natural world, there should be an exploration of social, economic and environmental opportunities that will become available through research and development of new technologies.

To see all seven of the GCA Position Papers, go to the GCA website. On the Homepage, click on "What We Do." On the pulldown, the final item is "Publications." Click on that and you will find "Position Papers, 2011." The latest editions of all the position papers are found there.

Conservation Exhibits in Flower Shows

*Diane Stoner, Litchfield (CT) G.C. – Zone II
GCA Conservation Committee – Vice-Chair, Climate Change
Conservation/Horticulture Schedule Reader, GCA Flower Show Committee*

In 2010, the Flower Show Committee voted to change the status of conservation exhibits in GCA approved flower shows from "suggested" to "mandatory". Although this requirement appears to complicate the process of staging a GCA flower show, in actual practice, this is a requirement that can be met with comparative ease.

An effective flower show conservation exhibit can be a simple presentation on an eight foot table or a many layered creation that is the focal point of the show. Both products are completely acceptable and



A Marion Thompson Fuller Brown winner at the 2009 GCA Annual Meeting. The subject was Low Impact Development, featuring a green roof with succulents and semi-permeable paving. (Photo by Diane Stoner)

not in competition with each other. The subject of a conservation exhibit may range from a local watershed to the oceans; from improving a local park to the problems of the National Parks system; from backyard invasive plants to the worldwide problem of invasive flora. In addition to the previous conservation subjects, an exhibit may highlight a local historic preservation project, garden restoration or a club Partners for Plants project. These are just a few of the possibilities. Guidelines for subject selection are broad and limited only by the creativity of the creators.

If a sponsoring club wishes to produce an exhibit eligible for the Marion Thompson Fuller Brown Conservation Award ("The Brown"), a higher standard of excellence must be met.

This award is presented for "exceptional educational and visual merit" and is judged by a special panel of judges. If, however, a club does not wish to invest the time and resources for such an exhibit, that too, is totally acceptable. *Unless the Brown is offered in the flower show schedule as a possible award, the exhibit is not judged.* The *GCA Flower Show & Judging Guide*, ("the yellow book") contains more explicit information on conservation exhibits in flower shows.

The creators of a conservation exhibit do not have to be GCA club members. The exhibit may be the creation of non-members or outside organizations and any of these outside groups could receive the Brown if appropriate. The local high school or conservation organization may produce the exhibit as well as the more traditional club members. The only requirement for any conservation exhibit is that it be described in the flower show schedule under a separate division.

This schedule description need not be lengthy. A concise description, usually a paragraph, of the objective of the exhibit and the conservation issues it covers is sufficient.

The requirement for GCA flower shows to have conservation exhibits is intended to educate the viewing public at flower shows that The Garden Club of America includes conservation as well as flower arrangement and horticulture. Staging a flower show is a complicated process and often takes months if not a year or



One aspect of a "Farm to Table" conservation exhibit by the Portland Garden Club showing locally grown vegetables, local eggs, and locally produced wines. (Photo by Georgia Schell)

more to create. The conservation exhibit should enhance, not complicate, the end result and hopefully, will be a learning experience for all who work on it

If you wish a PowerPoint presentation on conservation exhibits, send a request to dbstoner@optonline.net. The PowerPoint file will be emailed to you in reply.

[Please note that the "Yellow Book" for GCA Flower Shows and current revisions are available on the GCA website. Go to Committees in the Members Only section, look for "Flower Show" and you will find listings for the handbook and revisions.]

**Experience with BioBlitz?
Litchfield Garden Club's Conservation Committee is considering whether to sponsor a BioBlitz. Looking for feedback from other garden clubs. If your club has done a BioBlitz, please contact Litchfield Garden Club president Martha Phillips at mhphillips@optonline.net.**

To our readers:

This issue concludes my time as Editor of GCA's *Conservation Watch*. It has been my distinct honor to work with the wonderful members of the GCA Conservation and NAL Committees since 2007 – all of whom have been authors of articles in this publication. We have explored many varied themes in the twenty issues since then and we hope we have broadened our readers' knowledge of these most important issues. I sincerely thank all who have so ably contributed to this publication. And I extend my heartfelt appreciation to the committee chairmen Claire Caudill, Derry MacBride, Susie Wilmerding, and Nancy McKlveen who have always supported and promoted this publication. Special thanks, too, to Anne O'Brien, our able Assistant Editor.

I am happy to introduce the new Editor of *ConWatch*, Candace Lyche of the Hillsborough (CA) Garden Club who will succeed me following this issue. I know that Candace will bring a new and exciting face to our conservation newsletter and bring it to an even higher level. I know she joins me in inviting your suggestions and input – always with the intent of bringing the latest knowledge to you, our garden club members, in the best way possible. And, since I do believe in term limits, it is time for me to say good-bye. Please continue to read our issues and share them with all.



Candace

Most sincerely,
Elva Busch

[Candace Lyche may be reached by email at cclych@yahoo.com]

A special thanks, to my husband and "technical advisor" for this publication, Bob Busch. I couldn't have done it without you!

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Elva Busch, Editor

**See the April/May 2011 issue of the *GCA Bulletin*
for more information and pictures about the 2011 NAL Meeting.
(Pages 3 - 7)**